

## **Attachment 3: PSP comments and SCL responses**



Relicensing participants' comments on the PSP and SCL's responses are summarized in the following table. In addition to responding to relicensing participant comments on the PSP, SCL has made substantive revisions to some study plans based on new information that has become available since filing of the PSP in October 2006. Study plans where this applies include:

- Study No. 7, Mainstem Aquatic Habitat Modeling, Habitat Suitability Index (HSI) Study component
- Study No. 9, Fish Distribution, Timing and Abundance Study
- Study No. 11, Productivity Assessment
- Study No. 12, Fish Entrainment and Habitat Connectivity Study

Revisions of this nature are identified in the respective study plans.

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**Summary of comments on the Proposed Study Plan filed with FERC on October 16, 2006.**

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
<b>General/Introduction</b>					
1	Letter	01-09-07	USFS	The Proposed Study Plan (PSP) generally does a good job of capturing USDA Forest Service (Forest Service) issues and study requests for the Boundary Hydroelectric Project (Project).	Comment acknowledged.
2	Letter	01-09-07	USFS	No map or verbal description of Project boundary is provided. This should be relevant as some study plans are specific to location.	A 10-map series showing the Project boundary has been posted on the SCL relicensing website.
3	Letter	01-09-07	USFS	Summaries of stakeholder consultation, included in various attachments, do not contain all of the consultation to date. Most cover the period from May-July 2006. There was consultation on this Project beginning in earnest in August 2005 with workgroups convening in April 2006.	The consultation provided by SCL in the major ILP documents filed to date has been that used towards the development of the particular document and in accordance with the regulations. As such, consultation included in the PSP was that dated since filing of the PAD and relevant to the development of the proposed study plans (i.e., May-September 2006). However, documentation of all contacts and outreach with relicensing participants that occurs throughout the process will be included in the License Application to be filed in September 2009.
4	Letter	01-09-07	USFS	There appear to be discrepancies in land ownership on the map provided as PSP Figure 1.3-2. Some lands identified as Private and SCL along the eastside of the reservoir north of Metaline Falls are National Forest System lands.  SCL indicates, in PSP Section 6.2.5 (Page 6-63), that	Comment acknowledged.

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				land ownership information will be available by March 31, 2007. The Forest Service will work with SCL at that time to rectify any discrepancies regarding National Forest System lands.	
5	Letter	01-09-07	USFS	<p>In Attachment 1-1, Summary List of Proposed Studies, under the table heading “Identified Resource Issues” the issue statements should be rewritten to reflect either the fuller scope of the issue or to include the effects of the dam operation in the issue statement. For example:</p> <p>"Effects of the Project on toxic compounds in Boundary Reservoir" should read "Effects of the Project on the accumulation and transport of toxic compounds in Boundary Reservoir."</p> <p>"Abundance, distribution and periodicity of fish in Boundary Reservoir" should read "Effects of the Project on the Abundance, distribution and periodicity of fish in Boundary Reservoir"</p> <p>"Aquatic productivity in Boundary Reservoir" should read "Effects of the Project to aquatic productivity in Boundary Reservoir"</p>	As SCL has moved from the PSP to the Revised Study Plan (RSP), it has reviewed the objectives identified in each study plan to ensure consistency with the issues raised during the Pre-Application Document (PAD) review and scoping.
<b>Geology and Soils</b>					
Study requests not adopted					
				None	None

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
Study No. 1 – Erosion Study					
6	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Erosion Study. The agency appreciates SCL collaborative effort to provide a consensus based study proposal. The following comments are provided to add clarity and/or more specific detail to the study proposal.	Comment acknowledged.
7	Letter	01-09-07	USFS	Consider adding “dispersed shoreline camping” to the example identified in the <i>Project-related recreation</i> under the 1 <sup>st</sup> bullet of Study Goals and Objectives.	Section 2.3 of the Erosion Study Plan has been revised in response to this comment.
8	Letter	01-09-07	USFS	Consider adding the following information to the Summary of Existing Information: The shoreline can be roughly divided into two main categories. 1) Shorelines dominated by rock outcrops, rocklands, and colluvial slopes. This shoreline found north of Metaline, but also occurs in small areas south of Metaline. Often the slopes into the reservoir are steep to very steep. Soils, if they occur are typically shallow and rocky. The trails of past rock slides are apparent. 2) Shorelines dominated by deep fine-textured materials (silt, sand, gravel). This shoreline occurs both above and below Metaline. The slopes into the reservoir are often gentle to moderate. Some beach development is evident in many of these areas, especially at the southern end of the reservoir. Where beach development is occurring, coarser material often collects at or near the waterline, offering some protection from continued erosion. At the north end of the reservoir, beach development is less common, and these slopes are often undercut (as evidenced by hanging roots).	Section 2.4 of the Erosion Study Plan has been revised in response to this comment. Similar language describing the general slope and shoreline conditions has been added to the study plan. This additional language describes the generally steeper bedrock conditions present north of Metaline and the gentler slopes and glacial and alluvial shoreline south of Metaline.

<b>Comment number</b>	<b>Comment format</b>	<b>Date</b>	<b>Affiliation (Individual)</b>	<b>Comment</b>	<b>SCL response to comment</b>
9	Letter	01-09-07	USFS	Consider adding “and other roads identified as necessary for Project purposes” to the 6 <sup>th</sup> bullet of Study Area description. These could be federal roads used to access wells adjacent to the Project reservoir.	Section 2.5 of the Erosion Study Plan has been revised in response to this comment.
10	Letter	01-12-07	USFWS	The Service endorses the proposed study concerning the potential contribution of Project operations (e.g., water levels and water level fluctuations) and associated recreation (e.g., wave action from boating). Service is concerned that continued erosion will adversely affect riparian plant communities and associated fish and wildlife habitat on the perimeter of the reservoir. The results of the study should provide a reasonable estimate of erosion rates and area and volume of land that could be lost to erosion and slope failure over the term of the new license. The information obtained from this study should be useful in determining the need or extent of mitigation that will be required for the duration of the new license.	Comment acknowledged.
11	Letter	01-12-07	USFWS	For sites where it is determined that reducing erosion and slope failure is not feasible, the Service would recommend mitigation elsewhere in the project area and may include but would not be limited to increasing the quantity and quality of important wildlife habitats such as riparian areas and wetlands.	Comment acknowledged. SCL will consider this issue further when it develops PME measures.

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12	Letter	01-12-07	USFWS	As described under Task 1- Information Review, comparing historic (pre-project) aerial photographs with recent aerial and site photographs would provide insight as to the location of natural slides within and above the varial zone of the reservoir. This information will be useful to determine the extent of erosion that has occurred since the Project area was inundated and provide a basis for a more accurate estimate of how much erosion may occur over the lifetime of a new license.	Comment acknowledged.
<b>Water Resources</b>					
Study requests not adopted					
				None	None
<b>General</b>					
13	Letter	01-09-07	USFS	SCL states that "SCL anticipates that control strategies for aquatic macrophytes will be tested and implemented following issuance of the new FERC license (to be developed as part of the Aquatic Macrophytes Management Plan submitted as part of the application for 401 water quality certification)." Language, in this section of the PSP, should also indicate when control strategies will be developed in the relicensing process. It is our expectation that an evaluation of control strategies for aquatic macrophytes will occur, as part of the Integrated Resource Analysis, in order to determine the most effective method(s) that are specific to the current operations and environmental conditions within the Project area. The potential control strategies are also expected to be presented as part of the Preliminary Licensing Proposal and/or the License Application.	Section 2.4 of Attachment 1 to this RSP describes SCL’s approach to addressing the control of exotic aquatic macrophytes. As part of the proposed Integrated Resource Analysis (IRA), the aquatic habitat model will be used to evaluate reservoir drawdown as a means of controlling macrophytes. If modeling indicates that reservoir drawdown will be ineffective, other potential alternative control strategies will be identified in the preliminary license proposal (PLP) and evaluated, post license, as described in the Aquatic Plant Management Plan, to be submitted as part of the License Application and the application for Section 401 water quality certification.

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				It is presently unclear whether this will happen. The process should be similar to SCL’s process regarding strategies controlling TDG levels during relicensing.	
Study No. 2 – Analysis of Peak Flood Flow Conditions above Metaline Falls					
14	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed study of Analysis of Flow Conditions. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
Study No. 3 – Evaluation of Total Dissolved Gas and Potential Abatement Measures					
15	Meeting summary	11-15-06	Confederated Tribes of the Colville Reservation (P. Bailey)	Studies should be undertaken to identify the Boundary Project’s contribution to cumulative TDG concentrations in the Columbia River.	SCL is required by Ecology to meet the state’s TDG standard at the compliance point (currently the USGS monitoring station) and through this compliance, SCL is mitigating for its contribution to cumulative exceedances. Additionally, FERC’s EIS will address cumulative impacts for TDG utilizing existing information regarding other projects in the basin. SCL is participating in Ecology’s TDG TMDL process.
16	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Evaluation of Total Dissolved Gas and Potential Abatement Measures. This study plan is very well organized and provides the needed detail for the issue. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal.	Comment acknowledged.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
Study No. 4 – Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus					
17	Letter	01-09-07	USFS	The Forest Service previously requested (Sediment Analysis/Toxic Contamination Study Request) that fish tissue be sampled and analyzed in order to address our issue related to the health of the public that uses the Colville National Forest. The Forest Service believes that this issue can also be adequately addressed through the initial sampling and analysis of the water column and sediments within and adjacent to the Project area for the presence of toxics of concern followed by biotic tissue, including fish tissue, sampling and analysis if thresholds for concentrations of any of these toxics are exceeded in water and/or sediment analysis.	Tissue samples will be collected as needed, depending on the results of the Phase 1 analysis and/or the 2007 sampling program.
18	Letter	01-09-07	USFS	SCL states that “The proposed plan calls for a focused evaluation of existing information to determine whether the bioavailability of toxics of concern is influenced by the Boundary Project, i.e., establish a Project nexus, and to determine a need for a Phase 2 Toxics Assessment that would focus on field data collection.” USFS recommends replacing this statement with the following: “The proposed plan calls for a focused evaluation of existing information to determine whether the bioavailability of toxics of concern is influenced by the Boundary Project, i.e., establish a Project nexus, and to develop a Phase 2 Toxics sampling and analysis plan that would focus on field data collection and analysis.”	Section 1.0 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.

