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File Code: 2770

**Date:** February 26, 2009

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

# DESABLA-CENTERVILLE HYDROELECTRIC PROJECT No. 803-087 FOREST SERVICE COMMENTS ON FERC's DRAFT ENVIRONMENTAL ASSESSMENT

Dear Ms. Bose:

Enclosed for filing are the Forest Service's comments on the Federal Energy Regulatory Commission's (FERC) December 29, 2008, Draft Environmental Assessment (DEA) for the DeSabla-Centerville Hydroelectric Project No. 803-087. We appreciate this opportunity to review and comment on this document per CFR 18 Part 5 § 5.25.

The Licensee, resource agencies, non-governmental organizations and other interested parties (relicensing participants) have been meeting to clarify resource objectives and optimally to reach agreement on needed protection, mitigation, and enhancement (PM&E) measures for this Project. We are pleased with significant progress in regard to recreation and road mitigations resulting from field and office meetings in the fall of 2008. Aquatic resource discussions are ongoing with more meetings planned prior to submittal of our revised Section 4(e) license conditions 60 days following conclusion of this DEA comment period. Therefore, it is premature to detail those discussions or provide language for license conditions in this response. We are optimistic that there will be progress on aquatic resource mitigations in the limited remaining time prior to filing our revised 4(e) conditions. If resolution can not be achieved, the Forest Service may revert to more conservative preliminary license conditions in order to assure adequate protection for Project-affected resources, as provided under Section 4(e) of the Federal Power Act.

Thus, this response is focused specifically on providing comments on FERC's DEA. Attachment 1 provides substantive discussions and recommendations, while Attachment 2 provides typographical and editorial comments. Generally, the Forest Service feels the DEA addressed a broad spectrum of our concerns, however, we have remaining concerns and differing interpretation of study results for several specific areas that we address in Attachment 1 of this response.





The Forest Service appreciates the opportunity to provide comments on this relicensing to assure protection of resources on the National Forest affected by this hydroelectric project. If you have any questions or concerns on this filing, please contact Kathy Turner, Zone Hydroelectric Coordinator, at the Hat Creek Ranger District, Lassen National Forest, (530) 336-5521.

Sincerely,

/s/ Lorene T. Guffey for KATHLEEN S. MORSE Forest Supervisor

#### Attachments

cc: Kathy Turner, Hat Creek RD, Lassen NF
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FERC Service Lists

# **Certificate of Service**

I hereby certify that I am serving the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Fall River Mills, California, this 27th day of February, 2009.

/S/ Kathy Turner
Kathy Turner
Zone Hydroelectric Coordinator

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# **Attachment 1**

# Forest Service Substantive Discussions and Recommendations on FERC's Draft Environmental Assessment

#### DeSabla-Centerville Hydroelectric Project No. 803-087

The Forest Service (FS) provides the following substantive discussions including concerns, differences of interpretation, and recommendations on FERC's Draft Environmental Assessment (DEA) for consideration. Comments reference the corresponding text from the FERC DEA for ease in cross-referencing.

## 1.0 INTRODUCTION

## 1.3 Statutory and Regulatory Requirements

## 1.3.1.2 Section 4(e) Conditions

Page 8, Alternative Section 4(e) Conditions under the Energy Policy Act of 2005: The DEA states that on July 30, 2008, PG&E filed alternative license conditions and sought a trial-type hearing with both the Forest Service and Bureau of Land Management (BLM). This is incorrect. While PG&E did propose alternative license conditions and seek a trial-type hearing with the BLM, they only proposed alternative license conditions with the FS. This same error is re-stated under section 2.2.4.3 with the same heading.

## 2.0 PROPOSED ACTION AND ALTERNATIVES

## 2.3 Staff Alternative

Starting on Page 32 (and elsewhere in the DEA): While it is insightful to read about and better understand FERC's staff alternative, it is premature for us to provide specific agreement or disagreement with a number of the proposals made by the Staff since the Forest Service is still discussing mitigations with relicensing participants. For those areas where we are more certain of our position, we provide that under appropriate headings below. However, the majority of our comments provide the Forest Service interpretation of, or questions with, DEA text, as opposed to agreement or disagreement with the Staff alternative. We look forward to providing refined 4(e) license conditions within 60 days following closure of the DEA comment period.

#### 3.0 ENVIRONMENTAL ANALYSIS

#### 3.3.1 Geologic and Soil Resources

#### 3.3.1.1 Affected Environment

Page 48, Reservoir Shoreline and Streambank Conditions:

The first paragraph states that canal-flume capacities (on the West Branch Feather River side) are about 85 - 110 cubic feet per second (cfs). On page 20 of the DEA, the text indicates this flume capacity is up to 125 cfs. We recommend this flume capacity be consistent throughout the document.

