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July 25, 2014

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

RE: P-13563-003 Additional Information Request Schedule for Sweetheart Lake Hydroelectric Project.

Dear Secretary Bose,

On July 22, 2014 Juneau Hydropower, Inc. (JHI) received an Acceptance Letter and Request for Additional Information with Schedule A (Attachment A) with a request the JHI file within 5 days a schedule that will be used to answer and respond to the additional information request letter (AIR) and to provide all agencies a copy of the original letter and schedule.

JHI offers this letter as an initial response to providing a detailed schedule to answer and respond to the additional information request items.

JHI has developed an issue matrix that identifies each issue raised in the AIR along with a proposed initiation and completion date as well as identification of steps or actions necessary to resolve the issue (Attachment B).

As requested, JHI will provide a copy of this letter response along with Attachment A (FERC Letter dated July 22, 2014) and Attachment B (Issue Matrix and Schedule) to all consulting agencies, but will also send copy to all stakeholders. JHI will promptly request consultation in writing with agencies requiring consultation as provided by FERC guidance.

Sincerely,

A handwritten signature in black ink, appearing to read "Duff W. Mitchell", written over a horizontal line.

Duff W. Mitchell
VP & Business Manager

Attachments

FEDERAL ENERGY REGULATORY COMMISSION
Washington, D. C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 13563-003—Alaska
Sweetheart Lake Hydroelectric Project
Juneau Hydropower, Inc.

Duff Mitchell
Juneau Hydropower, Inc.
P.O. Box 22775
Juneau, AK 99802

July 22, 2014

Reference: Acceptance Letter and Request for Additional Information

Dear Mr. Mitchell:

Your license application for this project has been accepted by the Commission for filing as of May 29, 2014, but is not ready for environmental analysis at this time.

At this time, we will need additional information from you to complete our review of the license application. A listing of the information needed is enclosed in Schedule A.

Under Section 4.32(g) of the Commission's regulations, please file within 90 days from the date of this letter the information requested in the enclosed Schedule A. If the submission of additional information causes any other part of the application to be inaccurate, that part should also be revised and refiled by the due date.

Within 5 days of receipt, please provide a copy of this letter and the attached schedule to all agencies you will consult in response to this additional information request. Then, when you file the requested information with the Commission, provide a complete copy of the information to each agency and other entity consulted, and to all parties on the service list.

Specific questions included in this request for additional information require your consultation with various entities. Where appropriate, you should request consultation in writing. Allow the entities consulted at least 30 days to respond before filing the additional information with the Commission. In your filing, you should include copies of all responses received from the entities you consulted, and tell us how you addressed any comments and recommendations made. If the entities you attempted to consult with do not reply, you should provide us dated copies of your letters requesting consultation.

The Commission strongly encourages electronic filing. Please file the requested information using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Washington, D.C. 20426. The first page of any filing should include docket number P-13563-003.

You may call John Matkowski at (202) 502-8576, if you have any questions concerning this additional information request.

Sincerely,

Jennifer Hill, Chief
Northwest Branch
Division of Hydropower Licensing

Enclosure: Schedule A

cc: Service List
Public Files

ADDITIONAL INFORMATION

License Application

Exhibit A

Page A-18: You provide the turbine rated capacity as 6.6 megawatts (6,600 kilowatts). However, table A-4 on page A-27 indicates that the turbine power is rated as 7,081 kilowatts (kW), and Exhibit F-10 indicates that the turbine is rated as 9,500 horsepower (approximately 7,125 kW). Please resolve these discrepancies.

Page A-18: You provide the rated capacity of each generator as 6,600 kW at 0.8 power factor. To confirm the generator capacity, please provide the generator rating in kilovolt-amperes (kVA) at the stated power factor.

Exhibit B

Page B-29: You note that, although the total hydraulic capacity of the turbines is 650 cubic feet per second (cfs), the generators cannot accommodate the full discharge. Therefore, the normal maximum hydraulic capacity would be 460 cfs. Table B-6 on page B-30 shows discharge limited to no more than 460 cfs under maximum and normal reservoir elevations, while at minimum elevation it could reach 486 cfs. Please verify if project discharge would be limited to 460 cfs, or if conditions could be experienced where the discharge would be 486 cfs or another flow up to 650 cfs would be passed through the turbines.