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19	Letter	01-09-07	USFS	The nexus section should include information, specifically within the EPA Assessment and Site Investigations of Mines on the Lower Pend Oreille River (2002), concerning some of the water samples from the Josephine Mine site which exceeded thresholds/standards for zinc and lead and that some of the sediment samples detected mercury, lead, zinc, silver and cadmium at significant concentrations and/or that exceeded thresholds/standards. It should also be noted, as well, that these samples were taken on lands that USFS understands are owned by SCL.	The sediment sampling information referred to by the USFS describes site characteristics near the Josephine Mine. It does not add clarity to the description of nexus between Project operations and toxics. As such, it has not been included in the study plan.
20	Letter	01-09-07	USFS	PSP Table 3.3-2 does not include Lowest Apparent Effects Threshold (LAET) or Second LAET for PCBs in sediment. There is no discussion as to how the concentrations of this toxic will be measured in sediment samples within Phase 2 of this study.	The appropriate approach for evaluating PCBs will be determined during Phase 1 of the toxics study.  Land ownership issues associated with the Josephine Mine site are still being evaluated by EPA. SCL is unable to state with certainty which entity(s) own the parcels on which these samples were collected.
21	Letter	01-09-07	USFS	SCL states “In addition to providing information ... to help agencies, with jurisdiction over water quality resources in the Project area...” USFS recommends replacing this statement with the following: “In addition to providing information ... to help agencies, with jurisdiction over aquatic and terrestrial animal populations and habitat (including water quality resources) and responsibilities for health of users of such resources in the Project area...”	Section 2.2 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.

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22	Letter	01-09-07	USFS	<p>Under PSP Table 3.3-2, add the following rows and language: under the columns of Constituent, Lowest Apparent Effects Threshold, and Second Lowest Apparent Effects Threshold, add: 1) Mercury, 0.8, 3.04 and 2) PCBs, 62, 354. The above standards should be used for this plan until Freshwater Sediment Quality Criteria are finalized by Washington Department of Ecology for use in the future.</p>	<p>The guidelines in Table 2.2-2 (PSP Table 3.3-2) were used to identify toxics of concern for inclusion in Phase 1 of the study. They are not intended to be used as criteria for evaluating sampling results.</p> <p>Moreover, PCBs were not reported in EPA’s analytical summary tables because they were “non-detect” in the laboratory analyses, and mercury values were below surface soil guidelines or freshwater sediment thresholds. Nevertheless, both PCBs and mercury were identified as toxics of concern for the Phase 1 evaluation.</p> <p>Because of a lack of appropriate standards for identifying thresholds for determining Project effects on toxic compounds bioavailability, thresholds will be derived from pathways analysis. The endpoints for pathways analysis are biological indicators and attributes that reveal stress. The biotic endpoints have associated criteria (e.g., fish tissue concentrations, surface water exposure concentrations that are related to sediment concentrations) protecting biota from chronic and acute effects when exposed to toxic metals and PCBs. Thresholds for determining effects to biological indicators will consider, but will not be limited to, Lowest Apparent Effects Threshold and Second Lowest Apparent Effects Threshold. SCL will develop a decision-matrix from pathways analysis that highlights “triggers” as defined by risk assessment</p>

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					<p>analysis for confirmation of harmful effects to biological indicators. This will be presented as a conceptual model that helps define effective concentration (that leads to biological uptake) versus absolute concentration (in the sediment). Identifying thresholds through pathways analysis and risk assessment will allow SCL to propose management goals based on Project operations and environmental conditions.</p> <p>Relicensing participants will be given the opportunity to participate in the process described above.</p>
23	Letter	01-09-07	USFS	Under Study Goals and Objectives, none of the objectives address the request from Jean Parodi of WDOE for water column sampling and analysis for toxics in an 08-29-06 response to FERC's SD1 and also requested during the water quality meetings. This request is not addressed in the Water Quality Constituent and Productivity Monitoring section of the PSP.	All sampling related to toxics will be completed as part of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus study. No toxics sampling will be conducted as part of the Water Quality Constituent and Productivity Monitoring. Ecology considers SCL's proposed study approaches for addressing water quality and toxics to be acceptable (01-12-07 Water Quality Workgroup conference call summary [Attachment 4]).
24	Letter	01-09-07	USFS	Under Study Goals and Objectives, none of the objectives contain language that indicates that sampling of sediments within the reservoir and within the fluctuation zone will occur. The current language, "Develop an appropriate sampling plan for toxics of concern (Phase 2 of the overall toxics evaluation) that focuses on conditions specific to Boundary Reservoir," is not adequate. The	Section 2.3 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.

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				<p>following are suggested edits of this existing section in the PSP.</p> <p>Replace “The goals of the Phase 1 Toxics Assessment are to identify any pathways of contamination and/or mechanisms ... Specific objectives of the Phase 1 study are listed below.” with the following: “The goals of the Phase 1 Toxics Assessment are to identify any pathways of contamination and/or mechanisms for changes in bioavailability in Boundary Reservoir for toxics of concern and to evaluate the effect of Project operations on these pathways and/or mechanisms. Developing a more complete assessment of the effect of Project operations on the availability or conveyance of one or more of the toxics of concern will allow for the development of an appropriate toxics sampling plan (e.g., biota, water column, and/or sediments) for Boundary Reservoir (i.e., Phase 2 of toxics evaluations in Boundary Reservoir. Specific objectives of the Phase 1 and Phase 2 study plans are listed below.”</p> <p>The objectives of Phase 1 should be given a heading of Phase1. The 6th specific objective of Phase 1, in the PSP, should be eliminated.</p>	
25	Letter	01-09-07	USFS	<p>The following language should be added to elaborate on the objectives of a Phase 2 Sampling and Analysis Plan from SCL:</p> <p><b>Phase 2</b>  <i>Objective 1.</i> Determine the most appropriate form(s) of each toxic of concern for analysis.  <i>Objective 2.</i> Sample and analyze water column and</p>	<p>An appropriate toxics sampling and analysis plan, including sampling media and locations, as identified in the USFS Phase 2 objectives, can only be developed after the completion of the Phase 1 evaluation. See Section 2.3 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan</p>

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				<p>pore water for concentration of toxics of concern. Sampling protocol and method of analysis will be acceptable to all stakeholders. Sampling sites will, at a minimum, include locations in the tailrace of Box Canyon Dam, below every active or inactive mining area adjacent to the reservoir and/or with surface water drainage through the area. Sampling will also include the area immediately below the cement kiln residue along the mouth of Sullivan Creek. Sampling would occur in 2007.</p> <p><i>Objective 3.</i> Sample and analyze sediment for concentration of toxics of concern. Sediment size to be sampled shall be 2mm or less in size. If possible, depending upon sampling method used, trend of toxic concentrations should be determined for deep water samples. Sampling protocol and method of analysis will be acceptable to all stakeholders. Sampling sites will include locations above and below the drawdown interval where Project operations affect or have the potential to affect deposition or transport of sediments. Sampling sites would specifically include the areas within the varial zone of the reservoir immediately below the cement kiln residue along the mouth of Sullivan Creek and below every active or inactive mining area adjacent to the reservoir and/or with surface water drainage through the area to the reservoir. Sampling would occur in 2007.</p> <p><i>Objective 4.</i> Existing sampling and analysis of water and sediment sampling within the Project area have found concentrations of several toxics of concern that exceed thresholds/standards in the Environmental Protection Agency’s (EPA) Preliminary Assessments and Site Investigations</p>	<p>for a description of SCL’s Phase 2 objectives.</p> <p>In its Objective 4, the USFS makes the statement that criteria for evaluating results of toxics sampling will be “previously agreed upon by both stakeholders and SCL.” The process used to identify toxics criteria for the Project is described in response to number 22 to the USFS 01-09-07 PSP comment letter, and includes the opportunity for relicensing participant input.</p>

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				<p>Report for the Lower Pend Oreille River Mines and Mills (Ecology and Environment 2002). If the results of the water column and/or sediment sample analysis, in this phase, indicate that applicable thresholds/standards (previously agreed upon by both stakeholders and SCL) are not being exceeded for any of the toxics of concern, bioassays and tissue sampling would not be considered necessary. However, if the results of this analysis indicate that applicable thresholds/standards are exceeded for any of the toxics of concern, bioassays and tissue sampling would commence in either late 2007 or 2008. Tissue sampling shall include tissue from larger macroinvertebrate(s) such as, but not limited to, crayfish. Tissue of fish species, representative of those found in the reservoir, shall also be sampled and analyzed for concentrations of toxics of concern. Bioassays should include the testing of the most sensitive macroinvertebrates, amphibians and fish that are resident in or adjacent to the Project Area exposed to waters and/or sediments with concentrations of toxic(s) above agreed upon thresholds/standards. Sampling protocol and methods of analysis will be acceptable to all stakeholders.</p>	
26	Letter	01-09-07	USFS	<p>In section PSP 3.3.4, replace the Need for Additional Information section with the following: The Toxics Inventory and Screening evaluated toxics in the Project area based on water column information, and also reviewed sediment and fish tissue information and potential sources of contamination. Toxics with little or no information, recent exceedances of water quality standards, or potential sources of</p>	<p>Section 2.4 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised to include this new language except for the statement that “sampling of the water column and sediments for toxic concentrations will be initiated in the summer of 2007.” As noted in response number 25 to the USFS 01-09-07 PSP</p>

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				<p>contamination in the Project area were considered to be of medium concern. The EPA report evaluated toxics in the Project area based on sediment data and the presence of contaminants in waterways. These two assessments identified toxics of concern in the Project area, but neither the screening nor the review of the EPA report identified a nexus between any toxics and specific Project operations. More information is required to assess the potential influence of Project operations on the bioavailability and transport of the six toxics identified for further evaluation.</p> <p>Completing the Phase 1 Assessment and Phase 2 Sampling will provide the missing information to allow SCL and relicensing participants to assess the Project’s potential influence on the bioavailability of the six toxics of concern. It is SCL’s intent that the decision regarding the nature and extent of sampling will be made in consultation with relicensing participants and subject to FERC approval and that sampling of the water column and sediments for toxic concentrations will be initiated in the summer of 2007, although some sampling might have to be conducted in 2008, following completion of the Mainstem Sediment Transport, Hydraulic Routing Model, and Shoreline Erosion studies.</p>	<p>comment letter, Phase 1 must be completed before sampling media can be determined for Phase 2.</p>
27	Letter	01-09-07	USFS	<p>Under the Proposed Methodology section the statement is made that "Some of the potential sampling schemes are described below"; however the discussion which follows, in the PSP, does not describe sampling schemes. To correct this situation, replace the 1<sup>st</sup> paragraph under Proposed</p>	<p>Section 2.5 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.</p>