The second paragraph in this section ends with a discussion concerning the lack of shoreline affects from boat wakes on Round Valley Reservoir due to the lack of boating access but does not address any other type of shoreline damage. This leaves the reader with the impression that there is no reservoir shoreline disturbance at Round Valley Reservoir. This impression conflicts with known cultural site damage at this reservoir from operational flow fluctuations as documented in PG&E cultural reports for this area. We recommend this paragraph be expanded to address this other type of shoreline erosion induced by seasonal fluctuations from Project operations.

The last paragraph in this section ends with a similar discussion of the lack of boat wake erosional impacts at Philbrook Reservoir, but again, does not address erosion induced by seasonal operational elevation changes to the shoreline. We recommend this be addressed to provide a full picture to the reader of what erosion is occurring on reservoir shorelines.

#### 3.3.2 Aquatic Resources

#### 3.3.2.1 Affected Environment

## Page 72, Long Ravine:

The first paragraph states: "There are no estimates of the flow parameters for Long Ravine upstream of the discharge from Hendricks canal...". As a result of this lack of data, it is not possible to determine what percentage of the natural flow is diverted into the Hendricks Canal, and whether the current and the Commission's proposed minimum instream flows (MIFs) are adequate to support viable rainbow trout populations downstream on National Forest System lands. We recommend this be clarified in the final EA text.

## Page 121, Fish Entrainment at Project diversion dams:

The first paragraph states: "Fish can move back and forth between the canal and the stream at each mainstem diversion point and fish can move upstream and downstream within sections of each canal...". This statement gives the impression that there is free flowing exchange of fish both upstream and downstream between the mainstem and canals in each project reach, which is clearly shown not to be the case in PG&E study results. In fact, relicensing studies did not try to assess the number of fish that entered

the Hendricks Canal and subsequently successfully returned to the WBFR. Specifically at Hendricks Diversion Dam, 100% of the West Branch Feather River (WBFR) flow is diverted into the Hendricks Canal, dewatering the downstream WBFR for several hundred feet. There is a minor diversion returning a small portion of the flows (14 cfs in normal/wet years or 7 cfs in dry years) back to the WBFR several hundred feet downstream of the Hendricks Diversion Dam on the Hendricks canal. Fish could theoretically return to the WBFR by finding the 6-11% flows returned to the natural channel, yet low fish counts in the WBFR near this structure indicate this may not be a common occurrence. Given the physical features of this return structure (e.g. the drop and flows) it also does not appear that fish could return from the WBFR to the canal as implied by FERC's DEA text. There is no data to support this supposition.

Fish rescue data that was collected by the Licensee during outages of the Hendricks Canal reveal that an average of 994 trout were entrained in the canal in 2005 and 2007. However, this number only represents rainbow trout and brown trout, as the applicant does not focus on other aquatic species. Furthermore, this number is assuming that every fish that entered the canal was accounted for during the next rescue, which is highly unlikely. The first paragraph further states that "...once a fish leaves the lower end of a canal, it is assumed that the fish cannot move back...". Therefore, the average entrainment of 994 trout has to be considered a highly conservative estimate, as the data provided by the Licensee did not include estimates of how many fish passed through the lower end of the canal, nor how many fish were predated on by other trout. The most liberal estimate is that 285,612 trout are entrained per year in the Hendricks Canal if you assume that all fish that enter the canal are transported through the canal within two days, and do not experience in-canal predation and fish losses through the canal spillways in high water events.

Overall, the fish population data upstream and downstream of Hendricks Diversion Dam, and fish rescue data collected during rescue efforts do not provide sufficient precision to be useful in determining effects resulting from the Project on resident fish populations. The Resource Agencies, including the Forest Service, requested additional trout population and fish entrainment/canal studies in its April 17, 2008 letter to FERC that would provide more precise, comparable, and useful data. However, these requests were largely denied by the Commission (PG&E 2007; RA 2007a and 2007b; USFWS, 2007a, 2007b, 2007c, and 2007d; Forest Service 2008). Information obtained from California Department of Fish and Game (CDF&G) and included in their response to the FERC Ready for Environmental Assessment (REA) Notice, describes that in the 14 mile reach downstream of Hendricks Diversion Dam, linear abundance has dropped from 723 trout per 100 meters to 51 trout per 100 meters since 1977. This equals roughly a 92% decline in trout density in this reach over a thirty year period. Though this information does not specifically link the decline in population to entrainment into Hendricks Canal, removal of up to 100% of the flow from the WBFR, and the lack of a screening device or fish ladder at Hendricks Diversion Dam has resulted in unsuitable fish habitat conditions directly downstream of the dam (prior to influence of tributaries), a high probability of entrainment for those fish that enter the canal upstream, and an overall loss of genetic flow between habitats that are now biologically isolated during those times when water is being diverted. We recommend the DEA be supplemented with these facts to better represent Project effects.

