

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426  
January 31, 2011

OFFICE OF ENERGY PROJECTS

Project No. 2266-096 – California  
Yuba-Bear Hydroelectric Project  
Nevada Irrigation District

Ron Nelson, General Manager  
Nevada Irrigation District  
1036 W. Main Street  
Grass Valley, CA 95945

**Reference: Comments on Draft License Application**

Dear Mr. Nelson:

Pursuant to 18 CFR §5.16(e), this letter contains Commission staff's comments on your draft license application for the Yuba-Bear Hydroelectric Project's integrated licensing process (ILP), filed on November 3, 2010.

We reviewed the draft license application and determined that although the draft license application met most of the Commission's regulations and contained a large quantity of data, it did not contain all information necessary for a complete license application, as required by §5.18. We have noted these potential deficiencies in Appendix A.

Your draft license application contained an Exhibit E that included a description of the project's existing facilities and potentially affected environmental resources, as well as a discussion of the results obtained from the relicensing studies completed thus far. We has determined that, overall, Exhibit E lacked information in three major areas that will need to be addressed in your final license application: (1) an integrated analysis of how each resource would be affected by the no-action alternative and your proposed project; (2) finalized, proposed environmental measures and how these measures mitigate project-related effects on environmental resources; and (3) specific details for resource-specific protection plans. We have noted our comments on additional information requirements and inconsistencies within the application in Appendix B.

In several places throughout the draft license application, you indicate that additional information will be provided regarding final/additional study results, proposed/developing environmental measures, and resource management plans. The results of all studies, all proposed environmental measures, and resource management plans are required to be included in the final license application. For each measure,

please provide the information described in the Commission's *Guidance on Environmental Measures*, which is available on the Commission's web site.

...applicants...should provide specific measures that permit staff to describe what is going to be done, where, when, how, and why. That information should include at a minimum: (a) a description of the specific measures to be implemented, including conceptual drawings, depictions, or similar graphic information for any facilities proposed to be constructed; (b) a clear description of where any proposed measures are likely or intended to be implemented, whether these are related to operation (e.g., the release points for minimum flows and where the flow would be measured), facilities, or protective or mitigative measures for addressing project-related effects, including reference to the project boundary; (c) a preliminary description of any steps necessary to implement measures and the preliminary schedules for implementing the measures referenced to the license issuance date; (d) a description of the purpose of the measures and the benefits that they would provide; (e) the consultation record leading to the measures; (f) an estimated cost for the implementation of each measure; and (g) as applicable, an applicant's explanations as to why it is not adopting any comments or recommendations made by stakeholders. Final details may not always be possible. However, what is provided should be sufficient to answer the above questions.

If you have any questions regarding this letter or the contents of your final license application, please contact Alan Mitchnick at (202) 502-6074, or via email at [alan.mitchnick@ferc.gov](mailto:alan.mitchnick@ferc.gov).

Sincerely,

Timothy J. Welch, Chief  
West Branch  
Division of Hydropower Licensing

Enclosures:

Appendix A Comments on the Draft License Application—Deficiencies  
Appendix B Comments on the Draft License Application—Additional  
Information

cc: Mailing List  
Public Files

## **Appendix A Comments on the Draft License Application Deficiencies**

Your draft license application did not contain some of the information that is required by our regulations for a final license application (§5.18). In this appendix, we note the areas of the draft license application where more specific information will be needed for a complete license application.

### Initial Statement

- Provide the statement required by §5.18(a)(3)(i) that the parties identified in that regulation have been or will be notified of the filing of the final license application by certified mail, and provide the contents of the notice.
- Add the applicant's address to the subscription and verification statement, as required by §5.18(a)(4).

### Exhibit A

- Please add Jackson Meadow Vista Point to table 4.1-2 of Exhibit A (pages A-18 and A-19) in the final license application. You include Jackson Meadow Vista Point in table 6.6.1-4 of Exhibit E and tables 1.1-3 and 2.3-3 of the Recreation Facilities Plan (RFP).
- For each development, you provide a table that lists the facilities in the development, as required by §4.51(b)(1). The following facilities are not listed in table 4.2-1 for the Dutch Flat Development: Milton South dam low-level outlet, Dutch Flat No. 2 powerhouse penstock, and Bowman North dam spillway. Please add these facilities to the table or explain if they are not in the project.

### Exhibit B

- In section 4.0, you provide the dependable capacity of the project. As required by §4.51(c), please provide the dependable capacity for each development and specify the period of critical streamflow used to determine that capacity.
- In section 6.0, you provide modeled flow duration curves for each development. Although these curves provide predicted flows for your proposed project, they do not provide the actual historical record as required by §4.51(c)(2)(i). Please provide storage curves, rule curves, and flow duration curves for all developments based on historical data in Exhibit B and curves for the proposed project in Exhibit E.

- As required by §4.51(c)(2)(iv), please provide a tailwater curve for each development.
- As required by §4.51(c)(2)(v), please specify the minimum, maximum, and normal heads for each powerhouse.
- In section 7.0, please provide for the Rollins No. 2 powerhouse all the detail required by §4.51(c)(1) and (2).

#### Exhibit D

- Please provide the statement on financing and revenues required by §4.51.(e)(6). Discuss payment of operation and maintenance costs by PG&E, as you state in Section 3.1 in Exhibit H.
- In section 4.0, please provide for the Rollins No. 2 powerhouse the detailed cost information required by §4.51(e)(3)(ii).

#### Exhibit E

##### Cumulative Effects

- In section 3.3.2, you list reasonably foreseeable future actions, but you do not discuss the effects of these actions on the project area's resources. As required by §5.18(b)(2), in section 3.3.2 you must “[h]ighlight the effect on the cumulatively affected resources from foreseeable future actions.”

