UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426
May 4, 2012

OFFICE OF ENERGY PROJECTS

Project No. 2299-075 – California
Don Pedro Hydroelectric Project
Turlock Irrigation District
Modesto Irrigation District

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

Re: Findings and Recommendations of the Study Dispute Resolution Panel for the Don Pedro Hydroelectric Project Study Dispute (P-2299-075)

Dear Secretary Bose:

On January 11, 2012, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) filed a Notice of Study Dispute to initiate the Federal Energy Regulatory Commission's (Commission) formal study dispute resolution process, pursuant to 18 CFR 5.14, in the relicensing proceeding for the Don Pedro Hydroelectric Project No. 2299-075.[1] Turlock Irrigation District and the Modesto Irrigation District (collectively, the Districts), are co-licensees for the Don Pedro Hydroelectric Project.

In its Notice of Study Dispute, NMFS disputes the December 22, 2011 Study Plan Determination's treatment of eight of its June 10, 2011 study requests. NMFS identified study requests 1 – 4 and 7 – 9 as being in dispute. Specifically, the disputed study requests are: Request 1 – *Effects of the Project and Related LaGrange Complex Facilities on Anadromous Fish*; Request 2 - *Effects of the Project and Related Facilities Evaluated Through an Operations Model*; Request 3 - *Effects of the Project and Related Activities on Fish Passage for Anadromous Fish*; Request 4 - *Effects of the Project and Related Facilities Hydrology for Anadromous Fish: Magnitude, Timing, Duration, and Rate of Change*; Request 7 - *Evaluation of the Upper Tuolumne Habitats for Anadromous Fish*; Request 8 - *Salmon and Steelhead Full Life-Cycle Population Models*; and Request 9 - *Effects of the Project and Related Facilities on Ecosystem/Marine-Derived Nutrients for Anadromous Fish.*

[1] The U.S. Fish and Wildlife Service (FWS) also requested dispute resolution on two studies requested by the California Department of Fish and Game (Cal Fish and Game) and one study requested by NMFS. Additionally, NMFS requested dispute resolution on one of the Cal Fish and Game studies. In a March 9, 2012 letter, the Director of the Office of Energy Projects determined that the Cal Fish and Game's studies would not be referred to dispute resolution because a disputing agency can only dispute a study request that it has made itself. The dispute regarding the study requested by NMFS and endorsed by FWS went forward as a NMFS study dispute.

On February 10, 2012, Commission staff designated Mr. Stephen Bowler to serve as the Commission staff Dispute Resolution Panel (Panel) chair. On March 2, 2012, NMFS designated Mr. David White as the Agency Dispute Resolution Panel member.[2] From an established list of potential third party panelists, Mr. Bowler and Mr. White selected Mr. Richard Craven and requested that he serve on the Panel. Mr. Craven agreed to serve and the Panel convened on March 12, 2012. Mr. Craven's statement certifying that he has no conflict of interest, which also summarizes his qualifications, was filed into the record on March 15, 2012. None of the three panelists were involved previously in the Don Pedro Hydroelectric Project relicensing proceeding.

On March 16, 2012, the Commission issued a Notice of Dispute Resolution Process Schedule, Panel Meeting, and Technical Conference. On April 2, 2012, the Commission issued a supplement to the notice of March 16, 2012 providing final details on the Technical Conference.[3] On March 28, 2012 the Panel filed a letter requesting clarification of 11 items in the Director's study plan determination of December 22, 2011. The Director provided responses on April 11, 2012. Additional filings were made by NMFS on April 13, 2012 and April 15, 2012. The Districts filed comments on the dispute on February 21, 2012 and provided handouts at the technical conference. A transcript of the meeting was prepared and was filed in the record under the meeting date of April 17, 2012.

The Panel opened its Dispute Panel Meeting and Technical Conference shortly after 9:00 am on April 17, 2012 in Sacramento, California. The meeting was recorded by a court reporter. In addition to the three panelists, NMFS was represented by five NMFS staff members and the Commission by three Division of Hydropower Licensing staff members. The Districts were represented by five staff members and consultants. About 22 observers signed in, all but a few from federal or state government, regional water entities, and non-governmental organizations.

At the outset, the Panel reinforced the fact that its scope was limited to technical matters under Section 5.9(b) of the Integrated Licensing Process (ILP) regulations, which lists the ILP study criteria. For each disputed element, or grouping of elements, the Panel summarized the dispute and the position of the parties to the dispute and the applicant as the Panel understood them from the record. The Panel invited corrections and clarifications of its assessment of the dispute. The Panel asked numerous questions to obtain the information needed to make its findings and recommendations on the disputed items.

[2] Mr. White's designation followed two previous designations of NMFS staff members who were determined to have prior involvement in the Don Pedro proceeding and were deemed ineligible to serve on the Panel. Mr. White's designation came one business day ahead of the deadline established by the Commission of March 5, 2012. Because of the delay in establishing an eligible agency panel member, March 5, 2012 served as the date of initiation of the dispute resolution process rather than the dispute notice date of January 11, 2011. Mr. White was designated to represent the Water Board as well as NMFS.

[3] The March 16, 2012 notice also responded to a March 15, 2012 request from the Panel for and extension of the deadline to file its findings and recommendations because of difficulties scheduling the technical meeting, resulting in a late meeting date. The Director extended the deadline from April 24, 2012 to May 4, 2012.

At the end of the day, time was provided for observers to comment. Four observers chose to do so. They were: Chris Shutes of the California Sport Fishing Protection Alliance, Chandra Ferrari of Trout Unlimited, Spreck Rosekrans of Restore Hetch Hetchy, and Alison Willy of the U.S. Fish & Wildlife Service. Finally, the disputing parties, NMFS and FERC, and the Districts, each delivered a closing statement. Having completed the agenda the Panel Chair explained the next steps, including the fact that the Director's determination on the disputed items would be issued on or before May 24, 2012. The Panel Chair then closed the meeting at 4:35 pm, shortly before the scheduled time.

The Panel deliberated in person on April 18, 2012 and then began drafting its findings and recommendations. After careful review of the record of information for this proceeding, and in consideration of the procedures set forth under 18 C.F.R. § 5.14(k), we present to the Director of the Commission's Office of Energy Projects, in Enclosure A, a table summarizing our findings and recommendations on the disputed matters. In Enclosure B, we provide our recommendations with the background and findings on which they were based. In Enclosure C we attach our opening statement from the Technical Conference, which provides additional information on the Panel and the conference ground rules.

If you have any questions, please contact the Panel Chair, Stephen Bowler, at (202) 502-6861 or stephen.bowler@ferc.gov.