#### 3.3.2.2 Environmental Effects

Page 146, Upper West Branch Feather River-Philbrook Creek (additionally addressed on DEA page 362):

FERC provides a discussion of differences in MIF's proposed for Philbrook Creek below Philbrook Dam by the Forest Service June 27, 2008 Preliminary 4(e) conditions and PG&E's October 2007 Project Application measures. Specifically, the Forest Service proposes an increased release of 10 cfs from April 1 to May 15 in years when the snow water equivalent at the Humbug DWR snow pillow sensor (HMB #823) is at least 40 inches on April 1st. While FERC attempts to model these 10 cfs flows, they note that the models were neither setup nor calibrated for this spring period and instead ran a sensitivity analysis for the summertime period of June 17 through July 31. This later seasonal run indicated higher temperatures in Butte Creek could result from a depletion of the coolwater pool in Philbrook Reservoir from these increased spring flows, and thus did not recommend the FS MIFs to improve trout spawning habitat in Philbrook Creek.

While we appreciate FERC's attempt to model this scenario, apparently, not all of the information available on this topic was made available to FERC. The Forest Service, in collaboration with relicensing participants (including PG&E hydrologist and water temperature specialist) collaboratively developed the parameters of the Forest Service proposed springtime increase in MIF using water temperature model runs, information regarding Philbrook Reservoir stratification, analysis, and recommendations. This resulting condition assured storage levels in Philbrook Reservoir would not be compromised due to increased MIFs in Philbrook Creek during wet water years. Increasing MIFs from April 1st to May 15th, would create additional storage capacity to capture increased runoff that is expected to occur following the spring snow melt period and/or rain on snow events, thus minimizing the possibility of spillage over the dam which regularly occurs in wet water years. Furthermore, increasing MIFs in Philbrook Creek during this time period would attenuate the hydrograph below the reservoir (better representing unimpaired flows), thus providing additional protection to spawning fish in Philbrook Creek. As a safeguard the final sentence was added to this Forest Service condition: "If during the period of April 1st to May 15th, the Licensee determines that Philbrook Reservoir will not fill to capacity despite the snowpack conditions, release flows may be altered or reduced to 2 cfs, following consultation with the Forest Service".

We understood that the Forest Service condition language was acceptable to all parties. While we can not speak on behalf of PG&E, the fact that their July 30, 2008 Alternative License Conditions and August 14, 2008 Reply Comments to FS Preliminary License Conditions do not request any changes to the Philbrook Creek portion of Condition #18 should support our assertion.

As stated above, during normal to above normal water years, the inflow to Philbrook Reservoir exceeds the capacity of the outlet pipe. This causes the excess water to flow through the spill channel. The exact timing and magnitude of these flows is unknown, because the gage is not located on the spill channel. We appreciate FERC's recommendation that a new flow gage be installed below the confluence of Philbrook Creek and Philbrook spill channel to provide information to address this knowledge gap.

On page 362, FERC further justifies maintaining a MIF of 2 cfs below Philbrook Reservoir due to the fact that "current rainbow trout populations in this reach are viable..". Fish population data provided by the Licensee shows that a total of 44 rainbow trout were observed downstream of the reservoir in 2006. This is equal to an average of approximately 403 trout per acre in Philbrook Creek. This number of fish is less than 50% of the 830 rainbow trout per acre recommendation we made for the WBFR that represents healthy Northern Sierra Streams as defined by the Forest Service and CDF&G. Additionally, because we do not have historical population data in Philbrook Creek, it is not possible to detect trends in the population, or make inferences whether this population is viable over time. It would be helpful for FERC to explain the basis for their viability assertion.

Given this information, we request that FERC update the discussion of this condition in the final environmental assessment. The Forest Service believes these limited flows would improve trout spawning habitat in Philbrook Creek in years when water is available, while not adversely affecting either Philbrook Reservoir storage or water temperatures in Butte Creek following interbasin transfer from the WBFR. (See also "Page 363, Philbrook Creek" below, for additional information regarding improved spawning habitat.)

Page 178-180, Long Ravine, Cunningham Ravine, and Little West Fork:

In FERC's "Our Analysis" section for each of the above listed feeder tributaries to the Hendricks canal, it is stated that "... trout populations both above and below the feeder diversions are self sustaining. In addition, existing MIFs provide good water quality with temperatures in the optimal range... and are similar both upstream and downstream of the diversion dam." Information provided by the Licensee as part of the relicensing studies was limited to directly above and directly below the diversion for each of these tributaries. Information on the conditions found downstream on National Forest System lands was not provided. Thus, the statement regarding trout populations and water quality below the canal does not pertain to NFSL. All observational data regarding aquatic conditions on NFSL downstream, are the result of a field visit to Little West Fork by FS personnel in the spring of 2007. Furthermore, because it is unknown what percentage of the natural flow is diverted into Hendricks Canal for each of these tributaries, the statement "PG&E's proposal to continue to release a MIF of between 0.25 and 0.1 cfs would continue to provide adequate habitat to maintain self-sustaining population of aquatic organisms..." is not accurate as it does not take into account the conditions that these systems evolved with below the diversion, including habitat on NFSL.