Page B-17: You indicate that the routing of the submarine portions of the overland-submarine transmission alternative was analyzed to avoid crab, halibut, and shrimp producing and productive harvesting areas. However, no description or figure is provided to indicate where the crab, halibut, and shrimp producing and harvesting areas are located in relation to the submarine cable route. Please revise Figure B-9, or provide an alternative figure, to show the crab, halibut, and shrimp producing and productive harvesting areas.

Exhibit D

Page D-8 to D-14: Tables D-1 and D-2 do not include costs for several plans that have been developed and are included in Appendix Z, including the: Access Management Plan, Fire Prevention Plan, Hazardous Substances Plan, and Solid Waste and Wastewater Plan. Please provide the capital and annuals costs for implementing these plans. Additionally, please ensure the capital and annual costs for implementing

these plans are included in Chapter 4 of the Preliminary Draft Environmental Assessment (PDEA), entitled *Developmental Analysis*.

Preliminary Draft Environmental Assessment

Geology and Soils

Page 113: Section 3.3.1 describes the geology and soils in the project area, but provides no description of the geology and soils of Gilbert Bay and Port Snettisham along the submarine cable route. We will need to assess the effects of the submarine cable on the existing physical environment of the sea floor of Gilbert Bay and Port Snettisham as part of our environmental analysis. Therefore, please provide the following:

- a description of the surface geology along the cable alignment within Gilbert Bay and Port Snettisham, including the substrate type (e.g., fine sediment, gravel, cobble, and/or bedrock);
- clarification of whether the cable will be either buried or laid along the bottom of Gilbert Bay and Port Snettisham;
- a description or figure of identified areas of concern where the proposed submarine cable will be protected with clean shot rock;
- a description of the topography of the bottom (i.e., bathymetry) and shoreline of Gilbert Bay and Port Snettisham, as well as a figure if available;
- an estimate of the strengths of the currents and/or maximum wave forces in Gilbert Bay and Port Snettisham, and an analysis of the potential for currents or wave action to result in exposure and abrasion of the submarine cable;
- a description of the specific procedures that would be implemented to bury or lay the submarine cable on the sea floor; and
- the anticipated resting depth of the cable within the sediment column of Gilbert Bay and Port Snettisham sea floor.

Fisheries and Aquatic Resources

Page 284: You state that “no fish surveys were conducted in Gilbert Bay; only historical data primarily from Alaska DFG and NOAA-Fisheries were collected.” However, we were unable to locate historical fisheries data from Gilbert Bay in your PDEA. Please provide the historical fisheries data used to describe the fisheries resources in the PDEA.

Pages 291 to 300: Your discussion of fisheries and aquatic resources does not include an analysis of project effects of construction of the submarine cable on fish and benthic organisms and their habitat in Gilbert Bay or Port Snettisham. Therefore, in consultation with the National Marine Fisheries Service, please provide a discussion of the effects of submarine cable construction on aquatic resources in Gilbert Bay and Port Snettisham.

Page 301: You state “to minimize fisheries interference, the Gilbert Bay submarine cable is currently positioned to avoid impact on known Dungeness fishing grounds.” On Page B-17 of Exhibit B, you also indicate that the routing of the submarine portions of the overland-submarine transmission alternative was analyzed to avoid crab, halibut, and shrimp producing and productive harvesting areas. However, no description or figure is provided to indicate where the crab, halibut, and shrimp producing and harvesting areas are located in relation to the submarine cable route. Please provide a figure that identifies the crab, halibut, and shrimp producing and productive harvesting areas in relation to the proposed submarine cable route.

Terrestrial Resources

Page 346: You state that “based on the results of the botanical surveys of the Project-affected area, the only potential Project effect on rare, sensitive, threatened, or endangered plant species would be the loss of three two-colored sedge plants, one plant of *Carex bicolor* identified as a TNF rare species.” This statement is confusing. Please clarify whether the project would remove one, three, or four plants, and indicate if removal would be caused by construction or inundation.

Page 375: Table 3-46 quantifies effects on wildlife habitat by providing acreages of habitats within the project area. The table lists eight habitat types within the project area; however, there is no description of these habitats or what wildlife species typically occur in these areas. Please provide descriptions of the habitat types in the project area, and characterize the typical wildlife communities that occur in these habitats.

