

Black Canyon Hydroelectric Project (FERC No. P-14110): RESPONSES TO COMMENTS ON PAD, ADDITIONAL INFORMATION REQUESTS, AND STUDY REQUESTS

Comment Number	Document and Section	Commenter (Document, Date of Comment and Page #)	Comments	Black Canyon Hydro Response
FERC 1	PAD - Section 5.2.1.3 - Hydrographs, Flow Duration Curve	FERC (Letter July 24, 2012), Schedule A, pg. 1	Please describe how the annual flow duration curve presented in Figure 6 was adjusted for the larger drainage area at the project intake site. If the flow duration curve in Figure 6 was not adjusted for the different size drainage areas, please provide a revised annual flow duration curve for the proposed project and a description of how the revised flow duration curve was calculated.	BCH has submitted a memorandum providing the requested information (see "Hydrology Summary for the Black Canyon Hydroelectric Project").
FERC 2	PAD - Section 5.2.3.4, 5.2.3.5, & 5.2.3.6 - Water Resources	FERC (Letter July 24, 2012), Schedule A, pg. 1	Sections 5.2.3.4, 5.2.3.5, and 5.2.3.6 of the PAD describe dissolved oxygen, pH, nitrogen, and phosphorous measurements collected in the North Fork Snoqualmie River by the King County Department of Transportation and WA ECY. Please provide a copy of this data.	These sections of the PAD referenced the Snoqualmie Watershed Water Quality Synthesis Report (pp. 109-113). It can be found at: http://www.govlink.org/watersheds/7/pdf/Snoqualmie_Water_Quality_Synthesis_REPORT_BODY.pdf . However, BCH does not have access to the raw data cited in the report. The report was prepared by the King County Department of Natural Resources and Parks: Water and Land Resources Division.
FERC 3	PAD - "Boundary Maps," Figures 20, 21	FERC (Letter July 24, 2012), Schedule A, pg. 1	Provide figures clearly delineating the boundaries of each private property, conservation easement, conservation area, recreation area, and other known land use designation in the proposed project vicinity. Include the location of each recreational access site, including the routes of known foot paths, trails, and river access points in relation to the proposed project features (including the proposed transmission line and extension of two existing logging roads). Include legends indicating scale and contrasting symbols that clearly distinguish between public and private areas and ID relevant managing authorities.	Maps delineating boundaries of known land use designations in the proposed project vicinity have been submitted (see "Ownership and Land Use" and "Land Zoning").
FERC 4	Study Request - Hydropower Potential and Project Economics Study	FERC (Letter July 24, 2012), Schedule B, pg. 1	Determine whether the hydraulic capacity of the two proposed turbine generating units (or turbine generating units with a different hydraulic capacity) would best utilize the available river flow and any instream flow releases to the bypassed reach and compare the costs of the proposed project (i.e., capital and annual O&M costs) and the likely cost of alternative power in the region.	BCH has submitted a "Hydropower Potential and Project Economics Study Plan" that addresses this study request.

FERC 5	Study Request - Bypassed Reach Flow Study	FERC (Letter July 24, 2012), Schedule B, pg. 3	The goals of the flow study are to provide information necessary to evaluate the effects of project construction and operation on aquatic habitat in the proposed bypassed reach and to determine any flow release that may be necessary to protect aquatic habitat and water quality in the bypassed reach. The study plan should be developed in consultation with the U.S. Fish and Wildlife Service (FWS), the Washington State Department of Ecology, and the Washington State Department of Fish and Wildlife.	BCH has submitted a proposed "Instream Flows Study Plan."
FERC 6	Study Request - Groundwater Resources Assessment	FERC (Letter July 24, 2012), Schedule B, pg. 5	The goal of the groundwater resources assessment is to provide information necessary to evaluate the effects of project construction and operation on groundwater resources and associated municipal water supplies in the project area.	A proposed "Groundwater Study Plan" has been submitted.
FERC 7	Study Request - Fish Community Survey	FERC (Letter July 24, 2012), Schedule B, pg. 6-7	The goal of the study is to obtain current information on the fish community and fish habitat in the potentially affected reach of the North Fork Snoqualmie River, from about one quarter mile upstream of the proposed intake site to about 200 yards downstream of the proposed powerhouse site. The study plan should be developed in consultation with the FWS, the Washington State Department of Ecology, and the Washington State Department of Fish and Wildlife.	BCH has submitted a "Fisheries Study Plan."
FERC 8	Study Request - Terrestrial Habitat Resources Study	FERC (Letter July 24, 2012), Schedule B, pg. 8-11	Identify plant and wildlife habitat that may be affected by the construction and operation of the proposed project and measures that could be implemented to mitigate impacts.	The proposed "Wildlife, Vegetation, and Sensitive Habitats Study Plan" will measure and describe the vegetation habitats that occur within the Project Area, including sensitive habitats such as wetlands or old growth forest. It will also evaluate the potential effects of project construction and operation. A Habitat Management Plan will be developed that identifies prevention, mitigation and enhancement measures.
FERC 9	Study Request - Recreational Boating and River Access Study	FERC (Letter July 24, 2012), Schedule B, pg. 11-14	The goal of this study is to evaluate recreational boating activity on the North Fork Snoqualmie River, including boat access, which may be affected by the construction and operation of the proposed project. The potential effects of altered flows and geomorphology of the river would also be addressed.	BCH has submitted a proposed "Recreational Boating and River Access Study."

FERC 10	Study Request - Recreation Resources Study	FERC (Letter July 24, 2012), Schedule B, pg. 14-17	The goal of this study is to identify recreation resources and activities that may be affected by the construction and operation of the proposed project, as well as measures that could be implemented to mitigate impacts.	BCH has submitted a proposed "Recreation Resources Study Plan."
FERC 11	Study Request - Noise Assessment	FERC (Letter July 24, 2012), Schedule B, pg. 17-19	The goal of the noise assessment is to determine whether noise from the construction and operation of the project, including project facilities and transport and staging areas, might affect area residents, private property owners, or recreational users in the vicinity of project.	BCH has submitted a proposed "Noise Study Plan" addressing noise from both Project construction and operation on residents, private property owners, and recreational users in the vicinity.
FERC 12	Study Request - Aesthetic Resource Assessment	FERC (Letter July 24, 2012), Schedule B, pg. 19-21	The goal of this study is to identify effects of the proposed project on aesthetic (i.e., visual) resources in the project area.	BCH will conduct an Aesthetic Resource Assessment and a proposed study plan has been submitted.
FERC 13	Study Request - Cultural Resources Assessment	FERC (Letter July 24, 2012), Schedule B, pg. 21-27	The goal of this study is to determine the potential effects of project construction and operation on archaeological and historic resources that are included in or eligible for the National Register of Historic Places (National Register or historic properties). The survey and study report, including identification of the area of potential effects (APE) should be developed in consultation with the Washington State Historic Preservation Officer (SHPO), the Snoqualmie and Tulalip Tribes, and other interested parties.	BCH has submitted a "Cultural Resources Study Plan."
U.S. F&W 1	PAD - Section 5.7 - Recreation and Land Use	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 3	The upper Snoqualmie River is an important fishery resource, especially for King County anglers. The population in King County has grown significantly since the last creel survey in the 1980s, and with the growing popularity of trout fishing, WDFW expect the amounts of anglers fishing the upper Snoqualmie to increase.	BCH has submitted a proposed "Recreation Resources Study Plan" which will evaluate current and future angler use. Additionally, a "Recreational Boating and River Access Study" has been submitted.
U.S. F&W 2	PAD - Section 5.4 - Wildlife and Botanical Resources	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 3	The Applicant assumed that wildlife species in the vicinity of the Project would be similar to the list of wildlife species assembled for the Hancock Hydroelectric Project. This is a fair assumption, as the Hancock Project is only a few miles upstream on a tributary to the North Fork Snoqualmie.	Comment Noted.
U.S. F&W 3	PAD - Section 5.6 - Threatened, Endangered, and Special Status Species	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 3	When applicant submits a request for a section 7 consultation, include downloaded species list and the date it was downloaded as an attachment.	Comment Noted. BCH will follow directions within the comment when submitting a request for a section 7 consultation.