Page 189, Water Year Type, and Page 189-190 Drought Conditions:

The Forest Service notes PG&E's suggestion and FERC's support of a minor adjustment to 4(e) language concerning triggering of Water Year Type (WYT) implementation based on the actual release date of the State publication of Bulletin 120 instead of an expected release date of that document. We support that proposal, which will be reflected in our final 4(e) package language.

Similarly, the slight modification of dates for PG&E to contact resource agencies regarding drought conditions is reasonable. Specifically to shift initial notification of drought conditions in the second or subsequent dry water year from March 10 (recommended by resource agencies) to March 15 recommended by PG&E and FERC. Additionally, we concur with shifting consultation with resource agencies from May 1 to May 15 of the same year. These slight shifts in dates again allows for information contained in State Bulletin 120 to be available to the Licensee to determine if drought conditions are met, prior to making notification and initiating consultation with resource agencies.

Page 204-208, Water Temperature, *DeSabla Forebay:* 

In the Forest Service June 27, 2008 Preliminary License Conditions, Recommendation #5 stated that PG&E was to develop and implement a DeSabla Forebay Water Temperature Improvement Plan that provided for an 80% reduction in heating, equivalent to a  $\leq$  0.2°C limitation. Since filing these conditions, we have been involved in discussions with multiple parties and feel that installation of a pipe to move water directly from Butte Creek Canal into the DeSabla intake is the alternative that would best minimize forebay water heating. Since, according to PG&E's study, this is the greatest water temperature reduction that could be achieved, there would be no reason to additionally stipulate an 80% reduction or  $\leq$  0.2°C limitation on this improvement that may or may not be achievable by PG&E. This uncertainty adversely affects PG&E's ability to understand the costs associated with this improvement. Therefore, in our final 4(e) license conditions the Forest Service will rewrite this recommendation to that of a pipe installation without these additional reduction stipulations.

#### 3.3.5 Recreation Resources

#### 3.3.5.2 Environmental Effects

Page 270, second full paragraph analyzing public recreation trail:

It appears that FERC misunderstands the intent of the FS recreation 4(e) condition for the Licensee to develop a recreation trail from a FS constructed parking area to the Project (Philbrook) Reservoir on the southeast shoreline. Because of the private cabins around the shoreline, the public does not understand that the Project shoreline is open to their use; it appears to be private land. Since the Project reservoir shoreline is open to the public, the intent of this condition is to clearly indicate, via a pathway, where it is appropriate for the public to travel to get from the FS provided parking area to the project shoreline, through the private cabins. The trail is not for the convenience of the private cabin owners, but for Project-induced recreationists. Delineating the public access way

will not only provide foot access to the shoreline, but should decrease conflicts with private cabin owners in having a public pathway designated. Since this forested area is open and only a couple hundred feet long to reach the shoreline, cost for construction of these trails is minimal. Upon discussion during an October 2008 field meeting, including assurance that the parking areas would be provided by the Forest Service at no cost to the Licensee and the trails were short, PG&E did not voice concerns on this measure.

## Page 276, Law Enforcement:

FS preliminary license condition 33 contains an element for "Project Patrol". While this element references that the person could be a "law enforcement" person to be consistent with other parties proposed measures, we do not require law enforcement status. We understand that FERC considers law enforcement per se to be the responsibility of the state and county. However, our goal is to have a person who can provide a presence to deter numerous on-going concerns expressed by the public, as documented in relicensing recreation studies. These concerns are Project-related and do not require law enforcement training. The project patrol would be expected to contact the appropriate law enforcement agency if a violation is noted, but would not have to take action on their own. The main goal of this person is to assist the public, assure compliance, perform minor maintenance, extinguish campfires, and generally provide for public safety and resource protection. This is especially important given the expected increase in number of visitors over the term of the new license, discussed in relicensing study results and the FERC DEA.

Given this discussion, and Licensee's concurrence with this measure during field discussions, we recommend that this text be rewritten provide for a Project patrol.

#### 3.3.6 Land Use and Aesthetic Resources

# 3.3.6.1 Affected Environment

Page 285, Road Maintenance Analysis:

In this paragraph the reference to the "**North Fork** Feather River road crossing" should be changed to "**West Branch** Feather River road crossing...". There is also a reference to "Table 3-9" that would appear to indicate instead "Table 3-42".