Sincerely,

Stephen Bowler, Panel Chair
South Branch
Division of Hydropower Licensing
Washington, DC

David White, Panelist
National Marine Fisheries Service
Santa Rosa, CA

Richard Craven, Independent, Third Party Panelist
Craven Environmental Consulting
Oregon City, OR

Enclosures: Enclosures A, B, and C

ENCLOSURE A

Table Summarizing the

Study Dispute Resolution Panel's

Recommendations

May 4, 2012

In the Dispute Filed by
the National Marine Fisheries Service
on
January 11, 2012

Regarding the

Don Pedro Hydroelectric Project No. 2299-075

Summary of Study Dispute Resolution Panel's Findings and Recommendations

NMFS Study Request and/or Element Number	NMFS Study Request and/or Element Name[4]	Related District Study Plan (If Any)	Policy Linked- Not Addressed by Panel- No Change to Determination Recommended	Addressed by Panel- No Change to Determination Recommended	Addressed by Panel- Clarification of Determination Recommended	Addressed by Panel- Modification of Determination Recommended
	General Communication[5]				**X**	
1.3 & 1.6	Potentially affected environment in the vicinity of La Grange Complex and Description of the resource impacts in vicinity of La Grange Complex	W&AR-2			**X**	**X**
1.4	Comprehensive waterway plans		**X**			
1.5	The license or exemption for the La Grange Complex.		**X**			
3.1-3.5	Fish Passage for Anadromous Fishes		**X**			
4.1-4.5 & 2.1	Hydrology for Anadromous Fish and Operations Model	W&AR-2			**X**	
7.1-7.4	Upper Tuolumne Habitats for Anadromous Fish		**X**			
8.1-8.2	Salmon and Steelhead Full Life-Cycle Models	W&AR-5 and others		**X**		
9.1-9.5	Effects of the Project and Related Facilities on Marine-Derived Nutrients		**X**	**X**		

[4] The Study Request Element titles are abbreviated in the table for convenience.
[5] Although not a specific study request, the Panel included a section on "General Communication" because the topic applied to multiple disputed studies.

ENCLOSURE B

Study Dispute Resolution Panel's

Findings and Recommendations

May 4, 2012

In the Dispute Filed by
the National Marine Fisheries Service
on
January 11, 2012

Regarding the

Don Pedro Hydroelectric Project No. 2299-075

Table of Contents

Introduction

As background for our findings and recommendations, the Panel has included three introductory sections. The Project Description section, excerpted from the Scoping Document 2 issued on July 25, 2011, provides a background on the project. The Content and Terminology section defines several terms and describes the enclosures to the document. Finally, the Policy, Nexus, and Non-Technical Issues section describes the Panel's treatment of issues raised along with the technical matters under dispute for which the Panel had to consider its appropriate role.

Project Description

Overview

The Don Pedro Project (project) facilities are located on the Tuolumne River in Tuolumne County, California (figure 1). Portions of the Don Pedro Project occupy lands managed by the Bureau of Land Management Mother Lode Field Office.

The Don Pedro Project has an authorized installed capacity of 168.015 megawatts (MW). The average annual generation of the Don Pedro Project is 532,518 megawatt-hours (MWh) (2002-2009).

Existing Project Operations

The Don Pedro Project is operated to provide irrigation storage, hydroelectric power, flood control storage, recreation, and municipal and industrial water supply (figure 2). Power generation varies depending on irrigation, municipal, and industrial water needs, and scheduling is adjusted when possible to release flows with a preference for on-peak rather than off-peak hours.

Don Pedro Reservoir provides 2,030,000 acre-feet of total water storage. In a typical year, storage in Don Pedro Reservoir peaks in mid-summer around early July after the end of snowmelt season. Reservoir water surface elevations are generally maintained as high as possible for summer recreation and then are steadily drawn down as fall approaches. From fall through spring, the Districts maintain 340,000 acre-feet of flood control storage space in the reservoir and adhere to a flood control operations guideline in the Tuolumne River at Modesto of not exceeding 9,000 cfs.

A primary consideration for operations each year is the anticipated water availability in the Tuolumne River watershed and its likely seasonal inflow pattern. The

Districts continually track reservoir inflow and outflow to provide the best understanding of overall water availability and predicted inflow to the reservoir. The Districts consider multiple data sources when evaluating water availability in the watershed, including weather forecasts, precipitation, snowpack, and the California Department of Water Resources Bulletin 120 forecasts of reservoir inflow.

The Districts also own La Grange Dam, a non-project diversion dam located on the Tuolumne River 2.3 miles downstream of Don Pedro Dam. The Districts use it to divert water into their canal systems for consumptive purposes upstream of La Grange Dam. Water releases at Don Pedro Dam also deliver flows to La Grange Dam for release to the Tuolumne River below La Grange Dam. The license for the Don Pedro Project requires the Districts to maintain minimum flow releases from the Don Pedro Project to the Tuolumne River, as measured downstream of La Grange Dam, for the benefit of fishery resources.

The Don Pedro Project is hydrologically linked with the City and County of San Francisco's (CCSF) upstream Hetch Hetchy System, a series of reservoirs, diversion conduits, and powerhouses located on the upper Tuolumne River. The Hetch Hetchy system regulates inflows to the project. CCSF contributed financially to the construction of the Don Pedro Project in order to be relieved of its flood control obligations and obtain a water banking privilege in the reservoir. The banking arrangement allows CCSF to pre-release flows from its upstream facilities into Don Pedro Reservoir so that at other times it can hold back an equivalent amount of water that otherwise would have had to be release to satisfy the Districts senior water rights. Both the elimination of the flood control responsibility and the creation of the water bank provide CCSF with greater flexibility in its upstream water and power operations.

Content and Terminology

Enclosure B includes the Don Pedro Hydroelectric Project Study Dispute Resolution Panel's (Panel) analysis of all of the National Marine Fisheries Service's (NMFS) study requests from its June 10, 2011 that the agency reported to be under dispute in its January 11, 2011 filing. Some of the elements are grouped for efficiency. For each disputed element, the Panel summarizes the background of the dispute as interpreted from the public record and the discussion at the full-day Technical Conference held by the Panel on April 17, 2012 in Sacramento, CA. Following these summaries, the Panel provides its technical findings and its recommendations to the Director of the Office of Energy Projects of the Federal Energy Regulatory Commission (Commission or FERC).