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				<p>Methodology with the following:</p> <p>“A detailed literature-based assessment of the toxics of concern identified in the Toxics Inventory and Screening and additional toxics assessment, i.e., arsenic, cadmium, lead, mercury, zinc, and PCBs, will be conducted. The purpose of this assessment is to develop and understanding of the nexus between Project operations and the availability and transport of these toxics. The assessment will focus on researching and answering Objectives 1 through 5 described above. The next step will be to develop an appropriate sampling and analysis plan (SAP) as part of Phase 2 described above.”</p>	
28	Letter	01-09-07	USFS	<p>Under Proposed Methodology, replace the 3<sup>rd</sup> paragraph with the following: “Analysis of concentrations of toxics currently occurring in Boundary Reservoir would require sampling of the possible media where toxics are concentrated. This would include sampling and analyzing the water column, surface sediments, and deep sediments. Sampling and analyzing tissue from aquatic biota (macroinvertebrates and fish) may occur depending upon the results of the water and sediment analysis. Collection of water, sediment and possibly biotic tissue samples will all involve analysis of toxic concentrations by a certified laboratory. Sampling these media will provide information on current concentrations of target toxics in the sampling location. Biota sampling can be conducted for either pelagic and/or benthic organisms to evaluate the transportation and accumulation of toxics in the food</p>	<p>Section 2.5 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.</p>

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				web and can provide some information on concentration in the water column and/or surface sediments.”	
29	Letter	01-09-07	USFS	Under Proposed Methodology, delete the following from Paragraph 6: “If sediment sampling was identified as the appropriate medium on which to evaluate toxics in the reservoir, on-site verification of results of the Phase 1 sediment deposition analysis may be required as part of the Phase 2 study.”	Section 2.5 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.
30	Letter	01-09-07	USFS	PSP Table 3.3-3, Proposed project schedule, does not include a target date for Phase 2. Phase 2 Sampling and Analysis Plan should be part of the Toxics Study Plan and estimated target date in 2007 should be presented.	The proposed schedule shown in Table 2.9-1 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised to include a greater number of milestones and a clear outline of the commenting process and timeframes for relicensing participant involvement, and FERC approval of the Phase 2 SAP.
31	Letter	01-09-07	USFS	Under Anticipated Level of Effort and Cost, replace “Based on a cursory review of study needs, the anticipated cost for this proposed study is \$95,000 all of which is required in 2007 for the Phase 1 Toxic Assessment and report preparation. Only after the Phase 1 Report is completed, will it be possible to assess the extent of a Phase 2 sampling program, from which an estimate of effort and cost would be developed.” with the following:  “Based on a cursory review of study needs, the anticipated cost for this proposed study is \$95,000,	SCL will develop a Phase 2 sampling cost estimate when a Phase 2 SAP is prepared at the end of the Phase 1 evaluation.

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				which is required in 2007 for the Phase 1 Toxic Assessment and report preparation and, in 2007-8, \$X (insert estimate) for Phase 2 water column and sediment sampling and analysis. Only after the water and sediment analysis is completed, will it be known whether biotic tissue sampling and analysis and bioassays are necessary. If this step is considered necessary, it will then be possible to assess the extent of a Phase 2 bioassay and tissue sampling and analysis program, from which an estimate of effort and cost would be developed.”	
32	Letter	01-09-07	USFS	Table A-3: Surface water sample for Josephine Mine for zinc indicates that it is below LAET which is a threshold for sediment concentrations. It should read above both acute and chronic levels. Pend Oreille Mine sediment sample should be listed as above Second LAET under Comparisons to Guidelines/Threshold. It is presently blank.	Table A-3 has been corrected to indicate that the Josephine Mine surface water sample for zinc is above chronic and acute levels.
33	Letter	01-09-07	USFS	The Summary of Stakeholder Comments on Draft Water Resources Study Plans does not include the notes from the conference call between Forest Service and SCL concerning the Toxics study plan. Please include these notes.	USFS comments from the 09-22-06 conference call between the USFS and SCL are shown in response number 44. See Attachment 4 for the complete call summary.
34	Letter	01-12-07	FERC	On January 5, 2007, an updated version of the following component of the proposed study plan was distributed electronically: Toxics Assessment—Evaluation of Contaminant Pathways, Potential Project Nexus. FERC comments apply to this updated version of the proposed study plan.	See response number 30 to the USFS 01-09-07 PSP comment letter.

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				<p>A key principal of the Integrated Licensing Process is a well defined process and schedule for resolving study needs. While the ILP is sufficiently flexible to permit the phased approach, SCL’s proposed schedule lacks detail and may not provide adequate time for the parties to comment on the sampling plan, the Commission to consider any disputes over the sampling plan, and for SCL to commence and complete field sampling in the summer of 2007. If SCL continues to recommend the phased approach in the revised study plan, FERC recommends that the schedule outlined in section 1.1.9 propose specific dates for each milestone and that the milestones be expanded to clearly outline the commenting procedures and timeframes for the parties. SCL also may want to develop and review the phase 2 sampling plan with the participants concurrently with phase 1 study results instead of sequentially. While SCL may propose that the timeframes and steps be accelerated for this study, the participants should be made aware of the expected timeframes and commenting procedures so that they may comment on the adequacy of the proposed schedule.</p>	
35	Letter	01-12-07	USFWS	<p>The following comments are based on the Service's review of the revised "Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus, " dated December 18, 2006, and submitted to the Service via email on December 21, 2006, by Barbara Green, (SCL).</p> <p>SCL states : "The toxics of concern can be found in a variety of forms or species (please see attached</p>	<p>The table in question is included as Table A-1 in Appendix 2 (Examples of Toxic Variants and Technical Sampling Considerations) to this RSP.</p>

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				Table A-1, titled "Examples of Toxic Variants and Technical Sampling Considerations)." There is no table with this title included in the latest revision of the study plan and therefore the Service is not able to review its contents at this time. Table A-1 in the previous version of the study plan is titled "Summary of Assessment Criteria".	
36	Letter	01-12-07	USFWS	The agency requests that the following text regarding agency resource management goals be included in Section 1.1.2. <i>"The Service is responsible for federally listed species, including threatened bull trout (Salvelinus confluentus), migratory birds, and supporting habitats. A short reach of Sullivan Creek commencing at it's confluence with the Pend Oreille River has been designated as critical habitat for bull trout. The draft Bull Trout Recovery Plan identifies as a recovery objective, "restore and maintain suitable habitat conditions for all bull trout life history stages and strategies," and identifies investigation and improvement of water quality as a specific action to address this objective."</i>	Section 2.2 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised to include the text provided by USFWS regarding resource management goals.
37	Letter	01-12-07	USFWS	Washington State surface water quality standards for cadmium (Cd) are listed as 3.7 µg/L (acute) and 1.03 µg/L (chronic), which are less stringent than the federal ambient water quality criteria (AWQC) of 1.62 µg/L (acute) and 0.21 µg/L (chronic). The federal standards were revised (to the above values) in 2001 based on studies that demonstrated adverse effects to bull trout at the previous AWQC for Cd (Hansen et al.2002). When considering Applicable, Relevant and Appropriate Requirements (ARARs)	SCL has discussed cadmium water quality standards with the appropriate staff at Ecology and has been advised to keep using the CWA approved standards when addressing regulatory concerns. Since the basis of our assessment has been to determine exceedences of water quality standards, SCL has maintained use of the state standard in the RSP. It is important to note that cadmium levels do exceed the state water quality standard and as such cadmium is