#### Exhibit F

- In Exhibit A, you provide a figure showing a plan of the new powerhouse. Please provide this plan and other drawings of the proposed powerhouse in Exhibit F.
- Please provide drawings for the Milton diversion dam and the Dutch Flat forebay spillway.

#### Exhibit G

- Please show on the project maps the non-federal lands (i.e., owned by NID) as required by §4.41(h)(4).

## **Appendix B Comments on the Draft License Application Additional Information**

Commission staff has identified that your draft license application contained inconsistent statements or did not contain the complete information or analysis that will be required by staff to prepare the environmental documentation for the proposed license. In this appendix, we note the areas of the draft license application where inconsistencies should be resolved and where more specific information will be needed for the environmental analysis.

### General

- In Exhibits B and E, you define the no-action alternative as continued operation of the Yuba-Bear Project under the terms and conditions of the current license, without any additional protection, mitigation, and enhancement (PM&E) measures. However, you incorporate future increased water supply demands as projected by NID and PCWA into the no-action alternative (e.g., Exhibit B, section 2.5; Exhibit E page 6.0-2, footnote 1).

The Commission uses the no-action alternative to establish baseline environmental conditions for comparison with other alternatives. The Commission defines the no-action alternative essentially as a snapshot of existing conditions without consideration of future changes in the environmental baseline. Your incorporation of projected changes in water supply is not consistent with the Commission's use of the no-action alternative and will not allow Commission staff to properly evaluate alternatives as part of the NEPA process.

Therefore, in order for the final license application to provide the information that we need to evaluate project alternatives, you should redefine the no-action alternative to exclude projected water supply demands. Any analyses that use the no-action alternative as baseline conditions in Exhibits B, D, E, and H (project economics, hydrology, fish habitat conditions, reservoir levels, etc.) should be revised accordingly. An analysis of future water demands should be considered as potentially future actions and incorporated into your cumulative impact assessment for the project in Exhibit E.

- Please ensure that all figures are sharp and legible; the system schematics, in particular, are blurry and somewhat illegible.

### Initial Statement/Executive Summary

- Correct or explain the apparent discrepancy between the statements in the transmittal letter, the executive summary, and several of the exhibits that the

proposed Rollins powerhouse would be constructed on NID-owned land; the statement in section 8.0, page IS-3, that NID would acquire the necessary land title; and the statements in Exhibit A, page A-42, and Exhibit B, page B-91, that the construction would occur on privately owned land.

- On page ES-1 of the Executive Summary, the second paragraph describes the components of the project. The 0.9-mile-long length of the transmission line is inconsistent with the specified length of 9.0 miles on page A-18 in Exhibit A and elsewhere.
- Add a statement to section 1.0 of the Initial Statement that the application is being filed under the integrated license process (ILP), §5.18.
- Correct or explain the apparent discrepancy between the statement in section 7.0, page IS-3, that NID has acquired the necessary water rights to operate the project (as proposed), which would include the new Rollins powerhouse as proposed by NID, and the statement in section 8.0, page IS-3, that NID would acquire the necessary water rights for the expansion of the Rollins powerhouse.
- The 60-day comment-period requirement of §4.32(b)(6) does not apply to the ILP, and the public notice provided as attachment 1 to the Initial Statement should be revised for the final license application to reflect the ILP.
- Attachment 2, the FERC Application Tendered Notice, is not required for the final license application.

### Exhibit A

- Show the boundary of the Yuba-Bear Project in figure 1.0-1 to resolve the discrepancy between the figure, which shows the North Fork of the American River as part of the project area, whereas the text on page A-2 does not include that watershed.
- Provide a map of the Yuba and Bear watersheds that shows all of the facilities listed or described in section 3.0.
- Figure 4.0-1 lists a Clear Creek diversion, which is not listed in table 4.2-1. Also, inconsistent terminology is used to name the Dutch Creek flume (section 4.2 text), Dutch Creek No. 2 flume (figure 4.0-1), and Dutch Creek No. 2 conduit (table 4.2-1).
- In figure 4.2-1, please correct the labels on the pictures of the Bowman-Spaulling diversion dam and the conduit.

- Several of the Jackson Meadows reservoir recreation facility values you list in table 4.1-2 of Exhibit A (pages A-18 and 19) are inconsistent with those you cite in other sections of the draft license application:
  - Aspen Group picnic area PAOT capacity: 44 in Exhibit A, but 55 in table 6.6.1-4 (page E6.6-5) and table 2.3-3 of the RFP (page 2-6), and unlisted in table 1.1-3 of the RFP;
  - Pass Creek campground PAOT capacity: 156 in Exhibit A, but 150 in table 6.6.1-4 (page E6.6-5) and table 2.3-3 of the RFP (page 2-6), and unlisted in table 1.1-3 of the RFP;
  - East Meadow campground parking spaces and PAOT capacity: unknown and 184 in Exhibit A, but 6 and 230, respectively, in table 6.6.1-4 (page E6.6-5) and table 2.3-3 of the RFP (page 2-6), and unlisted in table 1.1-3 of the RFP;
  - Findley campground PAOT capacity: 56 in Exhibit A, but 70 in table 6.6.1-4 (page E6.6-5) and table 2.3-3 of the RFP (page 2-6), and unlisted in table 1.1-3 of the RFP;
  - Woodcamp campground PAOT capacity: 128 in Exhibit A, but 100 in table 6.6.1-4 (page E6.6-5) and table 2.3-3 of the RFP (page 2-6), and unlisted in table 1.1-3 of the RFP;
  - Woodcamp picnic PAOT capacity: 140 in Exhibit A, but 100 (beach) and 30 (picnic) in table 6.6.1-4 (page E6.6-5) and table 2.3-3 of the RFP (page 2-6), and unlisted in table 1.1-3 of the RFP; and
  - Jackson Point Boat-In campground PAOT capacity: 40 in Exhibit A, but 50 in table 6.6.1-4 (page E6.6-5) and table 2.3-3 of the RFP (page 2-6), and unlisted in table 1.1-3 of the RFP.