U.S. F&W 4	Study Request - Bypassed Reach Flow Study	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 6	Evaluation of the need for minimum instream flows and process flows for the by-pass reach and the amounts of water needed to satisfy these flow conditions at the proposed project location.	BCH has submitted a proposed "Instream Flow Study."
U.S. F&W 5	Study Request - Coanda Screen Study	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 6	Evaluation of the effectiveness of Coanda screens to clear debris loads and to prevent entrainment of all fish expected to occur at the site under all flows at the proposed Project Location.	A specific Coanda Screen Study has not been proposed, however, a discussion of coanda screens are included in the "Fish Passage Study Plan."
U.S. F&W 6	Study Request - Fish Passage Evaluation	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 6	Evaluation of fish passage needs for the proposed facility location and investigation of the type of fish passage facility necessary to provide safe, timely, and effective passage for all flows and all fish species known to occur in the by-pass reach.	BCH has submitted a "Fish Passage Study Plan."
U.S. F&W 7	Study Request - Diversion Alternatives Investigation	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 6	Investigation of alternatives that do not require a channel-spanning, permanent structure at the proposed Project location.	BCH plans to continually evaluate the feasibility of a range of diversion structures, including those that do not require a channel-spanning, permanent structure.
U.S. F&W 8	Study Request - Fish Community Survey	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 6	Conduct spawner and juvenile surveys for resident salmonids in the reaches affected by the dam and flow diversion.	BCH has submitted a "Fisheries Study Plan."
U.S. F&W 9	Study Request - Ramping Rate Evaluation	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 6	Evaluation of the need for downramping criteria for the by-pass reach and whether or not this can be accomplished with the current dam design.	A number of studies including fisheries, instream flows, and hydrology, among others, will be used to evaluate the need for downramping criteria. An investigation of alternative diversion structures will also take place. Additionally, inflatable dams often are subject to ramping rates and there are not technical obstacles to meeting these rates if applied.
U.S. F&W 10	Study Request - Wildlife Surveys	U.S. Fish & Wildlife Service (Letter July 9, 2012), pg. 6	Conduct surveys for wildlife including any threatened or endangered species in the vicinity of the intake, powerhouse, and transmission lines.	The proposed "Wildlife, Vegetation, and Sensitive Habitats Study Plan" includes a Wildlife Observation Study. It will identify wildlife that is or may be present within and adjacent to the study area, evaluate the potential effects of the project on the identified wildlife, and identify PME measures that could be implemented if a license is issued, and incorporate those measures into the HMP.
NPS 1	PAD - Section 5.2.1.3 - Hydrographs, Flow Duration Curve	NPS (Letter July 17, 2012), pg. 1-2	NPS would like to request that more information be provided on the hydrology and the relationship between existing gauges and the flows in the proposed project area.	BCH has submitted a "Hydrology Summary for the Black Canyon Hydroelectric Project" which provides the requested information.

NPS 2	PAD - Section 5.12.1 Washington Comprehensive Plans	NPS (Letter July 17, 2012), pg. 2	NPS would like to request additional information and analysis of the purpose and goals of a number of comprehensive plans and the consistency of the proposed project with these plans.	This comment appears directed to FERC. However, BCH's understanding is that FERC's evaluation of a project's consistency with comprehensive plans occurs after a license application has been submitted. This allows for studies, and final facility and operational features, to inform the evaluation.
NPS 3	Study Request - Recreation and Aesthetic Resource Study	NPS (Letter July 17, 2012), pg. 3	The components of the study should include: (1) recreation flow study on impacts to boating experiences; (2) current and projected recreation visitor use; (3) recreation inventory of existing recreation opportunities and facilities; (4) future and potential recreation needs assessment and analysis; and (5) recreation carrying capacity.	BCH proposes to address the issues raised by the NPS in three separate studies to ensure all resources are adequately evaluated. First, there will be a general "Recreation Resources Study Plan." Second, a boating specific "Recreational Boating and River Access Study Plan" will be done. Third, a separate "Aesthetic Resource Assessment Study Plan" will be conducted that evaluates resources from a range of perspectives, including recreationists.
WDFW 1	Study Request - Large Woody Debris and Bedload Passage	WDFW (Letter July 24, 2012), pg. 6-7	BCH should demonstrate if the inflatable dam will interrupt the natural flow of sediment and woody debris and design the intake to avoid clogging by debris and sediment. BCH should discuss mitigation measures if the diversion structure will act as a sediment and debris trap. BCH should also do a cumulative effects analysis on all the existing and proposed hydroprojects on the North Fork of the Snoqualmie River and its tributaries. See "Hydroelectric Project Assessment Guidelines (1995) for Bed Load Studies for general methodology of a study.	BCH has submitted a "Geomorphology, Large Wood, and Sediment Transport Study Plan."
WDFW 2	Study Request - Wildlife Surveys	WDFW (Letter July 24, 2012), pg. 7-10	BCH should survey for any threatened, endangered or WA State Priority Species existing in the project area, including those that could live outside the project area, but may have indirect impacts from disturbance, noise, or loss of habitat conductivity.	The proposed "Wildlife, Vegetation, and Sensitive Habitats Study Plan" includes a Wildlife Observation Study. It will identify wildlife that is or may be present within and adjacent to the study area, evaluate the potential effects of the project on the identified wildlife, and identify PME measures that could be implemented if a license is issued, and incorporate those measures into the HMP. The proposed "Noise Study Plan" includes an evaluation of potential construction and operation noise impacts on sensitive wildlife species in the vicinity of the Project.

