

ENLÖE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
11	Sally Sovey	BLM	E.3.3	<i>The wetland and riparian mitigation does not address wetland impacts or enhancements as a consequence of increased surface water elevation of the reservoir (e.g. wetlands above the ordinary high water line of the reservoir may function more properly than those connected to the river). Off-channel wetlands or ponds will provide breeding habitat for amphibians not affected by warm-water fish.</i>	Although the low-water elevation will increase with the installation of crest gates as compared to the current condition, the high water elevation will not change. No off-channel ponds or wetlands not currently connected to the river at high water were observed. Thus, there are no off-channel ponds currently not affected by warm-water fish that would be affected under future operating conditions, nor are such ponds expected to develop under future operating conditions.
11	Sally Sovey	BLM	E.3.3	<i>The DLA did not identify livestock control structures that will be installed to protect wetlands and riparian habitats.</i>	A conceptual Fencing Plan is provided as Appendix E.3.7.
11	Sally Sovey	BLM	E.3-55	<i>Please correct spelling of BLM staff Neal Hedges.</i>	The spelling error has been corrected.
11	Sally Sovey	BLM	E.3.4	<i>Please provide copies of any field reports for our files. More details about the thought process of how the field search was limited to <u>Spiranthes diluvialis</u> would lend credibility to the report.</i>	The requested field reports will be provided to BLM. As stated in the draft application, botanical field studies were floristic. They were not limited to an effort to determine the presence/absence of <i>Spiranthes diluvialis</i> . This was the only rare plant species discussed in the text of the Exhibit E because it is the only federally-listed species with potential habitat in the Project area.
11	Sally Sovey	BLM	E.3.4	<i>Also <u>Cryptantha spiculifera</u>, a State Sensitive species has been found in the Similkameen River area. This was not included in the rare plant assessment.</i>	A description of <i>Cryptantha spiculifera</i> has been added to the text of the license application in E.3.4. This species was not observed in the Project area during surveys in 2006 and 2007. It is a perennial species found in upland habitats, while most of the study area for botanical resources is at, or immediately adjacent to the river/reservoir
11	Sally Sovey	BLM	E.3.4	<i>A statement should be included about future development of a restoration plan, including goals, the species to be used, methods and benchmarks of success, for botany resources. The BLM should be involved in development of any plan that would be reviewed and approved by the agency.</i>	A Mitigation and Monitoring Plan will be developed in consultation with the BLM, Ecology, and other stakeholders. This MMP will include goals, the species to be used, methods and benchmarks of success, for botanical resources. Restoration of abandoned roadbeds will be part of this plan, which will have details on surface preparation to deal with compaction issues, seeding, mulching, and installation of woody species. Proposed cattle exclusion fencing to protect mitigation/restoration areas is described in Appendix E.3.7. The BLM will have approval authority for the elements of the plan that apply to BLM-administered lands. Monitoring provisions in the MMP will include monitoring of sites that may convert from upland meadow to herbaceous wetland.
11	Sally Sovey	BLM	E.3.4	<i>A restoration plan for abandoned roads, including details for surface preparation to deal with compaction issues, seeding, mulching, and replacing shrubs, should be proposed.</i>	A Mitigation and Monitoring Plan will be developed in consultation with the BLM, Ecology, and other stakeholders. This MMP will include goals, the species to be used, methods and benchmarks of success, for botanical resources. Restoration of abandoned roadbeds will be part of this plan, which will have details on surface preparation to deal with compaction issues, seeding, mulching, and installation of woody species. Proposed cattle exclusion fencing to protect mitigation/restoration areas is described in Appendix E.3.7. The BLM will have approval authority for the elements of the plan that apply to BLM-administered lands.

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11	Sally Sovey	BLM	E.3.4	<i>Vague statements like "replace planting if survival is low" should be clarified to reference standards like 50% survivorship for instance, in preparing a more detailed restoration plan.</i>	A Mitigation and Monitoring Plan will be developed in consultation with the BLM, Ecology, and other stakeholders. This MMP will include specific standards.
11	Sally Sovey	BLM	E.3.3- E.3.4	<i>The discussion of noxious weed control and management is vague and needs more specifics, including, but not limited to timeframes, species, and methods of control, etc.</i>	A list of noxious weeds potentially subject to control in the Project area has been added to PM&E BOTA 11 in Exhibit E.3.4.3, as well as a list of potential species for re-seeding cleared areas.
11	Sally Sovey	BLM	E.9	<i>The PUD's application to amend the ROW should be submitted soon after the PUD's final license application is filed with FERC. The ROW application must include all projects or activities proposed on BLM lands. The application to amend the ROW would be processed concurrent with FERC's review of the license application.</i>	Thank you for this guidance. The District intends to submit its application in a timely manner
11	Sally Sovey	BLM	IS	<i>The BLM noted previously that the legal description shown in item #7 "Lands of the United States Affected" is not complete.</i>	The description has been completed (Initial Statement, Item [7]).
11	Sally Sovey	BLM	E.9.4	<i>Because the BLM is the underlying landowner for the property crossed by this easement, a request for construction and use of an access road along the abandoned canal must also be included in the PUD's ROW application to BLM.</i>	Exhibit E.9.4 states "The District plans to construct an access road in a portion of the OTID right of way...(Because the BLM owns the land on which the road would be constructed, a request for construction and use of an access road along the abandoned canal will be included in the District's application to the BLM for amendment of the right-of-way grant described above under the heading "Bureau of Land Management.")"
11	Sally Sovey	BLM	E.4.2	<i>It is our expectation that the CRWG will continue to review and guide the Section 106 review process through completion of the HPMP. The HPMP would guide future management of historic properties in the project area. The CRWG requested County PUD consider options for stabilizing the historic powerhouse and facilities. The facilities are historically significant and options to complete demolition and removal should be considered in consultation with the CRWG and interested parties.</i>	The CRWG is continuing to meet and assist in the development of the HPMP. The District is discussing options regarding the demolition of the powerhouse with the CRWG, including soliciting interested parties to assume ownership and management of the powerhouse. This solicitation would provide the opportunity for community groups and state, federal, local government agencies or qualified non-profit groups to find an alternative use for the building. However, should a new owner not be identified within a specified period of time, the powerhouse would be demolished. This solicitation is proposed as PM&E HIST 01 in Exhibit E.4.2.3.
11	Sally Sovey	BLM	E.9	<i>The affected grazing lessees need to be consulted concerning the impacts of the Enloe Dam project on their livestock operation. BLM has concerns about areas that may be fenced for recreation, riparian mitigation, facility protection and other purposes. Concerns with fencing include loss of access to livestock water and loss of forage. Two year notice to the grazing lessees is required if grazing has to be reduced due to loss of land available for grazing. Access to water at the Similkameen River is necessary for the livestock operations leasing the BLM lands within the project area. BLM will need to review the specific plans for fencing that may exclude livestock.</i>	A Mitigation and Monitoring Plan will be developed in consultation with the BLM, Ecology, and other stakeholders. This MMP will include goals, the species to be used, methods and benchmarks of success, for botanical resources. Restoration of abandoned roadbeds will be part of this plan, which will have details on surface preparation to deal with compaction issues, seeding, mulching, and installation of woody species. Proposed cattle exclusion fencing to protect mitigation/restoration areas is described in Appendix E.3.7. The BLM will have approval authority for the elements of the plan that apply to BLM-administered lands. Monitoring provisions in the MMP will include monitoring of sites that may convert from upland meadow to herbaceous wetland.

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11	Sally Sovey	BLM	E.9	<i>The PUD should consider the interactions between livestock and the public due to the potential changes in recreational use of the project area that may result from the recreation site.</i>	Exhibits E.3.4.3 and E.7.3 address interactions between livestock and the public.
12	Patrick Verhey	WDFW	E.3-55	<i>Surveys should be conducted to assess the impact of inundation of 12+ upland acres ground nesting birds. Appropriate PM&E measures should be included in the license.</i>	As described in Exhibit E.3.3, no upland habitats will be inundated that are not already currently subject to inundation at high water. Therefore, no impacts to upland ground-nesting birds from inundation are expected.
12	Patrick Verhey	WDFW	E.2	<i>WDFW is concerned about impacts of potential increased flow of Palmer Creek and the effect of this increase on the kokanee population within Palmer Lake.</i>	Hydraulic modeling of both current and proposed dam configurations indicates that backwater effects from Enloe dam currently extend approximately 2 miles upstream from the dam, and could extend an additional 0.2 miles with crest gates. Palmer Lake is more than 12 miles upstream of Enloe Dam. Neither the current dam nor the proposed operations will have any impact on Palmer Lake, or on flows in Palmer Creek
12	Patrick Verhey	WDFW	E.2	<i>The use of crest gates could potentially cause more water to be fed into Palmer Lake than currently occurs. On an annual basis, during high flows, the Similkameen River backs up into Palmer Creek; consequently feeding turbid water to into Palmer Lake. The introduction of this turbidity into Palmer Lake could have negative effects on lake productivity and temperature.</i>	Hydraulic modeling of both current and proposed dam configurations indicates that backwater effects from Enloe dam currently extend approximately 2 miles upstream from the dam, and could extend an additional 0.2 miles with crest gates. Palmer Lake is more than 12 miles upstream of Enloe Dam. Neither the current dam nor the proposed operations will have any impact on Palmer Lake, or on flows in Palmer Creek.
12	Patrick Verhey	WDFW	E.3-38	<i>Powerhouse and Tailrace Impacts. The monitoring plan should include sampling that will identify the impact to fish attempting to swim past the velocity barrier, consequently depleting the fish's energy reserve, negatively effecting it's survival, and it's ability to reproduce.</i>	A velocity barrier is no longer proposed. Based on consultation with NOAA Fisheries, PM&E FISH 06 - Tailrace Net Barriers, is proposed . Under FISH 06 the District proposes to install conical net barriers in the draft tube exits to prevent fish in the tailrace from swimming upstream into the draft tubes during periods of low flows. For additional details see Exhibit E.3.2.3. Under PM&E FISH 07, observations of the openings of the net barriers will be conducted using suspended underwater video cameras. The study will document that adult salmonids are not entering the nets at the downstream end of the barriers, or if some individuals do enter the nets, they are able to safely exit the barrier.
12	Patrick Verhey	WDFW	E.3-42	<i>Adaptive Management Plan. A technical working group made up of natural resource agencies, tribes, and OKPUD should review the monitoring of mitigation action (eg. gravel augmentation and enhancement to existing side channel spawning areas for steelhead) and observation of additional negative impacts related to natural resource, for example observations of effects of the tailrace on fish. This group should be empowered to make recommendation for adaptively managing the mitigation measures to ensure the mitigation goal is being achieved.</i>	Data collected by the District in the post-license biological and water quality monitoring studies will be reviewed in consultation with WDFW, USFWS, NMFS, CCT, DOE and BLM. The District will prepare monitoring reports and provide an assessment of the success of mitigation measures including the side channel habitat improvement, and boulder clusters. The District will develop recommendation for changes to the mitigation measures to improve performance, if needed. A Technical Work Group will advise the District on any modifications to the monitoring program or to the mitigation measure.