Page 384: You state that “It is also expected that the Project would comply with the Forest Service general guidelines for waterfowl and shorebirds.” However, the PDEA does not describe the Forest Service general guidelines, or how the project would comply with these guidelines. To facilitate our analysis of project effects on waterfowl and shorebirds, please provide the guidelines referenced in this statement, and describe what specific project measures or practices would ensure the project complies with these guidelines.

Page 387: You indicate that the overhead project transmission lines would be designed according to criteria defined by the Avian Power Line Interaction Committee to reduce potential for avian collisions with power lines. The referenced documents provide a wide variety of potential methods for increasing power line visibility. However, these methods vary in effectiveness and have varying costs. To facilitate our analysis of project effects on raptors, please describe the methods that would be used to limit potential for collisions, and how these methods were selected.

Page 449: The proposed project includes two segments of submarine 138-kV transmission cables. As discussed in section 3.3.5.2 of the PDEA, these cables would create magnetic and electric fields that have the potential to affect fish and marine mammals. However, the PDEA does not provide any estimates of the magnitude of these electromagnetic fields. Please provide an estimate of the magnitude of the EMFs produced by the submarine cables.

Recreation, Aesthetics, and Land Use

Page 492: Table 3-61 provides the number of annual personal use harvest permits for Sweetheart Creek; however, no data are provided to quantify other recreational uses that may occur at Sweetheart Creek or the Gilbert Bay anchorage and tidal areas. You also indicate the project may slightly increase visitor use but you do not quantify the expected increase. Please provide an estimate of existing and future annual recreation visitor use, along with your basis for developing the estimates.

Page 508: Section 3.3.7, *Land Use and Ownership*, does not document whether your submarine cable route would affect any existing or proposed submarine cables. Please provide an update of the status of any consultation you have completed regarding your proposed submarine cable route. If you have not consulted on the proposed submarine cable route, please consult with the U.S. Coast Guard, the National Oceanic and Atmospheric Administration’s Nautical Data Branch, the Naval Seafloor Cable Protection Office, and the Federal Communications Commission. Include in your response copies of any correspondence you have with these agencies regarding the submarine cable route.

Socioeconomic Resources

Page 586: In figure 3-145, you provide a one-year snapshot of employment, population, and wages; however, this information is not sufficient to establish demographic trends in the project impact area. Please revise the figure to provide employment, population, and personal income trends in the impact area over the past ten years and forecasts of the population growth over the construction period.

Page 592: Section 3.3.10.2 discusses workforce requirements for the project and indicates that 50 to 60 workers would be hired from the local area for construction of the project. However, more detailed information is needed on staffing requirements, payroll, and commutes to understand the effects of the project on socioeconomics. Therefore, please provide the following information: (1) a description of estimated on site staffing and payroll by month; (2) an estimate of the project construction personnel who (a) currently reside in the local area, (b) would commute daily to the construction site, and (c) would relocate on a temporary basis within the local area; (3) an estimate of the number of other construction or operational support staff, in addition to the 50 to 60 construction personnel, that would be employed at the project, such as pilots, barge operators, etc.; and (4) a discussion of whether the existing supply of temporary and permanent housing is available within the impact region to meet the needs of any additional permanent or temporary population coming to the area for the project.

Page 593: You state “most construction housing would be on site due to the long commute distance from the worksite to Juneau.” Please provide the number of workers that would reside on site, how long they would remain on site, and where workers would likely stay when not working on the project. If construction would be reduced or suspended during the winter months, please describe where workers would likely reside during the off season.

Developmental Analysis

Page 598: On table 4-2, footnote “d” was omitted. Please provide the missing footnote.

Pages 602 to 619: The total capital cost of proposed protection, mitigation, and enhancement (PM&E) measures listed in table 4-4, as indicated by a single asterisk, does not equal the \$4,590,000 total cost stated in the footnote to table 4-4. Please correct this discrepancy.

Appendix Z, Reservoir Management and Inundation Plan

Page 6: Your Reservoir Management and Inundation Plan summarizes several measures that will be implemented as part of the plan; however, the plan lacks detail on how these measures would be implemented to mitigate or reduce the effect of proposed construction and operation of the project on environmental resources. For example, you state that you propose to maintain water quality in Sweetheart Lake during construction, initial inundation, and commercial operation; however, you provide no details on the measures that would be implemented to maintain water quality. Please revise your plan to include more detail on how you propose to implement each measure and include an analysis of how each measure would avoid or minimize adverse environmental effects during project construction and operation.