Please review these values for consistency and rectify the correct values in the final license application.

- In sections 4.2 and 4.3 (pages A-23 and A-30, respectively), you state that Dutch Flat Development and Chicago Park Development, respectively, do not include any recreation facilities; however, in Exhibit E (pages E6.6-12 and 13), you identify undeveloped facilities at both. In the final license application, please clarify in Exhibit A whether there are any public recreation facilities or recreation areas (improved or unimproved) at the Dutch Flat and Chicago Park developments.

- In sections 4.0 and 5.0, you describe project facilities and features and the area within the FERC project boundary; however, you do not describe the existing project boundary and its location relative to project facilities (i.e., which project facilities are located within and outside of the project boundary). Although you include Exhibit G maps that show the project boundary, you do not include a description of the project boundary in narrative form in Exhibit A. In Exhibit A of the final license application, please describe the project boundary and its location relative to existing project facilities, and in Exhibit E, please describe the project boundary and its location relative to proposed project facilities.
- Provide an accurate scale for figure 6.1-2 for the page size provided.

### Exhibit B

- Provide a clearer, more legible version of figure 2.0-1.
- In Section 2.2, you state that a significant decrease in reservoir storage occurs during the outage period for the Drum canal; however, you do not explain what this outage is for or how it affects the specific project reservoirs discussed in section 6.
- In Section 2.2, you state that additional operational information is available on NID's project website. Please ensure that all information necessary for complete descriptions of project operations is provided in the final license application.
- The draft license application has a section 2.3.1 but no section 2.3.
- In Section 2.3.1, you state that the Dutch Flat No. 2, Chicago Park, and Rollins powerhouses are operated by PG&E's Drum Switching Center. Please state where the Bowman powerhouse is operated.
- The footnote at the bottom of page B-9 implies that the annual average generation for 1971 to 2007 provided in the text includes many years when only two or three powerhouses were operating. Please rectify and also provide the average annual generation from 1987 to 2007 when all four powerhouses were operating.
- In section 2.5.1, you provide projected water demand for NID and PCWA. Please provide more-detailed explanations on these demands, including: whether the flows have been assumed to increase immediately or at some increasing rate over a longer period of time, assumptions for NID demand beyond the year 2032 (i.e., constant or continuing to increase), correlation between water demands and actual withdrawal points, and seasonal variations. Also, please correct the use of "Licensee" in the second paragraph where the reference seems to be PG&E.

- In section 2.5.2, you state that NID and PG&E will dispatch the two Dutch Flat powerhouses based on water rights. Please explain when this change would be implemented. Also, please explain how operations under this scenario would be different from existing operations, especially with respect to releases to Bear River.
- In section 2.5.3, please explain why and how operations were changed after the 1997 storm.
- Throughout section 6, you state in the text that the storage curves indicate significant yearly fluctuation, but the figures do not provide this detail. Please provide the annual curves on these graphs.
- In the flow duration graphs in section 6, you have not provided the curves for dry, normal, and wet years, as you state in the text. For clarity, please provide the annual curves for the dry, normal, and wet years as well as the period average curve on separate graphs from the monthly curve graphs.
- In section 6.1.1.2, please provide text for figures 6.1.1-9 and 6.1.1-10, and in section 6.1.1.7 for figures 6.1.1-40 and 6.1.1-41.
- In figure 6.1.1-25, please provide a note to explain why the normal-year storage curve is not visible.
- Please correct the following inconsistencies in Exhibit B or between Exhibits B and other exhibits:
  - Historical generating capacity: 353.4 GWh, in Exhibit A, page A-5; 354.3 GWh, in Exhibit B, page B-9; and 354.0 GWh in Exhibit E, section 5.1.1.1 text and table 5.1.1-1, page E5-1.
  - Number of streamflow gages: ten in section 3.6.1 text, but only nine listed in tables 3.6.1-1 and 3.6.1-2.
  - Jackson Meadows reservoir usable storage: 63,347 ac-ft on page B-39; 67,260 ac-ft on page A-8.
  - Jackson Lake gross and usable storage: 1335 and 975 ac-ft, respectively, on page B-47; 1330 and 970 ac-ft, respectively, on page A-10.
  - Beginning on page B-52, there are several inconsistencies between figure numbers in text and figure captions.

- Dutch Flat No. 2 forebay gross and usable storage: 184 and 120 ac-ft, respectively, on page A-27; 194 and 65 ac-ft, respectively, on page B-74 first paragraph; 103 and 103, respectively, on page B-74 second paragraph.
- Rollins reservoir usable storage: 54,453 ac-ft on page B-84; 54,498 ac-ft on page A-35.

### Exhibit C

- Please correct the references to §4.41 in sections 1.0 and 2.0 that should be §4.51.