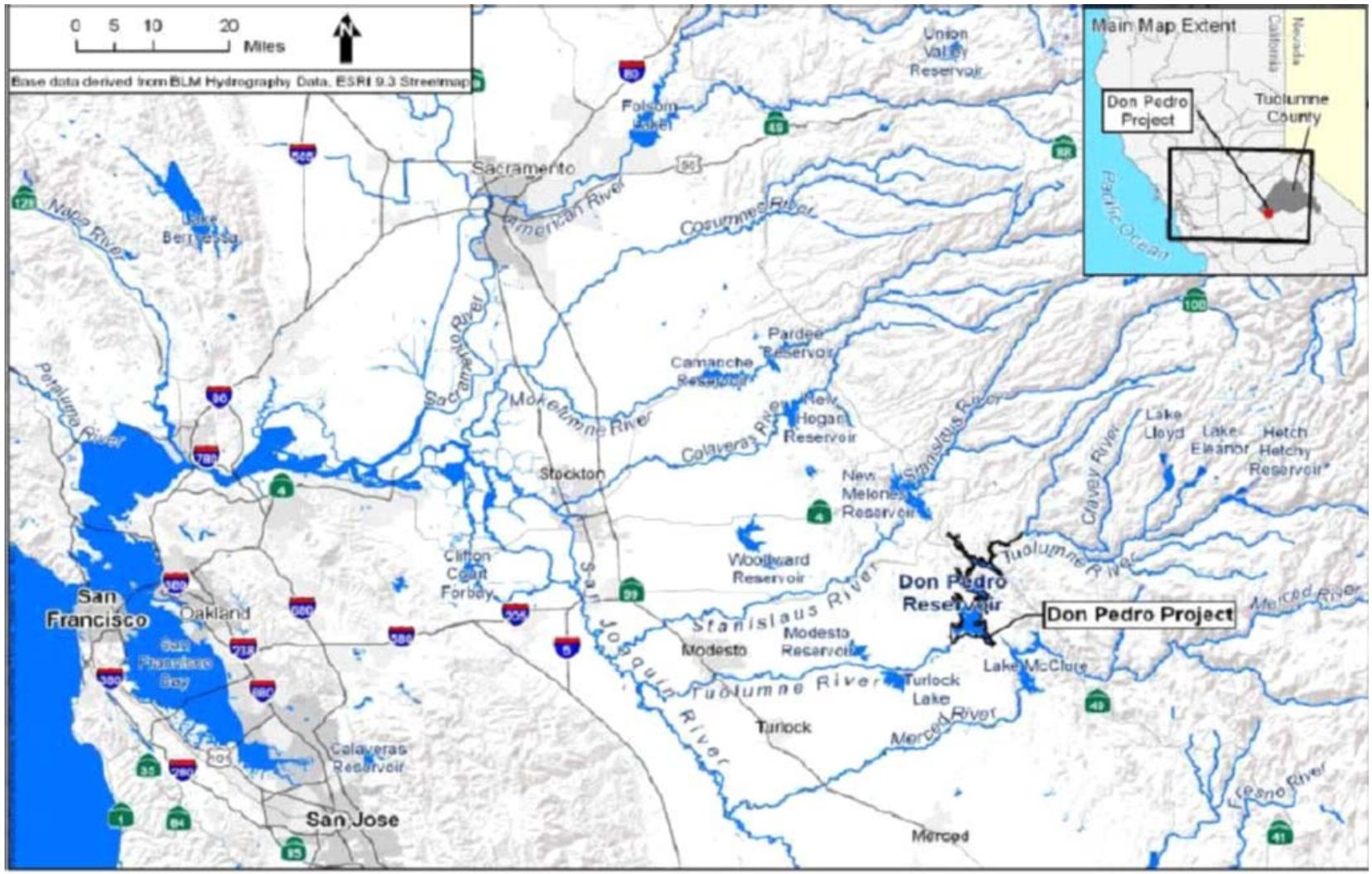

Figure 1. Location of the Don Pedro Project (Source: Pre-Application Document).

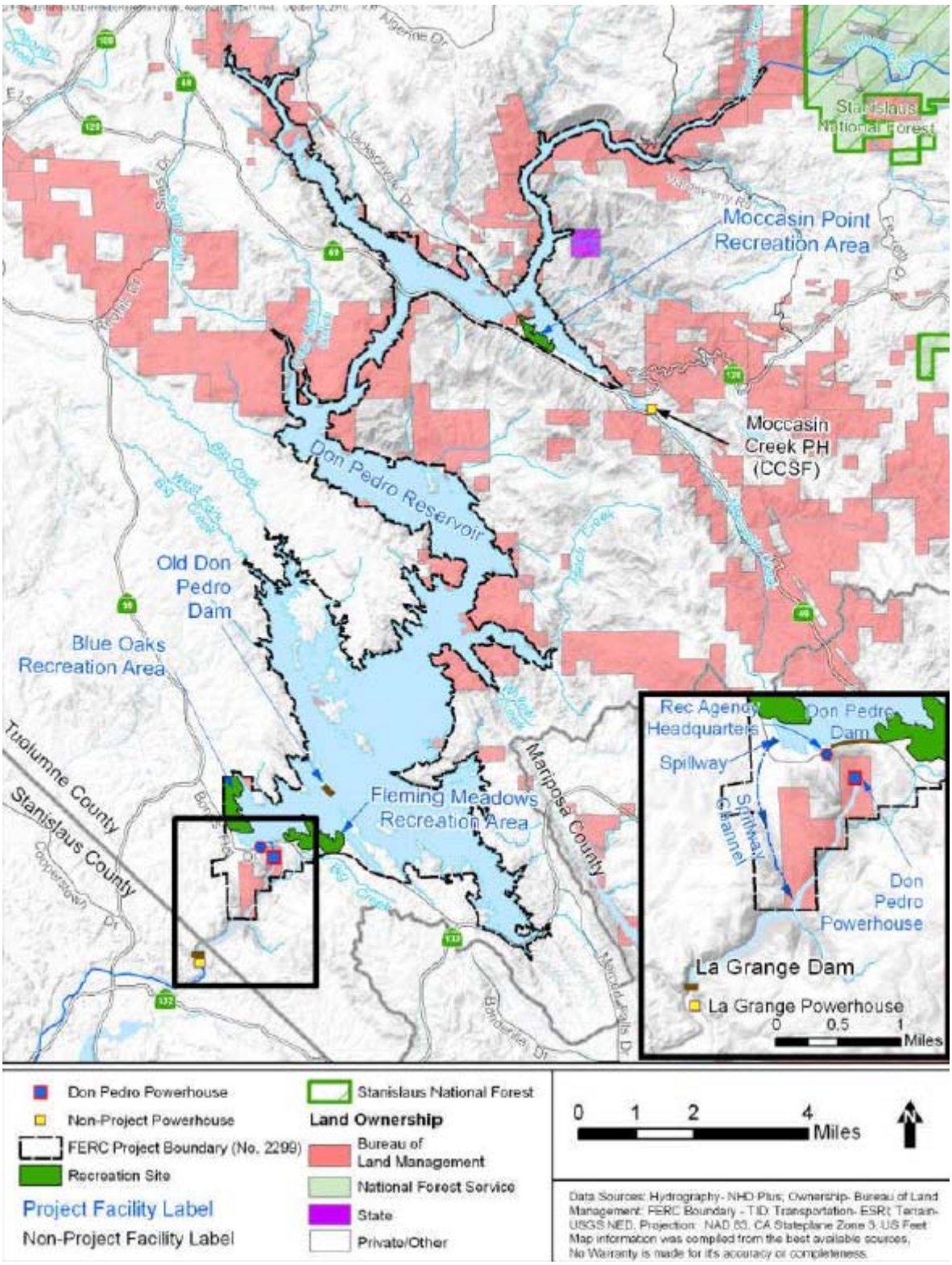

Figure 2. Project facilities for the Don Pedro Project (Source: Pre-Application Document).