WDFW 3	Study Request - Instream Flows and (Down) Ramping Rates Studies	WDFW (Letter July 24, 2012), pg. 10-11	All projects must provide instream flows to protect spawning, incubation, and rearing habitat during operation. Please refer to the (Appendix VI) of our Hydroelectric Project Assessment Guidelines (1995) which outline agency standards for conducting instream flow studies. WDFW would recommend re-running the existing habitat work with updated preference curves, particularly for rainbow trout. Please use ramping rates criteria developed in Hunter (1992).	BCH has submitted a proposed "Instream Flow Study."
WDFW 4	Study Request - Fish Community Survey	WDFW (Letter July 24, 2012), pg. 11-12	WDFW recommends following the Hydroelectric Project Assessment Guidelines (1995) for methodology. BCH recommends that BCH monitor and snorkel the Black Canyon which did not receive monitoring in the Snoqualmie River Game Fish Enhancement Plan. WDFW recommends collecting baseline food web, trout growth, survival, and distribution information prior and subsequent to project construction for monitoring and adaptive management purposes if necessary.	BCH has submitted a "Fisheries Study Plan."
WDFW 5	Study Request - Fish Screen(s) Study	WDFW (Letter July 24, 2012), pg. 13	If BCH desires to use the coanda or any non-recommended screens, WDFW would recommend intensive and very rigorous studies to establish whether experimental and untested screens would meet the guidelines established by WDFW.	A range of studies will provide the information required to make general decisions regarding the necessity and type of fish screens. While BCH does not want to eliminate any potential options for screening at this point in the feasibility analysis, BCH does note WDFW concerns with what it considers an experimental technology.
WDFW 6	Study Request - Water Temperature, Ground Water, and Macroinvertebrates Studies	WDFW (Letter July 24, 2012), pg. 13-16	WDFW recommends a study that includes the bypass reach, a reach above the diversion, a reach below the powerhouse to the Forks, and a reach below Snoqualmie Falls. WDFW recommends that BCH monitor daily water temperatures above the dam, within the bypass reach, downstream of the powerhouse outflow, and at the mouths of non-ephemeral tributaries, and floodplain channels near the project. BCH should assess dissolved oxygen and nutrient loading seasonally, as practical, within and downstream of the bypass. Water temperatures throughout the bypass reach will have direct effects on aquatic organisms, including game fishes and aquatic macroinvertebrates, within the Black Canyon.	A proposed "Groundwater Study Plan" has been submitted along with a proposed "Water Quality Study Plan." Macroinvertebrates are addressed in the proposed "Fisheries Study Plan."

WDFW 7	PAD - Section 4.1 - Project Facilities	WDFW (Letter July 24, 2012), pg. 17	WDFW recommends horizontal directional drilling to create the power tunnel and penstock, particularly the section going underneath the North Fork. We also recommend a constant flow valve at the powerhouse as a bypass to the turbine to help with meeting ramping rates at the tailrace.	Comment Noted. Study results will determine the type of drilling used to create the power tunnel and penstock. Final project design, specifically tunnel dimensions, will also dictate construction methods. BCH intends to include a constant flow valve in the powerhouse as a flow bypass.
WDFW 8	PAD - Section 4.1.1 - Diversion Intake Structure	WDFW (Letter July 24, 2012), pg. 17	Recommends more vertical, bank-angled fish screens setup with airburst cleaning system. WDFW recommends the fish passage structure to be sited on the same side of the river as the intake. WDFW has recommended a fish bypass channel, but a roughened channel could provide water impoundment and fish passage with less construction impacts on the river, because of the lack of need for a full river-spanning weir structure.	Comment Noted. BCH has been and will remain in contact with WDFW as the design of the diversion and fish passage structure evolves.
WDFW 9	PAD - Section 4.1.3 - Transmission	WDFW (Letter July 24, 2012), pg. 17	WDFW recommends that BCH design new transmission lines or any electrical infrastructure to the newest Avian Power Line Interaction Committee Guidelines to reduce avian collisions and electrocutions.	BCH agrees that any new transmission lines or electrical infrastructure needs to conform with the most recent Avian Power Line Interaction Committee Guidelines.
WDFW 10	PAD - Section 5 - Description of Existing Environment	WDFW (Letter July 24, 2012), pg. 18	WDFW recommends updating surveys and fish and wildlife information over 5 years old.	BCH agrees and has submitted proposed study plans addressing both fish and wildlife information.
WDFW 11	PAD - Section 4.3.3.6 - Proposed Study Plans	WDFW (Letter July 24, 2012), pg. 18-19	BCH should conduct spawner and juvenile salmonid surveys.	BCH has submitted a "Fisheries Study Plan."
WDFW 12	PAD - Section 5.4.3.1 Issues Related to Project Construction, Operation, and Maintenance	WDFW (Letter July 24, 2012), pg. 19	If construction displaces wildlife during construction, the wildlife may or may not return to the habitat because of the changes to the adjacent habitat. The construction may also bring additional disturbance like traffic and operation personnel therefore making the surrounding habitat unsuitable. Some species do not tolerate humans, development, disturbance, or the invasive species that accompany humans very well. Sometimes the adjacent habitat serves as habitat for another life function of the species, sometimes even just for migrating.	Comment Noted.
WDFW 13	PAD - Section 5.5 - Riparian, Wetland, and Littoral Habitat	WDFW (Letter July 24, 2012), pg. 19	BCH will construct the intake, diversion weir, and powerhouse tailrace within the water and will probably use a cofferdam. Much of the project area will reside within the floodplain of the North Fork.	Comment Noted.