### Exhibit D

- On page D-2, you list 11 sections in Exhibit D, but your text only has nine sections.
- Please ensure that the PM&E measure numbers in table 5.6-1 are consistent with the numbers used in Exhibit E.
- In table 5.6-1, you identify costs for YB-RR1 (implementation of the RFP) for each recreation area; however, you have not provided costs for the individual recreation facilities or other elements of the RFP (i.e., the periodic monitoring, reporting, meetings, etc.) as described in the RFP and identified in table E5.3-1 of Exhibit E, Appendix E5 (page App. E5-5). In the final license application, please provide a detailed breakdown of costs for the individual recreation facilities and all elements of the RFP. Please also include the revised table in Exhibit E (table 7.1.3-3, pages E7-3 through 5).
- In table 5.6-1, you provide capital costs associated with the Rollins Reservoir Recreation Area, but you have not described proposed capital improvements for this area elsewhere in the draft license application. Please rectify in the final license application, including revisions to Exhibit E table 7.1.3-3 if appropriate.
- In table 6.2.2-1, you give an average annual generation of 274 GWh under the no-action alternative. On page B-9, you state that the historical average annual generation for Yuba Bear is 354 GWh. Please explain the reason for such a large decrease in generation.
- In section 7.0 please explain the reason for the project's dependable capacity increasing from 13.8 MW (Exhibit A) to 20 MW (page D-10) or 19.1 MW (page E5-1 in Exhibit E).

## Exhibit E

### General

- In each resource of section 6, you state that your proposed project would not create any significant, unavoidable adverse effects. Your analysis of unavoidable adverse effects should include a discussion of ongoing effects of continued operation of the project (streamflow regulation, interbasin transfers, reservoir fluctuations, etc.). Your discussion should not be limited to significant impacts; §5.18(b)(5)(ii)(D) requires that you discuss the duration (long term, short term), magnitude (minor, major), and extent (cumulative, site-specific) of the impacts.
- Several references that you have cited in the text throughout Exhibit E are missing from section 11.0, *References Cited* (e.g., NID 2000 on page E6.6-3, CDFG 2007 on page E6.6-4, Nevada County 2004 on page E6.6-4, NID 2008 on page E6.6-4, the Forest Service's Land and Resource Management Plan on page E6.7-5, and BLM's Sierra Resource Management Plan on page E6.7-6). In section 11.0 of the final license application, please list all references cited in the text.

### Cumulative Effects

- Please include in your list of reasonably foreseeable future actions, section 3.3.2, the ongoing operations of the non-project facilities listed in table 2.2-1. Describe the purpose of each facility and identify any effects on water and aquatic resources. The cumulative effect of these facilities should be described in the cumulative effect sections for water and aquatic resources.

### Project Facilities

- In section 4.1.1.4 of Exhibit A (page A-22), you describe recreation facilities at Bowman Lake, but you do not include Bowman Lake recreation facilities in section 5.1.1.1 of Exhibit E. Please rectify the discrepancy in the final license application.
- On page E5-31, you state that you propose to add to the project nine existing road segments, but you list only eight and you discuss only eight on page A-45 in Exhibit A. Please correct or explain the inconsistencies in the final license application.
- On page E5-33, you list proposed project boundary changes. In the final license application, please provide maps similar to Exhibit G project maps showing proposed new project facilities and proposed boundary line changes. Also include a narrative description of the proposed project boundary changes and the reasons for those changes.

- In section 5.2.1.2, you propose to add a 0.1-mile-long portion of Bunkhouse Road to the project. This road is not currently identified on the Exhibit G maps. Please clarify where the road is located, and clearly indicate the portion of the road to be added to the project.
- In the last sentence of section 5.2.1.2, you indicate that the proposed project boundary would increase the areas within the existing boundary by 124 acres; however, the sum of the acreages listed above that sentence is a decrease of 127 acres. Please correct or explain in the final license application.
- In table 5.2.1-1, you list two fewer measures than you list in table E3-1 in Appendix E3. Please make the tables consistent, including any revisions to the measures you make in the final license application.
- On page E5-34, you state that functional design drawings and operation and maintenance measures are provided in Appendix E5 for each facility necessary for implementation of an environmental measure. In Appendix E5, however, you state that no functional design drawings are included and operation and maintenance measures have not been developed. Please provide the stated information in the final license application, as necessary.

### Geology and Soils

- In table 6.1-10, you list nine channel instability areas, but in the preceding paragraph, you refer to 11 locations. Please correct or explain the inconsistency.
- In the Channel Morphology Technical Memorandum, you list the results of the channel stability study in section 3.1, but you do not discuss the results in section 4.0. So that we can assess project effects on channel stability, please discuss the results of this analysis in the sections of Exhibit E in which you discuss channel stability, 6.1.1.5.4 and 6.1.2.1.3.
- The draft license application does not adequately existing geological conditions. In section 6.1, please provide maps showing the existing geology, topography and soils of the proposed project and surrounding area. Also, please provide “a description of the soils, including the types, occurrence, physical and chemical characteristics, erodibility, and potential for mass soil movement.”

### Water

- On page E6.2-14, you identify 1995 as the wet water year but in Exhibit B, page B-20 you report 2006 as the wet water year. Please resolve the inconsistencies in the final license application and explain your rationale for selecting the dry, normal, and wet water years.