Regarding the WBFR road crossing (designated as BW45 road on Table 3-42), we recommend that the road be designated as a project road by FERC and that it be added along with other facilities (such as Project spill channels, as discussed in the DEA) as a boundary adjustment if a new license is issued. There were multiple on-site visits to this road with the Licensee to discuss its necessity for Project operations or if it could be closed by the Forest Service during our travel management process. The Licensee said they use this road to access their gage below Round Valley Reservoir when spill does not allow access across the dam. They requested continued use of this road for any future license term. Since the only reason to keep this road open is to allow the Licensee Project access, we recommend this road be included in the Project Boundary.

Although some of the other roads listed in Table 3-42 are not currently within the FERC Project boundary because they are not used exclusively for Project operations, some provide the only access to Project facilities. As such, these roads are key to continuing Project operations as well as accommodating Project induced recreational traffic. Accordingly, the FS is working with the Licensee and County to develop proportionate share road agreements to address road reconstruction and maintenance. We recommend FERC's paragraph on roads be rewritten to more accurately describe these roads and the Project nexus for operational access.

#### Page 362, Philbrook Creek

The Commission further justifies maintaining a MIF of 2 cfs below Philbrook Reservoir since "current rainbow trout populations in this reach are viable..". Fish population data provided by the Licensee shows that a total of 44 rainbow trout were observed downstream of the reservoir in 2006. This is equal to an average of approximately 403 trout per acre in Philbrook Creek. This number of fish is less than 50% of the 830 rainbow trout per acre recommendation we made for the WBFR that represents healthy Northern Sierra Streams as defined by the Forest Service and CDF&G. Additionally, because we do not have historical population data in Philbrook Creek, it is not possible to detect trends in the population, or make inferences whether this population is viable over time. It would be helpful for FERC to explain the basis for their viability assertion.

# Page 363, Philbrook Creek

In the first full paragraph the Commission makes the following statement "increasing minimum instream flows beyond those currently required in this reach would provide little additional benefit to resident rainbow trout populations...". The current MIF requirement in Philbrook Creek provides a Weighted Usable Area (WUA) of 16% for trout spawning habitat. By increasing the MIF to 10 cfs between April 1<sup>st</sup> and May 15<sup>th</sup> in designated wet water years, the WUA would increase to 62%. This is an approximate increase of 350% in trout spawning habitat in Philbrook Creek below the reservoir. The Forest Service considers this very significant increase in spawning habitat to be well worth the earlier release of these flows, which, for reasons previously stated under the entry for "Page 146", above, will not adversely affect any other resources and will still pass through three powerhouses to generate power, albeit earlier in the year.

## 3.3.7 Cultural Resources

## 3.3.7.2 Environmental Effects

Page 307-312 and 398-400, Historic Properties Management Plan:

There are a number of concerns with the discussion of the Historic Properties Management Plan (HPMP) discussed in these sections:

1. The "Our Analysis" discussion by FERC implies the HPMP, as submitted, is complete, referencing a 5-year revision date. However, the analysis also acknowledges the lack of site-specific proposals and need for continued consultation and annual reports. Thus, it is not clear if FERC is requiring the

Licensee to continue consultation now in order to develop a more complete document, or just suggesting that over the years as consultation continues the inclusion of specific detail (as requested by FS and others) would be added as developed, eventually resulting in an improved document. DEA page 399-400 also discusses the HPMP and states that FERC recommends implementation of "...PG&E's HPMP..." with five specific additions, none of which include consultation with interested parties to convert this draft template into a project-specific plan, as we were told by the Licensee.

Our position is that the current HPMP is only a placeholder with standard verbiage borrowed from another Project HPMP and submitted as a starting point for consultation on this project. That is the description the FS was provided by Licensee cultural staff when repeatedly asked when HPMP discussions would start. This understanding is additionally documented in the FS February 7, 2008 comment letter to PG&E on the draft HPMP. Accordingly, the FS will submit a final 4(e) license condition similar to our preliminary condition, requiring a complete HPMP be filed within one year of license issuance and will expect consultation and incorporation of all parties input into that document before we approve it prior to final approval by FERC. We recommend that the Licensee initiate consultation as soon as feasible in order to obtain the appropriate level of detail needed within the 4(e) timeline of one year after license issuance.