Further, you do not identify the specific capital and annual costs to implement the Reservoir Management and Inundation Plan as a component of the Water Management Plan. Please provide the estimated capital and annual costs associated with implementation of the Reservoir Management and Inundation Plan in Chapter 4, *Developmental Analysis*, as may be revised based on your response to the additional information request.

Appendix Z, Fish Mitigation and Monitoring Plan

Page 11: In section 4.3.1 of the Fish Mitigation and Monitoring Plan, you propose to assess the relative presence of rainbow trout and Dolly Varden in Sweetheart Lake after three years of project operation, and then every five years after the initial assessment. You also indicate that if results of the assessment show a negative significant effect you may propose measures in consultation with Alaska Department of Fish and Game to address adverse effects. However, you provide no specific information on the methods that would be implemented to conduct the assessment, nor do you provide any specific information on the measures that would be implemented to address adverse effects, or the triggers that would lead to those measures. We will need to assess the benefits and costs of your proposed monitoring measures and any potential measures that you would implement based on the monitoring results, as part of our environmental analysis. Therefore, in consultation with the Alaska Department of Fish and Game and the Forest Service, please revise your Fish Mitigation and Monitoring plan to include: (1) a specific description of the methods that you would implement to assess relative presence of rainbow trout and Dolly Varden in Sweetheart Lake (e.g., sampling methods, seasonal timing and duration of sampling, anticipated level of effort); (2) a description of the criteria you would apply to determine a finding of “negative significant effect” on rainbow trout and Dolly Varden; (3) a description of the specific measures you would implement if results indicate rainbow trout and Dolly Varden are negatively affected by

Schedule A

Project No. 13563-003

project operation; (4) a description of the location where the measures would be implemented in relation to the project boundary; and (5) an itemized cost for each monitoring event as well as any proposed measures to address adverse effects.

Because the Fish Mitigation and Monitoring Plan is a component of the Aquatic Habitat Restoration and Monitoring Plan, please provide not only the cost for the Fish Mitigation and Monitoring plan, but also a revised cost for the Aquatic Habitat Restoration and Monitoring Plan in Chapter 4, *Developmental Analysis*, based on the new information contained in your response. Additionally, please revise section 3.3.3.2 of the PDEA to include an analysis of your revised Fish Mitigation and Monitoring Plan.