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12	Patrick Verhey	WDFW	E.3.2	<i>There is a winter whitefish fishery in the Similkameen River above Enloe Dam. Identification of project impacts should be conducted. Loss of spawning areas, productivity, distribution and associated impacts to recreations should be identified.</i>	The primary impact to whitefish is the inundation of a small section of the Similkameen River upstream of the impoundment caused by the increased water levels in the reservoir. The effects of this change on whitefish are analyzed in Exhibit E.3.2. As described in Exhibit E.3.2.3 PM&E FISH 02, two boulder clusters are proposed to be installed to increase the amount and quality of spawning habitat in the reach upstream of the reservoir.
12	Patrick Verhey	WDFW	E.3-39	<i>Instream Flows. The use of crest gates is not clear. During periods of time when the reservoir is filling, will natural river flows be reduced? More explanation is needed to clarify how the crest gates will be operated in all potential scenarios. Downstream impacts, including impacts to fish habitat should be identified.</i>	Exhibit B clarifies the operation of crest gates and run of the river mode. Exhibit E.3.2.2 describes downstream impacts to fish habitat.
12	Patrick Verhey	WDFW	E.2.8-32	<i>Water Temperature. WDFW agrees there is uncertainty related to the use of crest gates and water temperature. Water temperature data was collected during a one year period of time. This data set may not be robust enough to identify all downstream impacts of the project related to temperature. The PM&E plan to monitor water temperatures for five-years may not be sufficient to capture project impacts on temperature due to seasonal variations of ambient temperature and climate change.</i>	The need to continue temperature monitoring beyond the first five years of project operations will be determined by evaluating the results of monitoring during that initial period.
13	Tara C. White	Ministry of Environment Environmental Stewardship Division	n/a	<i>Information presented in the 'Draft License Application' has alleviated any concerns we have at this time, and we are confident the proposed project represents low risk for steelhead migrating to and from the Canadian portion of the Okanogan/Okanagan River. We recognize the value of follow-up monitoring and look forward to review of post project implementation monitoring & evaluation results, as well as the potential population response associated with fisheries enhancement projects proposed.</i>	The Ministry will receive monitoring reports and will be consulted on enhancement projects.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	B	<i>The DLA fails to clearly define the proposed operations of the Enloe Hydroelectric Project. There are repeated references to normal operations, however, the DLA fails to identify what constitutes normal.</i>	Normal operation is run-of-river operation. Run-of-river hydropower facilities have limited regulation capability or associated flood control capacity. Run-of-river facilities essentially pass through as much water as they have coming in (outflows equal inflows), either through the turbines or over the spillways.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	A	<i>the DLA includes neither a proposed ramp rate during times of shut down or changes to project operations nor an adequate discussion of how the crest gates will be operated during unscheduled outages to ensure continuous flow in the river. We urge the PUD to more fully develop these measures, both of which are critical to protecting aquatic resources below the project and should be included in any future proposal.</i>	The project will be operated in a run-of-river mode. During an outage the crest gates will automatically open to maintain tailwater level and therefore flow downstream of the powerplant. In the event of an emergency outage of both units of the powerplant due to a transmission line outage or similar causes, a warning siren will sound and then the crest gates will be gradually lowered to increase downstream flow to pre-outage flow rates. Changes in flow downstream of the powerplant will be attenuated by channel storage and storage in the pool at the toe of the falls. The pneumatic crest gates do not require power to open. The control system will be operated by a DC power supply with battery backup.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.2	<i>The DLA fails to adequately address water quality impacts. The DLA focuses on existing conditions rather than potential impacts of the project. For example, there is no analysis of how an increase in storage volume in the reservoir may affect reservoir temperatures as well as lower river temperatures. At a minimum, Okanogan PUD should model the proposed scenarios, followed by a comprehensive monitoring program during the life of any new license.</i>	The discussion of water quality in Exhibit E.2 has been updated in responses to a number of specific comments related to temperature, dissolved oxygen and sediments. Regarding lower river temperatures, monitoring results showed that the moderating effect of mixing cool and warm inflows in the reservoir both increases the daily minimum temperature and reduces the daily maximum temperature. The need to continue temperature monitoring beyond the first five years of project operations will be determined by evaluating the results of monitoring during that initial period.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.2	<i>The limited analysis of total dissolved gas (TDG) impacts of the project precludes the ability to make any conclusions. The study conducted by Okanogan PUD is limited to a few days in the spring and fails to consider potential effects on TDG during times of higher temperatures. The PUD assumes that TDG issues will be resolved by running the water through the turbines and bypassing the falls. However, there is no analysis or modeling of this proposed action. The PUD has not adequately studied or addressed the TDG problem.</i>	Refer to the response to Comment #26. TDG is not an issue during times of higher temperatures because those times coincide with low flows when the entire river will flow through the powerhouse rather than over the dam and waterfall.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>...it appears that the project will completely dewater the reach below the dam and Similkameen Falls at certain times of the year. Such a proposal ignores designated uses of the river - aesthetics, salmonid spawning and rearing. In coordination with interested stakeholders and the Washington Department of Ecology, the PUD should undertake a study to analyze various flow levels in the Similkameen River and over the falls and identify a flow regime that will adequately protect the designated beneficial use of aesthetics.</i>	There is no known or suspected salmonid spawning, or rearing in the area that would be dewatered (refer to Exhibit E.3.2). Aesthetics are discussed in in Exhibit E.8
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>Similarly, dewatering of a river has the potential to affect macroinvertebrate drift, which would adversely affect salmonid and resident fish species that utilize the Similkameen River below the falls. The DLA concludes that the macroinvertebrate production in the river below the dam is likely limited due to a number of factors, but it has not provided any data to support this claim. The PUD should undertake the necessary field studies to accurately assess the production. In either situation, flows must be provided in the Similkameen River to ensure protection of designated beneficial uses; the question is the appropriate level of such flows.</i>	Additional discussion of potentially affected macroinvertebrates communities is provided in Exhibit E.3.2. Effects will be mitigated by providing additional macroinvertebrate habitat in the proposed side channel mitigation (PM&E FISH 10) described in Exhibit E.3.2.3 and Appendix E.3.3.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.2	<i>The state's anti-degradation policy calls for restoration and maintenance of the highest possible quality of the surface waters of Washington. The policy requires that existing uses be maintained and protected, with no degradation that interferes with or injures such existing uses. The DLA fails to address how the proposed project will meet this requirement. Dewatering of a reach that is currently watered is wholly inconsistent with the anti-degradation requirements.</i>	The Similkameen River does not have specific designated uses identified in the latest water quality standards, but is protected for general beneficial uses that include water supply and recreational uses, boating, wildlife habitat, aesthetic values, and salmonid spawning, rearing and migration. The bypass reach is not a point of withdrawal for water supply, is difficult to access and generally too dangerous for primary or secondary contact recreation, and is not used by salmonids. Aesthetic effects are described in Exhibit E.8.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.4	<i>In addition to state requirements, Clean Water Act section 404 guidelines prohibit the discharge or disposal of dredged or fill material if that discharge will adversely impact wetlands if a less damaging practicable alternative is available. The DLA must address the issues associated with the loss of wetlands caused by the project.</i>	A Mitigation and Monitoring Plan will be developed in consultation with the BLM, Ecology, the Corps, and other stakeholders following issuance of the license. This MMP will address impacts from any excavation or fill in wetlands that are jurisdictional waters of the U.S. (currently a few square feet of such wetlands.) The MMP will include goals, the species to be used, methods and benchmarks of success, for botanical resources. Restoration of abandoned roadbeds will be part of this plan, which will have details on surface preparation to deal with compaction issues, seeding, mulching, and installation of woody species. Details of cattle exclusion fencing to protect mitigation/restoration areas will be included in the plan. The Corps will have approval authority for actions related to fill and excavation in jurisdictional waters of the U.S. The BLM will have approval authority for the elements of the plan that apply to BLM-administered lands. Monitoring provisions in the MMP will include monitoring of sites that may convert from upland meadow to herbaceous wetland.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>The DLA fails to address the historic range of anadromous salmonids. PUD has not undertaken any additional study since the last relicensing effort, yet it again asserts that the Falls is a documented barrier to fish passage. We disagree and request that the PUD conduct the necessary studies to resolve the issue.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.2	<i>The final application should include detailed information regarding the intensive mining that took place in the Similkameen River, beginning in the 1860s. This undoubtedly had an adverse impact on the health of the Similkameen River, including any fish species that inhabited it. This information is critical to inform the issue of fish presence above the Falls.</i>	Mining occurred historically in the Similkameen watershed but it is not considered to have affected distribution or abundance of fish in the Similkameen River.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>The final license application should reference the unresolved nature of the issue rather than repeatedly asserting that Similkameen Falls serve as a complete barrier to anadromous fish. The data does not support such a conclusion.</i>	The issue is not considered to be unresolved. Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPPC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.

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ENLOE COMMENT RESPONSE TABLE