WDFW 14	PAD - Section 5.5.2 Riparian Habitat	WDFW (Letter July 24, 2012), pg. 20	BCH will reduce the amount of riparian area in the bypass reach by reducing flows. WDFW recommends that BCH calculates the amount of riparian area habitat lost, including temporal loss of habitat to calculate mitigation. WDFW recommends mitigating for Priority Habitats at a higher rate to encourage avoidance.	BCH expects changes in stream flow timing and volume in the North Fork to cause exchanges in riparian habitat types. Study results will allow BCH to calculate the amount and type of riparian habitat type which are exchanged.
WDFW 15	PAD - Section 5.6.1 - Listed Species	WDFW (Letter July 24, 2012), pg. 20	WDFW recommends BCH calculates the amount and type of habitat lost for each fish species, particular Washington Priority Species, cutthroat trout and rainbow trout. BCH should also evaluate open road densities, any loss of hiding cover, and loss of quality and quantity of forage for elk and black-tailed deer.	The proposed "Wildlife, Vegetation, and Sensitive Habitats Study Plan" addresses these issues.
WDFW 16	PAD - Section 5.7.2.2 - Proposed Resource Protection and Mitigation Methods	WDFW (Letter July 24, 2012), pg. 20	WDFW recommends all project lands remain open for hunting and fishing through non-motorized access, except those closed for safety and security reasons. BCH could also negotiate better hunting and fishing public access to their project lands by negotiating with Hancock Forest Lands.	BCH's current understanding of hunting and fishing access, based on stakeholder comment, posted "No Trespassing" signs and HFM access policy, is that opportunities are highly limited. However, BCH would like to explore with stakeholders any opportunities to increase recreational access to project lands.
WDFW 17	PAD - Section 5.12.1 - Washington Comprehensive Plans	WDFW (Letter July 24, 2012), pg. 20-21	WDFW recommends our PHS Management Recommendations as a management plan for this project. We would like the Priority Habitats and Species (PHS), Species and Habitat Management Recommendations, added to the list.	FPA section 10(a)(2)(A) comprehensive plan status is given by FERC to any Federal or state plan that meets certain requirements. It is a process involving FERC and the agency promulgating the specific plan. BCH is not able to assign comprehensive plan status.
WDFW 18	SD1 - 3.2.2. Proposed Environmental Measures, Terrestrial Resources	WDFW (Letter July 24, 2012), pg. 21	WDFW would recommend compensatory mitigation for loss of habitat function, even loss of temporal habitat function. WDFW recommends habitat and species surveys before stating that we have no listed federal species in the project area. WDFW recommends securing access for non-motorized hunting and fishing on project lands.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.
WDFW 19	SD1 - 4.1 Cumulative Effects	WDFW (Letter July 24, 2012), pg. 21-22	WDFW recommends BCH consider the cumulative loss of macroinvertebrates and fish production and sediment and debris load with other existing and proposed hydroprojects on the tributaries of the North Fork (Black Creek, proposed Hancock Creek, and proposed Calligan Creek Hydroprojects. BCH should explain whether the project would have an adverse effect to fish and fish habitat.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.

WA ECY 1	Study Request - Water Quality Number Parameter Studies	WA ECY (Letter July 19, 2012), pg. 1-2	To evaluate the effects of project construction, operation, maintenance and other related activities on numeric water quality parameters. Specific objectives include: (1) Determine the existing water quality conditions. Evaluate if current numeric water quality standards are being met; (2) Determine background conditions for turbidity, temperature, DO, pH, total dissolved gas, phosphorus, pesticides, etc.; (3) Assess anticipated project impacts on water quality; (4) If needed, list possible mitigation measures; (5) Provide detailed monitoring plan; (6) Provide inventory, storage, and handling plan for all hazardous materials; (7) Provide SPCC Plans.	BCH has submitted a proposed "Water Quality Study Plan."
WA ECY 2	Study Request - Water Rights	WA ECY (Letter July 19, 2012), pg. 2	Water rights often require special studies but in this case the studies would be the same as those required to determine flows for a Water Quality Certification under the Federal Pollution Control Act (CWA) so we will rely on the CWA and FERC process to establish the flows. Nevertheless, we encourage the applicant to begin conversations with our agency as soon as possible to being the process. The applicant will also have to show how reducing flow in the bypass will impact existing surface and ground water right holders and prior applicants.	BCH has made contact with the Washington Department of Ecology to open discussions regarding these water rights issues.
WA ECY 3	Study Request - Groundwater Resources Assessment	WA ECY (Letter July 19, 2012), pg. 2	Characterize the groundwater system and underlying geology to develop a conceptual model to show any impact that diverting water to a powerhouse has on the instream flows, senior water rights, and water right applicants. Also show the impact of an underground power tunnel on groundwater in terms of instream flows, senior water rights, and water right applications.	A proposed "Groundwater Study Plan" has been submitted.
WA ECY 4	Study Request - Gages	WA ECY (Letter July 19, 2012), pg. 3	Install gages as soon as possible near the proposed intake and powerhouse sites.	Gages will be installed as soon as possible near both the proposed intake and powerhouse sites.
WA ECY 5	Study Request - Fish Community Survey and IFIM	WA ECY (Letter July 19, 2012), pg. 3	Study the proposed bypass river habitat, flows, fish abundance, fish age classes, and seasonal fish use (including fish movement) in the bypass reach. Employ an IFIM with current HIS curves and compare to existing IFIM.	BCH has submitted a "Fisheries Study Plan."
WA ECY 6	Study Request - Fish Passage Evaluation	WA ECY (Letter July 19, 2012), pg. 3	Determine fish passage design that will meet WDFW requirements and recommendations.	A proposed "Fish Passage Study Plan" has been submitted.

WA ECY 7	Study Request - Gravel and Woody Debris	WA ECY (Letter July 19, 2012), pg. 3	Identify quality and quantity of gravel in the area. Provide measurements of gravel bars during low flow. Characterize the bathymetry, gravel size, gravel deposits, and elevations of gravel deposits relative to surface water elevations in the proposed bypass reach as well as 1/4 mile upstream and 1/2 mile downstream. Examine gravel movement at high flows and document scour, accretion, and recruitment. Show how the proposed intake design will affect gravel/woody debris recruitment.	BCH has submitted a "Geomorphology, Large Wood, and Sediment Transport Study Plan."
WA ECY 8	Study Request - Benthic Organism Study	WA ECY (Letter July 19, 2012), pg. 4	Monitor periphyton and benthic populations once each late August or early September for three years at six riffle sites. One above the intake in the vicinity of the old gage, one below the powerhouse, and four in the bypass reach. Also take temperatures at these sites.	BCH has submitted study plans directed at fisheries, vegetation within the bypass reach, and environmental flows among others which BCH believes are adequate to address issues related to periphyton and benthic populations. A "Water Quality Study Plan" includes a temperature analysis.
WA ECY 9	Study Request - Recreation	WA ECY (Letter July 19, 2012), pg. 4	Specifically, class five whitewater boating.	BCH has submitted a "Recreational Boating and River Access Study."
WA ECY 10	PAD - Section 2 - Plans, Schedules, and Protocols	WA ECY (Letter July 19, 2012), pg. 4	Requests that BCH include additional information related to FERC process, cited in PAD, and meeting attendees on BCH website (www.blackcanyonhydro.com).	Comment noted. BCH will attempt to keep the Project website as current as possible.
WA DNR 1	SD1 - Geologic and Soil Resources	WA DNR (Letter July, 24, 2012), pg. 4	Describe how the proposed project will affect sedimentation and erosion within in-stream habitats in the bypass reach.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.
WA DNR 2	SD1 - Aquatic Resources	WA DNR (Letter July, 24, 2012), pg. 4	Describe how the proposed project will alter water flows in the bypass reach and the predicted effects on the diversity and abundance of aquatic organisms; Describe how proposed project will affect water temperatures within the bypass reach and how this will affect aquatic organisms; Describe how powerhouse and tailrace construction will affect in stream habitat, including riverbanks and benthic habitat, at the powerhouse location (please provide an estimate of the footprint area in stream and on banks); Describe the potential for any contaminants from the powerhouse to enter the return flow into the river, including the risk of this occurring and the types of potential contaminants.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.