Item #	FERC AIR 7-22-14. Submit schedule to all agencies in 5 days. Allow agencies 30 days from a request to consult or provide information. Response due to FERC in 90 days	AIR Page #	Resource Area Issue	Status (A=Active);(C=Complete);(NI=Not Initiated);(WIP=research or data required)	Rationale / Comments	Initiate Date	Actions	Schedule Steps	Completion date	Consulting Agency, if any
EXHIBIT A										
A-1	Page A-18: You provide the turbine rated capacity as 6.6 megawatts (6,600 kilowatts). However, table A-4 on page A-27 indicates that the turbine power is rated as 7,081 kilowatts (kW), and Exhibit F-10 indicates that the turbine is rated as 9,500 horsepower (approximately 7,125 kW). Please resolve these discrepancies.	A-1	Turbine Rating Capacity discrepancies	A	conflicting discrepancies in Exhibit	July 2014	Internally review and resolve		Aug 2014	NA
A-2	Page A-18: You provide the rated capacity of each generator as 6,600 kW at 0.8 power factor. To confirm the generator capacity, please provide the generator rating in kilovolt-amperes (kVA) at the stated power factor.	A-1	Generator Capacity in (kVA)	A	clarify in kVA at the stated power factor	July 2014	Internally review and resolve		Aug 2014	NA
EXHIBIT B										
B-1	Page B-29: You note that, although the total hydraulic capacity of the turbines is 650 cubic feet per second (cfs), the generators cannot accommodate the full discharge. Therefore, the normal maximum hydraulic capacity would be 460 cfs. Table B-6 on page B-30 shows discharge limited to no more than 460 cfs under maximum and normal reservoir elevations, while at minimum elevation it could reach 486 cfs. Please verify if project discharge would be limited to 460 cfs, or if conditions could be experienced where the discharge would be 486 cfs or another flow up to 650 cfs would be passed through the turbines.	A-1	Verify project discharge and resolve discrepancy	A	Review internally and resolve	July 2014	Review tables, data and resolve		Aug 2014	NA
B-2	Page B-17: You indicate that the routing of the submarine portions of the overland-submarine transmission alternative was analyzed to avoid crab, halibut, and shrimp producing and productive harvesting areas. However, no description or figure is provided to indicate where the crab, halibut, and shrimp producing and harvesting areas are located in relation to the submarine cable route. Please revise Figure B-9, or provide an alternative figure, to show the crab, halibut, and shrimp producing and productive harvesting areas.	A-1	Show producing or productive harvesting areas of crab, shrimp, halibut.	WIP	Provide aquatic rationale for routing in Figure B-9 or provide new figure.	July 2014	Confirm with fishermen and ADFG. Check with NOAA on landings for halibut stat area. Request updated stat information from ADFG. Provide scientific life cycle data (for depths and types of bottom) for crab, shrimp, halibut.		Aug 2014	Alaska DFG information request. NOAA Dept of Commerce information request(Halibut landings)
EXHIBIT D										
D-1	Page D-8 to D-14: Tables D-1 and D-2 do not include costs for several plans that have been developed and are included in Appendix Z, including the: Access Management Plan, Fire Prevention Plan, Hazardous Substances Plan, and Solid Waste and Wastewater Plan. Please provide the capital and annuals costs for implementing these plans. Additionally, please ensure the capital and annual costs for implementing these plans are included in Chapter 4 of the Preliminary Draft Environmental Assessment (PDEA), entitled <i>Developmental Analysis</i> .	A-1, A-2	Add costs for plans: Access Management Plan, Fire Prevention Plan, Solid Waste and Wastewater Plan, Provide capital and annual costs also in Chapter 4 PDEA	NI	Provide costs of plans so FERC can evaluate cost benefit	July 2014	Internally review plans and update/determine proper initial and annual costs.		Aug 2014	NA
PDEA										

Geology & Soils										
PDEA 1	<p>Page 113: Section 3.3.1 describes the geology and soils in the project area, but provides no description of the geology and soils of Gilbert Bay and Port Snettisham along the submarine cable route. We will need to assess the effects of the submarine cable on the existing physical environment of the sea floor of Gilbert Bay and Port Snettisham as part of our environmental analysis. Therefore, please provide the following:</p> <ul style="list-style-type: none"> · a description of the surface geology along the cable alignment within Gilbert Bay and Port Snettisham, including the substrate type (e.g., fine sediment, gravel, cobble, and/or bedrock); · clarification of whether the cable will be either buried or laid along the bottom of Gilbert Bay and Port Snettisham; · a description or figure of identified areas of concern where the proposed submarine cable will be protected with clean shot rock; · a description of the topography of the bottom (i.e., bathymetry) and shoreline of Gilbert Bay and Port Snettisham, as well as a figure if available; · an estimate of the strengths of the currents and/or maximum wave forces in Gilbert Bay and Port Snettisham, and an analysis of the potential for currents or wave action to result in exposure and abrasion of the submarine cable; · a description of the specific procedures that would be implemented to bury or lay the submarine cable on the sea floor; and · the anticipated resting depth of the cable within the sediment column of Gilbert Bay and Port Snettisham sea floor. 	A-2	Provide Geology and Soils for submarine cable route as well as waves and currents—provide substantive details.	NI	PDEA did not provide geology of submarine cable route. Synthesize bathymetric data and surveys already conducted	July 2014		1. produce update on data first 2 weeks Aug. 2. Review data. 3. Publish results	Aug 2014- Sep 2014	NA
Fisheries and Aquatic Resources										
PDEA-2	<p>Page 284: You state that “no fish surveys were conducted in Gilbert Bay; only historical data primarily from Alaska DFG and NOAA-Fisheries were collected.” However, we were unable to locate historical fisheries data from Gilbert Bay in your PDEA. Please provide the historical fisheries data used to describe the fisheries resources in the PDEA.</p>	A-3	Provide and summarize fish data from ADFG and NOAA halibut from scoping and update	NI	provide historical (from scoping) and updated fisheries information from ADFG.	July 2014	Request information from ADFG. Request NOAA for halibut data	1. Send request. Receive data. 2. Analyze data. 3. Publish	Aug 2014	ADFG information request. NOAA Dept of Commerce information request (Halibut landings)
PDEA-3	<p>Pages 291 to 300: Your discussion of fisheries and aquatic resources does not include an analysis of project effects of construction of the submarine cable on fish and benthic organisms and their habitat in Gilbert Bay or Port Snettisham. Therefore, in consultation with the National Marine Fisheries Service, please provide a discussion of the effects of submarine cable construction on aquatic resources in Gilbert Bay and Port Snettisham.</p>	A-3	Consult with NMFS and provide a discussion of effects of submarine construction on fish and benthic species in Gilbert Bay and Port Snettisham	WIP	Add section of Project Effects of construction	July 2014	Consult NMFS. Provide past research literature and data.	1. Request consultation 2. Publish findings	Aug 2014	NOAA
PDEA -4	<p>Page 301: You state “to minimize fisheries interference, the Gilbert Bay submarine cable is currently positioned to avoid impact on known Dungeness fishing grounds.” On Page B-17 of Exhibit B, you also indicate that the routing of the submarine portions of the overland-submarine transmission alternative was analyzed to avoid crab, halibut, and shrimp producing and productive harvesting areas. However, no description or figure is provided to indicate where the crab, halibut, and shrimp producing and harvesting areas are located in relation to the submarine cable route. Please provide a figure that identifies the crab, halibut, and shrimp producing and productive harvesting areas in relation to the proposed submarine cable route.</p>	A-3	Similar as ISSUE B-2 above. Provide and summarize fish data from ADFG and NOAA halibut from scoping and update	WIP		July 2014	Same as Item B-2.		Aug 2014	ADFG information request. NOAA Dept of Commerce information request (Halibut landings)
PDEA-5	<p>Page 346: You state that “based on the results of the botanical surveys of the Project-affected area, the only potential Project effect on rare, sensitive, threatened, or endangered plant species would be the loss of three two-colored sedge plants, one plant of <i>Carex bicolor</i> identified as a TNF rare species.” This statement is confusing. Please clarify whether the project would remove one, three, or four plants, and indicate if removal would be caused by construction or inundation.</p>	A-3	Reword and clarify	A		July 2014	Internally resolve		Aug 2014	NA