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	D-5	<i>The DLA provides insufficient information on the need for power and the value of generation. Marginal economic value has been a central issue throughout the history of Enloe Dam. The PUD should provide more detailed data on the need for power, the value of generation, and on other project benefits in its final license application. Such data would provide a better understanding of project economics and would allow public, agency (including FERC), tribal and other stakeholders to accurately weigh the value of potential power production against the impacts to the Similkameen River and related resources.</i>	The value of the power generated by the Project is accurately provided in the DLA and meets the FERC requirements. Exhibit B.5 clarifies the District's need for power and other project benefits.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	B	<i>The DLA states that "[a]ll feasible power generation is needed to meet forecasted demand in the District Service Area." Table B-5 shows that the annual average load growth for the past 18 years has been less than 10MW, while Table B-6 shows that the annual average load projected for the next 11 years has increased to 25MW. The DLA neither supports nor justifies this purported 150% annual increase. The final application should explain where this projection increase will come from, especially in light of the assertion that the region is expecting "mostly residential growth, with some commercial growth but very little industrial growth" and Table E.5-4 which shows that total population growth in Okanogan County has been much slower than the state as a whole (less than 1% between 2000 and 2005), as well as a lower growth in per capita income than other areas of the state (42%).</i>	Table B-5 of the DLA shows that the annual average load growth for the past 18 years has been around 1%, with a total growth of about 10 aMW. Table B-5 has been updated and corrected (and now includes 2007 data). Average annual growth between 2003 and 2007 was 4.1%. Table B-6 shows an annual average load growth of 3%, which results in a 10-year increase of about 25 aMW. Table B-6 has been updated with current projections. Average annual growth between 2008 and 2018 is projected to be 3.4%. Note that this is less than the rate that occurred between 2003-2007.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	D-5	<i>We believe that the PUD's statement that this project will leave "no carbon-footprint" and "can contribute to reduced emissions" oversimplifies this important issue, and assumes that if Enloe Dam is not built, generation would be replaced by coal-fired or natural gas generation. This analysis does not include or refer to any supporting evidence, and fails to consider other options. such as power from other sources of energy that emit significantly less carbon than coal, such as solar or wind. Alternatively, Enloe's power could be replaced through energy conservation.</i>	Exhibit D.5 discusses the carbon footprint of the Enloe Project, which will be quite small. Exhibit D.6 has been expanded to include other power source options, and Exhibit D.7 has been revised to include a discussion of other renewables (including conservation), and an estimation of green house gas emissions.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	D-5	<i>In the final application, we would ask the PUD to provide substantial analysis in support of a realistic consideration of the carbon that could be emitted by various sources of replacement power - including conservation - and to not conclude that the sum of the assumptions listed in the draft will result in a net benefit for the project.</i>	Analysis of climate change effects for a hydroelectric project and alternative energy sources or conservation measures is not required for filing under 18CFR4.41. The District believes that our application provides sufficient information to meet the requirements for filing.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	n/a	<i>The DLA fails to adequately consider the Shanker's bend Project. We urge the PUD to defer action on the Enloe Project until there is a better understanding of the status of Shanker's Bend. Given the interrelated nature of the proposed projects, it is premature to move forward on the Enloe Hydroelectric Project.</i>	The Enloe and Shanker's Bend license proceedings are entirely separate. No part of a Shanker's Bend project is included in the Enloe License Application. The Enloe project design does not include any facilities designed to accommodate a Shanker's Bend project. Enloe project operations and financing have been analyzed and described in the License Application on a stand-alone basis. The Shanker's Bend project is speculative, and no decision has been made to move forward. A Preliminary Permit has not yet been issued for the project by FERC. The District will be initiating an appraisal study of the project during 2008, review of that study is not expected until late 2008 or 2009. Until the project's feasibility has been studied, no decision can be reached as to whether to move forward with the project, or the project's design and scale. A map of the Enloe project area is provided in Exhibit G.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	A-11	<i>The DLA describes the reservoir as being fairly shallow due to the accumulation of sediment. The Enloe project, like all reservoirs, will continue to fill with sediment, and therefore, the storage and generating capacity of the Project will continue to diminish over time. The final application should discuss sediment inputs, diminishing storage, and corresponding impacts on generation over the life of the license. Such discussion should include a timeline estimate of when sedimentation would prevent or seriously compromise power generation and plans, if any, for sediment removal.</i>	Hydraulic and sediment-transport modeling of both current and proposed dam configurations indicates that the Enloe reservoir is in a state of dynamic equilibrium with respect to sediment inputs from upriver. Therefore, the Enloe reservoir is not likely to accumulate any additional sediment. The reservoir provides no storage function that would be lost if additional sediment does accumulate, nor would further sediment accumulation affect generation. Ongoing removal is not necessary.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	n/a	<i>The DLA relies on studies conducted more than 15 years ago to support its claim that thermal stratification does not occur in Enloe Reservoir. The final application should explain how 15-year old data is still applicable. The PUD should include additional analysis of the impact of an increase in the water surface elevation and size of reservoir on thermal stratification.</i>	The analysis of temperature is based on current data, as reported in Exhibit E.2. Vertical temperature profile results are summarized in Appendix E.2.1 and contained in Attachment A. Appendix A of this appendix. These results show the reservoir was not stratified in late summer (September 14 and 15, 2006), with differences in temperature less than 0.6 °C from near surface to near bottom. For a previous Enloe application, densimetric Froude numbers were calculated for a variety of flow scenarios and compared to the inverse of water density both for existing conditions and with flashboards. Froude numbers greatly exceeded the inverse of water density under all flow scenarios and the study concluded that the reservoir will remain well-mixed and experience no significant thermal stratification. This conclusion also applies to the current project proposal that will have a similar effect on water depth and hydraulic residence time with the installation of crest gates.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	A	<i>Moreover, exclusion of critical protection measures, including flows and ramping rates, both of which have been required in previous licenses, will result in inadequate protection, mitigation, and enhancement of affected resources.</i>	Compared to many larger hydro projects which follow load or shape flows, the operation of the Enloe Project is relatively simple. The project will be operated in a run-of-river mode with no minimum instream flow release in the 370 foot long reach of river between the toe of Enloe Dam and the waterline at the toe of Similkameen Falls. A fixed ramping rates would be inapplicable to this project's operation. Implementation of such a ramping rate may make it impossible for the project to operate in run-of-river mode and balance inflow and outflow from the reservoir. The goal is for outflow to be controlled by inflow to the reservoir.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	B.2	<i>The DLA lists several alternative intake designs that were considered but fails to provide a comprehensive discussion of the characteristics of each one and the potential level of protection that they would be provide to fish resources. The underlying analysis is insufficient to conclude that the trashrack will be sufficient and that the other alternatives are not needed.</i>	Exhibit B-1 has been updated to better describe the intake design and characteristics including the proposed trashrack.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	B.2	<i>The survival estimates upon which the PUD is relying are identified later in the document, p. E.3-27, and are based on predictive models developed by the U.S. Department of Energy's Advanced Hydro Turbine System Program. The PUD has not adequately explained why those predictive models are applicable to and representative of the two vertical axis Kaplan turbine/generator units that will be installed. The final application requires significantly more information in order to assess the adequacy of the proposed measure and justify rejection of more protective ones.</i>	Documentation of the calculation methodology is provided in Appendix E.3.2 Tailrace Mortality .
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	B.5	<i>The final application should describe the PUD's conservation program, what was undertaken in 2004 that led to significantly greater savings, and what the real potential is from conservation. This information is essential to assessing the overall need of the power.</i>	Exhibit B.5 has been edited to provide greater detail regarding the District's conservation program.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2.1	<i>The DLA includes a discussion of fish distribution and abundance that relied in part on surveys conducted in 2006 and 2007..... The DLA, however, fails to explain how the months chosen represent the identified parameters, and how this limited analysis would adequately represent conditions at all times of the year. The final application should include a more detailed discussion regarding the adequacy of these limited surveys.</i>	The fish surveys were designed in consultation with Federal, State, and Tribal fisheries agencies and managers. The sampling conducted in 2006 and 2007 augmented sampling conducted in support of the previous license application for the project. The studies relied on for development of the existing conditions and the impact evaluation are presented in Exhibit E.3.2.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E3.2.1	<i>The DLA references a number of different studies with regard to fish use in the Similkameen River below Enloe Dam. However, it is challenging to get an accurate picture of fish distribution and abundance in the river. The DLA notes that adult anadromous fish are most abundant in the river during spawning season, however, because spawning occurs during the spring freshet when flows and turbidity are high, snorkeling observations were not possible. (DLA, p. E.3-8) These conditions seem applicable to steelhead spawning timing, however, they do not justify failure to snorkel survey during summer Chinook spawning that occurs during the late fall (DLA, p. E.3-13) It is not clear why snorkel surveys were not conducted at that time.</i>	The Confederated Tribes of the Colville Reservation monitors the anadromous fish populations in the lower Similkameen River. The data collected by the tribal biologists has provided sufficient information to evaluate the effects of project construction and the effects of the proposed PM&Es to be implemented downstream of the Enloe Dam. No additional data on fish populations are needed to complete the impact assessment and develop appropriate PM&E's.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>It would be beneficial to include a discussion of the conditions under which the various studies were conducted to allow for better understanding of the results. For example, spring flow and turbidity conditions precluded an adult snorkel survey in 2006, yet OBMEP conducted steelhead redd surveys at the time. Under what conditions were the redd surveys undertaken? We urge the PUD to provide greater detail of the various studies, the water years under which they were conducted, and the basis for the survey timing.</i>	The fisheries technical report presented in Appendix E.3.1 contains additional detail on the sampling program conducted in 2006 and 2007.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-15	<i>The DLA identifies the authority of the U.S. Fish & Wildlife Service and the National Oceanic and Atmospheric Administration Fisheries as responsibility for fish and wildlife on federal lands. The authority of both agencies is broader and not limited to federal lands. The final application should include a more accurate description of their authorities.</i>	Exhibit E.3.2 has been modified to provide a more complete description of the USFWS and NMFS jurisdiction in the FERC licensing process.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project,	E.9	<i>It would be helpful if the final application including the following: (1) Status of the Okanogan River Watershed Management Plan; and (2) Date of the Okanogan Subbasin Plan</i>	Exhibit E.9 discuss the relationship of the License Application to existing plans and programs. Agencies responsible for these plans were consulted in the developed of the License Application.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-20	<i>The DLA states that the relatively limited amounts of gravel in the river result in limited spawning habitat and that the Similkameen appears to be a naturally gravel starved system. (DLA, p. E.3-22). Other than the studies provided in Appendix 6, there is no discussion of the other studies upon which the PUD is relying to conclude that the Similkameen is sediment starved. The final license application should include a discussion of each of the studies, including how they support the finding regarding gravel in the river, and identify them in a manner that allows people to locate and review them.</i>	The assertion that gravel is in short supply in the Similkameen River is based on professional observations of the river during the 2006-2007 field studies, and on personal communications with the Tribes. Additional information on gravel availability and supplementation is provided in Exhibit E.3.2.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>The discussion of entrainment in the DLA lacks critical information necessary to fully understand the impacts of the project. The final application should include the following: (1) explanation of how/whether the turbine survival predictive models are applicable to the Enloe Hydroelectric Project,</i>	Appendix E.3.2 Turbine Survival Estimate Methodology has been added to the application and provides additional detail as to the applicability of the estimate to the Enloe Project

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>(3) any spillway survival studies that have been conducted, and</i>	Exhibit E.3.2 explains the survival studies.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>(4) support for and relevance of the potential that entrained fish may be replaced by emigration from upstream populations. Even if that were to occur, the population as a whole may decline due to ongoing mortality at the project.</i>	Exhibit E.3.2 further discusses population dynamics. Mortality is discussed in Exhibit E.3.2 and in Appendix E.3.2.2
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3	<i>We disagree with the PUD's assertions that turbine survival is relatively high. For larger non-salmonids, survival could be as low as 77.6%. And, for salmonids, it could be as low as 57.3%. And, there is no data regarding spillway survival that supports the PUD's claim that "there is expected to be little difference in the survival rates of fish passing over the spillway ... and fish passing through the turbines." (DLA, p. E.3-28). If the PUD has conducted spillway survival studies, please include those in the final application.</i>	Exhibit E.3.2 provides further explanation of the survival data and Appendix E.3.2.2 describes potential tailrace mortality impacts.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-29	<i>As already noted, eliminating all flow in the Similkameen River below the dam has unacceptable adverse impacts. In addition to adverse effects on aesthetics and macroinvertebrate drift, dewatering the reach will have a direct impact on those fish that use the reach between the dam and the falls. We disagree with the PUD's claim that impacts would be insignificant.</i>	The Project will not "eliminate all flow in the Similkameen River below the dam." A 370-foot bypass reach will be dewatered during July-March of most years. Effects to invertebrates and fish are expected to be minimal and are described in Exhibit E 3.2, together with a discussion of how proposed mitigation measures (detailed in Appendix E 3.3) are expected to provide a net benefit to the aquatic resources. Benefits are expected largely due to the extremely poor habitat in the bypass reach and the remote potential for use by fish.

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ENLOE COMMENT RESPONSE TABLE