- 2. On the bottom of page 311, while addressing the Round Valley reservoir site, the FERC analysis states: "PG&E currently is working with the Commission's Division Administration and Compliance on mitigation measures for this site and the work most likely would be completed by the time a new license is issued. While PG&E may complete the specific mitigation measures by the time a new license is issued, a chance exists that not all necessary work would be completed by that time." Since this site is located on NFSL, it is critical that the FS be involved in these discussions as well as in development of mitigation measures. As managers of the public lands where this site is located, it is vital that we assure that any plans are in compliance with our laws, regulations, and consistent with any management activities we have planned in the area. We request that FERC assure that the Licensee seeks FS involvement and approval prior to approving any measures on NFSL.
- 3. The top of Page 312 addresses the Programmatic Agreement and suggests that the FS be a "concurring party" on that agreement. As addressed in the previous comment, as managers of some of the lands where cultural resources are located, the FS must be a "signatory" to assure that any approvals and decisions are consistent with FS mandates. We are developing a separate detailed response to this concern in response to FERC's January 30, 2009 Draft Programmatic Agreement letter.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

#### 5.2.2 Discussion of Measures Recommended by Staff

Page 360 Round Valley Dam Spillway Stabilization and Page 361 Philbrook Spillway Channel Stabilization:

The FERC cost estimate for stabilization of both of these spillways is shown to be identical (i.e. one time capital cost of \$480,000, annualized cost of \$96,000). However, these spillways are very different, which should be reflected in these costs. This estimate is considerably high for Round Valley and considerably low for Philbrook Spillway.

For Round Valley, rather than requiring an unnecessary and costly spillway stabilization plan, the FS Preliminary 4(e) instead required specific measures to resolve the localized erosion occurring directly below the spillway at the dam. During an October 2008 field trip with the Licensee, we discussed these measures and asked the Licensee to reconsider their estimated costs based on the limited work prescribed. They informed us at the January 23, 2009 DeSabla manager meeting that they have recalculated costs on mitigations discussed during the October 2008 meetings, but those have not yet been provided to relicensing participants. Therefore, our estimate that these costs are too high is based on our engineering staff estimates of what it would take for us to complete this work.

Alternatively, for the Philbrook Spillway, there is a well detailed 50% design plan with costs of \$2,778,285 (without @0% contingency) that significantly exceeds FERC's one time cost of \$480,000. Recently the Licensee explained they would cap their mitigation of the Philbrook Spillway at \$3 million dollars, although final designs are not yet complete. Discussions are on-going for this needed mitigation so we can't address how accurate we believe this estimate is, but we do not consider the cost estimate in the DEA to be adequate. We recommend that FERC develop more accurate costs that differ for these two spillways. Lastly, we note that restoration needs in both spillways is the result of past/on-going Project operations, not as a result of issuance of a future license. Therefore, we recommend that these costs not be included as relicensing costs in the DEA at all.

## Page 378-379, Resident Fish Monitoring:

In the last paragraph on page 378 and continuing onto page 379, FERC states that "...monitoring the resident fish populations for the duration of the license term as specified by the resource agencies is excessive." Though the Commission agrees to begin fish monitoring five years following changes in MIFs in the WBFR, limiting the frequency of this monitoring to a two year sample period would not account for natural variability in populations, hydrology, food availability, or climate change. As it is currently recommended by FERC, adjustments to MIFs would only occur if data collected during two years of resident fish monitoring revealed noticeable, statistically significant changes in fish populations. However, if sampling were to be implemented in years five and six, and wet water years occurred in the four years prior, flows in the WBFR may far exceed the current and proposed MIFs. It could be assumed with some

confidence that successful fish reproduction, food prey availability, and usable habitat would increase. Thus, potentially resulting in a higher population estimate in years five and six, if compared to a situation where the WBFR experienced drought conditions in the years prior to scheduled sampling years. Limitations of using minimal population monitoring can be further explained by referencing information provided by CDF&G in response to the REA Notice. In this, CDF&G describes that in the 14 miles reach downstream of Hendricks Diversion Dam, linear abundance has dropped from 723 trout per 100 meters to 51 trout per 100 meters since 1977. This equals roughly a 92% decline in trout density in this reach over a thirty year period. Using a monitoring strategy that sampled during any two successive years during this time period would not show that a precipitous decline in the population was taking place.

Long-term monitoring (periodically throughout the life of the license) would provide useful data to assess fish population trends in the WBFR not only as a function of changes in MIFs, but also through natural or climatic pressures such as those listed above, and allow for realistic adaptive management of MIFs.

In addition to monitoring of resident fish populations in the WBFR, we believe the same logic can be used to justify utilizing a long-term monitoring strategy for assessing benthic macroinvertebrates over the life of the license. Furthermore, having long-term monitoring data for both fish and macroinvertebrates would allow for comparisons and correlations between populations, as each would be affected by changes in MIFs and natural or climatic processes, as well as predator/prey interactions.

# Page 392, Bald Eagles:

In this discussion of frequency of bald eagle monitoring, we note FERC's recommendation for monitoring every 3 years instead of annually as provided for in the Forest Service June 27, 2008 Recommendation #10. We agree with FERC that an actual monitoring frequency would be determined during the development of the referenced bald eagle management plan. We also recognize that monitoring every three years may be adequate, given the current limited use of the Project by this species, as long as there are no management changes made during the new license term that further reduce or eliminate the 250 acre foot minimum pool at Philbrook Reservoir. The future plan should address triggering additional monitoring if Project management actions alter foraging habitat, such as the reduction of this minimum pool, or if observations of eagles become more common, as FERC states in this discussion.