PDEA-6	Page 375: Table 3-46 quantifies effects on wildlife habitat by providing acreages of habitats within the project area. The table lists eight habitat types within the project area; however, there is no description of these habitats or what wildlife species typically occur in these areas. Please provide descriptions of the habitat types in the project area, and characterize the typical wildlife communities that occur in these habitats.	A-3	Describe 8 habitat types or what wildlife communities typically occur in these habitats	WIP	July 2014	Determine and describe habitat and wildlife communities in each wildlife habitat	Aug 2014	NA
PDEA-7	Page 384: You state that "It is also expected that the Project would comply with the Forest Service general guidelines for waterfowl and shorebirds." However, the PDEA does not describe the Forest Service general guidelines, or how the project would comply with these guidelines. To facilitate our analysis of project effects on waterfowl and shorebirds, please provide the guidelines referenced in this statement, and describe what specific project measures or practices would ensure the project complies with these guidelines.	A-4	FS waterfowl guidelines and shorebirds. Describe and how project would comply with specific measures.	WIP	July 2014	Pull out TLMP guidelines and correlate what APLIC measures are considered.	Aug 2014	NA
PDEA-8	Page 387: You indicate that the overhead project transmission lines would be designed according to criteria defined by the Avian Power Line Interaction Committee to reduce potential for avian collisions with power lines. The referenced documents provide a wide variety of potential methods for increasing power line visibility. However, these methods vary in effectiveness and have varying costs. To facilitate our analysis of project effects on raptors, please describe the methods that would be used to limit potential for collisions, and how these methods were selected.	A-4	Specify and describe the APLIC methods that would be used to limit potential collisions and how these methods were selected to assess effects.	WIP	July 2014	Conduct transmission review to ensure we are not proposing something that will cause economic or maintenance problems or undue aesthetic issues.	Aug 2014	NA
PDEA-9	Page 449: The proposed project includes two segments of submarine 138-kV transmission cables. As discussed in section 3.3.5.2 of the PDEA, these cables would create magnetic and electric fields that have the potential to affect fish and marine mammals. However, the PDEA does not provide any estimates of the magnitude of these electromagnetic fields. Please provide an estimate of the magnitude of the EMFs produced by the submarine cables.	A-4	Provide estimate of the magnitude of the EMFs produced by the proposed submarine cable. Reference DOI data used for offshore wind farms	WIP	July 2014	Provide research material from wind farms and then confirm	Aug 2014	NA
RECREATION, ARSNETHICS, AND LAND USE								
PDEA-10	Page 492: Table 3-61 provides the number of annual personal use harvest permits for Sweetheart Creek; however, no data are provided to quantify other recreational uses that may occur at Sweetheart Creek or the Gilbert Bay anchorage and tidal areas. You also indicate the project may slightly increase visitor use but you do not quantify the expected increase. Please provide an estimate of existing and future annual recreation visitor use, along with your basis for developing the estimates	A-4	Quantify other use. Provide expected increase in use-check permits for last 2 years to see if they have increased. Also base growth on Juneau growth. Other uses is difficult to not much existance of data.	WIP	July 2014	Obtain updated permit user data from ADFG. Get estimated non-sockeye visitors along with basis for developing estimates. Look at census growth and correlate future growth.	Aug 2014	Alaska DFG Information request for update on personal use harvest permits
PDEA-11	Page 508: Section 3.3.7, <i>Land Use and Ownership</i> , does not document whether your submarine cable route would affect any existing or proposed submarine cables. Please provide an update of the status of any consultation you have completed regarding your proposed submarine cable route. If you have not consulted on the proposed submarine cable route, please consult with the U.S. Coast Guard, the National Oceanic and Atmospheric Administration's Nautical Data Branch, the Naval Seafloor Cable Protection Office, and the Federal Communications Commission. Include in your response copies of any correspondence you have with these agencies regarding the submarine cable route.	A-4	Send letter to NOAA office and FCC and include their correspondence in response	A	July 2014	Send letter, publish response	Aug 2014	NOAA, FCC
SOCIOECONOMIC RESOURCES								
PDEA-12	Page 586: In figure 3-145, you provide a one-year snapshot of employment, population, and wages; however, this information is not sufficient to establish demographic trends in the project impact area. Please revise the figure to provide employment, population, and personal income trends in the impact area over the past ten years and forecasts of the population growth over the construction period.	A-5	Provide a 10 year trend with projection forecasts over construction period	NI	July 2014	Use census and Juneau Growth data to extrapolate future from the past 10 year record.	Aug 2014	NA