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-29	<i>We disagree that, based on the existing information, a tailrace barrier is not needed and that the flows will operate as a velocity barrier. There is no discussion of what flows are necessary to create an actual velocity barrier and whether that will exist even at the lowest flow. Moreover, It is difficult to understand how fish will not suffer adverse impacts if they are able to swim upstream into the tailrace and continue through the draft tube into the turbine environment. In the previous licensing effort, FERC required that the PUD develop a plan to install a "submerged bar rack tailrace barrier to prevent fish from entering the tailrace discharge chamber." The PUD has not provided any new data that would lead to a different conclusion.</i>	Additional information on survival of salmonids and non salmonids through the turbines is included as Appendix E.3.2, and Exhibit E.3.2 has been updated based on further consultation with agencies and tribes.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-32	<i>Analysis of sediment issues in the DLA is limited. It acknowledges some impacts that will occur during project construction, however it fails to adequately assess the issue of sedimentation impacts on the Similkameen River, including potential and cumulative impacts from ongoing project operation. It does not address annual sedimentation buildup, high historic sedimentation during the spring/summer freshet, or the impacts of sedimentation over the life of the proposed license, including how sedimentation could effect future power generation, dam safety issues, or the need for future dredging of the reservoir. The DLA does not define the expected or potential risk of large sediment discharges from project operations (including crest gate manipulation) on water quality or habitat and navigable waters downstream from the project. The final application should include detailed data and information regarding each of the sedimentation issues listed above.</i>	Hydraulic and sediment-transport modeling of both current and proposed dam configurations indicates that the Enloe reservoir is in a state of dynamic equilibrium with respect to sediment inputs from upriver. The model application and results are described in detail in a new appendix (Appendix E.2.3). The Project will not cause the discharge of sediment during operation and is not expected to impact sedimentation in the Similkameen River.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-34	<i>To address the impacts of the project resulting from increased storage and inundation of habitat, the PUD proposes to increase structural diversity and improve the quality of habitat by adding boulder clusters. It is difficult to assess what, if any, benefits such action will provide without significantly greater detail. At a minimum, the PUD should commit to implementing a measure that provides a specific amount of biological and habitat improvements.</i>	Further information regarding this mitigation measure is presented in Exhibit E.3.2.3 under PM&E FISH 02.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3	<i>To reiterate, the Conservation Groups disagree with the PUD's proposal to address entrainment at the project. Neither the level of potential impacts nor the level of expected benefit identified by the PUD are adequately supported.</i>	The District believes that entrainment issues have been adequately addressed. Under PM&E FISH 05 (Exhibit E.3.2.3) proposes to study entrainment impacts. During the initial phase of project operation, the magnitude of entrainment impacts will be estimated with studies designed to 1) examine seasonal variation in entrainment susceptibility, 2) observe trauma and mortality associated with placement of fish species in the power canal, and 3) sample fish in the reservoir to relate the entrainment observations with the fish distribution and abundance in the reservoir. Potential losses will be mitigated through the habitat enhancement projects FISH 10 and FISH 11.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>In addition, there is no way to assess the potential benefits of the downstream enhancement that the PUD refers to because of the lack of detail regarding what the project will actually be. The PUD is relying on the as yet to be defined project to address multiple impacts of the project, entrainment being just one.</i>	The District has continued to develop conceptual plans for side channel improvement projects. Appendix E.3.3 provides additional information.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>The PUD does commit to conducting a turbine entrainment study, which we support provided it is sufficiently comprehensive. However, there is no indication of how the results of the study will be used. Is it the PUD's contention that the single habitat measures proposed for the lower river is to also mitigate for the results of the entrainment study? The final application should provide greater clarity on how this and other monitoring studies will inform protection, mitigation, and enhancement measures.</i>	Under PM&E FISH 12 - Development of an Adaptive Management Plan, the District proposes to provide for ongoing refinement and measure of effectiveness of the PM&Es by establishing a Biological Resources Program, Technical Review Group (TRG). The group will review all monitoring study results and evaluate effectiveness of the PM&Es. Details on the adaptive management program are provided in Exhibit E.3.2.3 under PM&E FISH 12.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.4	<i>Planting riparian vegetation along the reservoir does not mitigate for the loss of wetland habitat that will occur with project operation.</i>	Herbaceous wetland vegetation is expected to develop adjacent to the waterline maintained by the proposed crest gates. Due to raised groundwater elevation, flats above the existing wetland vegetation are likely to develop herbaceous wetland vegetation following the installation and operation of the crest gates. Monitoring will be included in the MMP. Riparian plantings are proposed because woody species take longer to establish naturally than herbaceous species do. While willows and other woody species are expected to establish naturally along the new low water line, planting these species will reduce the extent of the temporary loss of this habitat.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-39	<i>Okanogan PUD proposes to relocate the tailrace in order to mitigate for adverse impacts to habitat downstream of the Falls. It is not entirely clear from where the PUD is relocating the tailrace. Use of the existing project facilities is not feasible for a number of reasons, several of which the PUD has identified. As such, it is not clear how construction of the project can also serve as mitigation for the project. Construction of the tailrace in the proposed location is a component of the project itself, but is not mitigation for its operation. The final application should not include tailrace relocation as a protection, mitigation, or enhancement measure.</i>	The "relocation of the tailrace" refers to the 1991 License Application, in which the west-bank rehabilitation of the original project included a tailrace located considerably further downstream than the current proposal. Regarding the comment on mitigation, it is common to incorporate mitigation into project design. Although the downstream east bank location of the powerhouse was preferred for a number of design and cost reasons, the upstream location was selected to avoid or mitigate several concerns, including recreation access and water quality. The tailrace was designed to circulate water to the base of the falls to limit the effects of bypass to the short (370-foot) bedrock reach between the dam and the Falls. The District considers these measures to be mitigation.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-40	<i>The Conservation Groups support the implementation of habitat improvement projects below Enloe Hydroelectric Project. However, we do not support the PUD's premise that it is not practical to otherwise address the impacts that the projects are intended to mitigate.</i>	The proposed mitigation package has been selected to provide the greatest overall benefit to affected resources.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3-40	<i>In addition, the DLA is flawed in several respects. It lacks sufficient information on which to review the proposed side channel development and get any indication of the benefits that it will provide. The PUD does not provide examples of other similar projects, does not establish any biologically measurable goals, and does not provide information that suggests it is even feasible to implement such a measure. The final application should include significantly more data regarding this measure.</i>	Additional information on the side channel improvement mitigation measure is provided in in Exhibit E.3.2.3 under PM&E FISH 10 and in Appendix E.3.3. The District has continued to develop conceptual plans for this measure, and has identified several locations where it could be implemented.

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14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>We also support gravel augmentation to improve spawning habitat. However, it is not possible to assess the scale or possible adequacy of the proposed program. While the PUD identifies a cost of \$170,000 for the measure, it fails to include a discussion of how much gravel will be added, how much additional habitat is expected to result, and how its use by fish will be measured. It also fails to support that gravel augmentation will be successful and that gravel will be retained in place. It is critical that these components be included in the final application.</i>	Futher clarification of the gravel supplementation program is provided in Exhibit E.3.2.3 PM&E FISH 11
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.3.2	<i>Okanogan PUD is relying on these two enhancement projects to mitigate for a number of impacts of the project - entrainment injury and mortality, injury and mortality from tailrace operations, impacts resulting from construction and dewatering of a reach of the river. Yet, the DLA provides wholly inadequate information on which to assess the adequacy of the measures. Because of this, as well as limited data regarding impacts of the project, it is difficult to understand how the PUD concludes that "[the two measures together will more than compensate for loss that could occur as a result of the construction and operation of the project." (DLA, p. E.3-41). We disagree.</i>	The District has refined and improved the side channel enhancement and gravel supplementation PM&Es. Please see Exhibit E.3.2.3 PM&Es FISH 10 and FISH 11. PM&E FISH 12 provides for adaptivemanagment and review of the PM&Es.
14	Brett Swift, John Osborn, Jerry R. Boggs, Rick McGuire, Geraldine Gillespie, Mike O'Brien	American Rivers, Center for Environmental Law and Policy, Selkirk Conservation Alliance, North Cascades Conservation Council, Columbia River Bioregional Education Project, Sierra Club-Cascade Chapter	E.10.2	<i>The PUD repeatedly asserts that the proposed operation would effectively have no impacts on the flow regime of the Similkameen River. Again, it asserts that the flow regime downstream of the Project would be similar to natural inflow to Enloe Reservoir. (DLA, p. E.10-7). This statement is misleading and should be modified to reflect that the PUD is proposing to dewater a reach of the river.</i>	The statement that the Project would not affect the Similkameen River flow regime is accurate. A 370-foot bypass reach would be dewatered immediately below the dam and above the falls during July-March of most years. This reach provides poor habitat, is inaccessible to salmonids except during the highest flows, and supports no fish production. The project will be operated in a run-of-river mode with no minimum instream flow release in the 370 foot long bypass reach. Exhibit B clarifies that the flow regime in the Similkameen River will not be affected by project operations after project initiation.
15	Charlene Beam	Okanogan County	n/a	<i>Okanogan County has no concerns regarding the project as proposed.</i>	Comment acknowledged; no response required.
15	Charlene Beam	Okanogan County	E.4.2	<i>Okanogan County would like to encourage the Okanogan County PUD to pursue any possibilities to avoid destruction of the historic power housed and would enter into discussions regarding potential funding sources. We regard the historic power house as an important asset of the Okanogan County Trail System.</i>	The District is considering options regarding the powerhouse, including soliciting interested parties to assume ownership and management of the powerhouse This solicitation would provide the opportunity for community groups and state, federal, local government agencies or qualified non-profit groups to find an alternative use for the building. Okanogan County would be included in this process. The License Application indicates this option as PM&E HIST 01 in Exhibit 4.2.3.

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ENLOE COMMENT RESPONSE TABLE

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16	Gary Passmore	CCT	B	<i>The Confederated Tribes of the Colville Reservation have prior and paramount unquantified water rights in the Okanogan River system that will need to be considered and protected.</i>	The nonconsumptive use of water for run-of-river hydropower generation by the Enloe Project is not considered to impair these rights. The District believes that the proposed PM&E's offered in the License Application will enhance the resource and provide net benefits to the CCT and others.
16	Gary Passmore	CCT	E.4.1	An apparent bias appears to exist related to what this site looked like historically and the FLA needs to be more objective. The "Rock Wall" described in this document described as being 33 feet high and fairly perpendicular is not supported by any conclusive evidence. A spectacular site such as this would have been a gathering point for both native and nonnative people to congregate take photos and remember but this is the only reference to this place that have ever seen.	<p>The term "Rock Wall" is used in referring to Enloe Falls in the Historical American Engineering Record (HAER) Report prepared in 1990 by Craig Holstine and John Eminger. The HAER report is provided as Appendix E.4.1 to the License Application, as contextual information on the history of the Dam. It was reviewed by the Cultural Resources Work Group (CRWG), which includes the CCT. The CRWG has not objected to the HAER report characterizatio. The commenter is referred to the Tribes own representative to the CRWG.</p> <p>Regarding the 33 foot height, the hydrologic height of the falls under average flow conditions is 22 feet, reflecting the vertical distance from the top of the water falling over the rock to the top of the pool below. The reference to a 33 foot Rock Wall measures the vertical distance of the rock feature itself, from the rock at the top of the falls to the streambed at the bottom of the plunge pool below.</p>
16	Gary Passmore	CCT	E.3	<i>Many efforts have been made to settle fish passage issues at this site but most have concluded that insufficient information exists to clearly determine this issue one way or the other. I would suggest exclusion of the whole "Pre-dam era section or at least that it be rewritten from an objective unbiased approach giving equal consideration to the opposing sides of this issue.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.

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16	Gary Passmore	CCT	E.2	<i>When determining differences between sites the use of maximum temperatures result in what would appear to be decreasing temperatures and use of minimum temperatures will result in what appears to be increasing temperatures. These results are the product of the study design and do not represent the true value that is unchanged as reflected by the mean temperature that focuses on the real temperature rather than the noise. Use of the 7day max temperatures in evaluating this project result in what appear to be decreasing temperatures which is misleading.</i>	The District is required to demonstrate compliance with water quality criteria in the state surface water quality standards (Chapter 173-201A WAC). Where water temperatures naturally exceed the numerical maximum criterion for the designated uses, the standards specify no human-caused increase in the 7DADMax temperature. Daily mean temperatures are not used to determine regulatory compliance. However, a new figure is provided to address this comment. A plot of daily mean temperatures in the upper and lower reservoir during July and August 2006 show a similar pattern as the plot of 7-DADMax temperatures, with no warming in the lower reservoir compared to the upper reservoir.
16	Gary Passmore	CCT	E.2	<i>Water retained behind a dam will be exposed to increased solar radiation due to reduced shading from riparian vegetation, increased channel width, and reduced velocities, resulting in an increase in water temperature. The extent of this increase resulting from the existing project compared to historical is unknown and not addressed.</i>	The use of crest gates will retain more water behind Enloe Dam but this will not increase maximum daily temperatures. Please refer to Exhibit E.2 and Appendices E.2.1 and E.2.2.
16	Gary Passmore	CCT	E.2	<i>In addition the amount of warming that could be attributed to the proposed pool raise is not predicted.</i>	The use of crest gates will retain more water behind Enloe Dam but this will not increase maximum daily temperatures. Please refer to Exhibit E.2 and Appendices E.2.1 and E.2.2.
16	Gary Passmore	CCT	E.2	<i>Any increase in water temperature would be considered detrimental to endangered summer steelhead that might attempt to rear in the Similkameen River from July through September and should be mitigated. Even temperature increases in the tenths of a degree should be mitigated for by supplementing coldwater inputs below the project from lake, or ground water to a level that would offset these increases 2 fold.</i>	Further evaluation of potential thermal effects is provided in Exhibit E.3.2. The side channel improvement mitigation measure, PM&E FISH 10 in Exhibit E.3.2.3, will provide cool water for rearing salmonids (also see Appendix E.3.3).
16	Gary Passmore	CCT	E.2	<i>Additional monitoring of TDG to establish a solid baseline is needed in order to compare post project monitoring results and provide the basis for an adaptive management and appropriate mitigation loop</i>	There is no reliable method available to quantitatively predict TDG concentrations using mass balance or other methods, therefore this comment is addressed qualitatively. When the project is diverting up to 1,600 cfs through the powerhouse, those flows will be less aerated than had they passed over the dam. The diverted flows will be returned near the water surface rather than plunging deeply over the waterfall where gas bubbles become dissolved. The lower TDG water exiting the powerhouse will dilute whatever higher TDG water has passed over the waterfall. Most of the year when most of the river flow is diverted through the powerhouse, TDG supersaturation will be greatly reduced. During the highest river flows when most water still passes over the dam and waterfall, the reduction in TDG will be less. For example, during a typical annual peak flow approximately 10% of the river will be diverted through the powerhouse. The greatest benefit will occur in the weeks before and after the annual peak when the duration and extent of TDG supersaturation will be substantially reduced.