In this document when we refer to the "parties" or the "parties to the dispute," we mean NMFS and FERC project staff. When we refer to the "participants" or the "meeting participants," we mean project staff from NMFS and FERC, and the Turlock and Modesto Irrigation Districts and their consultants. When we refer to "consultation" on a study, we mean the process described on the first page of Enclosure B of Director's determination of December 22, 2011.

We are aware that the participants continue to refine details of some of the studies using a workshop process approved in the Director's determination of December 22, 2011. Our recommendations are not intended to limit any agreement reached among the participants in that process.

Policy, Nexus, and Non-Technical Matters

The Panel's role was to develop technical recommendations. However, the Panel was presented with arguments in the dispute filings that would require the Panel to adopt or reject new policies or practices. The regulations at 18 CFR § 5.14(k) state that our recommendations were to be based upon "criteria set forth in Sec. 5.9(b)." To the degree that we had to consider these technical matters in the context of policy and practice, our findings and recommendations were made in the context of existing Commission policy and practice. This list of topics included information for agency management decisions, NMFS' Section 18 authority under the Federal Power Act (FPA), nexus based on possible future actions, inter-agency relations in the Integrated Licensing Process (ILP), and clarification of issues that are not necessarily disputed.

On the issue of the Commission's responsibility to require studies to support the decision-making of other agencies, NMFS and others argued that it was a goal of the ILP to "integrate" as much of the information gathering that will be needed for a license review as is possible. NMFS made an argument for nexus between the Don Pedro Hydroelectric Project and habitat conditions for anadromous fish above Don Pedro Dam based on NMFS' information needs in fulfilling its obligations under multiple statutes. Commission staff concluded that this would be a management decision, and argued that legal precedent held that the Commission was not obligated to require studies to support management decisions of other agencies. The Panel concluded that this was an area of policy, practice, and law that was beyond the scope of our review. Again, we concluded that we were bound to make our findings under 18 CFR § 5.9(b) in the context of existing Commission policy which does not require studies in the FERC process to support agency management decisions.

Another policy subject was the prospect that NMFS might invoke authority under section 18 of the FPA to require fish passage to areas above Don Pedro Dam based on

water quality conditions downstream of La Grange Dam. NMFS asserted that there is a water quality nexus associated with Don Pedro Project operations that may impede the safe, timely, and effective passage of fish in the lower Tuolumne River. La Grange Dam (RM 52.2) presents an existing physical blockage, is not presently subject to the FPA, and is 2.6 miles below Don Pedro Dam (RM 54.8). NMFS also asserted that because they may require fish passage from below La Grange Dam to above Don Pedro Dam, based on the water quality nexus and pursuant to their authorities under 18 CFR § 18 of the FPA, that there is also a nexus between project effects and the need for studies of habitat and fish passage above Don Pedro. The Panel neither accepted nor rejected this approach. We limited our analysis to technical matters in the context of existing policy and practice.

The concept of a nexus between the Don Pedro Project and upstream fish passage study needs based on cumulative effects/impacts was extensively argued by the participants. The "reasonably foreseeable" standard for cumulative impacts in NEPA regulations for environmental assessments and impact statements was put forward by NMFS (40 C.F.R. §1508.7). The "reasonably certain" standard for cumulative effects in Endangered Species Act (ESA) biological assessments and opinions was put forward by Commission staff (50 C.F.R. § 402.02). The Panel found neither of these definitions helpful in the context of 18 C.F.R § 5.9(b)). The Panel did consider the possibility of a nexus based on possible future action as potentially within 5.9(b). The Panel found no requested study element for which we all: 1) saw the connection between the effect and the study proposed using a common sense definition of nexus (study criterion 5); 2) agreed that the study results could serve as the basis of an appropriate license article (study criterion 5); 3) agreed that the level of effort and cost was justified by the information need (study criterion 7).

In both the written record of the dispute and technical conference, questions were raised regarding agency participation, roles, and decision processes in the ILP. It was not the Panel's role to resolve these issues. The Panel recommends that agency staff engage in direct dialogue to discuss their roles.

The Panel also recommends that the Commission staff, NMFS, and the applicants engage in direct dialogue to resolve technical issues. The Panel was surprised that it seemed that some matters of straightforward clarification were not resolved. For example, all five elements of NMFS Study Request 4, which were largely clarification matters rather than dispute items, seemed not to have been discussed directly or thoroughly among the Commission, NMFS, and the applicants either in parallel with the Panel's two-month study dispute resolution process or during the preceding eight months between the filing of the proposed study plans and the formation of the Panel. While the Panel recognizes that all of the participants are subject to many demands on their time, there are likely to be efficiencies to be gained through better coordination and collaboration.

Finally, the Panel recognizes that there were many policy issues closely tied to the disputed technical issues and that the separation of these issues may frustrate some. The complicated linkage of policy and technical matters should not be surprising given: 1) the extremely high stakes associated with the declining populations of ESA-listed anadromous fish; 2) the many and important uses of water in the basin; 3) the specific and complicated facts of this case; and 4) the fact that the study dispute process was perceived as, and could be, the last "formal" opportunity for the mandatory conditioning agencies to challenge Commission decisions until the opportunity for rehearing after a license is issued. Again, the Panel discussed its appropriate role in this process and determined that its role was to address technical matters within existing Commission policy and practice. In this context, and under 18 C.F.R § 5.9(b), we provide the Director the following findings and recommendations.

Findings and Recommendations

General Communications

Background

All of the participants recognized the need to be able to develop plan details and make adjustments in the plans (within the bounds set by the determination) after the studies are underway. Before and during the technical conference, the Panel sought confirmation that the Commission intended for the full consultation process described on the first page of Appendix B of the Director's determination to apply to the finalization or major refinement of every study plan. Commission staff confirmed that consultation was expected to include 30 days for stakeholders to comment and the requirement for the Districts to explain their reasoning for not accepting specific recommendations. This approach would encourage consultation and guarantee a last chance to comment. It also would assure that Commission staff would review the material in order to make any needed adjustments before granting approval.