- In Exhibit E, you do not state or demonstrate how the project's rule curves and flow duration curves may change under the proposed project. Please provide a discussion, and revised graphs where appropriate, of changes in the rule curves or predicted flow duration curves under your proposed project as compared to the graphs provided in Exhibit B. Also, in the environmental effects section, please describe how any changes will affect water resources. This information is necessary for staff to assess the effects of the proposed project on project operations and streamflows.
- Footnote 4 is missing from table 6.2.1-2. Please update the table to provide the missing information.
- On page E6.2-23, you state that there were eight samples that were below the 7.0 mg/L minimum requirement for dissolved oxygen, but you provide the results for 11 samples in the paragraph. In Technical Memorandum 2-1, page ES-1, you say there were nine samples but list 12. Please resolve the inconsistencies in the final license application.
- You do not present the results of the dissolved oxygen profiles you collected in project reservoirs. So that we can assess the degree of dissolved oxygen stratification in project reservoirs and the potential impacts of increased minimum flow releases, please provide vertical profile graphs of dissolved oxygen in the reservoirs similar to the temperature profile graphs you provide in section 6.2.1.2.4.
- On page E6.2-24, you state that there were six samples outside the criteria range for pH, but you provide the results for five samples in the paragraph. Please correct or explain the inconsistencies in the final license application.
- On page E6.2-26, you state that there were 70 water temperature monitoring sites, whereas you list 79 sites in table 6.2.1-4. In the Water Temperature Monitoring Technical Memorandum, page ES-1, you state that 81 sites were monitored consisting of 73 stream, 7 conveyance, and 4 reservoir sites, which equals 84 sites. Please correct or explain the inconsistencies in the final license application.
- In the second paragraph on page E6.2-26, you refer to additional temperature data from 2010; however, you do not provide these data. Therefore, please include the data in your final license application.
- In table 6.2.1-7, you list two monitoring stations, whereas you refer to three stations in the preceding text; please include the third station in the table.
- Please reconcile an inconsistency in maximum depth of Jackson Meadows reservoir: 147 feet on page E6.2-37; 144 feet in table 4.1-1 in Exhibit A.

- In section 6.2.1.2.4, you discuss the thermocline in each reservoir except Jackson Meadows. In the Water Temperature Monitoring Technical Memorandum, you have a discussion of the thermocline in Jackson Meadows reservoir. Please include this discussion in Exhibit E to provide a complete discussion of thermal stratification in all of the project reservoirs.
- There are duplicate figures numbered 6.2.1-8. Please correct figure numbering starting on page E6.2-43.
- Please define “ATL” on page E6.2-44.
- In section 6.2.2.1.1, you state that you propose to increase minimum flows in several stream reaches, but you do not provide quantified discussions of how these flow changes would affect water quantity and use. You state that these changes would “have less than significant effect...when compared to existing conditions,” but you do not provide actual flow values to substantiate this statement. In the final license application, please discuss in greater detail the effects of existing operations (the no-action alternative) and proposed project operations on streamflows in reaches that are affected by project operations. Please provide relevant data, figures, or tables to support your discussions.
- In sections 6.2.2.1.2 and 6.2.2.1.3, you focus your discussions on reservoirs or stream reaches where water quality objectives are not currently met, but do not discuss reservoirs or stream reaches where those objectives are currently met but could be adversely affected by the proposed project. Please discuss the potential effect of future operational changes on water quality even where objectives are currently met; for example, the effect of increased minimum releases on dissolved oxygen in the receiving stream. So that we can assess project effects on water quality, please provide a summary of each project-affected reservoir/stream segment discussing existing upstream/reservoir/downstream conditions and how project operations (no-action and proposed project) will or will not change conditions. Please provide relevant data, figures, or tables to support your discussions.
- In the section on bacteria on page E6.2-48, please complete the unfinished first sentence in the second paragraph.
- The cumulative effects section does not consider the additive effects of your project to other projects in the watershed that also affect these resources. Please discuss the cumulative effects of your project with the other reasonably foreseeable future actions you list in section 3.3.2.

Aquatic

- In section 6.3.1.1.7, you state “Rainbow trout population estimates in the South Yuba River ranged from 2,367 to 441 trout/mi between the first and second survey, respectively. Similarly, estimates of rainbow trout in Poorman Creek ranged from 1,171 trout/mi in the first survey to 889 trout/mi in the second survey.” So that we can better understand the effects of seasonal temperature changes on trout populations, please explain the reasons for the disparities.
- On page E6.3-56, your text description of foothill yellow-legged frog sightings does not appear to match the number of locations at which frogs, egg masses, and tadpoles were found. Additionally, it is not clear what footnote #3, “N/A”, means. Please rectify these inconsistencies and omissions.
- In section 6.3.2.1.1, you reference six measures that would be implemented to reduce effects on special-status species. You state that plans will be developed; however, the details of these proposed plans are not included in the draft license application. Please include details of your proposed measures in the final license application.
- On page E6.3-111, you state that you believe the entrainment estimate for the Bowman-Spaulding conduit intake is an overestimate because the acoustic devices were not able to accurately distinguish between fish and debris and that even if the estimate is accurate, the numbers are not likely to have a significant effect on fish populations in Bowman Lake, which is heavily stocked. Please provide relevant data to support your conclusion that the number of fish entrained by the Bowman-Spaulding conduit does not have a significant effect on fish populations in Bowman Lake.
- On page E6.3-131, you state that results of the Bear River canal sampling, in conjunction with the stream and reservoir fish population sampling above and below Bear River canal, indicate that the population of rainbow trout in Bear River canal is the result of reproduction in the canal and not due to entrainment into the Bear River canal. You conclude that a fish screen or other measures to mitigate effects of entrainment into the Bear River canal on fish populations is not warranted, but you do not provide any rationale. Please provide a discussion with specific analysis supporting your rationale for that conclusion.
- In section 6.3.2.1.7, your discussion is focused on the status of the existing fisheries and does not address if there are species that require upstream or downstream passage to complete their life cycles. Please provide more details to support your conclusion that there are no stream locations as a result of project operations that would require measures to provide fish passage.

- The application does not contain any information on the effects of proposed instream flow regimes on special-status amphibians. For all areas where new instream flows are proposed, please evaluate the effects of the proposed flows on special-status amphibians, including the potential to degrade suitable habitat or improve current habitat. In areas where special-status amphibians are not found, please evaluate the potential for the proposed flows to create suitable habitat and become occupied by neighboring populations.