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16	Gary Passmore	CCT	E.2	<i>An adaptive management loop concept is missing for mitigation elements especially when only limited data are currently available.</i>	The monitoring data collected by the Licensee in the post license biological and water quality monitoring studies would be reviewed in consultation with WDFW, USFWS, NMFS, CCT, DOE and BLM. The Licensee would prepare monitoring reports and provide an assessment of the success of mitigation measures including the side channel habitat improvement, and boulder clusters. The Licensee would develop recommendation for changes to the mitigation measures to improve performance, if needed. The Technical Work Group would provide advice to the Licensee on the proposed modifications to the monitoring program or modification to the mitigation measure.
16	Gary Passmore	CCT	E.2	<i>Figure E.2-11 shows the Similkameen River at high flows in 1905 and no falls are evident. It is these large flood events that provided passage opportunities for summer steelhead.</i>	The potential for passage during high flows has been considered, however consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
16	Gary Passmore	CCT	E.2	<i>This type of runoff event would likely result in higher TDG levels today than would have historically existed. However, the extent of this change can not be quantified without any monitoring data and interpretation from a photograph is of very limited value.</i>	The Commentor is correct that it is not possible to quantify pre-dam TDG levels without pre-dam monitoring data. The photograph shows the water above the waterfall was highly aerated whitewater during a high flow event before the dam was built.

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16	Gary Passmore	CCT	E.2	...monitoring should be expanded to include water quality including temperature, dissolved oxygen,. total dissolved gas, Total Suspended Sediment (TSS), total and dissolved metals (As, Cu, Cd) in water, and sediment quality throughout the life of the operation of the project.	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.
16	Gary Passmore	CCT	E.2	<i>It is recommended that continuous real time monitoring be conducted throughout the life of the project. Experience at numerous other dam sites has shown that real time TDG monitoring is the best way to evaluate and develop measures to mitigate TDG at a dam on specific conditions.</i>	Continuous real-time monitoring of TDG has been implemented at other hydroelectric projects where spills are managed to enhance fish passage survival while minimizing TDG effects. At the Enloe project there will be no provision for fish passage and very limited opportunity to manage flows. As part of the Project's adaptive management plan, the five years of monitoring indicated in PM&E WQ 04 (see Exhibit E.2.7) will help determine whether further monitoring is needed.
16	Gary Passmore	CCT	E.2	<i>Mitigation for fish and aquatic resource damages should be conducted on a case by case basis with Tribal fisheries staff.</i>	As part of the development of PM&E's for the Enloe Project, the District has sought input from tribal staff and expects that the tribal staff will participate in the adaptive management process conducted post licensing.
16	Gary Passmore	CCT	E.2	<i>We agree that the bypass design will probably benefit water quality for TDG below the project, but this needs to be monitored regardless. It is recommended that monitoring be conducted throughout the year, preferably continuous real time monitoring.</i>	Monitoring will be conducted during those times of the year when high flows cause higher TDG levels, but not throughout the year. For example, it would not be worthwhile to risk equipment to damage from ice in the winter. Monitoring through the snowmelt runoff months will capture most days of high flow that occur during the year, and provide a good indication of TDG compliance. TDG is not expected to be problematic during low flows when the river will all be directed through the powerhouse rather than over the dam and waterfall.
16	Gary Passmore	CCT	E.2	<i>Text in E.2 and other references or comparisons to sediment quality standards should be revised to accurately reflect that the Colville Confederated Tribes has established regulatory criteria at Chapter 4-16 of the CCT Tribal Code for freshwater sediment quality and at Chapter 4-8 for water quality.</i>	Text in E.2.6 has been revised as requested.

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16	Gary Passmore	CCT	E.2	...water/sediment quality monitoring and Project PM&E's must address potential impacts throughout the life of operations of the Project, in addition to impacts during construction.	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.
16	Gary Passmore	CCT	E.2	<i>The study area addressed in Appendix E.6.2 Technical Memorandum for Bank Stability and Erosion Assessment is limited to a 12 mile long region of the Similkameen River downstream of Nighthawk. No discussion is presented on criteria for limiting the study to the canyon section of the Similkameen River in the U.S.</i>	Initially, research was conducted for the entire watershed. This included review of relevant reports and field reconnaissance up to the headwater tributaries. The information summarized in Appendix E.6.2. resulted from the detailed field survey and aerial photo review. The area downstream of Nighthawk was chosen as possible new and proximal sources of sand and gravel sediment that could readily affect the impoundment. Due to the low stream gradient adjacent to Nighthawk, the majority of the sand and gravel load falls out before the detailed study area (the stream gradient in this area is the lowest along the entire system). The '12 mile reach' was selected based on what was determined to be most important to sediment load.
16	Gary Passmore	CCT	E.2.5	<i>The conclusions in E.2.5 directly contradict the conclusions of both Washington State DoE and the CCT that remobilization of fine-grained sediments in channel and bank sediments of the Palmer Lake and Similkameen River valley from ~RM 19 to the international boundary at ~RM27 are a major source of suspended sediment-driven water quality exceedances in the Similkameen River.</i>	We could not find such a contradiction in E.2.5. Exhibit E.2.6 states that "The greatest amount of arsenic loading identified by the TMDL evaluation was resuspension of sediments in the vicinity of Palmer Creek (RM 20), approximately 10 miles upstream from the Enloe Project Area."