## Page 395, Recreation Resources:

In the second full paragraph on this page, FERC states they do not support the FS proposed 15-20% recreation fee retention. FERC states that since the facility is within the FERC boundary the fees should be used for the operation and maintenance of the campground by the Licensee. Forest Service funding of recreation facilities has changed in recent years. Campground fees paid on-site are now retained by the Forest Service for commensurate upkeep of those facilities. Our concern is that without any way for the Forest Service to secure alternate funding for these facilities, the FS would not be able to provide interpretive programs or other opportunities at this facility that are not addressed

by the license condition. Due to the small size of the campground, 15-20% of the fees are expected to be less than \$3,000 per year. PG&E did not express any disagreement with this FS proposal at our October 2008 recreation meeting nor did they offer any alternative license conditions showing opposition to this Forest Service fee retention.

## Page 397, Recreation Monitoring:

In the first paragraph on this page FERC recommends monitoring boating use at Philbrook Reservoir only every 5 years, along with other recreational monitoring, rather than annually as prescribed by the FS. The reason for the Forest Service annual consultation requirement was because Licensee recreation study results indicated existing moderate user conflicts between boats and other users as discussed on Page 59 of Attachment 2, Rationale to our June 27, 2008 Preliminary License Conditions. Additionally, Butte County has an ordinance that, if posted, would currently prohibit larger motorized boats from this reservoir due to its small size (173 surface acres at full pool and considerably smaller after seasonal drawdown). Finally, we remain concerned with a sudden increase in use (including boating) following paving of the Skyway Road. Given these concerns, the Forest Service wanted to have a quick annual check on boating trends, which we thought could easily be conducted by the Philbrook Campground host, as opposed to hiring a consultant with higher costs and considerable travel. We understand that annual monitoring may seem excessive and are willing to reduce that as long as there is some mechanism that sudden increases in boating use, accident rates, or user conflicts could trigger a review at less than the five year monitoring interval, as needed.

## Page 397, Transportation System Management Plan:

The Forest Service agrees with FERC's acknowledgement in the first paragraph of this section which states: "Many project roads pass through land managed by the Forest Service, and therefore we consider it important to delineate PG&E and the Forest Service's responsibilities to ensure that these roads are well maintained to ensure appropriate, safe access to project facilities for inspection, operation, and maintenance purposes as well as appropriate public access to project lands and waters." So, it is not clear in the next sentence where FERC states "We note, however, that it is the Commission's practice to require ongoing maintenance for only those roads used primarily for project purposes." Does this last sentence also refer to all of the aforementioned project needs for inspection, operation, maintenance, and public access? The paragraph becomes even more confusing as it states there is no need to assess costsharing responsibilities on roads located outside of the Project boundary. Yet the Forest Service asserts that many of the roads used specifically to access the Project for inspection, operation, and maintenance as well as for public access are currently located partially or wholly outside of Project boundaries. (Although detailed maps showing the relationship between roads and the Project boundary are not available, so it is not possible to confirm that relationship in all cases, especially where roads pass through the Project boundary). Thus, while Table 3 in our June 27, 2008 Preliminary 4(e) document provides our perception of whether the roads are inside or outside the Project Boundary, we are not positive these assertions are correct. Whether inside or outside the boundary, it is the Forest Service's understanding that the Licensee is responsible for Project-related costs (road or otherwise) where a nexus exists, including recreational use induced by the Project reservoir. We recommend concerns with Project nexus roads be clarified and that appropriate roads be included in the Project boundary.

Regardless of the possible differences in interpretation, the Forest Service, Butte County and PG&E have met and discussed the roads in question (i.e. those potentially outside of current Project boundaries, but where there is a need for Project access, which are the same roads as those shown in Table 3 of our Preliminary License Condition #36). For these roads, we believe we have agreement with the Licensee to develop a joint road agreement that will specify proportionate share of maintenance needs based on traffic counts that will be initiated this spring. This agreement will address ways in which each participant can most efficiently meet road maintenance needs, while assuring resource protection goals, and obtaining the best value for expenditure.