WA DNR 3	SD1 - Terrestrial Resources	WA DNR (Letter July, 24, 2012), pg. 4	Describe how predicted noise levels at the powerhouse location and construction-related noise will affect wildlife and recreationists in the NRCA (please include an estimate of noise level intensity, duration and how far this will travel. Also describe the potential for operation and construction noise to affect peregrine falcons during nesting season); Describe how the proposed project will affect aquatic recreational activities within the bypass reach, including alteration of scenic values as viewed from the river within the project area.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC. However, noise impacts on sensitive wildlife and recreationists have been included in the proposed "Noise Study Plan."
WA DNR 4	Study Request - Field Surveys for state-listed taxa	WA DNR (Letter July, 24, 2012), pg. 4-5	The goal of this study is to assess the project area for occurrences of rare taxa, including invertebrates, birds, amphibians, reptiles, fish, vascular plants, lichens, bryophytes, and macrofungi and to evaluate the predicted effects of the project on these taxa. Specific objectives include: Survey the project area for taxa and document the location, size, and condition of any observed occurrences Determine the type and extent of potential effects of project-related actions on these taxa Identify measures that may be taken to protect or mitigate any adverse effects on these taxa	The proposed "Wildlife, Vegetation, and Sensitive Habitats Study Plan" includes a Wildlife Observation Study. It will identify wildlife that is or may be present within and adjacent to the study area, evaluate the potential effects of the project on the identified wildlife, and identify PME measures that could be implemented if a license is issued, and incorporate those measures into the HMP. The proposed "Noise Study Plan" includes an evaluation of potential construction and operation general noise impacts on sensitive wildlife species in the vicinity of the Project.
WA DNR 5	Study Request - Benthic macroinvertebrate and periphyton field sampling	WA DNR (Letter July, 24, 2012), pg. 7	The goal of this study is to assess the project area for benthic macroinvertebrates and periphyton as indicators of aquatic habitat quality and to evaluate the predicted effects of the project on these taxa. Specific objectives include: Survey the bypass reach within the project area using existing Index of Biological Integrity (IBI) protocols, Calculate an IBI for the reach, Evaluate potential effects of the project on benthic macroinvertebrates and periphyton	BCH has submitted study plans directed at fisheries, vegetation within the bypass reach, and environmental flows, among others, which BCH believes are adequate to address issues related to periphyton and benthic populations.
Tulalip 1	PAD - Section 5.12.1 - Washington Comprehensive Plans	The Tulalip Tribes (Letter July 24, 2012), pg. 1-2	A number of comprehensive plans are implicated by this project including: NPCC Fish and Wildlife Program, Nationwide Rivers Inventory, Mt. Baker-Snoqualmie Forest Plan, Mt. Si Natural Resources Conservation Area (State of Washington natural heritage plan).	Comment noted.

Tulalip 2	Study Request - Archeological/Cultural Sites	The Tulalip Tribes (Letter July 24, 2012), pg. 3	A detailed archeological survey should be conducted for all areas where ground disturbing activities may occur. The survey should look for any signs of archeological artifacts, burial sites, or signs of tribal cultural use activities that are protected under federal or state laws.	BCH has submitted a "Cultural Resources Study Plan" addressing this study request.
Tulalip 3	Study Request - Resident Fish	The Tulalip Tribes (Letter July 24, 2012), pg. 3	Studies to assess project impacts on fisheries' resources, including but not limited to: benthic macro-invertebrates production, debris and sediment transports effects on screens and fish passage facilities, down-ramping and up-ramping of stream flows affecting fish at all life stages, fish migration, spawning, gravel recruitment, large woody debris recruitment, pool-riffle ratios, side channel habitats, species diversity of fish and food sources, water quality, water temperature and wetlands.	BCH has submitted a "Fisheries Study Plan."
Tulalip 4	Study Request - Water Rights	The Tulalip Tribes (Letter July 24, 2012), pg. 3-4	The Tribes request a study on the effects of project construction on the City of Snoqualmie Canyon Springs water supply and any other water source that might be affected.	A proposed "Groundwater Study Plan" has been submitted.
Tulalip 5	Study Request - Instream Flows	The Tulalip Tribes (Letter July 24, 2012), pg. 3-4	A thorough analysis and study of the hydrograph and a plan for producing adequate process flows is necessary. The Tribes recommend an analysis of current and past stream gages to gain an understanding of what flows are present in the bypass reach and project affected under normal flow conditions.	BCH has submitted an "Instream Flows Study Plan."
Tulalip 6	Study Request - Wildlife Surveys	The Tulalip Tribes (Letter July 24, 2012), pg. 4	The proponents should study the impacts of reduced flows including: reduced side channel habitat and wetland areas in the bypass reach on wildlife. They should also study the noise impacts on Wildlife species using the area.	The "Wildlife, Vegetation, and Sensitive Habitats Study Plan" includes a Wildlife Observation Study. It will identify wildlife that is or may be present within and adjacent to the study area, evaluate the potential effects of the project on the identified wildlife, and identify PME measures that could be implemented if a license is issued, and incorporate those measures into the HMP. The proposed "Noise Study Plan" includes an evaluation of potential construction and operation noise impacts on sensitive wildlife species in the vicinity of the Project. An evaluation of general noise impacts on sensitive wildlife in the Project's vicinity has been included in the proposed "Noise Study Plan."