PDEA-13	Page 592: Section 3.3.10.2 discusses workforce requirements for the project and indicates that 50 to 60 workers would be hired from the local area for construction of the project. However, more detailed information is needed on staffing requirements, payroll, and commutes to understand the effects of the project on socioeconomics. Therefore, please provide the following information: (1) a description of estimated on site staffing and payroll by month; (2) an estimate of the project construction personnel who (a) currently reside in the local area, (b) would commute daily to the construction site, and (c) would relocate on a temporary basis within the local area; (3) an estimate of the number of other construction or operational support staff, in addition to the 50 to 60 construction personnel, that would be employed at the project, such as pilots, barge operators, etc.; and (4) a discussion of whether the existing supply of temporary and permanent housing is available within the impact region to meet the needs of any additional permanent or temporary population coming to the area for the project.	A-5	Provide detailed payroll, local and imported labor, support staff and any impact to the region to meet any additional permanent or temporary population coming to the area for the project.	NI		Produce table or some other guestimate based on assumptions for construction	Aug 2014	NA	
PDEA-14	Page 593: You state "most construction housing would be on site due to the long commute distance from the worksite to Juneau." Please provide the number of workers that would reside on site, how long they would remain on site, and where workers would likely stay when not working on the project. If construction would be reduced or suspended during the winter months, please describe where workers would likely reside during the off season.	A-5	Provide housing details on and off season where workers will reside.	NI	July 2014		Aug 2014	NA	
DEVELOPMENTAL ANALYSIS									
PDEA-15	Page 598: On table 4-2, footnote "d" was omitted. Please provide the missing footnote.	A-5	Provide footnote		July 2014	Resolve	Aug 2014	NA	
PDEA-16	Pages 602 to 619: The total capital cost of proposed protection, mitigation, and enhancement (PM&E) measures listed in table 4-4, as indicated by a single asterisk, does not equal the \$4,590,000 total cost stated in the footnote to table 4-4. Please correct this discrepancy.	A-5	Correct figures on PME and measures to table 4-4	A	July 2014	review and fix	Aug 2014	NA	
APP Z Reservoir Management and Inundation Plan									
PDEA-17	Page 6: Your Reservoir Management and Inundation Plan summarizes several measures that will be implemented as part of the plan; however, the plan lacks detail on how these measures would be implemented to mitigate or reduce the effect of proposed construction and operation of the project on environmental resources. For example, you state that you propose to maintain water quality in Sweetheart Lake during construction, initial inundation, and commercial operation; however, you provide no details on the measures that would be implemented to maintain water quality. Please revise your plan to include more detail on how you propose to implement each measure and include an analysis of how each measure would avoid or minimize adverse environmental effects during project construction and operation.	A-6	Detail how water quality will be maintained during construction. Detail each proposed measure and how each measure would avoid or minimize adverse environmental conditions during construction and operation	NI	July 2014	resolve- contractors and USACE	1. Consult with USACE 2. Publish measures Aug 2014	USACE	
PDEA-17 Cont	Further, you do not identify the specific capital and annual costs to implement the Reservoir Management and Inundation Plan as a component of the Water Management Plan. Please provide the estimated capital and annual costs associated with implementation of the Reservoir Management and Inundation Plan in Chapter 4, <i>Developmental Analysis</i> , as may be revised based on your response to the additional information request.	A-6	Provide capital and annual costs to implement plan for the plan and also for Chapter 4	NI	July 2014		1. Identify specific measures 2. cost out measures Aug 2014	NA	
APP Z Fish Mitigation and Monitoring Plan									