### Terrestrial

- The proposed project description includes proposals for a new powerhouse and various recreation facilities. The draft license application, however, does not include an evaluation of incremental effects of your proposals. In the final license application, please add discussions including, but not limited to, potential impacts to vegetation (including acreage and type of vegetation expected to be cleared for the new facilities) and potential additional disturbance to wildlife (including mammals, neotropical breeding birds, and special-status species) from the proposed powerhouse and recreation facilities. Your effects analysis should include a discussion of how any proposed protection, mitigation, and enhancement measures would protect these species.
- In section 6.4.1.1.4, *Noxious Weeds/Invasive Plants*, you state that current O&M practices include informal weed control programs. Please provide more details on the timing and methodology for implementation of these informal weed control programs.
- In table 6.4.1-12, the text associated with the footnote for the American peregrine falcon is not included in the table. Please provide the missing information in the final license application.
- In table 6.4.1-13, you include a footnote for the American peregrine falcon that contains information regarding bats. Additionally, it is unclear specifically to which species footnote number 5 pertains. Please correct the inconsistencies in the final license application.
- On page E6.4-34, you state that 10 northern goshawk nests are known to exist in the project vicinity. However, table 6.4.1-14 appears to describe more than 10 nests. Please correct or explain the listing of each nest in table 6.4.1-14.
- On page E6.4-36, you state that “sightings and historical records related to the western pond turtle are generally associated with ponds, small lakes, and low-gradient streams...” Please provide a citation for these historical records.

- You describe numerous species in the affected environment section but do not describe the majority of these species in the environmental effects section. Specifically, in section 6.4.2.1.1, you acknowledge evidence of ongoing impacts to special-status plants but do not provide specific details of the potential effects of continued project operation and maintenance on special-status and threatened and endangered species. Please modify the environmental effects section to identify the beneficial and adverse effects of the proposed project on all special-status species with a documented occurrence in the project area.
- On page E6.4-43, you state, “There is evidence that some populations of special-status plants are being adversely affected due to ground-disturbing activities; vegetation management, including mechanical clearing and herbicide use; and trampling.” Please provide more detail regarding the type of effect to the special-status species plants (e.g., level of permanence to the plant) from continued operation and maintenance of the project.
- In section 6.4.2.1.2, you acknowledge ongoing project effects on vegetation but do not include specific details on the potential effects of continued project operation and maintenance on vegetation. Please provide identify the beneficial and adverse effects of the proposed project on vegetation. Please clarify what “less than significant effect” means and provide the basis for this conclusion.
- In section 6.4.2.1.4, you acknowledge that project O&M activities have the potential to affect the spread of noxious weed species. Please provide more details on the beneficial and adverse effects of the proposed project, including high-effect areas of noxious weeds, a description of the noxious weed species most likely to spread, effects related to recreation use, and effects related to the proposed powerhouse.
- In section 6.4.2.1.7, please include any potential effects to bald eagle nesting in the vicinity of the proposed powerhouse and recreational facilities and related to any expected increases in recreational use. Also, discuss the project’s consistency with current National Bald Eagle Management Guidelines.
- The river mile locations for study site reaches provided in the May 29, 2009, revised study plan for study 2.6.1, *Riparian Habitat*, revised table 6.0-1, do not correspond to the river mile locations for study reaches provided in Technical Memorandum 6-1, *Riparian Habitat*, table 2.1-1. Please correct or explain the inconsistencies in the final license application.
- In Technical Memorandum 6-1, *Riparian Habitat*, you state that there were no variances to the FERC-approved study. However, in a May 29, 2009, letter to the Commission, you modified that location of the riparian study sites. Please indicate

in the technical memo that this modification was made to the Commission-approved study.

- The Commission’s Study Determination, dated February 23, 2009, added the following work product to study plan 2.6.1, *Riparian Habitat*: a data table of study sites including GPS coordinates with the extent (polygon, continuous line, non-continuous line, or point) of the riparian vegetation data collected from the sites; and any GIS files will be provided to relicensing participants. This information does not appear to be provided with Technical Memorandum 6-1, *Riparian Habitat* or the associated appendices. Please provide this information.
- In section 6.4.2.1.3, you conclude that Dutch Flat afterbay dam reach is recovering from non-project effects and that the proposed project would have a “less than significant effect” on the riparian habitat downstream of Dutch Flat afterbay. Please provide further justification and discussion of how you determined that the riparian habitat of the Dutch Flat afterbay dam reach is recovering and that the proposed project would have a “less than significant” effect on this reach.
- In sections 6.4.2.1.7 and 6.4.2.1.8, you conclude that the proposed project would have a “less than significant effect” on bald eagle and western pond turtle, respectively. Please explain what “less than significant effect” means and the basis for this conclusion.
- The Vegetation Management Plan, provided in Appendix E4, does not provide a clear timeline for conducting site-by-site evaluations for revegetation needs. Please provide further detail on the timeline for this action in the Vegetation Management Plan submitted with the final license application.

#### *Threatened and Endangered Species*

- The draft license application mentions that critical habitat has been designated for the California red-legged frog but does not indicate whether the project would affect the habitat. Therefore, discuss the relationship, if any, between the location of designated critical habitat and project facilities and any project effects of the primary constituent elements that the designation is based on.
- In section 6.5.3.1 and Technical Memorandum 7-3, you describe surveys for two Endangered Species Act (ESA)-listed plants (Stebbins’ morning-glory and Pine Hill flannelbush) that have a reasonable potential to occur within the project boundary, and you conclude in section 6.5.4.1.1 that, because these species were not found within the project boundary, the proposed project would have no effect on ESA-listed plants. Please discuss the potential for these species to colonize the project area based on suitable habitat within the project area.