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Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
16	Gary Passmore	CCT	E.6	<i>Also absent from consideration of sediment sources and upstream bank stability are large unstable deposits of contaminated mining detritus perched on the riverbank at Hedley, B.C. and other former mining sites in Canada, including those released to the Similkameen River from the Similko Mine near Princeton, B.C.</i>	Initially, research was conducted for the entire watershed. This included review of relevant reports and field reconnaissance up to the headwater tributaries. A detailed analysis of historical mines and mining operations is outside the scope of this relicensing project. Additional information regarding historical mining operations and impacts on the Similkameen River is summarized in Appendix E.6.2. and resulted from the detailed field survey and aerial photo review. The area downstream of Nighthawk was chosen as possible new and proximal sources of sand and gravel sediment that could readily affect the impoundment. Due to the low stream gradient adjacent to Nighthawk, the majority of the sand and gravel load falls out before the detailed study area. The '12 mile reach' was selected based on what was determined to be most important to sediment load.
17	Jeff Guerin	Fisheries and Oceans Canada	E.3.2	<i>As identified previously, our primary concerns are related to potential impacts on Chinook and sockeye salmon stocks which migrate across the Canada/US border in the Okanogan/Okanagan watershed, within the Columbia River system. Maintenance of safe fish passage both upstream and downstream in the Okanogan/ Okanagan system and potential for changes in stream flows, water temperatures, DO and other gases, sediment transport regimens, and heavy metal concentrations were identified as priority issues by our agency.</i>	Thank you for your comment.
17	Jeff Guerin	Fisheries and Oceans Canada	n/a	<i>As this facility will operate effectively as a run-of river project, the proposed increase in the water license volume should not be an issue. However, the submission indicates that the calculated mean and median annual low flow volumes have been notably lower since 1974 (out of the ~100 year data set). Assumably, development of the adaptive management program will be cognizant of this potential issue and actual low flow volumes will be tracked over time.</i>	Exhibits B and D indicate expected hydrology and power generation. Existing gages on the Similkameen River provide a continuous record of flows.
17	Jeff Guerin	Fisheries and Oceans Canada	A	<i>We support the development of an operational plan for the crest gates structures, as identified in the submission documents. The submission indicates that the plan will be targeted at preventing impacts related to potential dewatering during the spawning periods in the Similkameen River. It may be prudent to expand the scope of the operational plan to also address potential flow related impacts during the incubation and rearing periods, as well as downstream in the Okanogan river mainstem.</i>	The operational plan will address emergency shut-down, which is the only point at which a detectable change in flow would be possible under proposed operation. The management objective during all periods (rearing, spawning, etc.) would be to prevent any detectable change in water flow or level downstream. Since the reservoir level would be maintained at the top of the crest gates, any interruption of flow through the powerhouse would divert water over the crest gates. Flow changes would be of extremely short time and magnitude. Such changes would be attenuated a short distance downstream of the project and would not be detectable in the Okanogan River.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
17	Jeff Guerin	Fisheries and Oceans Canada	A	<i>The relocation and design of the tailrace structure is supported, as it is expected to mitigate potential water temperature and dissolved DO issues immediately downstream of the project site, as well as provide a velocity barrier for fish that may attempt to access the turbine structures.</i>	This is a supporting comment that does not request any specific response.
17	Jeff Guerin	Fisheries and Oceans Canada	E.2	<i>The PM&E measures document indicates that a variable duration monitoring program will be initiated related to this proposed project. We support the commitment to follow-up monitoring as outlined in Appendix D.1, which identifies numerous initiatives to monitor a number of aspects related to water quality and fisheries resources, and also includes some habitat enhancement proposals. The further commitment of the proponent to develop an adaptive management as more information becomes available is also commended.</i>	This is a supporting comment that does not request any specific response.
17	Jeff Guerin	Fisheries and Oceans Canada	E.2	<i>In relation to the five year water temperature monitoring, our agency would support the collection and analysis of data related to maximum peak water temperatures, to determine if the average maximum temperatures (i.e. 7-DADMax) are indeed within the typical range expected (1 degree Celsius cooler than the highest daily maximum temperature)...It would be useful for future reporting of the DO levels to include the corresponding water temperatures and stream flows at the time of sampling, as reference for the reviewers.</i>	River flows concurrent with DO profile measurements have been included in the report section on DO, and concurrent water temperatures are tabulated with DO monitoring results in Table 2 of Appendix E.2.1.
17	Jeff Guerin	Fisheries and Oceans Canada	E.3.2	<i>Our agency strongly supports this proposed five year initiative as it may be quite beneficial in assessing potential impacts on trans-boundary salmon stocks migrating through the Okanogan system.</i>	Thank you for your comments. We look forward to your participation in the Adaptive Management Program.
17	Jeff Guerin	Fisheries and Oceans Canada	E.2	<i>The potential for negative effects on water quality from disturbance of metal laden sediments in the reservoir appears to be high. As such, the development of mitigative measures intended to minimize this risk are also strongly supported.</i>	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	IS	<i>Ecology has not yet determined whether one or more 401 certification(s) will be required for activities associated with the Project, including in-water work that may require a Corps 404 permit.</i>	Thank you for this information. The District intends to continue consulting with Ecology to determine its requirements for the 401 Certification.
18	Pat Irle	Department of Ecology	IS	<i>Ecology's role with respect to determining the safety of the dam ceases once the FERC process takes over (RCW 43.21 A.068). FERC has indicated to Ecology that its (FERC's) authority has begun.</i>	Thank you for this clarification.
18	Pat Irle	Department of Ecology	IS	<i>Under the Federal Power Act (16 USC Chapter 12, Sec. 821), the States retain their authority over water rights. Under State law, the water purveyor is responsible for ensuring that the proposed use(s) are within the limitations of its water rights. If the proposal's actions are different than the existing water right (source, purpose, the place of use, or period of use), then a change is subject to approval from Ecology pursuant to Sections 90.03.380 RCW and 90.44.100 RCW.</i>	FERC does not take jurisdiction over State water rights. After licensing, the District will apply to Ecology for any changes to its water right that Ecology determines are needed.
18	Pat Irle	Department of Ecology	IS	<i>The FERC application states that a new water right application will be submitted to Ecology, upon approval of the project license, for 600 cfs. Ecology agrees that additional supply is needed to meet the additional proposed demand....A water right permit is required for all surface water diversions and for any water from a well that will exceed 5,000 gallons per day (Chapter 90.03 RCW Surface Water Code and Chapter 90.44 RCW Regulation of Public Ground Waters).</i>	FERC does not take jurisdiction regarding state water rights. The District will apply to the Washington Department of Ecology for a new 600 cfs nonconsumptive water right for hydropower purposes after FERC issues its order on the project. Based on our review of Similkameen River water rights and flows, the nature of the proposed use, and early consultation with the Department of Ecology, the District believes that the project will qualify for the water right. The District intends to discuss mitigation with Ecology that will allow the application to qualify for expedited processing.
18	Pat Irle	Department of Ecology	IS	<i>A SEPA assessment is not required when a NEPA document is prepared, unless it is determined that the NEPA document is not adequate (RCW 43.21C. ISO; WAC 197-11600(4)(d)). With respect to other state laws, SEPA may be applied to portions of the project that are not (or cannot be) adequately addressed under NEPA.</i>	Thank you for this clarification.
18	Pat Irle	Department of Ecology	IS	<i>Ecology has in the past retained the ability to incorporate provisions of SMA into its 401 certifications. Ecology expects to provide further clarification on this in the near future.</i>	Thank you for this information. The District intends to continue consulting with Ecology to determine its requirements for the 401 Certification.
18	Pat Irle	Department of Ecology	IS	<i>The PUD has indicated that it plans to apply for permits through JARPA. This typically includes a 401 certification with SMA and HPA requirements. The HPA requirements will need to be discussed in context of the 401 certification(s).</i>	Thank you for this information. The District intends to continue consulting with Ecology to determine its requirements for the 401 Certification.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	IS	<i>NPDES and State Waste Discharge General Permits for Stormwater Discharges Associated with Construction Activity (RCW 90.48 Water Pollution Control Law and CWA (33 USC, Section 1251 et seq.) will be needed for the out of water construction associated with this project.</i>	Thank you for this information. The District intends to continue consulting with Ecology to determine its requirements for the 401 Certification.
18	Pat Irle	Department of Ecology	IS	<i>If sediment contamination exceeds the fresh water sediment criteria established by Ecology's Sediment Management Unit, cleanup and proper disposal of these material may be needed, in accordance with Chapter 173-340 WAC.</i>	Thank you for this information. The District intends to continue consulting with Ecology to determine its requirements for the 401 Certification.
18	Pat Irle	Department of Ecology	IS	<i>Ecology's arsenic Total Maximum Daily Load (TMDL) Detailed Implementation Plan for the Similkameen might be mentioned, although it does not have conditions for the Project</i>	The Detailed Implementation Plan has been mentioned in the revised license application, as requested.
18	Pat Irle	Department of Ecology	IS	<i>The county generally issues the Flood Hazard Zone permit. It is possible these may be incorporated into either the FERC license or the 401 certification. Regardless, the FERC license would still have to meet Federal Emergency Management Agency (FEMA) regulations (see 44 CFR60.3(c)(13).</i>	Thank you for this information. The District intends to continue consulting with Ecology to determine its requirements for the 401 Certification.
18	Pat Irle	Department of Ecology	E.10-9	<i>According to the DLA, the gates would only affect downstream flows during raising the crest gates (E.10-9). This would occur while flows were still high, but during this time (as the time the gates are raised and the pool filled), flows would decrease from their natural levels downstream. The DLA does not identify the magnitude or duration of the impacts, but merely states that an operation plan would be developed to address the impacts.</i>	During initial filling of the reservoir the flow downstream will be marginally lower than reservoir inflow. To reduce any relative impact, initial filling would be carried out slowly to maintain adequate instream flow downstream of the project. During normal operations the gates would be operated so as to maintain a near constant water level so there would be no significant change in throughflow relative to the present reservoir regime. During a planned or unplanned outage the crest gates would automatically open to maintain downstream flow in the river. Closure of the gates would be carried out slowly after the plant is back on line to maintain downstream flow.
18	Pat Irle	Department of Ecology	E.2.1	<i>Under a previous study (HDR, June 1991), results were provided of temperatures as a result of different flows (produced under certain, given circumstances). This may provide some assistance to obtaining estimates of impacts. Otherwise, more detailed studies may be required.</i>	Results and data interpretations from the previous study (HDR 1991) cited in the comment remain applicable to the new project with crest gates, and are included in Exhibit E.2.
18	Pat Irle	Department of Ecology	Table E.2-4	<i>The DLA provides information on TDG which appears to indicate that the project will not cause any TDG exceedances (Table E.2-4). However, estimates of TDG based on 7Q10 flows, with confidence intervals, are needed. It appears that additional data will be needed. For Table E.2-4, it would be helpful to include the associated the spill over the dam (E.2-19).</i>	Flow levels during TDG monitoring have been added to Table E.2-4. 7Q10 flows occur infrequently and there is no safe way to measure TDG in the river below the dam at those flood flows.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.2-5 E.2-14	<i>The logic used to determine compliance with water quality temperature standards is incomplete (pp E.2-5, E.2-14). The river may have naturally cooled over this stretch. It is necessary to compare the amount of cooling/reduced heating that occurs with the project compared to what would have occurred pre-project.</i>	This comment asks us whether there may have been more river cooling through the reservoir reach before the dam was constructed. Because there was only a marginal increase in channel width and a much greater increase in channel depth when the dam was constructed, pre-dam solar radiation would have had more of a warming effect on water in this reach. Topographic shade modeling shows that the maximum difference in duration of direct solar radiation through the reservoir reach is not much different than the reach upstream. Therefore, the cooling effect that was seen with monitoring data cannot be explained by more shade in the reservoir reach. Comparisons of average temperatures above and below reservoir indicate there is no consistent cooling that might indicate a substantial groundwater influx that would also have been present pre-dam (see Figure 21 of Appendix E.2.1).
18	Pat Irle	Department of Ecology	E.2	<i>The DO monitoring presented is not adequate (E.2-19; Appendix E.2.I). As stated in a previous letter (Ecology, 2006), sampling over a 24-hours period during the critical season (generally June through September) is standard. Two days is not adequate.</i>	The District acknowledges that, although 2006 monitoring did not find any DO levels less than 8.3 mg/L, monitoring was limited to a short period in mid-September and it is likely that DO dropped below the 8.0 mg/L minimum criterion earlier in the summer when the river was warmer, both upstream and downstream from the project. The District has identified a new mitigation measure that was not included in the DLA. Turbine flow tubes will be equipped with vents to provide increased aeration when low DO is a concern. Adaptive management monitoring will inform decisions on when to open the vents and provide aeration.
18	Pat Irle	Department of Ecology	E.2	<i>If it is determined that the project causes a measurable negative change in the quality of the water (e.g., for TDG), then a Tier II analysis would be required. The PUD would be required to demonstrate that lowering the water quality is necessary and in the overriding public interest (WAC 173-201A-320.)</i>	Thank you for this guidance.
18	Pat Irle	Department of Ecology	E.2	<i>If the PUD plans to use water for dust suppression at the site, they must be sure they have a legal right.</i>	Thank you for this reminder. The District will assure that it has the necessary water rights for any use it makes of the waters of the State.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.6	<i>Active mining operations are addressed on page E.6-8. Inactive mines were minimally addressed (see E.9-5). Please provide more information about the extent of the contamination and its impacts on sediment in the river and reservoir. The metals of special concern include lead, zinc and mercury.</i>	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.
18	Pat Irle	Department of Ecology	E.3.2	<i>Please address any impacts the dam may have on aquatic life (e.g., invertebrates) in and adjacent to the reservoir and on humans using the beaches. The metals of special concerns include lead, zinc and mercury. Please address copper as well.</i>	Impacts to invertebrate speices are discussed in Exhibit E.3.2.2 which states "As with fish, the invertebrate community in Shanker's Bend would be affected by conversion of lotic environment to lentic environment. However, the change would likely have little effect on the overall abundance of invertebrates. Impacts to water quality in the form of increased metals could in turn potentially impact humans using the beaches. The potential for water quality standards to be exceeded due to disturbance of contaminated sediment during Project construction is discussed in Exhibit E.2.6. Of the chemicals analyzed, only copper exceeded water quality criteria and it exceeded both the chronic and acute criteria in 5 of 8 samples.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.2	<i>If sediment contamination exceeds the fresh water sediment criteria established by Ecology's Sediment Management Unit, cleanup and proper disposal of these material may be needed, in accordance with Chapter 173-340 WAC.</i>	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.
18	Pat Irle	Department of Ecology	E.6	<i>Describe the expected lifetime of the impoundment based on the rate of accumulation of sediment (A-11, C-6). If dredging is expected within the lifetime of the FERC license, this should be address in the License Application.</i>	Hydraulic and sediment-transport modeling of both current and proposed dam configurations indicates that the Enloe reservoir is in a state of dynamic equilibrium with respect to sediment inputs from upriver. During the relatively low-flow portions of the year, what little sediment comes down the river is deposited within the reservoir, but during annual peak flows the river is capable of transporting all of the incoming sediment through the reservoir, and there is excess transport capacity which likely removes the sediment that accumulated during the rest of the year. The Enloe reservoir is not likely to fill in with sediment any more than it already has. Dredging is therefore not expected to be necessary within the lifetime of the FERC license. Measures taken to minimize sediment disturbance during construction and maintenance are expected to minimize any short-term negative effects to water quality.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.2-27	<i>The DLA notes the presence of certain trace metals in a sediment sample containing finer organic particles mixed with sand and silt collected from the area of the reservoir where buried sediments are most likely to be disturbed during project construction (E.2-27). An Ecology-approved sediment management plan will be required, in association with a 401 certification.</i>	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.
18	Pat Irle	Department of Ecology	E.3.4	<i>Impacts to existing wetlands associated with the construction and operation activities will need to be mitigated for and addressed in a 401 certification.</i>	The licensee will prepare an application for a 401 certification for the project prior to initiation of construction under the new license. A Mitigation and Monitoring Plan will be developed in consultation with the BLM, Ecology, and other stakeholders. This MMP will include following issuance of the license. goals, the species to be used, methods and benchmarks of success, for botanical resources. Restoration of abandoned roadbeds will be part of this plan, which will have details on surface preparation to deal with compaction issues, seeding, mulching, and installation of woody species. Proposed cattle exclusion fencing to protect mitigation/restoration areas is described in Appendix E.3.7. The BLM will have approval authority for the elements of the plan that apply to BLM-administered lands. Monitoring provisions in the MMP will include monitoring of sites that may convert from upland meadow to herbaceous wetland.
18	Pat Irle	Department of Ecology	E.3.2	<i>Ecology generally supports the actions proposed by fish management agencies for protecting aquatic resources, which may include Pacific lamprey and mussels.</i>	Thank you for this information.
18	Pat Irle	Department of Ecology	IS	<i>There are frequent references to submitting an application for a specific permit "after the Enloe Hydroelectric Project License Application is accepted for filing by FERC" (IS-3 through IS-5). Is this expected to occur before or after the FERC license is issued?</i>	To the extent that the permit in question is a prerequisite or logical part of a required pre-license permit or approval, it will be obtained prior to licensing. Other permits and approvals will be acquired as necessary after a license is issued for the project.
18	Pat Irle	Department of Ecology	B-15	<i>It might be helpful to include either the word "proposed" or "existing" in front of "Enloe Impoundment Storage Volume" (Figure B-8; pB-15).</i>	Text in figure has been changed as requested