Also, Commission staff discussed updating the determination with the latest approved study details from the W&AR-2 workshops. NMFS expressed a desire to see this done to provide them more certainty as to the Commission's official position on the studies. The Districts expressed concern that this process would lead to an endless loop of study determinations. FERC staff responded that such a step would be a one-time step taking advantage of the new information from the Districts' workshops and the timing of the Director's determination on the disputed items. The Districts delivered to the Panel a draft document describing its proposed protocol for the workshop process protocols with relicensing participant to refine some of the studies as approved in the Director's study

plan determination of December 22, 2011.[6] The draft incorporated the Commission's consultation requirement from the study determination and a commitment to coordination with all stakeholders.

Findings

The Panel finds that the study plan implementation meetings are an efficient way to enable consultation with stakeholders, including key agency staff, on technical refinements of the studies. Similar processes are common in FERC relicensing proceedings (study criterion 6). It appears to the Panel that the latest draft of the communication protocols, that incorporates the Commission's consultation requirement, will provide a good context for discussion and finalization of the technical details of the plans. With the requirements of Appendix B of the determination in place, they provide assurance of Commission staff oversight, even if that staff is not able to attend all or any of the meetings. While the paper record and consultation review steps are important to protecting the agencies interests, it is the Panel's experience that direct discussion usually saves time over dialogue on paper (study criterion 7). It is important that the key parties be engaged in such meetings to the greatest extent possible.

Recommendations

The Panel recommends that the Director modify the study plan determination to memorialize and, if necessary, optimize the communication plan being developed by the Districts and the relicensing participants.

NMFS Study Request 1: Effects of the Project and the related La Grange Complex facilities on anadromous fish

1.3 – A description of the potentially affected environment in the vicinity of the La Grange Complex.

1.6 – Description of the resource impacts of the La Grange Complex

Background

NMFS requested information with respect to the La Grange Complex including descriptions of the potentially affected environment near the complex including: project releases, La Grange water uses, instream flow uses, water rights, water quality standards, water quality data, bathymetry, fishes, critical habitat, essential fish habitat, and information on anadromous fish spawning, timing, location, and habitat. NMFS requested a description of the adverse resource impacts of the La Grange Complex, including continuing and cumulative impacts, as well as a description of any measures to protect, mitigate, or enhance anadromous fish resources affected by the Complex.

[6] The District's document, titled, "Draft Workshop Consultation Process on Interim Study Plan Decisions," has been entered into the docket for this proceeding, P-2299.

The District's did not adopt these requests arguing that 1) La Grange is not part of the Don Pedro Project license, 2) La Grange Dam is not subject to FERC jurisdiction, and 3) evaluating the effects of non-jurisdictional LaGrange Dam does not meet study criterion 5. FERC determined that existing and proposed sources of information would be adequate for its cumulative effects analysis. NMFS asserted NEPA required analysis of cumulative *and* direct and indirect effects. NMFS also asserted that FERC did not explain how existing and planned studies would provide the needed information to evaluate project effects (such as fish stranding and redd dewatering).

In its response to the Panel's request for clarification, the Commission said it may require that the Districts provide all available existing information that would address NMFS-1 Elements 3 and 6, to inform the Commission's cumulative effects analysis. Staff reaffirmed that its focus would be on cumulative effects, explaining that any direct effects in that area were likely a result of the operation of the non-jurisdictional La Grange Dam rather than the Don Pedro Dam.

In a lengthy discussion at the technical meeting, the participants reiterated the points described above, adding details. Commission staff clarified that it was requiring information for only cumulative effects from the base of La Grange Dam to the Tuolumne Rive Gage Below La Grange Dam Near La Grange, CA, USGS #11289650 (La Grange Gage). From the gage downstream to the San Joaquin River, the Commission would be looking at direct, indirect, and cumulative effects. The Panel interpreted the difference of opinion on the need for information to assess direct effects analysis from the base of La Grange Dam to La Grange gage as a key matter of dispute among the participants.

Findings

The Panel observes that the issue at hand is the effects of the Don Pedro Project on habitat in the area of the La Grange Dam. The Panel does not adopt NMFS phrasing in its request 1.6, where it frames the issue as a matter of the effects "of" La Grange Dam "on" the surrounding habitat. The La Grange Dam is not part of this relicensing or under the Commission's jurisdiction.

The Panel agrees that gathering the data to support cumulative effects analysis in the La Grange Dam area is important. The facilities clearly contribute to cumulative effects worthy of thorough analysis (study criterion 5). However, given the lack of storage in La Grange Reservoir, the somewhat fixed withdrawal demands by the Districts needed to meet water demands, the large pool and range of commitments at Don Pedro Dam, the existing potential for anadromous fish habitat below La Grange Dam, and the possibility of redd dewatering and stranding of juvenile and adult anadromous fish below La Grange Dam, the Panel sees the potential for direct or indirect effects of Don Pedro Dam operations on habitat conditions between La Grange Dam and La Grange Gage as well as downstream of La Grange Gage (study criterion 5). The temperatures below La

Grange Dam may be directly affected by operations at the much larger Don Pedro facility and, under some circumstances, hydraulic conditions may be directly or indirectly affected as well. Neither Article 37 of the existing license nor the Districts' independent control of La Grange Dam preclude the possibility of direct or indirect effects of Don Pedro Dam in this reach. Though the effects of Don Pedro in the area between the La Grange Dam and the La Grange Gage could be very hard to separate from the effects of La Grange Dam, it seems important to the Panel that the issue be evaluated.

The Panel finds that with existing information and at least 10 water and aquatic resource study plans proposed by the Districts and approved by the Commission that address this river reach, the data could be adequate for consideration of cumulative effects as well as direct and indirect effects. The Panel agrees that it would be valuable to have the existing information requested by NMFS in study request elements 1.3 and 1.6 provided by the Districts.

The Panel finds that data on bathymetry would be valuable in addressing the potential for redd dewatering and stranding of adult and juvenile anadromous fish between La Grange Dam and La Grange gage. If such data are not among the existing information or within the results of other studies, the Panel finds that they should be collected (addressing NMFS study sub-element 1.3.g).

Recommendations

1) The Panel recommends that the Director require in the Initial Study Report, that the Districts provide the information that would address NMFS-1 Elements 3 and 6 as proposed by Commission staff in its response to the Panel's request for clarification.

2) If the Initial Study Report for this study or one of the other approved studies does not include existing information on bathymetry in the reach between the base of La Grange Dam and the La Grange Gage, the Panel recommends that these data be acquired.

3) The Panel recommends that the study data be compiled (recommendation 1) and, if necessary collected (recommendation 2), to support detection and analysis of direct or indirect effects of the operation of Don Pedro Dam, if present, in the reach between the base of La Grange Dam and the La Grange Gage as well as to support cumulative effects analysis.