## 5.4 Summary of Section 10(j) Recommendations and 4(e) Conditions

Page 401-410, Tables 5-3 and 5-4:

PG&E's forecast for this small hydroelectric Project is that post-relicensing economics will be marginal. Economics have thus been a major factor in trying to develop fiscally reasonable mitigations while still providing for adequate resource protection. This effort has not been assisted by economic data provided by either the Licensee or FERC. FERC's annualized costs, shown in these referenced tables, do not correlate well with PG&E costs, and in neither case are the basis for the costs provided. A transparent economic model that is openly shared with relicensing participants was requested on numerous occasions over the course of relicensing. Without this information, the Forest Service has no option but to try to develop reasonable mitigations based on conflicting cost data. This has not been satisfactory and in the end has resulted in Licensee concerns with high costs while we are concerned that mitigations are not sufficient for the resources. We hope that a compromise will be developed, but recommend that in future relicensings with significant economic constraints, parties can agree, and FERC will support, a transparent economic process upfront that will provide adequate tools to develop reasonable measures.

# 5.5 Consistency with Comprehensive Plans

Page 414, United States:

Please add the following two comprehensive plans to the list in this section:

USDA Forest Service. 1991. Plumas National Forest Land and Resource Management Plan including Record of Decision. Vallejo, CA: Pacific Southwest Region.

USDA Forest Service. 2004. Sierra Nevada Forest Plan Amendment Final Environmental Impact Statement Record of Decision. Vallejo, CA: Pacific Southwest Region.

# **Attachment 2**

## Forest Service Typographical and Editorial Comments on FERC's Draft Environmental Assessment

## DeSabla-Centerville Hydroelectric Project No. 803-087

The Forest Service (FS) provides the following minor and typographical edits on FERC's Draft Environmental Assessment (DEA) for consideration. Comments reference the corresponding text from the FERC DEA for ease in cross-referencing.

#### 3.3.2 Aquatic Resources

#### **3.3.2.2** Environmental Effects

Page 141, *Upper West Branch Feather River-Downstream of Round Valley Reservoir Dam:* In the second to last paragraph in this section, there appears to be an incorrect reference to a project reservoir. "Therefore, by late July or August, the West Branch Feather River downstream of **Philbrook** Reservoir dam is an intermittent stream containing only isolated pools." Philbrook should be changed to "Round Valley".

Page 218-219, Table 3-30 (and the same information on Table 5-2 on Page 379):

PG&E has provided minor edits they consider to be typographical errors made by the FS and FERC addresses those in the DEA. The FS agrees with PG&E and supports the correction shown for Site F-2 and dropping Site 43.6 downstream of Round Valley Reservoir due to intermittent flow not providing sufficient flow during sampling periods. For Site 15.1 the Forest Service offers the following clarification: Rattlesnake Creek is located close to, but upstream of the Miocene Diversion. It is the Forest Service intent to have this site located on NFSL and upstream of the Miocene Diversion (and thus in the Project) – whether that site is slightly upstream or downstream of Rattlesnake Creek is immaterial to us.

## 3.3.6 Land Use and Aesthetic Resources

# 3.3.6.1 Affected Environment

Page 281, Aesthetic Resources:

In the third paragraph in this section the DEA text states: "Philbrook Reservoir, located near the head of Philbrook Creek, is roughly **35 miles** downstream of Round Valley reservoir...". This statement is confusing as Philbrook Reservoir is on a separate waterway (Philbrook Creek, not WBFR) so is not "downstream", and is additionally much closer than 35 miles to Round Valley reservoir. We recommend this text be corrected.

#### Page 282, Project River Reaches:

The first sentence in this section states: "West Branch Feather **Reach** flows 20 miles from **Philbrook** reservoir to Miocene Diversion...". Since Philbrook reservoir is not located directly on the WBFR, we believe "Philbrook reservoir" should be changed to Round Valley reservoir and "Reach" should be changed to "River".

## 3.3.7 Cultural Resources

#### 3.3.7.1 Affected Environment

Page 289, Table 3-43:

Please clarify the locations of the following three entries in this table:

- "FWS of Philbrook Reservoir" (what is FWS?)
- Approximately 1.5 acres on LNF (where?)
- Approximately 1.5 acres on LNF (where?)

# 5.1 <u>Comparison of Alternatives</u>

#### Page 347, Table 5-1:

The paragraph of text preceding Table 5-1 appears to be inconsistent with the Table. For example, in the text it states that annual generation for the no-action alternative would be 139.4 GWh, while in the table that appears to be the number for annual generation for the Staff Alternative with Mandatory Conditions.

## 5.2 Comprehensive Development and Recommended Alternative

# 5.2.2 Discussion of Measures Recommended by Staff

Page 363, West Branch Feather River-Downstream of Hendricks Diversion dam: In the second paragraph of this section, there is an incorrect reference to Table 3-16, which needs to be corrected.

Page 365, Upper Butte Creek -Downstream of Butte Creek Diversion dam: In the first paragraph of this section, there is an incorrect reference to Table 3-18, which needs to be corrected.

Page 366, Lower Butte Creek -Downstream of Lower Centerville Diversion dam: In the third paragraph of this section, there is an incorrect reference to Table 3-20, which needs to be corrected.

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