### Recreation

- Information about specific recreation facilities amenities (i.e., numbers of campsites and proposed numbers of bear-proof lockers) is inconsistent throughout the draft license application. Please ensure that the information in Exhibit E, Exhibit A, and the RFP is consistent in the final license application. In the final license application, please rectify the following inconsistencies:
  - Number of campsites: Number of campsites for Peninsula Campground in table 6.6.1-19 of Exhibit E compared to table 6.6.1-6 of the RFP and table 4.4-2 of Exhibit A.
  - Proposed number of bear-proof lockers for Canyon Creek: Section 5.2.1.1.1 of Exhibit E and page A-46 of Exhibit A compared to section 6.6.2.1.1 of Exhibit E, section 3.4.2.3 of the RFP, and page App. E5-5 of Appendix E5.
- An issue identified in Scoping Document 2 was the effect of reservoir water levels on recreation, including potential conflicts among different recreation uses. In section 6.6.1.3.1, you include statements about visitor reports of whether water levels influenced their ability to recreate; however, you do not discuss at what levels the project boat launches can be operated. In the final license application, please define the water surface levels at which the boat launches can operate and discuss when water surface level changes occur resulting in the inability to use the boat launches. Please discuss the impacts of the proposed reservoir water levels on recreational use of the boat launches and recreational use in general of the reservoirs.
- The existing project boundary relative to existing and proposed recreation facilities is not clear. Please provide this information in the final license application. If any existing and proposed facilities are located outside of the existing project boundary, please explain whether or not there is a proposal to expand the project boundary to include the recreation facilities.
- In section 6.6.1.4, the river reaches you identify in table 6.6.1-25 (page E6.6-64) do not correspond with the subsection headings. Please make sure the table and subsection headings are consistent in the final license application.
- In the RFP (page 3-18), you describe a proposed information kiosk at Dutch Flat No. 2 forebay as a minor capital improvement project, but you provide no discussion of this facility in the environmental effects analysis of section 6.6.2.1.1 (pages E6.6-68 through 72). Please add a subsection for Dutch Flat No. 2 forebay to section 6.6.2.1.1 in the final license application.

Recreation Facilities Plan (RFP; Appendix E4)

- In the RFP submitted with the final license application, please correct or explain inconsistencies between information presented in the RFP and the draft license application sections:
  - Physical characteristics of the Yuba-Bear reservoirs and impoundments: table 1.1-1 of the RFP (page 1-1) compared to table 5.1.1-2 of Exhibit E (page E5-2);
  - VAOT numbers: table 1.1-3 (page 1-3) and table 4.2-2 (page 4-9) of the RFP compared to page E6.6-12 of Exhibit E and page 2-13 of the RFP;
  - Numbers of campsites: table 1.1-3 (page 1-3) of the RFP compared to page E6.6-9 of Exhibit E, and page 2-10 and table 4.2-2 of the RFP;
  - 2009 recreation use estimates: table 2.2-1 in the RFP (page 2-3) compared to table 6.6.1-18 of Exhibit E (page E6.6-37);
  - Level of accessibility ratings: tables 2.3-2 and 2.3-4 of the RFP (pages 2-5 through 7) compared to tables 6.6.1-3 and 6.6.1-5 of Exhibit E (pages E6.6-4 and 6); and
  - Jackson Meadows Vista Point: included in table 6.6.1-5 of Exhibit E but not table 2.3-4 of the RFP.
- In section 6.2.3 of Exhibit A and sections 5.2.1.1.1 and 6.2.1.1 of Exhibit E, you propose a day-use area at Dutch Flat afterbay, if a suitable location can be determined; however, you do not describe this proposed measure in section 3.4.2.4 of the RFP. Please add the measure to the RFP submitted with the final license application.
- On page 4-6, you indicate that “When available, existing daily campground and day-use recreation use fee information will be collected to calculate occupancy. Existing fee information is available for the project developed campgrounds.” In table 4.2-2, you do not indicate that annual fee records would be a monitoring method during the new license period for three developed campgrounds: Jackson Point Boat-In Campground, Canyon Creek Campground, and Bowman Lake Campground. Please clarify in table 4.2-2 in the RFP submitted with the final license application if annual fee records would be a proposed monitoring method for the aforementioned developed campgrounds.
- The Project Reservoir Recreation Maps provided in Attachment 1 to the RFP show a project boundary; however, it is not clear if this is the existing or proposed project boundary. Please clarify in the RFP submitted with the final license

application if the line is the existing or proposed boundary. If it is the existing project boundary line, please add the proposed project boundary line to the maps.

### Land Use

- In table 6.7.1-1 and in table 5.0-1 of Exhibit A, you summarize land ownership within the existing project boundary. To allow for comparison and evaluation of the proposed boundary changes, please also provide a similar table for the land ownership acreages for the proposed project boundary.
- The acreages you provide in table 6.7.1-1 are the same as those provided in table 5.0-1 of Exhibit A (page A6-40), table 1.1-2 in the Integrated Weeds Management Plan (page 1-3; Appendix E4 of Exhibit E), and table 1.1-2 in the Vegetation Management Plan (page 1-3; Appendix E4 of Exhibit E). In table 1.1-2 in the RFP (page 1-3), however, you provide different values. In the final license application, please explain or correct the discrepancy.
- In table 6.7.1-29, you provide details on the inventoried primary project roads, but it is not clear whether they are located within or outside the existing project boundary. Please clarify in the final license application which primary project roads are currently within the existing project boundary, and the reason for expanding the project boundary to include the proposed road segment(s). Please also provide beginning and end points for each of the road segments within the existing project boundary and/or proposed to be included in the project boundary.
- It is not clear how the Road IDs you provide in table 6.7.1-29 correspond to the common names of roads identified in the project maps of Exhibit G, and to the roads that are proposed to be added to the project (Exhibit A, page A-45 and Exhibit E, page E5-31) and included in the project boundary proposal (Exhibit E, page E5-33). Please clarify how Road IDs relate to the common names provided.