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				for sites where toxics are present, Washington State acknowledges that the more stringent federal Cd criteria are appropriate. Because federally listed threatened bull trout are present in the Project area, and because of their specific sensitivity to Cd, the Service recommends using the federal Cd criteria in this table (with an appropriate footnote) instead of Washington State water quality standards.	included in the RSP for in depth review and analysis.
38	Letter	01-12-07	USFWS	Lowest Apparent Effects Thresholds and Second Lowest Apparent Effects Thresholds are also available for mercury and PCBs and should be added to this table (PSP Table 3.3-2).	See response number 22 to the USFS 01-09-07 PSP comment letter.
39	Letter	01-12-07	USFWS	Washington Department of Ecology has draft freshwater sediment quality criteria. It is our understanding that these criteria, once promulgated, will supersede the freshwater Sediment Quality Values. These draft criteria are already being used as draft ARARs for clean up of contaminated sites in Washington State, with the understanding that they will be finalized in the near future. The Service recommends that the Applicant consider these draft criteria for use in the toxics evaluation process and incorporate them in the table.	Neither EPA nor Ecology use proposed or draft criteria in their regulatory programs. Please see response number 22 for a description of how toxics criteria will be applied for this study.
40	Letter	01-12-07	USFWS	In Section 1.1.3, Objective 3, SCL states " <i>Document the level of cadmium that begins to disrupt primary production.</i> " Please add the phrase " <i>and that causes adverse impacts to bull trout</i> " to this sentence.	Section 2.3 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
41	Letter	01-12-07	USFWS	Please add the following sentence to the end of this objective (Section 1.1.3, Objective 3) and number it as vii): " <i>Document the effects of changing water hardness on the toxicity of arsenic, Cd, lead and zinc to aquatic organisms.</i> "	Section 2.3 of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus Study Plan has been revised in response to this comment.
42	Letter	01-12-07	USFWS	It is possible (and advisable) for the Applicant to develop a draft scope for the Phase 2 sampling plan as soon as possible, and still leave study plan specifics (such as final sampling locations, analysis methods, etc.) dependent on the results of ongoing studies. The draft study plan should identify the likely progression of field sampling activities (e.g., water column and sediment sampling and analysis, dependent on Phase 1 results, followed by potential biotic sampling and bioassays, dependent on the results of water and sediment data). The study plan should also identify "triggers" that would indicate the need to perform additional tasks: For example, if sediment data indicated that metals toxic effects threshold for benthic macroinvertebrates were exceeded then bioassays would be conducted to determine if metals in Boundary Reservoir sediments were causing toxicity to benthic macroinvertebrates. It is important that all stakeholders are involved in determining appropriate triggers to incorporate in the study plan, as well as the appropriate effects thresholds, sampling and analysis methods and sampling locations when data are available to do so. The Service recommends that scoping of this study plan begin in January 2007, as soon as the Applicant's technical consultants are available, so that stakeholders have the opportunity to support the study plan within an appropriate	See response number 25 to the USFS 01-09-07 PSP comment letter.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				timeframe in the FERC relicensing process.	
43	Letter	01-12-07	USFWS	The Service did not find a table titled "Examples of Toxic Variants and Technical Sampling Considerations" (referred to under Phase 2, Objective 1) and are therefore not able to evaluate this information at this time.	See response number 35 to the USFWS 01-12-07 PSP comment letter.
44	Conference call	09-22-06	USFS (T. Shuhda)	SCL should add language to study plan stating that if in the course of sampling in the reservoir, any sample results are found to exceed public health standards, that game fish tissue will be sampled. The presently proposed study plan is not adequate in addressing the Forest Service issue concerning any health risks to the public that uses National Forest lands within and adjacent to the Project boundary. Another step in the toxics study plan should be added that details what SCL will do if sampling shows that health standards are exceeded.	See response number 25 to the USFS 01-09-07 PSP comment letter.
45	Meeting summary	11-15-06	USFWS (J. Campbell)	Existing information is sufficient to develop a SAP for the RSP as opposed to waiting until completion of Phase 1.	See response number 25 to the USFS 01-09-07 PSP comment letter.
46	Phone call record	12-01-06	Confederated Tribes of the Colville Reservation (D. Hurst)	D. Hurst said that he is concerned that SCL will not commit to sampling in the study plan, but if a link was made in the revised study plan to sample sediments, water column, pore water, he could probably live with that approach. D. Hurst stated that the difference in timing between the Tribe's and SCL's proposals was not the biggest issue. He reiterated that he wanted a commitment to sample, that it could not be conditional on what was	See response number 25 to the USFS 01-09-07 PSP comment letter.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				identified in SCL’s proposed Phase 1 of the study.	
47	Phone call record	12-20-06	USFS (T. Shuhda)	<ul style="list-style-type: none"> <li>The USFS does not agree with omitting mercury and PCBs from PSP Table 3.3-2.</li> <li>In Phase 2 Objective 3, SCL states "Conduct additional sampling as necessary. SCL will consult with Ecology to establish appropriate triggers that indicate if additional field sampling is required." The USFS remains concerned that this may reflect intent to only consult with Ecology and not the other mandatory conditioning authorities on the development of the Phase 2 sampling plan. The language appeared inconsistent with SCL's stated intent to work with all stakeholders in other parts of the document, and that this intent should be clarified in Phase 2 Object 3.</li> </ul>	See response number 22 to the USFS 01-09-07 PSP comment letter.
48	Phone call record	12-20-06	USFS (T. Shuhda)	<ul style="list-style-type: none"> <li>There is concern that SCL's plan does not commit to water column and sediment sampling. The USFS disagrees with SCL's reliance on Phase 1 results before determining Phase 2 because he believes there is sufficient information available now to warrant a commitment to these two types of sampling in Phase 2. An example in the study plan where such specificity would help is in Phase 2, Objective 2 where SCL states "Sampling will include sediments, water column, and aquatic biota as appropriate based on the results of Phase 1". "As appropriate" suggests that SCL will not commit to any specific sampling prior to Phase 1 results.</li> </ul>	See response number 25 to the USFS 01-09-07 PSP comment letter.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				<ul style="list-style-type: none"> <li>If aquatic biotic tissue sampling is deemed appropriate, there should be a commitment to macro invertebrate sampling as well because he believes it is equally important as fish tissue sampling. Macroinvertebrate sampling will identify potential affects on amphibians, while fish tissue sampling would identify potential affects to forest users, i.e. fishers, as well as potential affects to the health of listed species.</li> <li>In Phase 2 Objective 3, the "tissue sampling <b>would be</b>, (not could be), conducted in late 2007 or 2008."</li> </ul>	
49	Phone call record	01-12-07	Ecology (M. Mangold)	Ecology found the revised study plan for addressing toxics to be adequate and recognized the progress made since Tetra Tech had been engaged.	Comment acknowledged.
50	Phone call record	01-12-07	USFS (T. Shuhda)	Based on the current schedule, it appears that it would be difficult to complete stakeholder review and begin sampling in summer of 2007. Stakeholders would not have enough information to make determinations about 2008 sampling, including whether there is a need for tissue sampling or bioassays.	No later than one year from the FERC study determination date, relicensing participants will have a formal opportunity to review 2007 study results, from the toxics study as well as other relevant studies, and based on this determinations can be made about the 2008 field season. In addition, SCL is proposing to submit a Phase 2 SAP for FERC review and approval at the completion of Phase 1. The proposed schedule calls for this submittal to occur in July 2007. Upon FERC approval, SCL will initiate Phase 2 sampling efforts.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
51	Phone call record	01-12-07	USFS (T. Shuhda)	Referring to Table 3.3-3 in the toxics study plan, Tom Shuhda (USFS) stated that the Phase 1 analysis was scheduled to be initiated in March 2007 and asked why it could not begin immediately.	The initiation date had been established by SCL to follow the issuance of FERC’s study plan determination. However, the Technical Consultant is already working on the Phase 1 assessment.
52	Phone call record	01-12-07	Confederated Tribes of the Colville Reservation (D. Hurst)	A one-dimensional sediment model that addresses only longitudinal sediment dynamics will not provide detailed enough information for developing a sampling and analysis plan. According to the study plan, one-dimensional modeling is to be used to identify areas in Boundary Reservoir where sediments with grain sizes similar to waste rock or tailings are likely to have been deposited. Particle size distributions in waste rock piles are poorly understood and care should be taken to ensure that modeling takes into account the full range of relevant particle sizes.	The one-dimensional model will only be used during Phase 1 to inform the development of the toxics pathways conceptual model. The mainstem sediment transport model, once fully developed, will be used to refine sampling needs for consideration in 2008.
53	Phone call record	01-12-07	Confederated Tribes of the Colville Reservation (D. Hurst)	The study plan states that the SAP and QAPP will follow Ecology guidelines. Don stated that Ecology’s guidelines are not representative of generally accepted scientific practice and that EPA standards should be used instead.	Ecology has developed its standards and guidelines under supervision from EPA, as required by law, and as a result, Ecology’s standards are consistent with EPA’s.
54	Phone call record	01-12-07	USFWS (J. Campbell)	Will it be possible for stakeholders to review the conceptual toxics pathways model before March 2007, to provide input as the model is being developed?	SCL has provided a more detailed schedule for Phase 1 activities in the RSP, including an opportunity for relicensing participant review of the draft Phase 1 report.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
55	Phone call record	01-12-07	USFS (T. Shuhda)	The study plan calls for a meeting with stakeholders to review the draft Phase 2 sampling plan in July 2007. It would be better to hold the meeting in June 2007 to ensure adequate time to begin field sampling in summer.	The draft Phase 2 sampling plan will be submitted to relicensing participants by 06-29-07. A meeting to discuss the draft Phase 2 sampling plan with relicensing participants will be held during the week of 07-09-07.
56	Phone call record	01-12-07	USFS (T. Shuhda)	Is it possible for water column sampling for toxics to be undertaken without the level of analysis being performed for sediment sampling?	Sampling will be undertaken opportunistically, so that water column sampling, as indicated by the Phase 1 investigation, could begin sooner than sediment sampling.
57	Email	01-17-07	WDOE (M. Mangold)	Ecology clarified that Ecology guidelines are based on EPA guidelines and by law states cannot have lower toxics standards than EPA.	Comment acknowledged.
<b>Study No. 5 – Water Quality Constituent and Productivity Monitoring</b>					
58	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Water Quality Constituent and Productivity Monitoring. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal. The following comments are provided to add clarity and/or more specific detail to the study proposal.	Comment acknowledged.
59	Letter	01-09-07	USFS	"Water quality issues in Boundary Reservoir appear to be limited to pH, total dissolved gas (TDG), water temperature, and potentially toxics." A description of the proposed water quality sampling is outlined in this section of the PSP. However, there is no proposal to include the analysis of the concentrations of toxics of concern from these samples. If the Toxics Assessment does not address the request by WDOE for this type of analysis, it needs to be	All sampling related to toxics will be completed as part of the Toxics Assessment: Evaluation of Contaminant Pathways, Potential Project Nexus study. No toxics sampling will be conducted as part of the Water Quality Constituent and Productivity Monitoring. Ecology considers SCL’s proposed study approach for addressing water quality and toxics to be acceptable (01-12-07 Water

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				addressed either in this assessment or this water quality section.	Quality Workgroup conference call summary [Attachment 4]).
60	Letter	01-09-07	USFS	Sampling stations presented in the PSP should be revisited to ensure the best locations to also sample for toxic concentrations in the water column.	See response number 59 to the USFS 01-09-07 PSP comment letter.
61	Letter	01-09-07	USFS	Under Detailed Description of Study, SCL states that data on zooplankton “will be collected in the summer, winter and spring...” It is unclear why sampling should not also be done in the fall for a more complete picture of zooplankton abundance and distribution within the Project area throughout the year.	Seasonal variability in zooplankton abundance and diversity will be accounted for by the proposed sampling design. As described in Section 2.5 of the Water Quality Constituent and Productivity Monitoring Study Plan, monthly zooplankton tows will be collected at five sites during May through September 2007, November 2007, and January and March 2008. This sampling program is intended to describe zooplankton abundance and distribution throughout the year. Those zooplankton tows will be supplemented by zooplankton tows collected during summer, winter and spring designed to assess zooplankton drift.
<b>Study No. 6 – Evaluation of the Relationship of pH and DO to Macrophytes in Boundary Reservoir</b>					
62	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed study of the relationship between pH and DO and macrophytes. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
<b>Fish and Aquatic Resources</b>					
Study requests not adopted					
				None	None

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
General					
63	Meeting summary	11-15-06	Confederated Tribes of the Colville Reservation (P. Bailey)	Studies should be conducted to assess the indirect effects of the Boundary Project on the white sturgeon population in the Columbia River.	Cumulative impacts will be assessed as part of FERC's EIS, but FERC cannot condition SCL's license to mitigate for the effects of other Projects on the Pend Oreille or Columbia rivers.
Study No. 7 – Mainstem Aquatic Habitat Modeling Study					
64	Meeting summary	11-15-06	USFS (T. Shuhda)	To develop Habitat Suitability Curves as a part of modeling, a greater number of samples would be needed in the littoral zone of Box Canyon dam, and these should be located upstream of the forebay.	Section 2.5, subsection <i>Habitat Suitability Indices Development</i> , of the Mainstem Aquatic Habitat Modeling Study Plan has been revised in response to this comment.
65	Letter	01-09-07	USFS	The Forest Service agrees with SCL's proposed Mainstem Aquatic Habitat Modeling Study. The agency appreciates SCL's collaborative effort to provide a consensus based study proposal. The following comments are provided to add clarity and/or more specific detail to the study proposal.	Comment acknowledged.
66	Letter	01-09-07	USFS	PSP Table 4.1-1: The table is labeled Aquatic macrophytes found in aquatic bed cover types. The table contains Oxeye daisy, St. Johnswort, common plantain and American speedwell. These are not considered aquatic macrophytes. The title of the table should be changed or these species taken out of the table.	Table 2.4-1 in Section 2.4 of the Mainstem Aquatic Habitat Modeling Study Plan has been revised in response to this comment.
67	Letter	01-09-07	USFS	Please use the common name, Eurasian watermilfoil, rather than spike watermilfoil in reference to <i>Myriophyllum spicatum</i> . This is the name that is familiar to most readers.	Table 2.4-1 in Section 2.4 of the Mainstem Aquatic Habitat Modeling Study Plan has been revised in response to this comment.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
68	Letter	01-09-07	USFS	Under Task 2 Aquatic Plant Field Surveys: The proposal would conduct field surveys of aquatic plant distribution and abundance in macrophyte beds within the varial zone and <b>may</b> do the same surveys in Box Canyon Reservoir to represent habitat suitability under run of the river conditions. It seems essential information for how differences in macrophyte distribution and abundance will be demonstrated under different dam operating scenarios that would otherwise have to be modelled.	Section 2.5, subsection, <i>Macrophyte HSI Task 2</i> , of the Mainstem Aquatic Habitat Modeling Study Plan has been revised in response to this comment and to clarify SCL’s intention regarding sampling in Box Canyon Reservoir. If a suitable sampling site representative of low pool level fluctuations is not available in the Boundary Reservoir immediately below Box Canyon Dam, then sampling will occur in Box Canyon Reservoir. SCL believes that sampling in Box Canyon Reservoir is the most likely outcome, but reserves the final decision regarding sampling locations until after the habitat mapping exercise is completed.
69	Letter	01-09-07	USFS	The Aquatic Plant Field Surveys within the varial zone should also include some estimation of the extent and, if possible, identification of macrophytes still submerged within the reservoir beyond the lowest water surface level. This information is important to understand the breadth of the infestation, what control measures may be considered in the future and what their limitations, if any, may be.	Section 2.5, subsection <i>Physical Habitat Model Development Task 3</i> , of the Mainstem Aquatic Habitat Modeling Study Plan has been revised in response to this comment.
70	Letter	01-09-07	USFS	Under Task 3 Benthic Communities of Soft Substrates: This task needs to include at least one additional transect to cover different substrates in Boundary Reservoir (Canyon/forebay Reach, Upper reservoir reach and Box Canyon tailrace. This would also require two additional transects in Box Canyon Reservoir in order to be able to statistically compare benthic communities under two different	The three sample locations identified in the PSP were intended to evaluate the response of benthic macroinvertebrates on soft substrates to three treatments relating to the frequency of inundation and dewatering: large range of pool level fluctuations (Boundary forebay/canyon), moderate range of pool level fluctuation (Boundary Reservoir above Metaline Falls),