NMFS Study Request Element 1.4 – A description of the relevant Federal and state or tribal comprehensive waterway plans and relevant resource management plans

NMFS disputes the exclusion of a Draft Recovery Plan from the list of comprehensive plans relevant to the project. The listing of comprehensive plans is not a technical, study-related issue under 18 CFR § 5.9(b) of the Commission's regulations. Such listings are governed by section 10(a)(2)(A) of the FPA and by Commission Order No. 481-A (April 27, 1988), which revised Order No. 481 (October 26, 1987). The Panel will not comment on this Study Request Element.

NMFS Study Request Element 1.5 – The license or exemption for the facilities and operations of the La Grange Complex

NMFS refers to the Commission's jurisdictional review of the La Grange water diversion dam and hydropower facility and requests that Commission staff present a "report, during the Technical Conference, on the progress of this review and provide a schedule for its completion." Such a response cannot be provided by either the Panel, via the chair, or the Commission's Don Pedro Hydroelectric Project relicensing review staff, because such a report would violate directly the Commission's regulations. According to 18 CFR § 3c.2(b), "The nature and time of any proposed action by the Commission are confidential and shall not be divulged to anyone outside the Commission. The Secretary of the Commission has the exclusive responsibility and authority for authorizing the initial public release of information concerning Commission proceedings." Additionally, a jurisdictional determination is not a technical, study-related matter under 18 CFR § 5.9(b). Jurisdiction is covered under section 23(b)(1) of the FPA and 18 CFR § 24.1 of the Commission's regulations. The Panel will not comment on this Study Request Element.

NMFS Study Request 2 (Element 2.1 only): Effects of the Project and Related Facilities Evaluated Through an Operations Model

Element 2.1 – Develop Don Pedro Hydroelectric Project Water Balance / Operations Model

Element 2.1 dealt with the water balance model. The main item of dispute related to data acquisition to develop the model. Because the model and the data to serve the model are closely related, we discuss Element 2.1 with Element 4.5 below.

NMFS Study Request 3: Effects of the Project and Related Activities on Fish Passage for Anadromous Fishes

Element 3.1- Information about Hydraulic Conditions and Bathymetry
Element 3.2- Development of Conceptual Level Fish Passage Alternatives
Element 3.3- Investigation of Reservoir Fish Passage
Element 3.4- Fish Passage Conditions in the Upper Tuolumne River
Element 3.5- Pilot Field Experiments for Anadromous Fish Reintroduction

Under existing policy and practice there is no nexus between Don Pedro Project operations and the blockage of fish passage at La Grange Dam, 2.6 miles downstream (study criterion 5). (Please see the introduction.) The Panel will make no findings or recommendations on these study requests.

NMFS Study Request Study 4: Effects of the Project and Related Facilities on Hydrology for Anadromous Fish: Magnitude, Timing, Duration, and Rate of Change

Element 4.1 – Data Development and Statistical Analysis;
Element 4.2 – Additional Analysis of Tuolumne River Below La Grange Dam (USGS # 11289650);
Element 4.3 – Peak Flow Analysis
Element 4.4 – Rate of Stage Change Analysis
Element 4.5 – Quantify Lower Tuolumne Flow Accretion and Depletion

Background

The details of five hydrologic and hydraulic study requests were discussed. These study requests include NMFS Study Request Element 4.1 to 4.5. Most items were largely resolved as a result of the Commission's response to the Panel's request for clarifications. At the meeting the responses to these study dispute requests were further clarified.

Regarding element 4.1, NMFS requested that the Districts model and analyze three hydrologic scenarios including: 1) current conditions, 2) unimpaired or natural flow, and 3) partially unimpaired (current conditions with the Don Pedro Project and La Grange Complex removed). A number of common hydrologic statistics would be calculated for each scenario across 10 locations ranging from the upper Tuolumne to the San Joaquin, including 6 sites with state or federal gage records. The Districts proposed to develop a data set starting with unimpaired flow data and applying current conditions. The Director determined that neither the unimpaired nor the partially unimpaired models

needed to be analyzed by the Districts. NMFS wanted statistical output specified by FERC and calculated by the Districts for the sites. NMFS also wanted the site locations and consultation procedures verified.

The Commission's response to the Panel's request for clarification detailed the required sites and information required at those sites. At the technical meeting, NMFS confirmed that it had accepted the use of the current conditions by the Districts in their analyses. The Districts confirmed that they would generate the statistics desired by NMFS. The Districts noted that further refinements were to occur in the context of the W&AR-2 workshops. FERC staff had confirmed, in response to the Panel's clarification request, that the workshops would be subject to the consultation requirements on the first page of Appendix B of the Director's study determination.

Regarding element 4.2, NMFS requested data on the portion of water released through each of the four (actually five) different water routes past La Grange Dam. The Districts agreed and the Commission supported meeting this request. The Districts explained that the record might be quite restricted because of limited historical data, but that they would assemble what they could. NMFS expressed an understanding of the situation.

Regarding element 4.3, NMFS requested peak flow analysis using Log-Pearson type III flood return frequency estimation methods for the three scenarios at eight of the locations identified in Element 4.1. NMFS requested instantaneous analysis where gage records support such an approach and the conversion of daily values to instantaneous estimates using standard methods for the region where only daily data were available. NMFS was unclear whether the determination required this information. Commission staff indicated that they had not required such analysis but they might do so. At the technical conference, the Districts expressed a willingness to do the analysis. The Districts pointed out that the water balance model would contain the necessary data and it would merely need to be pulled out and analyzed.

Regarding element 4.4, NMFS requested "rate of stage change" (or ramping rate) analysis below La Grange Dam over a 40 year period. NMFS proposed very specific analysis and reporting requirements. The Director determined that the Districts' proposal covered this topic. NMFS requested that FERC require the use of 15-minute data in the analysis of ramping. Commission staff confirmed this requirement in its response to the Panel's request for clarification. The Districts expressed a willingness to meet this request to the extent possible.

Regarding elements 4.5 (and 2.1), a major modeling issue was the methodology for accounting for possible changes in river discharge resulting from accretion (flow gains, typically from groundwater influx) or depletion (flow losses) not otherwise accounted for in the model (together accretion/depletion). Under discussion was the

number of locations or nodes at which accretion/depletion needed to be measured given the anticipated degree and variation in accretion/depletion and the purposes of the model. Regarding the number of nodes needed to estimate accretion/depletion, NMFS proposed a likely minimum of four nodes in its original study request. At the technical meeting the Districts explained that they had proposed locations of five nodes to the relicensing participants group at a recent meeting on the water and aquatic resources study. The Districts noted that they had proposed that the decision on placing a node at the mouth of the Tuolumne River was contingent on the results of the first set of accretion flow results and further discussions with the relicensing participants. The meeting participants all expressed general comfort with the approach to the placement of the nodes.