PDEA-18	<p>Page 11: In section 4.3.1 of the Fish Mitigation and Monitoring Plan, you propose to assess the relative presence of rainbow trout and Dolly Varden in Sweetheart Lake after three years of project operation, and then every five years after the initial assessment. You also indicate that if results of the assessment show a negative significant effect you may propose measures in consultation with Alaska Department of Fish and Game to address adverse effects. However, you provide no specific information on the methods that would be implemented to conduct the assessment, nor do you provide any specific information on the measures that would be implemented to address adverse effects, or the triggers that would lead to those measures. We will need to assess the benefits and costs of your proposed monitoring measures and any potential measures that you would implement based on the monitoring results, as part of our environmental analysis. Therefore, in consultation with the Alaska Department of Fish and Game and the Forest Service, please revise your Fish Mitigation and Monitoring plan to include: (1) a specific description of the methods that you would implement to assess relative presence of rainbow trout and Dolly Varden in Sweetheart Lake (e.g., sampling methods, seasonal timing and duration of sampling, anticipated level of effort); (2) a description of the criteria you would apply to determine a finding of "negative significant effect" on rainbow trout and Dolly Varden; (3) a description of the specific measures you would implement if results indicate rainbow trout and Dolly Varden are negatively affected by project operation; (4) a description of the location where the measures would be implemented in relation to the project boundary; and (5) an itemized cost for each monitoring event as well as any proposed measures to address adverse effects.</p>	A-6	<p>How is assessment to be conducted along with "what" triggers an adverse effect that would lead to measures..and their costs. Consult with ADFG and USFS and revise plan 1-5 to include costs.</p>	NI	July 2014	<p>Make proposal and resolve with USFS and ADFG</p>	Aug 2014	Alaska DFG and USFS
PDEA-18 Cont	<p>Because the Fish Mitigation and Monitoring Plan is a component of the Aquatic Habitat Restoration and Monitoring Plan, please provide not only the cost for the Fish Mitigation and Monitoring plan, but also a revised cost for the Aquatic Habitat Restoration and Monitoring Plan in Chapter 4, <i>Developmental Analysis</i>, based on the new information contained in your response. Additionally, please revise section 3.3.3.2 of the PDEA to include an analysis of your revised Fish Mitigation and Monitoring Plan.</p>	A-7	<p>Provide a revised cost of the Aquatic Habitat Restoration and Monitoring Plan in Chap 4 and revise section 3.3.3.2</p>	NI	cost out measures July 2014	<p>1. Update 2. cost out measures in plan</p>	Aug 2014	NA