Snoq. Tribe 1	Study Request - Aquatic Habitat	Snoqualmie Tribe (Letter submitted July 24, 2012), pg. 4	Evaluation of cumulative effects on aquatic habitat, in addition to site-specific impacts, including habitats for insects, mollusks, and amphibians in addition to fish.	BCH has submitted a "Fisheries Study Plan."
Snoq. Tribe 2	Study Request - Splash Zone Habitat	Snoqualmie Tribe (Letter submitted July 24, 2012), pg. 4	Evaluation of cumulative and site-specific effects on splash zone habitat and the organisms that occupy this habitat.	BCH has submitted a range of studies, which will allow for the evaluation of cumulative and site-specific effects on splash zone habitat and organisms within this habitat.
Snoq. Tribe 3	Study Request - Genetic Lineage Evaluation	Snoqualmie Tribe (Letter submitted July 24, 2012), pg. 4	Evaluation of genetic lineages of North Fork Snoqualmie fish populations, specifically investigating if the North Fork Snoqualmie harbors unique, genetically distinct native populations and if the proposed project will affect those populations.	BCH does intend to conduct a study evaluating genetic lineage of North Fork Snoqualmie fish populations. If the Project is licensed, construction and operational requirements and restrictions would apply to all fishery stock regardless of genetic origin.
Snoq. Tribe 4	Study Request - Genetic Lineage/Climatic Uncertainty Evaluation	Snoqualmie Tribe (Letter submitted July 24, 2012), pg. 4	Investigation of genetics of lower Snoqualmie River O. mykiss and O. clarki, comparison of same to North Fork Snoqualmie fish, and evaluation of potential past, present, and/or future contributions of upper river populations to those in the lower river with consideration of climatic uncertainty.	BCH does intend to conduct a study evaluating genetic lineage of North Fork Snoqualmie fish populations. If the Project is licensed, construction and operational requirements and restrictions would apply to all fishery stock regardless of genetic origin.
Snoq. Tribe 5	Study Request - Cultural Resources Assessment	Snoqualmie Tribe (Letter submitted July 24, 2012), pg. 4	Conduct a Cultural Resources Survey for the greater proposed project area.	BCH has submitted a "Cultural Resources Study Plan" addressing this study request.
City Snoq. 1	Study Request - Hydrology/Canyon Springs	City of Snoqualmie (Letter submitted July 24, 2012), pg. 1-4	Investigation of hydrogeology of existing aquifer that supplies the City of Snoqualmie to ensure the Black Canyon Project does not impair either water quantity or quality.	A "Groundwater Study Plan" has been submitted. The "Hydrology Study Plan" will also be relevant to this study request.
King Co. 1	Study Request - Groundwater Resources Assessment	King County (Letter submitted July 23, 2012), Study Requests, pg. 1-2	Investigation of geology and hydrology along the power tunnel alignment to protect City of Snoqualmie's water supply.	A "Groundwater Study Plan" has been submitted.
King Co. 2	Study Request - Flood Impact Assessment	King County (Letter submitted July 23, 2012), Study Requests, pg. 3-5	Investigation of downstream flooding impacts associated with hydropower operations, including an evaluation of the likelihood and potential impacts associated with a dam breach of the proposed Black Canyon hydroelectric facility on the community of Ernie's Grove and other areas of Unincorporated King County and the City of Snoqualmie.	A flood impact assessment has been included in the proposed "Hydrology Study Plan."

King Co. 3	Study Request - Fish Community Survey and Geomorphology	King County (Letter submitted July 23, 2012), Study Requests, pg. 6-8	Comprehensive investigation of resident fish populations, instream flows, gravel and large wood in the proposed bypassed reach.	BCH has submitted a "Geomorphology, Large Wood, and Sediment Transport Study Plan." Additionally, study plans have been submitted which address both instream flows and an investigation of resident fish populations.
King Co. 4	Study Request - Wetland Assessment	King County (Letter submitted July 23, 2012), Study Requests, pg. 9-10	Investigation of wetland and buffer impacts associated with hydropower operations, including direct impacts from construction of the intake, powerhouse, tailrace, access roads, new electrical transmission lines. The investigation shall also include an evaluation of the potential impacts associated with reduced flows in the North Fork Snoqualmie River in the bypass reach.	The "Wildlife, Vegetation, and Sensitive Habitats Study Plan" will also measure and describe the vegetation habitats that occur within the Project Area, including sensitive habitats such as wetlands or old growth forest. It will also evaluate the potential effects of project construction and operation. A Habitat Management Plan will be developed that identifies prevention, mitigation and enhancement measures.
King Co. 5	Study Request - Terrestrial Habitat Resources Study	King County (Letter submitted July 23, 2012), Study Requests, pg. 11-12	Investigation of the presence of wildlife habitat conservation areas in the project area, and evaluation of adverse impacts associated with hydropower operations, including direct impacts from construction of the intake, powerhouse, tailrace, access roads, new electrical transmission lines, and possible expansion of the maintenance corridor of existing transmission lines.	The proposed "Wildlife, Vegetation, and Sensitive Habitats Study Plan" includes a "Wildlife Observation Study." It will identify wildlife that is or may be present within and adjacent to the study area, evaluate the potential effects of the project on the identified wildlife, and identify PME measures that could be implemented if a license is issued, and incorporate those measures into the HMP. The proposed "Noise Study Plan" includes an evaluation of potential construction and operation noise impacts on sensitive wildlife species in the vicinity of the Project. An evaluation of general noise impacts on sensitive wildlife in the Project's vicinity has also been included in the Proposed Noise Study Plan.
Trout 1	PAD - Section 5.12.1 - Washington Comprehensive Plans	Trout Unlimited (Letter July 24, 2012), pg. 5	A number of comprehensive plans are implicated by this project including: NPCC Fish and Wildlife Program, Nationwide Rivers Inventory/recommended for Wild and Scenic River Designation, Mt. Si Natural Resources Conservation Area (State of Washington natural heritage plan).	Comment noted.

Trout 2	PAD - Section 4.1.1 - Diversion Intake Structure	Trout Unlimited (Letter July 24, 2012), pg. 6	We suggest the applicant further describe the operational flexibility of this project component – including additional information about the conditions under which the structure could or would be deflated and the flow levels at which an impoundment would be required to supply the project diversion. The applicant should also provide additional information about the anticipated dimensions of the underlying concrete structure.	An inflatable diversion functions at medium low flows by holding a pool level adequate to supply appropriate amounts of water to the intake, which then sends the flow through a tunnel to the powerhouse. The operational specifics of the inflatable diversion and flow levels requiring inflation will depend upon the amount of flow ultimately being diverted and minimum instream flows. At this stage, prior to studies being conducted, there is not enough information available to estimate likely diversion flows and minimum instream flows. Similarly, dimensions of the underlying concrete will vary depending on the amount of water which must be diverted as well as selecting a final location for the diversion.
Trout 3	PAD - Section 5.2.2 - Water Rights	Trout Unlimited (Letter July 24, 2012), pg. 7	The PAD does not indicate any commitment related to water rights needed to support development of this project. Washington State Law requires a storage right and a hydropower production right to divert water and run that water through a turbine for power generation, respectively. The applicant should demonstrate ability to obtain these rights in a manner that does not result in diminishment to existing, more senior water users.	BCH is aware of these permitting issues and has been in contact with the Washington Department of Ecology.
Trout 4	PAD - Section 5.2 - Water Resources	Trout Unlimited (Letter July 24, 2012), pg. 6-7	The Applicant should evaluate existing flow conditions at the project site – including the relationship between flows and habitat for existing fish populations. The Applicant should evaluate project impacts to these natural flow patterns and develop a flow schedule or plan to ensure that – should the project move forward into licensing – minimum flows sufficient to protect fish and fish habitat will be provided as part of project operation.	BCH agrees that these issues need to be evaluated thoroughly and they have been included in the proposed study plans.
Trout 5	PAD - Section 4 - Project Location, Facilities, and Operations	Trout Unlimited (Letter July 24, 2012), pg. 7	The applicant should ensure sufficient study to fully account for potential adverse impacts related to the extension and use of these roads, including consideration of- and plans for dealing with - run-off and slope stability as well as impacts related to increased travel and access along these routes.	Comment noted. The impacts of project facilities will be evaluated through the study process.