Still under dispute was the number and frequency of accretion/depletion flow measurement runs in which the Districts would measure flows at the four or five nodes over a day or two of consistent conditions. Comparison of discharges between nodes would indicate accretion/depletion effects. All participants agreed that this issue only was relevant under low flow conditions, when accretion/depletion could be a significant percentage of discharge. In its original study request, NMFS called for flow measurements under at least five different discharge conditions. The Director's study determination did not require a specific number of measurements. In its clarification of this point, the Commission staff mentioned that it might require the Districts to consult with NMFS to set the specific number and timing of the measurements. In their revised study plan, the Districts' proposed methodology included one accretion/depletion sampling event. However, at the technical meeting, the Districts reported that, as with the final locations of the nodes, the Districts would make their first run of measurements, share the results with the relicensing participants in the workshops, and base a decision about whether further runs were needed on the initial findings and the input from the relicensing participants. Commission staff approved of this approach. NMFS reemphasized that multiple measurements were needed to capture seasonally variable conditions. The Districts raised concerns about the cost of additional runs and about the fact that at some level, the error inherent in a flow measurement could be greater than the accretion/depletion influence.

Findings

Most of these study issues in NMFS Study Request 4 mainly require only clarification. The Panel finds that there was general agreement among participants and that these studies are relevant to Don Pedro's potential effects (study criterion 5). With the exception of 4.5, that the methodologies are accepted or on track to acceptance. The methods accepted by the participants are widely accepted scientific methods (study criterion 6). It seems sensible that these studies should be finalized in the W&AR-2 study meetings based on the dispute conference discussions, the previous study implementation meeting, and any process requirements approved in the original determination.

Regarding element 4.5, NMFS requests that five accretion/depletion runs be required by the Director. The Commission staff and the Districts advocate that one measurement be taken and the discussion be turned to the workshop process. The workshop process has the Commission's required consultation process built in to it. The Panel finds that like elements 4.1 to 4.4, element 4.5 could be resolved most efficiently through the use of the workshop/consultation process.

Recommendations

1) The Panel recommends that the Director update the determination to reflect the clarifications regarding these studies and the resulting agreements, particularly any details finalized through the workshop process.
2) The Panel's recommendations for the workshop process are described above.

NMFS Study Request 7: Effects of the Project and Related Facilities and Operations on Upper Tuolumne River Habitats for Anadromous Fishes

Element 7.1, Migration Barriers
Element 7.2, Water Temperatures
Element 7.3, Implement Monitoring Activities
Element 7.4, Salmonid Life-Cycle Model

Background

Based on flow connections and agreements between Don Pedro and the City of San Francisco's Hetch Hetchy Reservoir, NMFS requested that the Districts be required to study the upper Tuolumne River, above Don Pedro Reservoir. NMFS requested a literature review and ground surveys to identify barriers to anadromous fish. The Districts pointed out that Hetch Hetchy is not a FERC licensed facility and is not part of the Don Pedro Project and that Don Pedro does not block passage. The Director found that the issues addressed by this request all applied upstream of La Grange, which was a fish blockage and thus there was no nexus to Don Pedro effects and the studies were not required. At the technical conference NMFS continued to argue that Don Pedro was interconnected with Hetch Hetchy, and therefore Hetch Hetchy should be part of the geographic scope (as specified in Scoping Document 2) and in direct, indirect, and cumulative effects analyses. NMFS stated Don Pedro asserts thermal and physical effects on fish migration. Further, NMFS argued that temperature effects in the lower Tuolumne River may justify prescribing fish passage above Don Pedro under section 18 of the FPA (see introduction).

Findings

Regarding a possible section 18 prescription for upstream fish passage, under existing policy and practice there is no nexus between Don Pedro Project operations and

the blockage of fish passage at La Grange Dam, 2.6 miles downstream (study criterion 5). (See introduction.) The Panel will make no findings or recommendations on these study requests.

Regarding connections between Hetch Hetchy Dam and Don Pedro Dam, the Panel notes that there are many systems with upper impoundments and lower impoundments linked by hydraulic processes and agreements. The Panel sees no justification for assigning upstream responsibilities to the downstream project in this case. It is difficult to anticipate a license article for the Don Pedro Project that would address issues attributable to Hetch Hetchy (study criterion 5), and the issues that effect the Don Pedro system are well covered in other studies (study criterion 2).

Recommendation

The Panel recommends no change to the Directors determination of December 22, 2011.

NMFS Study Request 8: Development of Salmon and Steelhead Full Life-Cycle Population Models;

Elements 8.1 Fall-Run Chinook Salmon Model
Element 8.2, Central Valley Steelhead Model

Background

NMFS requested a full life-cycle salmonid population model that would evaluate both in-river and out-of-river effects on salmon. In this study determination process, the Director determined that the point of modeling was not perfect population prediction, but good estimation of project effects. Therefore qualitative estimation of the out-of–river variables was deemed adequate. At the technical meeting, NMFS pointed to recent full life-cycle modeling efforts to demonstrate the availability of tools for adding detail on the ocean context to the models. The Districts emphasized the benefit of focusing on the issues potentially influenced by its operations rather than be distracted by modeling across different scales of analysis. The Districts pointed out that others could integrate the results of their model with a detailed ocean-phase analysis to produce a more comprehensive model.

Findings

The Panel finds that the area of potential responsibility for the Districts is instream, not in the ocean (study criterion 5). While the Panel sees the value of a full life-cycle model, the Panel's expectation is that the Districts will be able do a better job of modeling by focusing intensely on the instream portion of the life-cycle, rather than diluting their effort (study criterion 6 and 7). The model can always be linked to an ocean model or expanded at a later time.

Recommendations

The Panel recommends no change to the Director's determination of December 22, 2011.

NMFS Study Request Study 9: Effects of the Project and Related Activities on the Losses of Marine-Derived Nutrients in the Tuolumne River;

Element 9.2- Estimate the historic mass of marine-derived nitrogen transported annually by spring-run Chinook salmon to the upper Tuolumne
Element 9.3-Estimate the current annual mass of marine-derived nitrogen transported by fall-run Chinook salmon to the Upper Tuolumne River
Element 9.4- Estimate the annual loss, from historic to current levels of marine-derived nitrogen transported by fall-run Chinook salmon to the Tuolumne River
Element 9.5-Compare the difference of marine-derived nitrogen incorporated into periphyton and aquatic benthic marcroinvertebrates collected in the upper and lower Tuolumne River

Background

NMFS requested a study of potentially depressed levels of marine-derived nutrients in the upper and lower Tuolumne River resulting from the lack of salmon migration into these sections of the river system. The Districts did not adopt the NMFS proposed study on the bases that Don Pedro does not block fish passage, that some information could be gleaned form other studies, that the historic estimates were highly speculative, and that the results were intended to support NMFS management decisions, which was not an obligation of the project proponent under Commission policy. The Commission asserted that Don Pedro Dam did not block passage, that the proposed study would not discern the contribution of Don Pedro Dam to the issue, and that the study would not address project-related effects or inform a license article. NMFS responded that it was reasonably foreseeable that fish passage would occur. NMFS asserted that fertilization could be a license condition.