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				<p>operating scenarios in the two reservoirs. One sampling site on 55 miles of Box Canyon Reservoir is insufficient for representation of the benthic community there.</p>	<p>and a low range of pool level fluctuation (Box Canyon tailrace or Box Canyon reservoir). In response to USFS and WDFW comments and input by the Technical Consultant, Section 2.5, subsection <i>Habitat Suitability Indices Development, Periphyton and Benthic Macroinvertebrate HSI</i>, of the Mainstem Aquatic Habitat Modeling Study Plan has been revised. Each of the three sites will be sampled at six depth intervals with three replicate samples at each depth interval. This sampling strategy is intended to isolate and evaluate the response of organisms to pool level fluctuations for use in development of habitat suitability indices. These habitat suitability indices will be used in the mainstem aquatic habitat model to quantify the effects of alternative Boundary operating scenarios. While benthic macroinvertebrate sampling is inherently subject to a high level of sample variation, we believe the proposed sample design will provide the information needed to support the relicensing analysis. Additional discussion regarding the sampling strategy will occur in early 2007 when the Technical Consultant finalizes the study implementation details in coordination with SCL and relicensing participants.</p>

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
71	Letter	01-09-07	USFS	There is an opportunity for the analysis for benthic macroinvertebrates during any of the sediment sampling for the concentrations of toxic compounds of concern in Phase 2 of the Toxics study plan. This information would compliment the proposed level of benthic macroinvertebrate sampling. Language to this effect is needed either in the Toxics or the Aquatic Habitat Modeling Study.	If the final Phase 2 Toxics SAP calls for benthic macroinvertebrate (BMI) sampling, and the results of that sampling are available on time to be of use in habitat modeling studies, the results of BMI sampling from the toxics study will be provided to researchers conducting the Mainstem Aquatic Habitat Modeling (Study No. 7).
72	Letter	01-11-07	WDFW	The proposed sampling plan in Task 2 regarding BMIs focuses only on drifting organisms (PSP Attachment 4-1, page 27). According to SCL, the proposed approach requires that fixed sampling units only are subject to colonization by drifting organisms, so that results from the fixed stations are comparable to those from the floating units in all ways except for their exposure to different reservoir surface elevation regimes. It is our view that operational drawdowns would not affect drifting organisms (limnetic) the same as benthic organisms on the substrate, which become dewatered with drawdown. In addition, the fixed stations along the shore will be in contact with the bottom by some device; therefore, colonization of BMIs from the native substrate is probable and would bias the comparison to floating stations. Floating stations would need to be a considerable distance offshore so that as drawdowns occur (10 to 20+ feet) the rock baskets do not hit bottom: hitting bottom would potentially bias the sample due to additional colonization from bottom substrates. This distance between the floating sampling stations and the shoreline sampling stations may further bias sample comparison because two different areas in the	In response to WDFW and USFS comments and input by the Technical Consultant, Section 2.5, subsection <i>Habitat Suitability Indices Development, Periphyton and Benthic Macroinvertebrate HSI</i> , of the Mainstem Aquatic Habitat Modeling Study Plan has been revised. The floating sampling units will be replaced by fixed sampling units to be located in Box Canyon Reservoir.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				reservoir are being sampled: shoreline substrate versus limnetic or pelagic. Furthermore, the number and types of organisms that may occur in floating stations far offshore may not be comparable to those found on or near the substrate.	
73	Letter	01-11-07	WDFW	WDFW requests that Task 2 be modified (and reflected in Task 4) so that sampling is more representative of benthic organisms in the various substrates and that sampling takes place at additional sites in the reservoir. Specifically, WDFW requests that there be six sampling sites: <u>one</u> in the forebay reach on hard substrate or cobble; <u>two</u> in the canyon reach (one on a vertical-face and one hard substrate or cobble), <u>two</u> above Metaline Falls on hard substrate or cobble, and <u>one</u> in the Box Canyon Reservoir on hard substrate or cobble. All the sampling boxes should be attached directly to the bottom to sample colonization of benthic organisms from the substrate. The small rock baskets should be spaced approximately five-feet apart along each transect, although spacing may be optimized based on shoreline gradient and depth at the selected transects. Samples should be collected at five-foot increment depths ranging from full pool to the euphotic depth under maximum expected reservoir drawdown for the sample period. All the floating stations should be eliminated. Rock baskets in the Box Canyon Reservoir and at the lower depths in Boundary Reservoir that are continually inundated would serve as “controls” for comparison to baskets subject to dewatering. WDFW requests replicate sampling at each of these sites (i.e. two baskets per depth strata) to improve confidence in the sampling.	Comment acknowledged; however only some requests have been adopted. In response to WDFW and USFS comments and input by the Technical Consultant, Section 2.5, subsection <i>Habitat Suitability Indices Development, Periphyton and Benthic Macroinvertebrate HSI</i> , of the Mainstem Aquatic Habitat Modeling Study Plan has been revised. The response of benthic organisms on vertical-face hard substrate to pool level fluctuation treatments will be measured at a site within Boundary Reservoir and a site within Box Canyon Reservoir. Samples will be collected at six depth intervals and three replicates samples will be used at each depth interval. As requested, all floating stations have been eliminated. Additional discussion regarding the sampling strategy will occur in early 2007 when the Technical Consultant finalizes the study implementation details in coordination with SCL and relicensing participants (Attachment 1, section 2.2 of this RSP).

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				Sampling sites should be located along mainstem habitat transects measured for the Physical Aquatic Habitat Model Development study. WDFW agrees with the schedule in the PSP for sampling in Task 2.	
74	Letter	01-11-07	WDFW	WDFW requests that Task 3 be modified (PSP page 4-49) to expand sampling with three additional soft substrate sites. In total, WDFW requests that sampling occur at <u>one site</u> in the forebay reach; <u>two sites</u> in the canyon reach; <u>two sites</u> in the upper reach above Metaline Falls; and <u>one site</u> in the Box Canyon Reservoir. Samples taken in the Box Canyon Reservoir and those in the Boundary Reservoir below the drawdown zone would serve as the “controls” for samples subject to dewatering. Three to five soft substrate samples should be collected per depth strata on each shoreline as outlined in the PSP. WDFW agrees with the schedule in the PSP for sampling in Task 3.	See response to comment number 70.
75	Letter	01-11-07	WDFW	WDFW requests that Task 4 be modified (PSP page 4-49) to reflect our requests for Task 2. The artificial substrates should be deployed on the shoreline, not below a buoy. Colonization studies should be conducted at three locations: <u>one</u> in the forebay reach (hard substrate or cobble), <u>one</u> in the canyon reach (vertical-face substrate), and <u>one</u> in the upper reach above Metaline Falls (hard substrate or cobble). WDFW requests replicate sampling at each of these sites (i.e. two baskets per depth strata) to improve confidence in the sampling. WDFW agrees with the schedule in the PSP for sampling in Task 4.	Comment acknowledged; however only some requests have been adopted. In response to WDFW and USFS comments and input by the Technical Consultant, Section 2.5, subsection <i>Habitat Suitability Indices Development, Periphyton and Benthic Macroinvertebrate HSI</i> , of the Mainstem Aquatic Habitat Modeling Study Plan has been revised. The floating sampling units will be replaced by fixed sampling units to be located in Box Canyon Reservoir. Each site will be sampled at three depth intervals with three replicate samples at each depth interval (i.e., three baskets per depth strata).

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
76	Letter	01-11-07	WDFW	All samples collected for Tasks 2-4 should be identified to the lowest taxonomic level practical: identification to Order would be acceptable.	Comment acknowledged. All taxonomic identification of benthic macroinvertebrates will be at least to the Order level and in some cases at a lower level.
<b>Study No. 8 – Sediment Transport and Boundary Reservoir Tributary Delta Habitats</b>					
77	Letter	01-09-07	USFS	The Forest Service agrees with SCL's proposed study of Sediment Transport and Boundary Reservoir Tributary Delta Habitats. The agency appreciates SCL's collaborative effort to provide a consensus based study proposal. The following comment is provided to add detail to the study proposal.	Comment acknowledged.
78	Letter	01-09-07	USFS	Under PSP Table 4.2-1, note that Pocahontas Creek contains rainbow and cutthroat trout, and Sullivan Creek also contains pygmy whitefish.	Table 1.0-1 in the Sediment Transport and Boundary Reservoir Tributary Delta Habitats Study Plan has been revised in response to this comment.
<b>Study No. 9 – Fish Distribution, Timing, and Abundance Study</b>					
79	Letter	01-09-07	USFS	The Forest Service agrees with SCL's proposed Fish Distribution, Timing and Abundance Study. The agency appreciates SCL's collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
80	Letter	01-12-07	USFWS	If at any time a study related activity is modified where bull trout, a federally listed threatened species may be affected (e.g., gill netting), the Applicant will need to contact the Service to amend the bull trout collection permit. The Service will then review the amendment request, contact the Applicant with any questions or concerns, and reissue a permit, if appropriate.	Agree.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
<b>Study No. 10 – Large Woody Debris Management Study</b>					
81	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Large Woody Debris Management Study. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
<b>Study No. 11 – Productivity Assessment</b>					
82	Meeting summary	10-10-06	WDFW (J. McLellan)	More hard substrates should be sampled in the three reaches, and SCL should conduct replicates above and below Metaline Falls for sampling macroinvertebrates on hard and soft substrates.	See response to comment numbers 70 and 75.
83	Meeting summary	10-10-06	WDFW (D. Robison)	SCL should have replicate sample sites in each reach above and below Metaline Falls for sampling hard and soft substrates.	See response to comment numbers 70 and 75.
84	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Assessment of Productivity. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal. The following comment is provided to add detail to the study proposal.	Comment acknowledged.
85	Letter	01-09-07	USFS	Under Task 2 Field Sampling proposes collection of field samples of nutrients, phytoplankton and zooplankton in the Box Canyon forebay in both the littoral and deep water regions for all seasons. The purpose is to understand productivity under a different operating scenario than presently used at the Boundary Hydroelectric Project. The Forest Service concern is that it does not think that there is littoral habitat in or adjacent to the Box Canyon forebay.	Comment acknowledged. The location of the sampling site in Box Canyon Reservoir will be selected when the Technical Consultant finalizes the study implementation details in coordination with SCL and relicensing participants (Attachment 1, section 2.2 of this RSP).