Trout 6	PAD - Section 5.2.3 - Water Quality	Trout Unlimited (Letter July 24, 2012), pg. 7-8	The Applicant must thoroughly evaluate project impacts to river temperatures – both in the North Fork Snoqualmie and potential impacts to temperatures in the mainstem Snoqualmie River downstream. Of particular interest are temperature impacts in the summer months – August specifically – when the lower flows in the River are already close to or in excess of State Water Quality Standards under existing conditions.	Comment noted. The issue of relatively high river temperatures, particularly in summer months (specifically August), and the North Fork's potential temperature buffering role on the mainstem Snoqualmie River has been raised. A proposed "Water Quality Study Plan" has been submitted.
Trout 7	PAD - Section 5.7 - Recreation and Land Use	Trout Unlimited (Letter July 24, 2012), pg. 8	The North Fork Snoqualmie supports recreational use by boaters, kayakers, anglers, sportsmen and others. The Applicant should fully evaluate existing uses and the impact of project construction and operation on those uses. Specifically, the applicant should study project impacts to recreational access – including potential impacts to trails or river access points – and recreational use – including impacts to whitewater flows and to angler use of the river.	BCH has submitted both a proposed "Recreation Resources Study Plan" and a "Recreational Boating and River Access Study Plan."
Trout 8	Study Request - Resident Fish	Trout Unlimited (Letter July 24, 2012), pg. 8-14	The objective of this study is to determine whether proposed Project operations and alternatives would provide suitable conditions for the long-term viability of the population of coastal cutthroat trout and rainbow trout in the river, and to determine whether proposed operations would have a negative effect on cutthroat trout and rainbow trout viability in the natural river channel bypassed by the Project.	BCH has submitted a "Fisheries Study Plan."
AW 1	PAD - Section 4.3 - Power Demand	American Whitewater (Letter July 24, 2012), pg. 11	The applicant states that "Black Canyon intends to sell the power generated by the Project to Puget Sound Energy." During the public scoping meeting however, the applicant stated that Puget Sound Energy has not made a commitment to purchase energy from this Project.	Comment Noted.
AW 2	PAD - Section 4.3 - Power Demand	American Whitewater (Letter July 24, 2012), pg. 11	The applicant characterizes the project as consistent with the King County Comprehensive Plan, and as the type of project supported by the Comprehensive Plan. However, as discussed above, this characterization is not accurate.	Comment Noted.

AW 3	PAD - Section 5 - Description of Existing Environment	American Whitewater (Letter July 24, 2012), pg. 11	The PAD notes that much of its assessment of the existing environment is based on two PADS developed for other projects, which in turn were based on previous Final Environmental Assessments for earlier proposed projects. There needs to be additional discussion regarding the relevance of those environmental assessments given the time that has passed since the information was initially developed.	Comment will be addressed during the ILP Study Plan Process.
AW 4	PAD - Section 5.1.3 - Existing Environment and Resource Impacts	American Whitewater (Letter July 24, 2012), pg. 11	The applicant indicates that further geotechnical assessments are planned during early 2012. The details of these study plans are vague and are premature given that a study plan determination has not been made in this proceeding.	Comment will be addressed during the ILP Study Plan Process.
AW 5	PAD - Section 5.2.1 - General Description of Drainage Area	American Whitewater (Letter July 24, 2012), pg. 11	The PAD identifies that minimum flows have been established for the North Fork and that the measuring location is located below the powerhouse. It should be noted that while measured at a specific gage, the minimum flow requirement applies from the headwaters to the mouth of the river.	Comment Noted.
AW 6	PAD - Section 5.2.4 Existing Environment and Resource Impacts	American Whitewater (Letter July 24, 2012), pg. 12	The applicant's proposed water quality studies of head conduction from the tunnel walls and energy dissipation heat gain in the powerhouse bypass valve will provide insufficient information on water quality impacts of the Project. Water quality, including but not limited to temperature, is intimately linked with flow regime. The proposed water quality studies focus narrowly on the impacts of the facilities and equipment on temperature, but fail to examine the impact of project operations on temperature, turbidity, water quantity, and other water quality measures.	Comment will be addressed during the ILP Study Plan Process.
AW 7	PAD - Section 4.3.1 - Anadromous Fish	American Whitewater (Letter July 24, 2012), pg. 12	The number changes from using the 5 prefix to the 4 prefix. Throughout the section, there is inconsistent use of 5 and 4 prefixes.	Comment Noted.
AW 8	PAD - Section 4.3.3 - Resident Fisheries Resources	American Whitewater (Letter July 24, 2012), pg. 12	The last sentence of the fourth paragraph is incomplete.	Comment Noted.

AW 9	PAD - Section 4.3.3.6 - Proposed Study Plans	American Whitewater (Letter July 24, 2012), pg. 12	The proposed study plan for Fish and Aquatic Resources falls short for a number of reasons. Fish surveys “accomplished by helicopter” will provide insufficient information on fishery resources in the river reach impacted by the project. The literature review of fish resources studies that is described appears to provide insufficient information on the Project reach, an area with unique habitat that may serve as an important refuge for resident fish in large part due to the difficulty of access.	Comment will be addressed during the ILP Study Plan Process.
AW 10	PAD - Section 5.4 - Wildlife and Botanical Resources	American Whitewater (Letter July 24, 2012), pg. 12	As indicated, the wildlife and botanical resources section is based in large part on similar resource assessments of Hancock and Calligan Creek. Because of this, the review focuses on habitat associated with second or third-growth forest. It fails to mention or consider the habitat characteristics and wildlife associated with remnant old-growth forest within the Mt. Si Natural Resources Conservation Area.	Comment Noted.
AW 11	PAD - Section 5.4.1 - Description of Upland Habitat(s) and Vegetation	American Whitewater (Letter July 24, 2012), pg. 12	The statement that there is “no old-growth forest remaining” in the Project area is incorrect.	Comment Noted.
AW 12	PAD - Section 5.4.3.1 Issues Related to Project Construction, Operation, and Maintenance	American Whitewater (Letter July 24, 2012), pg. 12	The PAD asserts certain locations at which a small amount of habitat will be removed. The PAD fails to list habitat lost due to the transmission lines and the creation of a pool behind the dam. This loss must be factored into the impacts. In addition, the PAD asserts that adjacent habitat will continue to support wildlife as it did before construction. This assertion, however, is premature given the lack of information regarding the interconnection of the remaining and impacted habitats.	Comment Noted.
AW 13	PAD - Section 5.4.3 - Existing Environment and Resource Impacts	American Whitewater (Letter July 24, 2012), pg. 13	Terrestrial habitat surveys that include on-the-ground assessment of wildlife and botanical species within the Project area need to be conducted. The review of nearby assessments on commercial forest lands do not adequately characterize the Project area.	Comment will be addressed during the ILP Study Plan Process.