NMFS also stated that Don Pedro operations affect fish passage below La Grange Dam, even if those operations do not create a total fish passage blockage. Nutrient levels downstream of La Grange Dam could be affected if water quality effects of the Don Pedro Dam impeded fish passage to portions of the lower Tuolumne River, including to La Grange Dam.

At the technical conference the participants reiterated the points in their paper filings. Commission staff emphasized that it would be difficult to isolate the effects of marine-based nutrients from the many other factors in the watershed. Commission staff

questioned whether the study would provide an answer more informative than an estimate that NMFS staff could make based on a quick analysis. The Districts and Commission staff questioned whether there was any evidence of a nutrient deficiency in the system. NMFS noted that answering that question of whether there was a nutrient deficiency would be an aspect of the study.

Findings

Regarding the upper Tuolumne River, under existing policy and practice there is no nexus between Don Pedro Project operations and the blockage of fish passage at La Grange Dam, 2.6 miles downstream (study criterion 5). (Please see the introduction.) The Panel will make no findings or recommendations on the portion of these study requests related to areas upstream of the Don Pedro Dam.

Regarding the lower Tuolumne River, it seems to the Panel that it would be very difficult to get good estimates of the historic nutrient levels for use as a basis of comparison to current conditions. Further, the Tuolumne system is completely altered since the period of comparison proposed by NMFS. The land cover is dramatically different, fertilization of crops is ubiquitous, and the resident fish community is vastly altered. This study would be highly speculative and unlikely to support a license condition (study criterion 5 and 6). It is unlikely that such a study would produce information valuable enough to the relicensing process to justify the effort and cost (study criterion 7).

Recommendations

The Panel recommends no change to the Director's determination of December 29, 2012.

ENCLOSURE C

Study Dispute Resolution Panel's

Technical Conference Opening Statement

April 17, 2012

In the Dispute Filed by
the National Marine Fisheries Service
on
January 11, 2011

Regarding the

Don Pedro Hydroelectric Project No. 2299-075

Opening Statement
Study Dispute Resolution Panel
Technical Meeting
Don Pedro Hydroelectric Project No. 2299
April 17, 2012
9:00 am to 5:00 pm

The technical meeting of the Study Dispute Resolution Panel for a study dispute filed by the National Marine Fisheries Service (NMFS) in the Don Pedro Hydroelectric Project relicensing proceeding is now open. I am Stephen Bowler, the Federal Energy Regulatory Commission's (or Commission's) representative to the dispute resolution Panel and the Panel chair. The other Panelists are David White, NMFS' representative, and Richard Craven, the independent, third party member of the Panel. The dispute regards what studies are required in the preparation of an application for a new license (aka relicense) by the Turlock Irrigation District and the Modesto Irrigation District (the Districts). .

The purpose of the meeting today is for the Study Dispute Resolution Panel to gather the information it needs to make a finding, "with respect to each information or study request in dispute, concerning the extent to which each criteria set forth in Sec. 5.9(b) is met or not met, and why, and make recommendations regarding the disputed study request[s] based on its findings." Sec. 5.9(b) refers to the section of the Commission's regulations that lists the criteria for studies necessary to prepare a license application. The criteria are available as a hand out here today.

Information on the Panel is provided in folders located near the sign-in sheet. None of us have had any involvement in the Don Pedro Hydroelectric Project prior to our role on this Panel. We previously worked together on the Yuba River Hydroelectric Project dispute. However, we approach the Don Pedro Hydroelectric Project study dispute from a fresh perspective.

As a Panel, we have carefully assessed our role and the context for our work. The regulations make it clear that our recommendations are to be based upon, "criteria set forth in Sec. 5.9(b)." Further, when considering our recommendations, "The Director's determination will be made with reference to the study criteria set forth in Sec. 5.9(b) and any applicable law or Commission policies and practices..." (18 CFR § 5.14(k)(1)). The Panel's role is to develop technical recommendations. To the degree that we must consider these technical matters in the context of policy and practice, our findings and recommendations must rest in the context of existing Commission policy and practice within which the Director will consider them.

While the Panel recognizes that Don Pedro Dam is likely to influence flows and water quality and thus affect anadromous fish from the base of La Grange Dam downstream, the Panel will make no recommendations or findings in regard to whether such effects create a nexus to issues related to fish passage above Don Pedro Dam. This matter is one of policy and law that clearly is beyond the intended scope of the dispute resolution panel process.

In reviewing the material, we also have determined that two, specific aspects of the dispute are outside of the Panel's purview and will not receive detailed attention today, or in our findings and recommendations:

First, in NMFS study request 1, element 4, NMFS disputes the exclusion of a Draft Recovery Plan from the list of comprehensive plans relevant to the project. The listing of comprehensive plans is not a technical, study-related issue under 18 CFR § 5.9(b) of the Commission's regulations. Such listings are governed by section 10(a)(2)(A) of the Federal Power Act (FPA) and by Commission Order No. 481-A (April 27, 1988), which revised Order No. 481 (October 26, 1987).
.

Second, in NMFS study request 1, element 5, NMFS refers to the Commission's jurisdictional review of the La Grange water diversion dam and hydropower facility and requests that Commission staff present a "report, during the Technical Conference, on the progress of this review and provide a schedule for its completion." Such a response cannot be provided by either the Panel, via the chair, or the Commission's Don Pedro Hydroelectric Project relicensing review staff, because such a report would violate directly the Commission's regulations. According to 18 CFR § 3c.2(b), "The nature and time of any proposed action by the Commission are confidential and shall not be divulged to anyone outside the Commission. The Secretary of the Commission has the exclusive responsibility and authority for authorizing the initial public release of information concerning Commission proceedings." Additionally, a jurisdictional determination is not a technical, study-related matter under 18 CFR § 5.9(b). Jurisdiction is covered under section 23(b)(1) of the FPA and 18 CFR § 24.1 of the Commission's regulations.

That said, there is a great deal of ground to cover today. The Panel has designed the meeting format in the following ways to gather the information we need the most in the in the time we have:

1. We commit to NMFS and the Commission, as the parties to the dispute, and to the Districts as the applicant who will carry out the studies, that we will give them each eight minutes for a closing statement at the end of the day if they wish to use it. If we have remaining time, we will invite others to make additional comments.

2. We may have a tight schedule. If we are falling behind, we will defer some topics to the end of the day or to written responses.

3. We reiterate the importance of sticking to the study criteria and to this project. We ask that everyone be as concise and focused as possible. Of course, we expect everyone to be treated with respect.

David and Richard will describe the agenda and our organizational strategy for the day, we will then ask people to introduce themselves, and we will get to work.

Thank you.