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
86	Letter	01-09-07	USFS	The Productivity Assessment proposes to use data collected from 8 sites in Boundary Reservoir, containing littoral and deep water habitat, during the Water Quality Constituent and Productivity Monitoring study. However, only one sampling site is proposed in Box Canyon Reservoir with no littoral habitat and not representative of habitat throughout either Box Canyon or Boundary reservoirs. The Forest Service thinks that additional sampling sites are needed on Box Canyon Reservoir to adequately represent the effects on different operating scenario on productivity for this study.	The intent of the sampling design is not to characterize representative habitats throughout Box Canyon Reservoir, but to characterize water quality constituents entering Boundary Reservoir  Additional discussion regarding the sampling strategy and the location of the sampling site in Box Canyon Reservoir will occur in early 2007 when the Technical Consultant finalizes the study implementation details in coordination with SCL and relicensing participants (Attachment 1, section 2.2 of this RSP).
87	Letter	01-12-07	USFWS	The Service endorses the proposed study and believes that the information obtained should demonstrate if current Project operations provide the most productive aquatic system in the Boundary Reservoir.	Comment acknowledged.
<b>Study No. 12 – Fish Entrainment and Habitat Connectivity Study</b>					
88	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Fish Entrainment and Habitat Connectivity Study. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
89	Letter	01-12-07	USFWS	The Service endorses the proposed study and believes that the information obtained should provide a better understanding of fish entrainment at Boundary Dam and if appropriate, identify methods to establish safe and efficient migration opportunities for fish.	Comment acknowledged.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
<b>Study No. 13 – Recreational Fishery Study</b>					
90	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Recreational Fishery Study. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
<b>Study No. 14 – Assessment of Factors Affecting Aquatic Productivity in Tributary Habitats</b>					
91	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Tributary Habitat Study. The agency appreciates SCL’s collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
92	Letter	01-12-07	USFWS	The Service endorses the proposed study and believes that the information obtained may be helpful in identifying any potential Project impacts to migratory fish specifically bull trout, westslope cutthroat trout, and mountain white fish.	Comment acknowledged.
<b>Botanical and Wildlife Resources</b>					
Study requests not adopted					
				None	None
<b>Study No. 15 – Waterfowl/Waterbird Study</b>					
93	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Waterfowl/Waterbird Study and offers the following comments to add clarity and/or more specific detail to the study proposal. The agency appreciates SCL collaborative effort to provide a consensus based study proposal.	Comment acknowledged.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
94	Letter	01-09-07	USFS	Under Task 1 of Proposed Methodology, consider expanding the hydrologic period of record from 1987-2004 to 1986-2006.	Section 2.5 of the Waterfowl/Waterbird Study Plan has been modified to expand the hydrologic period of record from 1987-2004 to 1987-2005, which is consistent with other resource areas. This 19-year period includes the second driest (2001) and second wettest (1997) of 92 years of record. The 1986 data have a substantial number of gaps and the 2006 data are provisional until mid-2007.
95	Letter	01-09-07	USFS	Under Task 2 of Proposed Methodology, consider displaying the vegetation data in 5 vertical foot increments.	Section 2.5 of the Waterfowl/Waterbird Study Plan has been revised in response to this comment.
96	Letter	01-09-07	USFS	Under 2 <sup>nd</sup> bullet of Work Products, consider displaying the summary acreage table in 5 vertical foot increments to keep consistent with the vegetation data in Task 2.	Section 2.6 of the Waterfowl/Waterbird Study Plan has been revised in response to this comment.
97	Letter	01-12-07	USFWS	The Service endorses the proposed study and believes that information obtained regarding impacts associated with Project operations (e.g., pool level fluctuation) is needed to identify project impacts to ground nesting waterfowl in the Project area. This would be accomplished by quantifying the area of waterfowl ground nesting habitat that could potentially occur in the reservoir varial zone upstream of Metaline Falls, the amount of suitable nesting habitat impacted by reservoir fluctuations, and the degree of nest failures due to flooding.	Comment acknowledged.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
98	Letter	01-12-07	USFWS	The Service recommends counting waterfowl eggs only if this information is necessary to characterize a Project effect. The revised study plan should provide more detail regarding the need for this information and sampling techniques. Regardless, nest searches must be conducted with minimal disturbance to nesting waterfowl. These efforts will need to be closely coordinated with the Service.	Section 2.5 of the Waterfowl/Waterbird Study Plan has been revised in response to this comment.
Study No. 16 – Inventory of Riparian Trees and Shrubs					
99	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s study proposal - Inventory of Riparian Trees and Shrubs and offers the following comments to add clarity and/or more specific detail to the study proposal. The agency appreciates SCL collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
100	Letter	01-09-07	USFS	Under the 3 <sup>rd</sup> bullet of Study Goals and Objectives, consider deleting the last portion of the statement “...if the Project were operated differently during the growing season.” None of the identified Tasks suggest evaluating different operational scenarios and their effects to riparian trees and shrubs.	Section 2.3 of the Inventory of Riparian Trees and Shrubs Study Plan has been revised in response to this comment.
101	Letter	01-09-07	USFS	Under Task 2 of Proposed Methodology, Assessment of Potential Direct and/or Indirect Impacts, consider adding <b>dispersed recreation</b> to “Human activities”.	Section 2.5 of the Inventory of Riparian Trees and Shrubs Study Plan has been revised in response to this comment.
102	Letter	01-09-07	USFS	Under Task 3 of Proposed Methodology, consider displaying the vegetation data in 5 vertical foot increments to be consistent with other resource studies using the same data collection increment.	Section 2.5 of the Inventory of Riparian Trees and Shrubs Study Plan has been revised in response to this comment.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
103	Letter	01-09-07	USFS	The 3 <sup>rd</sup> and 7 <sup>th</sup> bullets under Work Products are inconsistent. Consider deleting the term “ <i>normal</i> ” from the 3 <sup>rd</sup> bullet so the element addresses the “ <i>lowest operating level of the reservoir</i> ,” thereby keeping it consistent with the 7 <sup>th</sup> bullet, Task 3 and the study area.	Section 2.6 of the Inventory of Riparian Trees and Shrubs Study Plan has been revised in response to this comment.
104	Letter	01-12-07	USFWS	The Service endorses the proposed survey and believes that the information obtained regarding impacts associated with Project operations (e.g., pool level fluctuation) is needed to quantify project impacts as well as the distribution and extent of riparian tree and shrub habitat that could potentially occupy the fluctuation zone if the Project were operated differently during the growing season.	Comment acknowledged.
<b>Study No. 17 – Rare, Threatened, and Endangered (RTE) Plant Species Inventory</b>					
105	Meeting summary	11-15-06	FERC (D. Turner)	Is it possible to identify species and methods for nonvascular plant surveys for inclusion in the RSP?	SCL has consulted with the USFS to identify nonvascular species and appropriate survey methods. Sections 2.4, 2.5, and 2.6 of the RTE Plant Species Inventory Study Plan have been revised in response to this comment.
106	Meeting summary	11-15-06	FERC (D. Turner)	Referring to RTE Plants Task 4, FERC noted that the PSP identified “outstanding issues” associated with evaluations conducted for Ute’s lady’s tresses and asked why this is so.	This was not characterized correctly and was changed in the RSP. The “outstanding issue” refers to variable timing by year for conducting surveys based on moisture conditions and spring temperatures. The timing of surveys for Ute ladies’-tress has been moved to Section 2.5, Task 2. In addition, the need for the use of powerful binoculars to search for Steller’s rock-brake has also been moved from Task 4 to Task 2 as it is not an “outstanding issue.”