AW 14	PAD - Figure 14	American Whitewater (Letter July 24, 2012), pg. 13	The correct organizational name is American Whitewater, and not American Whitewater Association (this appears incorrectly throughout the document).	Comment Noted.
AW 15	PAD - Section 5.5.5 Acreage Estimate of Land Types	American Whitewater (Letter July 24, 2012), pg. 13	The PAD appears to limit riparian habitat to the 2.6 mile stretch of the bypass reach. However, the environmental analysis must consider riparian habitat that is also affected by the inundated area created by the dam.	Comment will be addressed during the ILP Study Plan Process.
AW 16	PAD - Section 5.5.6 Existing Environmental and Resource Impacts	American Whitewater (Letter July 24, 2012), pg. 13	The PAD asserts that a habitat survey and studies of water quality and quantity will be undertaken to understand impacts on riparian habitat. However, no details are provided on the actual studies or methodologies for riparian and wetland habitat surveys. As with other resource areas, complete study plans need to be developed for stakeholder and Commission review.	Comment will be addressed during the ILP Study Plan Process.
AW 17	PAD - Section 5.6 - Threatened, Endangered, and Special Status Species	American Whitewater (Letter July 24, 2012), pg. 13	The statement that there are no threatened, endangered, or special status species in the Project area should be confirmed. Old-growth forest found within the Mt. Si Natural Resources Conservation Area may provide Marbled Murrelet habitat (<i>Brachyramphus marmoratus</i>). In addition, habitat for Northern Spotted Owl (<i>Strix occidentalis caurina</i>) exists.	Comment will be addressed during the ILP Study Plan Process.
AW 18	PAD - Section 5.6 - Threatened, Endangered, and Special Status Species	American Whitewater (Letter July 24, 2012), pg. 13	The species survey of rare, threatened, and endangered species needs to include old-growth habitat within the Project area where these species are likely to be present.	Comment will be addressed during the ILP Study Plan Process.
AW 19	PAD - Section 5.7 - Recreation and Land Use	American Whitewater (Letter July 24, 2012), pg. 13	The North Fork Snoqualmie is incorrectly listed as an eligible wild and scenic river. As detailed above, the Forest Service found the river suitable as a wild and scenic river and recommended it to Congress for designation.	Comment Noted.
AW 20	PAD - Section 5.7 - Recreation and Land Use	American Whitewater (Letter July 24, 2012), pg. 13	The statement is made that the Project would provide the ability to divert water from the North Fork "in a way that it would reduce high, unsafe stream flows, increasing the number of days when the bypass reach can be kayaked safely." No data are presented to substantiate this claim.	Comment will be addressed during the ILP Study Plan Process.

AW 21	PAD - Section 5.7 - Recreation and Land Use	American Whitewater (Letter July 24, 2012), pg. 13	The study methods focus on counting users but are insufficient in evaluating the impacts of the Project on the recreational resource. The proposed approach does not address the impact of project operations on existing and future recreational uses.	Comment will be addressed during the ILP Study Plan Process.
AW 22	PAD - 5.12.1 - Washington Comprehensive Plans	American Whitewater (Letter July 24, 2012), pg. 14	This section again incorrectly identifies the North Fork Snoqualmie as an eligible wild and scenic river. As noted above, the Forest Service has deemed the river as a suitable wild and scenic river. The 1982 Nationwide Rivers Inventory is referenced as a comprehensive plan with FERC. That Inventory has been updated and filed with the Commission. As such, the 1993 update should be referenced and adopted as a Comprehensive Plan.	Comment Noted.
AW 23	SD1 - Section 3.3	American Whitewater (Letter July 24, 2012), pg. 14	At a minimum, alternatives to the proposed action will need to include an alternative with minimum instream flow requirements to protect fish and wildlife resources and river-based recreational opportunities.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.
AW 24	SD1 - Section 4.2.2	American Whitewater (Letter July 24, 2012), pg. 14	The resource issue of impacts to the flow regime must consider magnitude, frequency, duration, timing, and rate of change. The “effect of reduced flows” is but one element of the overall impacts to the flow regime.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.
AW 25	SD1 - Section 4.2.4	American Whitewater (Letter July 24, 2012), pg. 14	As described above, the claim that there are no known federally listed threatened or endangered species needs to be reexamined in light of the fact that this determination was based off of reports from another project and not specific to the site of the proposed Project.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.
AW 26	SD1 - Section 4.2.8	American Whitewater (Letter July 24, 2012), pg. 14	The review of developmental resources and specifically project economics, needs to consider the conservation measures that are in place for this river reach. In our analysis, the proposed Project will run counter to the multiple national, regional and local comprehensive river conservation planning strategies that have been implemented to protect the environmental and recreational public resource values of the North Fork Snoqualmie.	Comment Noted. Comments on Scoping Document 1 will be addressed directly by FERC.

AW 27	Study Request - Recreational Flow Study	American Whitewater (Letter July 24, 2012), pg. 18	The goal of this study is to evaluate the effects of project construction and operation on the availability and character of river-based recreational opportunities, particularly whitewater recreation on the North Fork of the Snoqualmie River. The objectives of the study are to: 1. Determine the acceptable range of flows and the optimum flow needed for recreational boating (evaluate for whitewater kayaks, rafts, and other craft as appropriate) in the reach of the river known as Ernie's Gorge that would be bypassed by the Project. 2. Determine the timing and duration that the minimum and optimum flows for recreational boating will be available under the current free-flowing condition and with the Project at 15 minute intervals (due to the flashy nature of this river in response to winter rain events, daily average flow data are insufficient for analysis). Evaluate under all different modes of operation scenarios that may be considered. 3. Evaluate the impact of the inundation zone and the dam structure on navigability at flow ranges identified as optimal for whitewater recreation. 4. Determine the impact on the character and quality of the current recreational experience available on the North Fork of the Snoqualmie River.	BCH has submitted a "Recreational Boating and River Access Study."
AW 28	Study Request - Resident Fish	American Whitewater (Letter July 24, 2012), pg. 22	The objective of this study is to determine whether proposed Project operations and alternatives would provide suitable conditions for the long-term viability of the population of coastal cutthroat trout and rainbow trout in the river, and to determine whether proposed operations would have a negative effect on cutthroat trout and rainbow trout viability in the natural river channel bypassed by the Project.	The proposed "Instream Flows Study Plan" will evaluate suitable operational conditions for resident fish populations and potential project impacts on resident fish located within the Project bypass reach.
AW 29	Study Request - Indicators of Hydrologic Alteration/Range of Variability Analysis	American Whitewater (Letter July 24, 2012), pg. 27	The overall objective of the IHA/RVA study is to quantify flow differences between the existing condition and the modified flow regime that would result from Project development.	The proposed "Instream Flows Study Plan" will address flow differences between the existing condition and the modified flow regime that would result from Project development.