### Cultural

- On page E6.8-2, you state that NID has completed all tasks in the FERC-approved study (Study 2.13.1), with the exception of finalizing a confidential report with tribes and completing the technical National Register of Historic Places (National Register) evaluation memorandum. Please finalize this information (including obtaining responses back from the State Historic Preservation Officer (SHPO)) in your final license application, and incorporate this information in your revised historic properties management plan (HPMP). Make sure you submit all National Register eligibility determinations to the SHPO, and document whether you receive responses back from the SHPO on these determinations.

- On page E6.8-2, you state that you need to complete the traditional cultural properties (TCP) study (Study 2.13.1). Please complete the study and file it with the Commission when you file your final license application. Also incorporate the results of the TCP study into your revised HPMP and file your revised HPMP along with your final license application.
- In section 6.8.1.3, you do not discuss in any detail the late twentieth century culture history involving the study area, and in particular, aspects involving the development of hydroelectric power in regards to the project. Please add this additional information at the end of this section and to the HPMP. In expanding this section, use pertinent information that you have already provided in your draft HPMPs. Also, make sure you detail what components of the built environment are more than 50 years old, and which components are less than 50 years old.
- In section 6.8.1.6.1, you conclude that the 75 built features associated with the project, as a system, are not eligible for listing in the National Register. Please give more detail (specifying when various project components were built) on why you make this conclusion and state whether any of the structures are older than 50 years of age.

#### Draft Historic Properties Management Plan (HPMP)

- In section 3.2.3.4, delete the two sentences in this section, since you do not have the results from the TCP studies to make this conclusion.
- Please delete the last sentence in section 3.2.3.5, since the results from the TCP studies have not been completed.
- In section 3.3.2.2, please add a provision in this part of the HPMP, or in another section, that when components of the project facilities reach 50 years of age, they will be evaluated for inclusion in the National Register.
- In section 3.3.3, we recommend that you avoid making any conclusions about no TCPs being located within the project's area of potential effects, since the TCP studies have not been completed. Please modify this section, accordingly. In the last sentence on page 3-14, also add that you will consult with the interested Indian tribes, as well.
- Further prioritize in the paragraph above table 4.4.2 that for the first year within the five year period, you would evaluate three to four sites, identify and propose site-specific treatment measures for those sites being adversely affected by the project, and that you would follow-through with another three to four sites for the second year, and do the same for the third, fourth, and fifth year, respectively,

until all the sites in table 4.4.2 have been appropriately addressed. Also modify table 4.4.2 accordingly.

- In section 5.9.1, add to your discussion that you would first consult with the respective land managers (i.e., Forest Service or BLM) if the potential historic properties were located on such lands, before consulting with the SHPO.
- In sections 5.10.1 and 5.10.2, add to your discussion that you would first consult with the respective land managers (i.e., Forest Service or BLM) if the potential historic properties were located on such lands, before consulting with the SHPO.
- In Appendix A, you cite a letter from the SHPO, dated July 10, 2009, but it appears not to be in this appendix. Please add this letter.
- At the end of your matrix table in Appendix C, please add to the key the letter/name associated with the agency/tribe correspondence and associated date. Also provide at the end of this appendix the actual correspondences cited in you matrix table.
- In Appendix H, you have a number of faded columns that should be the same darkness as the other columns in this table. Please correct.

#### Economic Analysis

- Please correct or explain an apparent inconsistency between the values listed for “Total 2010 U.S. Dollars” under proposed project column in table 7.1.5-1 (\$23,331,600) and “Total Annual Power Value” under the proposed project column in Exhibit D, table 6.2.2-1 (\$23,330,600).

#### Exhibit F

- The introduction to Exhibit F contains a reference to the Drum-Spaulding Project that should be changed to the Yuba-Bear Project.
- Clarify in sentences 3 and 4 of section 1.0 that §4.51(g) refers to §4.41(g).

#### Exhibit G

- The regulations cited in this section are incorrect and should be changed to §4.51(h) and §4.41(h). Also, clarify in sentences 3 and 4 of section 1.0 that §4.51(h) refers to §4.41(h).
- In some places on the Exhibit G project maps (G-2, 3, 7, 8, and 21), the depicted project boundary contour lines appear to fall within the high water line of the

given reservoir. Please clarify whether this is an accurate depiction of the project boundary.

Exhibit H

- In section 2.3, you state that you will consult with PG&E regarding the need to modify the Rollins Transmission Line to accommodate the addition of Rollins No. 2 powerhouse. Please provide the results of this consultation in the final license application.
- The description of the proposed expansions of the project boundary you provide in section 10.0 is inconsistent with your description of project roads to be added to the project in section 5.2.1.1.1 of Exhibit E (page E5-31), the proposed project boundary in section 5.2.1.2 of Exhibit E (page E5-33), as well as section 6.2.1 of Exhibit A (page A-45). Please clarify which is the accurate proposal, and if it is that which is described in Exhibits A and E, then confirm if additional potentially affected land owners need to be notified of the other proposed boundary expansions as required by §5.18(c)(1)(i)(J).