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
107	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s study proposal - Rare, Threatened, and Endangered (RTE) Plant Species Inventory and offers the following comments to specify Forest Service management requirements regarding non-vascular plants, and add clarity and/or more specific detail to the study proposal. The agency appreciates SCL collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
108	Letter	01-09-07	USFS	Under the 1 <sup>st</sup> bullet of Study Goals and Objectives, consider adding “ <b>Survey for and identify the RTE...</b> ” This keeps the goal consistent with Task 2.	Section 2.3 of the RTE Plant Species Inventory Study Plan has been revised in response to this comment.
109	Letter	01-09-07	USFS	Under Summary of Existing Information, PSP page 5-36, please note that the crested shield-fern reference is incorrect. Colville National Forest (CNF), Forest Botanist found Steller’s rock brake ( <i>Cryptogramma stelleri</i> ) (a Regional Forester Sensitive Species), not crested shield fern.	Section 2.4 of the RTE Plant Species Inventory Study Plan has been revised in response to this comment.
110	Letter	01-09-07	USFS	Footnote 2 of PSP Table 5.3-1, USFWS does not have a date and is not referenced in Literature Cited, nor is the WDFW 2006 reference in Literature Cited.	USFWS should not have a date or a reference as the information is from WNHP 2006, which has been added to Section 3.0 of the RTE Plant Species Inventory Study Plan. The reference to WDFW 2006 was incorrect and has been removed from the document.
111	Letter	01-09-07	USFS	Footnote 3 of PSP Table 5.3-1, notes as of September 2006 the Regional Foresters Sensitive Species List is not available online. Please use the following site to download the file: <a href="http://www.fs.fed.us/r6/nr-botany/sen_plants.htm">http://www.fs.fed.us/r6/nr-botany/sen_plants.htm</a>	The web site provided by the USFS references the 1999 Regional Foresters’ Sensitive Species List, not the 2006 list. The footnote referring to online availability has been removed from Table 2.4-1 and added to Section 3.0 of the RTE Plant Species Inventory Study Plan.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
112	Letter	01-09-07	USFS	Under the last bullet of Description of Study Area, consider adding “and other roads identified as necessary for Project purposes”. These could be federal roads used to access wells adjacent to the Project reservoir.	Section 2.5 of the RTE Plant Species Inventory Study Plan has been revised in response to this comment.
113	Letter	01-09-07	USFS	Under Task 2 of Proposed Methodology, paragraph 1: The study states that “...select nonvascular RTE species <b>may be included in the surveys if they have been documented on the CNF...</b> ” (Emphasis added) The wording should be nonvascular RTE species “ <b>will be</b> ” included in the survey if they have been <b>documented or suspected</b> on the CNF...” CNF Land and Resource Management Plan standards and guidelines directs the Forest Service that no actions that are likely to jeopardize the continued existence of any plant species.....will be authorized, funded or carried out by CNF. To verify whether the Project has any effects on nonvascular plant, surveys will need to be conducted.	Sections 2.4, 2.5, and 2.6 have been revised to reflect this comment and consultation with K. Ahlenslager (Botanist, USFS; per 01-09-07 call [Attachment 4]) on survey methods for nonvascular plants.
114	Letter	01-09-07	USFS	PSP Table 5.3-2 identifies flowering periods and survey months/weeks. Table needs to include non-vascular plants and identify periods for survey – surveys can be conducted throughout the spring, summer, and fall.	Section 2.5 of the RTE Plant Species Inventory Study Plan has been revised in response to this comment. Table 2.5-1 was re-titled and footnoted to include the survey timing for non-vascular plants without adding the species.
115	Letter	01-09-07	USFS	Under Task 3, consider adding the following descriptor to the bulleted list for “Attribute data...” Relative population location (reservoir fluctuation zone, recreation areas, adjacent to Project facilities, erosion sites, invasive species infestation areas, etc).	Section 2.5 of the RTE Plant Species Inventory Study Plan has been revised in response to this comment.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
116	Letter	01-09-07	USFS	“Ornduff 1967” is referenced in Task 4, but it is not included in Literature Cited.	Section 3.0 of the RTE Plant Species Inventory Study Plan has been revised in response to this comment.
117	Letter	01-09-07	USFS	Under Literature Cited, the source BLM 2005 cites the date of the Oregon/Washington BLM Special Status Species List as January 2000, it is actually March 2005.	Section 3.0 of the RTE Plant Species Inventory Study Plan has been revised in response to this comment.
118	Letter	01-12-07	USFWS	The Service endorses the proposed plant inventory to determine the presence of "RTE" plant species. The Project area, particularly within the Applicant owned Boundary Wildlife Preserve (BWP) includes wetlands which may provide habitat for Ute ladies'-tresses a federally listed threatened plant.	Comment acknowledged.
<b>Study No. 18 – Rare, Threatened, and Endangered (RTE) Wildlife Species Study</b>					
119	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed RTE Wildlife Species Study and only has one correctional comment. The agency appreciates SCL collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
120	Letter	01-09-07	USFS	In the 1 <sup>st</sup> paragraph of Proposed Methodology, update the number of Tasks from three to four.	Section 2.5 of the RTE Wildlife Species Study Plan has been revised in response to this comment.
121	Letter	01-12-07	USFWS	The Columbia spotted frog is not a Service candidate species for listing under the Endangered Species Act. Therefore, the status for the Columbia spotted frog should be changed to "no federal status."	Table 2.4-1 in Section 2.4 of the RTE Wildlife Species Study Plan has been revised in response to this comment.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
122	Letter	01-12-07	USFWS	The Pacific fisher is not a Service candidate species for federal listing under the Endangered Species Act. Therefore, the status for the Pacific fisher should be changed to "no federal status."	Table 2.4-1 in Section 2.4 of the RTE Wildlife Species Study Plan has been revised in response to this comment.
123	Letter	01-12-07	USFWS	The Service recommends that biologists also document preferred forage areas and perch trees used by nesting bald eagles and pertinent information on human development, use, and potential conflict near bald eagle nests and favorite use areas.	Section 2.5 of the RTE Wildlife Species Study Plan has been revised in response to this comment. Some additional information on bald eagle foraging was also added to Section 2.4.
124	Letter	01-12-07	USFWS	The Service recommends that the assessment of Project related recreation impacts include disturbance to wildlife and recommends that a wildlife impact assessment also be conducted for any proposed recreation facility. Recreation activities and facilities have the potential to impact wildlife resources, specifically wetlands, riparian habitat, and bald eagle, waterfowl, and other migratory bird use of the project area. Wildlife conflicts should be avoided or minimized during the planning and construction of new recreation facilities.	SCL agrees that the assessment of Project-related recreation impacts on wildlife and habitat should occur when and if any new recreation facilities are proposed. This assessment would utilize information from applicable resource studies to avoid or minimize wildlife conflicts in the planning and construction of any new recreation facilities.
<b>Study No. 19 – Big Game Study</b>					
125	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Big Game Study and offers the following comments to add clarity and/or more specific detail to the study proposal. The agency appreciates SCL collaborative effort to provide a consensus based study proposal.	Comment acknowledged.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
126	Letter	01-09-07	USFS	Consider updating the Forest Service management direction as detailed in the agency's Big Game Study request (August 31, 2006).	SCL used text provided by the USFS on Aug. 19, 2006 for this section. The section in the USFS Aug. 31, 2006 study request is not specific to big game and at nearly 2 pages long seems out of proportion to what is typical.
127	Letter	01-09-07	USFS	Under Task 5 of Proposed Methodology, consider displaying cover type and acreage data in 5 vertical foot increments to be consistent with other resource studies using the same data collection increment.	Section 2.5 of the Big Game Study Plan has been revised in response to this comment.
128	Letter	01-09-07	USFS	Under the 2 <sup>nd</sup> bullet of Work Products, consider using the 5 vertical foot increment.	Section 2.6 of the Big Game Study Plan has been revised in response to this comment.
129	Letter	01-12-07	USFWS	The Service is concerned with Project related effects on other large mammal species, specifically gray wolf and grizzly bear, their habitats, including movement corridors.	Movement corridors for RTE large mammals (gray wolf and grizzly bear) are addressed in Study No. 18, RTE Wildlife Study. Section 2.5 of this (Big Game) study has been revised to explicitly include movement corridors for these species. Cross references between Study Nos. 18 and 19 have been added to both studies.
<b>Study No. 20 – Bat Surveys and Habitat Inventory</b>					
130	Letter	01-09-07	USFS	The Forest Service agrees with SCL's proposed Bat Surveys and Habitat Inventory Study and only offers one suggestion. The agency appreciates SCL collaborative effort to provide a consensus based study proposal.	Comment acknowledged.
131	Letter	01-09-07	USFS	Consider updating the Forest Service management direction as detailed in the agency's Bat Surveys and Habitat Inventory Study Request (August 31, 2006).	SCL has revised Section 2.2 of the Bat Surveys and Habitat Inventory Study Plan to reflect information provided by the USFS on Aug. 19, 2006, which is more succinct and specific to bats than the section in the USFS Aug 31, 2006

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
					study request. At almost 3 pages it seems out of proportion to what is typical and is specific to bats in only one paragraph.
<b>Recreation and Land Use</b>					
Study requests not adopted					
				None	None
Study No. 21 – Recreation Resource Study					
132	Meeting summary	11-15-06	USFS (J. Bodie)	The USFS has a concern over differing intensity of surveys to be conducted on and off SCL property that may potentially affect the overall study results. The term intensity may be misleading.	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. A consistent level of survey effort will be used for SCL and non-SCL recreation sites. In addition, visitor registries, available only at SCL sites will be utilized.
133	Meeting summary	11-15-06	USFS (J. Bodie)	The USFS indicated that additional agency and organization contacts should be made by the future Technical Consultant. The USFS will provide these contacts to SCL.	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment.
134	Meeting summary	11-15-06	USFS (J. Bodie)	The USFS has indicated that SCL’s studies addressing ORV use/access should take into consideration the findings of an ongoing Colville National Forest transportation planning analysis that is scheduled for completion by late 2007.	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. SCL will review CNF Travel Management planning documents as they become available during the study timeframe so that they might be utilized. SCL requests that the USFS provide this information as soon as possible so that it may be integrated into the study results.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
135	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Recreation Study. The agency appreciates the approach SCL has taken in an effort to reach a consensus based study proposal. The following comments are provided to clarify where the agency has differences or agrees with the study plan as proposed.	Comment acknowledged.
136	Letter	01-09-07	USFS	Under the Visitor Counts section (PSP Page 6-17), SCL states that “The focus of visitor counts will be on SCL-managed recreation sites and use areas at the Project, dispersed reservoir shoreline use areas, and the reservoir surface area (i.e., watercraft use). Less intensive visitor counts will be conducted at non-SCL-managed recreation sites in and/or adjacent to the Project.” The intent should be to have a consistent level of survey in order to provide a complete and supportive picture of what is occurring.	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. A consistent level of survey effort will be used for SCL and non-SCL recreation sites. In addition, visitor registries, available only at SCL sites will be utilized.
137	Letter	01-09-07	USFS	Under Proposed Methodology (PSP Page 6-42), SCL states that “The Future Recreation Use Analysis will build off data and summary results from the Recreation Surveys study element of the RRS. A list of specific components needed for the analysis includes an “Estimate of existing use in the Project area”. The agency concern is whether the surveys will sufficiently capture the complexity of existing use and magnitude of the demand for recreation access to the Project.	SCL believes that the proposed methodology will sufficiently capture the complexity of existing use and the magnitude of demand in the Project area and surroundings. Section 2.4 of the Recreation Resource Study Plan specifies that the USFS as well as other relicensing participants will be involved in the development of the Recreation Surveys.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
138	Letter	01-09-07	USFS	The study of visitor access to the Project and impacts from that access seems primarily keyed to recreation activity along the shoreline. This concern can be resolved by clarification of the terminology or procedures to be utilized. A specific discussion on how the study will provide a clear picture of where the public is not only accessing the Project for recreational purposes, but what adjacent lands, SCL or non-SCL, they are utilizing during their visit.	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. Dispersed sites and access routes in the Project area and vicinity will be identified and surveyed using multiple methods.
139	Letter	01-09-07	USFS	The “Sources of information to be reviewed” (PSP Page 6-16) should include the Colville National Forest Travel Management planning documents, as well as any environmental analysis and mapping that is available as needed during the study process (current estimate for completion is December 2007). The current Forest Land Management Plan revision and Travel Management planning efforts have compiled a great deal of public comment through collaborative sessions. This information should be useful especially during questionnaire development.	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. SCL will review CNF Travel Management planning documents as they become available during the study timeframe so that they might be utilized. SCL requests that the USFS provide this information as soon as possible so that it may be integrated into the study results.
140	Letter	01-09-07	USFS	The agency agrees with SCL’s approach in using questionnaires, however whether the questionnaires will get at supply and demand concerns and issues related to quality of the recreation experience will be highly dependent on how the questionnaires and focus groups are designed. Forest Service continued involvement in the questionnaire development process is critical to our ability to make a determination as to whether Forest Service requirements will be met.	Section 2.4 of the Recreation Resource Study Plan specifies that the USFS as well as other relicensing participants will be involved in the development of the Recreation Surveys.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
141	Letter	01-09-07	USFS	<p>The list of resources to contact for collection and analysis of regional data (PSP Page 6-32) should also include the following:</p> <ul style="list-style-type: none"> <li>• Spokane Parks and Recreation Department</li> <li>• Boundary Tours</li> </ul>	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. These contacts have been added.
142	Letter	01-09-07	USFS	<p>The agency is concerned that the list of contacts to be contacted within collection and analysis of regional data “may” only be contacted. While coordination with agencies and private land owners will be critical to providing the most feasible solutions to access problems, surveying the right people is also critical. For instance, Spokane Parks and Recreation, local and regional outfitter guides, and clubs will be more likely to have a good long term vision of what recreation opportunities will benefit the public the most.</p>	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. The word “may” has been changed to “will.” These contacts will be included in the regional analysis. Some of these contacts may also be included in the focus group meetings, as appropriate.
143	Letter	01-09-07	USFS	<p>The City of Spokane has an active outdoor program through the Spokane Parks and Recreation Department. They have tried to utilize the National Forest lands for this program and should also be contacted relative to supply and demand issues. Other sources not listed include local and regional outfitter guides, interested groups and clubs that may provide useful input to Focus groups are as follows:</p> <ul style="list-style-type: none"> <li>• Selkirk Trail Blazers</li> <li>• NE Washington Forestry Coalition (Recreation Subcommittee)</li> <li>• Spokane Mountaineers</li> <li>• Back Country Horsemen</li> <li>• Pacific Northwest Trail Association</li> </ul>	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. These contacts will be included in the regional analysis. Some of these contacts may also be included in the focus group meetings, as appropriate.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
144	Letter	01-09-07	USFS	<p>Under Need for Study Element (PSP Page 6-27), SCL states that “The Project area offers recreational opportunities that are similar to other river corridors and/or reservoirs/lakes in the region.” The agency disagrees with this assessment.</p> <p>As criteria are developed for this study, consider the difference in experience provided by the remote canyon portion of Boundary reservoir versus other river corridors in the region. Within the Study Area described on PSP page 6-30, and even considering that the regional boundary may be revised to cover a broader area, there are no river corridors offering similar recreation opportunities.</p> <p>The canyon portion (60% of reservoir length) of the Boundary Reservoir varies from the southern portion (above the actual falls by the town of Metaline Falls) in that damming of the river actually created recreation opportunities, rather than removing or altering them. Prior to construction of Boundary dam, the portion of the river south of the falls was readily accessed by the public, whereas within the canyon, terrain and rapids were not conducive to recreation. Since construction of Boundary Dam, the public now has boating access to the canyon along a fairly calm waterway. This situation provides a unique opportunity to experience a narrow canyon environment with steep canyon walls and multiple waterfalls in a remote setting, and recreation opportunities need to be researched with that uniqueness in mind.</p>	<p>Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment. Portions of the Project area (wider flat water reservoir areas) are likely similar to other reservoirs/lakes in the region, while the Project’s canyon area downstream of Metaline Falls is likely unique in the region with no other river corridors offering this specific recreation opportunity.</p>

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
145	Letter	01-12-07	USFWS	PSP p. 6-36, 8 <sup>th</sup> bullet, SCL says: "Proximity to riparian habitat or other sensitive environmental features, such as nests." The Service recommends that the sentence be changed to read: "Proximity to riparian habitat or other sensitive environmental features, such as RTE nests."	Section 2.4 of the Recreation Resource Study Plan has been revised in response to this comment.
146	Letter	01-12-07	USFWS	Referring to Study element: Dispersed Recreation Use, Access and Condition Analysis, the Service endorses the proposed study and believes that the information obtained on vegetation damage or removal, wetlands impacts, and wildlife disturbance will be useful to determine Project effect on species such as the bald eagle, waterfowl, and songbirds.	Comment acknowledged.
Study No. 22 – Land and Roads Study					
147	Meeting summary	11-15-06	USFS (G. Koehn)	Surveying all Project roads plus potential roads or corridors that may be needed in the future at the outset might be more economical than implementing the study plan in two phases as planned.	Disagree. SCL believes that it is appropriate to collect information only for known Project-related roads. It is not necessary to inventory all roads in the corridor to determine Project effects. If additional roads are needed for access to the Project in the future, they will be added to the inventory at that time.
148	Letter	01-09-07	USFS	The Forest Service requested this study and generally concurs with SCL's proposed study. The agency appreciates SCL's collaborative effort to provide a consensus based study proposal. Minor points of difference are outlined below.	Comment acknowledged.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
149	Letter	01-09-07	USFS	<p>The Forest Service suggests that rather than make two efforts to collect information on roads, being used or potentially being used, for the Project (PSP pg. 6-65) that it is more cost effective to inventory and analyze all potential roads in one effort. The road system is not that expansive and the majority of the road mileage is likely needed to some extent.</p>	<p>Disagree. SCL believes that it is appropriate to collect information only for known Project-related roads. It is not necessary to inventory all roads in the corridor to determine Project effects. If additional roads are needed for access to the Project in the future, they will be added to the inventory at that time.</p>
150	Letter	01-09-07	USFS	<p>Under Task 2 of Land Methodology, FERC Boundary Analysis: There are two types of monuments utilized in the survey of the Project boundary; survey monuments of the Public Land Survey System (PLSS) and monuments for the Project boundary. Both are necessary in the adequate description of the Project and for future management activities.</p> <p>SCL states, “The USFS/BLM requested that the condition of survey monuments be assessed. SCL believes that an in-field assessment of survey monuments is not a FERC requirement...” The Forest Service requested “condition of surveyed lines and monuments” and assumes that their statement means that SCL is not proposing to gather this information. The Forest Service thinks that this information is necessary to determine that the Project boundary is accurately monumented on-the-ground; that property ownership within and immediately adjacent to the Project is readily identifiable on-the-ground; and to clearly distinguish those lands where future management activities may take place.</p>	<p>Although SCL agrees that survey work will be needed, SCL believes that this work should not be included as part of a study plan. Rather, it should be done in connection with the establishment of the project boundary as authorized by a new license. At this time, SCL lacks complete information regarding where the boundary should be drawn to appropriately encompass project elements. SCL proposes to generally identify a new project boundary in connection with its preliminary license proposal (PLP). Once the Commission has issued an order regarding the new project boundary, SCL proposes to conduct survey work as needed for completion of an updated Exhibit G and for compliance with all conditions of the new license.</p> <p>Based on the phone conversation between the USFS and SCL on 01-18-07, SCL understands that the USFS now concurs in SCL’s proposed approach.</p>

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
151	Letter	01-09-07	USFS	Under Task 3 of Land Methodology, Mining Claims Analysis: SCL states, “The USFS/BLM requested a broader review of mining claims information in the river corridor...” Forest Service did not intend for our study request to be interpreted to include the entire river corridor. The Forest Service thinks that mining claim information for those claims within and immediately adjacent to the Project boundary is sufficient for the purposes intended.	Comment acknowledged.
152	Letter	01-09-07	USFS	Under Task 4 of Land Methodology, Private Shoreline Development Analysis: SCL states, “The USFS/BLM requested a broader review of private development potential in the river corridor...” Forest Service did not intend for our study request to be interpreted to include the entire river corridor. The Forest Service thinks that information on private shoreline development potential within and immediately adjacent to the Project boundary is sufficient for the purposes intended.	Comment acknowledged.
<b>Aesthetic/Visual Resources</b>					
Study requests not adopted					
				None	None
Study No. 23 – Aesthetic/Visual Resource Study					
153	Letter	01-09-07	USFS	The Forest Service agrees with SCL’s proposed Aesthetic/Visual Resource Study. The agency appreciates the approach SCL has taken in an effort to reach a consensus based study proposal and address scenic landscape goals and policies of the Colville National Forest planning process.	Comment acknowledged.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
<b>Cultural Resources</b>					
Study requests not adopted					
				None	None
Study No. 24 – Cultural Resources Study					
154	Meeting summary	11-15-06	FERC (D. Turner)	The Area of Potential Effect (APE) should be finalized in the RSP.	Section 2.5 of the Cultural Resources Study Plan has been revised to include the final APE.
155	Meeting summary	11-15-06	FERC (D. Turner)	Spell out site-specific Project effects under Task 5- <i>Evaluation of Project Effects on Historic Properties</i> .	Section 2.5 (Task 5) of the Cultural Resources Study Plan has been revised in response to this comment, to say “assessment of potential adverse Project effects will be site specific for any NRHP-eligible properties within the APE and will be done in consultation with the SHPO, tribes, federal agencies and FERC.”
156	Letter	01-09-07	USFS	The Forest Service concurs with SCL’s PSP for Cultural Resources. The agency appreciates SCL collaborative effort to provide a consensus based study proposal. The following comments are provided to add clarity and/or more specific detail to the study proposal.	Comment acknowledged.
157	Letter	01-09-07	USFS	In the section discussing development of the Preliminary License Application (PLP), SCL states that “The relicensing studies will provide much of the information necessary for determining and characterizing Project impacts and identifying appropriate PME measures in light of those impacts.”  The Forest Service cautions that PME measures related to cultural resources cannot be wholly	Comment acknowledged. SCL will consider this issue further when it develops PME measures.

Comment number	Comment format	Date	Affiliation (Individual)	Comment	SCL response to comment
				characterized by the Cultural Resources Study Plan. Provisions for appropriate Interpretation and Education (I&E) must be included in PME measures for Cultural Resources as provided for in the National Historic Preservation Act Section 110 and the Archaeological Resources Protection Act (43CFR7.20). During Cultural Workgroup discussions, the Forest Service has acknowledged that SCL could best develop an integrated I&E plan that would include all resource areas of concern (Terrestrial and Aquatic Resources, Recreation, etc.).	
158	Letter	01-09-07	USFS	Under Task 1 of Proposed Methodology; Archival Research: “Additional research of known historic-era sites will be conducted prior to the field inventory in order to provide site-specific data to be utilized for field documentation.” The Forest Service suggests that the Archival Research take advantage of references in Attachment 8-2 of the PSP provided by D. Egbers on pages 9 and 10 of the Attachment. Specifically, references to historic mining and Chinese mining (Ah Bok society) should be carefully studied for their potential to shed light on what is likely to be the primary historic cultural theme within the Project boundary.	Section 2.5 (Task 1) of the Cultural Resources Study Plan has been revised in response to this comment to say: “Additional archival research of known historic sites and development of mining and related ethnic communities will be conducted prior to the field inventory in order to provide site-specific data.”
<b>Socioeconomic Resources</b>					
Study requests not adopted					
				None	None

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