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	G	<i>A map and description of the "District's service area" would be useful (B-19).</i>	The District's Service Area is shown on Figure E.1.1
18	Pat Irle	Department of Ecology	C-2	<i>Is it feasible to build the cofferdam in March and April? (Maximum flows over the long term have occurred in May and June.) (Fig C-1; pC-2)</i>	The goal is to build the cofferdam during low flows and before the Spring Freshet. This could be done either in the fall, winter or early spring.
18	Pat Irle	Department of Ecology	E.2-4	<i>Mention is made of surges and waves (E.2-4). It would be helpful to describe the cause(s) of these surges, the frequencies, and the magnitude of the impacts on the reservoir and dam.</i>	The surges and waves mentioned in Exhibit E.2 are not expected, but if they occur they could cause unplanned spill over the dam crest. Surges and waves could occur due to multiple causes: waves could be caused by wind blowing down the reservoir or by boat wakes, for example, and surges could be caused by bank failures or landslides upstream of the reservoir.
18	Pat Irle	Department of Ecology	E.2-6	<i>It is not at all clear what the relationship of the two aquifers is to the river. Do either or both underlie the river? If so, how thick are they? And, how high is "quite high" (for the permeability and yields of the alluvial/glacial unit)? Also, how little is "very little flow" (order of magnitude, would be helpful) for flow contributions to the river?</i>	The aquifer types described in the License Application are both present within the Similkameen valley and both underlie the river in places. Because no impacts to groundwater are reasonably to be expected from the proposed operations, detailed groundwater investigations were not conducted, but careful comparison of surface-water records from above and below the dam reach did not show any clear and consistent signs of either losses to or gains from groundwater between Nighthawk and Oroville.
18	Pat Irle	Department of Ecology	E.2-6	<i>Please clarify who conducted the water temperature monitoring</i>	Appendix E.2.1 now states that all monitoring was conducted by Parametrix, Inc., with assistance from the District and subcontractors.
18	Pat Irle	Department of Ecology	E.2	<i>Please be consistent in labeling, especially graphs showing monitoring results (figures E.2-7 et al) and the monitoring locations (Figure E.2-12.) It appears that the graphs should have should have referred to "Head of reservoir" instead of "Shanker's Bend" (RM 10.1).</i>	The text in Exhibit E.2 has been modified as suggested.
18	Pat Irle	Department of Ecology	E.2	<i>Please provide a more complete (and easy to read) record of the time period when the water cools through this reach (e.g., from July to September) like provided for figures E.2-6 and E.2-7. It would be helpful just to include each day on larger, 11" x 17" piece of paper, in an appendix. ("2006 Temperature Monitoring Results", starting p E.2-7.)</i>	Additional data plots have been provided in Attachment C to Appendix E.2.1.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.2-13	<i>It is stated that in early July the temperature highs and lows lag through the reservoir was less than 2 hours (E.2- 13) and that the water was moving "quickly" through the reservoir. Could you be more specific about the speed, especially relative to the temperature lags? Please describe how the speed was calculated. If the speed and lag are comparable, this may be a reasonable explanation. If they aren't, it is more likely related to some other cause.</i>	For the period in early July shown in Figure E.2-6, the peak daily temperature was recorded in the upper reservoir (RM 10.3) between 1345 and 1415 hours on July 3, and the peak was recorded in the lower reservoir between 1300 and 1515 hours that day. The temperature began cooling from the peak two hours later at the downstream location. On July 4, the peak at the upper site was recorded between 1545 and 1645 hours at RM 10.3 and between 1600 and 1830 hours at RM 9.1. The temperature on this date began cooling from the peak one hour and 45 minutes later at the downstream site. Using the flow of approximately 2,300 cfs measured at the Nighthawk gauge at this time and HEC-RAS models of a 2-mile reservoir reach, travel time was estimated to be approximately 3.3 hours. Given the longer reach that was modeled compared to the 1.1 mile distance between thermographs, the travel time estimate and the lag in temperature peaks was very similar.
18	Pat Irle	Department of Ecology	E.2-13	<i>It is then stated that in August the temperature highs and lows lagged by 8 hours, with "slower" velocities (E.2-13). Again, could you be more specific about the speed, especially relative to the temperature lags? Please describe how the speed was calculated. If they aren't, it is more likely related to some other cause.</i>	For the period in early August shown in Figure E.2-7, the peak daily temperature was recorded in the upper reservoir (RM 10.3) between 1530 and 1715 hours on August 7, and the peak was recorded in the lower reservoir (RM 9.1) between 2230 and 0130 hours that night. The temperature began cooling from the peak eight hours and 15 minutes later at the downstream location. On August 8, the peak at the upper site was recorded between 1600 and 1900 hours at RM 10.3 and between 2345 and 0130 hours at RM 9.1. The temperature on this date began cooling from the peak six and one-half hours later at the downstream site. Using the flow of approximately 450 cfs measured at the Nighthawk gauge at this time and HEC-RAS models of a 2-mile reservoir reach, travel time was estimated to be approximately 15 hours. Given the longer reach that was modeled compared to the 1.1 mile distance between thermographs, the travel time estimate and the lag in temperature peaks was very similar.
18	Pat Irle	Department of Ecology	E.2	<i>Provide plot of temperature data at Shanker's Bend. Hourly during 2006 is desirable. See E.2-6.</i>	It is assumed that the comment requests plots for the China Rock location as the study did not measure water temperatures at Shanker's Bend. As requested in Comment #273, Attachment C to Appendix E.2.1 provides more complete diel plots of water temperature at the upper and lower reservoir locations. Attachment C also includes new plots for the China Rock location upstream from the project boundary. These plots show how the temperature regime changes over a similar-length river reach upstream from the reservoir reach.
18	Pat Irle	Department of Ecology	E.2-8	<i>This river is listed for temperature, and may be subject to a temperature TMDL at some future time (E.2-8)</i>	Comment acknowledged. No specific response requested.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.2-19	<i>As noted in the text, DO concentrations are generally higher (as desired) when the water is colder (E.2-19). Conversely, DO is lower (undesirable) when the water is warmer. Therefore, DO monitoring should occur at these times as well.</i>	The District acknowledges that, although 2006 monitoring did not find any DO levels less than 8.3 mg/L, monitoring was limited to a short period in mid-September and it is likely that DO dropped below the 8.0 mg/L minimum criterion earlier in the summer when the river was warmer - both upstream and downstream from the project. Turbine flow tubes will be equipped with vents to provide increased aeration when low DO is a concern. Adaptive management monitoring will inform decisions on when to open the vents and provide aeration.
18	Pat Irle	Department of Ecology	E.2	<i>Please describe how much TDG the turbines would generate.</i>	The turbines do not increase TDG except when they are equipped with air injection. Passing river flows through the turbines during high river flows when TDG is a concern will not increase TDG because aeration in the flow tubes will shut off during these periods. When aeration is provided to increase DO in the summer, there will be no TDG issue because high flows will not be passing over the dam and waterfall at that time.
18	Pat Irle	Department of Ecology	E.9-5	<i>Analyses need to be done for contaminants associated with upstream mining, as well. Historical mining, with a brief discussion of contaminated sediments and cleanup, is discussed in Section E.9-5. The DLA should provide more detail, including size of mining areas, locations relative to the project, contaminants of concern (e.g., lead, zinc and mercury), and times and methods of the cleanups. This discussion should be included in Section E.2.6.</i>	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.
18	Pat Irle	Department of Ecology	A-5	<i>Potential impacts to turbidity should be addressed in this section of water quality. This includes instream work. It also includes the sediment releases and turbidity associated with clearing the bypass sluice for ice and debris and opening it during an outage.</i>	Entrained sediment would impact turbidity, but this is not expected to be an impact due to PM&E WQ 05. Turbidity is also not expected to be an impact during instream work due to PM&Es proposed for construction work (see Exhibit E.2.7 WQ 06 and WQ 08) Cleaning of the bypass sluice would occur on an as-needed basis as determined by the District.
18	Pat Irle	Department of Ecology	E.3	<i>It is helpful to identify which fish are federally or state-listed (E.3-1) at the beginning of this section. And again at E.3-13.</i>	Please refer to Exhibit E.3.2 of the FLA
18	Pat Irle	Department of Ecology	E.3	<i>Resident fish should also be identified as either native or non native (Table E.3-2 and in text).</i>	Exhibit E.3.2 has been modified as suggested.

*Some comment numbers are missing due to deletion of duplicates or non-comment statements.

ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.3-4	<i>"Historically, there have been significant runs of anadromous Pacific lamprey..." Please clarify where these runs have occurred, because the DLA then follows with the statement that the falls have been a barrier to fish.</i>	In relation to the Project, Exhibit E.3.2.1 states: There is little data on the current distribution of Pacific lamprey in the Okanogan Basin (including the Similkameen River). The 2000 status report for Pacific lamprey in the mid-Columbia region indicates that though suitable spawning and rearing habitat were present, attempts to document Pacific lamprey in the Okanogan River Basin were unsuccessful. Lamprey were not observed during the Project-related snorkel surveys and there is no known documentation of adult lamprey occurrence in the Similkameen River including surveys conducted by agencies or tribes.
18	Pat Irle	Department of Ecology	E.3-18	<i>"Pacific lamprey are not expected to occur upstream of Similkameen falls". Please identify the source of this judgment.</i>	As stated in Exhibit E.3.2.1, the 2000 status report for Pacific lamprey in the mid-Columbia region indicates that though suitable spawning and rearing habitat were present, attempts to document Pacific lamprey in the Okanogan River Basin were unsuccessful.
18	Pat Irle	Department of Ecology	E.3-29	<i>Information is missing on macroinvertebrates.</i>	Macroinvertebrates are addressed in Exhibit E.3.2,
18	Pat Irle	Department of Ecology	E.3	<i>Please address any existing aquatic invasive species and the potential for future impacts, given project existence and proposed operation.</i>	Exhibit E.3.2 of the FLA identifies introduced fish species (eg bass, sunfish). Project operations would not exacerbate the influence of introduced fish species.
18	Pat Irle	Department of Ecology	E.3-41	<i>Please clarify what is meant by "a five-year program would be conducted once... With yearly contributions of gravel"(E.3-41). Specifically, would the yearly contributions of gravel take place over the life of the license? This seems to be appropriate.</i>	Gravel supplementation has been described in more detail in under PM&E FISH 11 in E.3.2.3 of the FLA.
18	Pat Irle	Department of Ecology	E.3-42	<i>Adaptive Management Plan (AMP) (E.3-42). We recommend that all fish resource management agencies and Ecology be included in the development and periodic review of the results of the AMP. A review and update frequency of five years is recommended.</i>	The monitoring data collected by the Licensee in the post license biological and water quality monitoring studies would be reviewed in consultation with WDFW, USFWS, NMFS, CCT, DOE and BLM. The Licensee would prepare monitoring reports and provide an assessment of the success of mitigation measures including the side channel habitat improvement, and boulder clusters. The Licensee would develop recommendation for changes to the mitigation measures to improve performance, if needed. The Technical Work Group would provide advice to the Licensee on the proposed modifications to the monitoring program or modification to the mitigation measure.
18	Pat Irle	Department of Ecology	E.3-42	<i>The "c" in QA/QC usually standards for "Control" (E.3-42).</i>	Text in E.3.2 has been changed and this statement is no longer included.
18	Pat Irle	Department of Ecology	E.3.4	<i>Riparian forest, riparian shrub and herbaceous wetland is provided on p E.3-62 with proposed mitigation measures on p E.3-65. Note that wetlands will be addressed in association with 401(s); however, it is not yet determined whether it will be for the FERC license or the Corps 404 permits.</i>	Thank you for this information. The District intends to continue consulting with Ecology to determine its requirements for the 401 Certification, and with the Seattle District Corps of Engineers on the 404 permit.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
18	Pat Irle	Department of Ecology	E.6-2	<i>On Figure E.6-2, it appears that the geological formation that runs north-south through Enloe dam hasn't been labeled on the map. It appears to be described in the text (E.6-2) as "granitic clast conglomerate", but that description does not seem to appear on the table of lithologic units (Table E.6-1; pE.6-7).</i>	The geological formation is Eocene continental sedimentary deposits or rocks, conglomerate (Ecg). Exhibit E.6 clarifies the age of the granitic clast conglomerate.
18	Pat Irle	Department of Ecology	E.6-14	<i>Discuss the toxicity of the sediment removed. Where will it be disposed? (E.6-14)</i>	Existing information on sediment chemistry is focused on chemicals of concern (COC) identified in previous studies. These COC (arsenic, cadmium, copper) may be associated with upstream mining activities in the Similkameen watershed. The plan for spillway construction is designed to minimize disturbance of sediment. The District has committed to Ecology that it will develop a workplan for water quality monitoring during construction that considers the historic mining upstream of Enloe. The plan will address a suite of metals and other contaminants that might be associated with historic mining activities. The plan will include methodologies to mitigate any water quality exceedances should they occur. Additionally, the District has committed to Ecology that it will prepare a plan for the handling and disposition of sediments dredged during construction. The plan will be consistent with the requirements of state of Washington Dangerous Waste Regulations and the Model Toxics Control Act. Any additional monitoring needs during project construction and operations will be determined through the 401 certification process.
18	Pat Irle	Department of Ecology	E.7-19	<i>Any impacts of wetlands created by or associated with new or expanded recreational uses (e.g., new parking area, E.7-19) will need to be addressed and mitigated.</i>	A Recreation Management Plan is under development. It will not be filed with the License Application, but is expected to be available for review in 2009. The District will develop a wetlands mitigation plan for the Enloe Hydroelectric Project; that plan will be incorporated in the Recreation Management Plan by reference or as an appendix.
18	Pat Irle	Department of Ecology	E.8	<i>Aesthetics associated with water in the river should be discussed. From the description, it does not appear that the project will affect the aesthetics associated with water in the river or over the falls, except for reduced flows over the dam. Historical and future interest should be discussed.</i>	Exhibit E.8 discusses the aesthetic impacts of water in the Similkameen River and the dewatering of flows over and just below the dam.
18	Pat Irle	Department of Ecology	Appendix D.1	<i>This section would need to be re-reviewed by Ecology after the above corrections or clarifications are made to the DLA.</i>	The FERC traditional licensing process offers several more opportunities for review.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>The proposed Recreation Management Plan should be developed in consultation with stakeholders as a part of a final application.</i>	A Recreation Management Plan is under development. It will not be filed with the License Application, but is expected to be available for review in 2009. Stakeholder participation will be invited in the District's development of a Recreation Management Plan..

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>The Management Plan should include detailed site plans for project access, facilities and improvements at Enloe Dam and Shanker's Bend, as well as high and low pool levels.</i>	Recreation improvements at the Shanker's Bend site are no longer proposed; these improvements will be implemented at Enloe Dam instead. Exhibit E.7.3 has been modified to make it clear that detailed site plans for project access, facilities and improvements at Enloe Dam will be developed following the FERC's licensing decision; and that high and low pool levels will be accounted for in designing the proposed launch ramp.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>The Recreation Management Plan should address the need for continued monitoring of recreation use and needs, and should be updated on a regular basis.</i>	The Recreation Management Plan will include a monitoring component, and recreational use monitoring has been included in the suite of proposed PM&E's. Monitoring and update provisions will comply with FERC requirements.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Future recreation use should be addressed in the application. A growing local population, development of the Oroville to Nighthawk Trail, as well as the Greater Columbia Water Trail creates greater recreational use.</i>	Exhibit E.7.2 has been modified to address recreation trends and future use.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.5	<i>Oroville to Nighthawk Trail users are compatible with water trail users. In fact visitors may extend their length of stay in local communities to experience both trails, boosting the economic impact of visitors.</i>	Thank you for your comment. Updates to the Exhibit E.7 Recreation Report consider how the development of the trail may affect future recreational use trends.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>When determining location of project improvements, consider how all users can share recreation facilities, such as parking, trail heads, campgrounds, picnic spots, info/interpretive displays, etc. Proper placement will minimize the cost of facility construction, improvement, and maintenance while minimizing the impact on the surrounding environment. A detailed site plan of the project area showing existing resources and proposed improvements would be a valuable planning tool.</i>	Exhibit 7.3 has been modified to state that detailed plans will be developed following the FERC's licensing decision; and that the design program will include efficient site layout, cost effectiveness, and considerations related to environmental impact.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>The GCWT Coalition supports development of an improved ramp and parking at the Shanker's Bend site. A site plan is recommended for showing proposed site improvements, access road, foot trails, and other amenities.</i>	Recreation improvements at the Shanker's Bend site are no longer proposed; these improvements will be implemented at Enloe Dam instead.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Primitive camping should also be considered at this site, which is currently being used by boaters, and will likely experience more use by flatwater paddlers and possibly hikers.</i>	Recreation improvements at the Shanker's Bend site are no longer proposed; these improvements will be implemented at Enloe Dam instead.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Leave-no-trace sanitation principles could be provided here on signs or brochures.</i>	Recreation improvements at the Shanker's Bend site are no longer proposed; these improvements will be implemented at Enloe Dam instead.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Consideration should be given to a composting toilet or other minimal waste facility.</i>	Recreation improvements at the Shanker's Bend site are no longer proposed; these improvements will be implemented at Enloe Dam instead.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>The GCWT Coalition supports development of an improved ramp and parking at the Enloe Dam site. A site plan is recommended for showing the intake, fencing, site improvements, access road, foot trails, and other amenities.</i>	Figure E.7-3 shows the conceptual plan for recreation facilities at the Enloe Dam site.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Primitive camping should also be considered at this site, which is currently being used by boaters, and will likely experience more use by flatwater paddlers, hikers, and other recreationists</i>	Camping will be allowed at the Enloe Dam site, and primitive campsites will be developed under PM&E REC 10 in Exhibit E.7.3. Exhibit E.7.3 has also been modified to clarify that camping will be allowed outside of the riparian forested area. Figure E.7-3 has been added to show the conceptual plan for the site.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>The take-out should be clearly marked and indicated on signs so that boaters exit the river at the appropriate location.</i>	The District will cooperate with the GCWT in developing and installing effective signage
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Connections to the paved road from the takeout above the dam, to the put-in below the waterfall, and to the parking area should be considered in the Enloe Dam site design.</i>	Detailed plans will be developed during the FERC review period and are expected to be available early in 2009. The design will consider the needs of boaters putting in, taking out, and portaging the dam. No access roads will be paved.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Improvements to the entire portage trail should be considered during construction of the paved road, taking into account the appropriate surface materials and grade for hand-carrying and wheeling paddlecraft.</i>	Detailed plans will be developed during the FERC review period and are expected to be available early in 2009. The design will consider the needs of boaters putting in, taking out, and portaging the dam. No access roads will be paved. Options for providing access to the river corridor below Enloe Dam are limited by site factors (including steep, rocky terrain and a confined channel), the generation facility design program, and FERC requirements related to security of the generating facilities.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Carsonite markers should be installed on the shoreline near the boating access ramps at Shanker's Bend and Enloe Dam, and at the put-in downstream of the waterfall. These markers have been designed specifically for indicating access points along the GCWT.</i>	The District will cooperate with the GCWT in developing and installing effective signage
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Take-outs, landings, and put-ins for paddle sport craft as well as picnic, campground, and sanitary facilities should be designed for minimal impact on the surrounding environment. Appropriate grades and surfacing should be considered for access roads and shoreline trails.</i>	Detailed plans will be developed during the FERC review period and are expected to be available early in 2009. The design will consider environmental impacts.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Okanogan PUD should work with stakeholders to produce appropriate site information and interpretive signs that provide coordinated recreation information and interpretive messages at river access points, recreation facilities, and the dam.</i>	The District will develop a detailed interpretive plan in consultation with the BLM. Details of sign replacement, design, topics, materials and locations will be included in the Recreation Management Plan. The Recreation Management Plan will not be filed with the License Application, but is expected to be available for review in 2009. Stakeholder participation will be invited in the District's development of a Recreation Management Plan.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Maps and brochures should be developed that include recreation site information, how to portage around the dam, safety information, regulations, etc.</i>	Exhibit 7.3 has been modified to state that the District proposes to develop an interpretive publication, including a map of the Enloe Dam area that illustrates recreation sites and access; and that topics to be addressed will be determined after the FERC's licensing decision. Please see Exhibit E.7.3, PM&E REC 06.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Templates for water trail and access site signs are available for use at other sites along the water trail by site managers.</i>	The District will cooperate with the GCWT in developing and installing effective signage.
19	Ron Johnston-Rodriguez	Greater Columbia Water Trail	E.7	<i>Interpretation of the Enloe Dam, the surrounding landscape, historic use and settlement, etc. would enhance all visitors' experience of the area. GCWT partners include Chambers of Commerce, Wenatchee Valley Museum & Cultural Center, members of the CCT, educators, and others who may be able to assist with interpretive ideas and development.</i>	Thank you for these suggestions. They have been taken into consideration in Exhibit E.7.3, which includes information regarding proposed interpretation.
20	Keith Kirkendall (Scott Carlon)	NMFS	Appendix E.2.1	<i>While the DLA, Appendix E.2.1, provides an adequate narrative of the locations where the data was collected and shows these points on a map, the table does not. Please clarify.</i>	River mile locations have been added to the table in Attachments A and B and the figures in Attachment C of Appendix E.2.1
20	Keith Kirkendall (Scott Carlon)	NMFS	E.2-8	<i>The DLA explains (at E.2-8) that the Project does not violate the Washington State water quality standard for temperature because it does not cause a rise in temperature of more than 0.3° Celsius (C) above background levels. However, we were confused by this statement because the list of 7-DADMax temperatures provided in Appendix B of Appendix E.2.1 show numerous exceedances of the 0.3°C standard as you move downstream (we assume) from river 1 to river 6. Describe where the river reaches are located to help the reader correctly interpret the table.</i>	Table 3 of Appendix E.2.1 indicates the river mile location for each temperature monitoring site; Figures 2 and 3 indicate where measurements were taken. Comparisons between the head of the reservoir at River 2 (RM 10.3) and above the dam at Pool 2 (RM 9.1) show how temperatures changed through the impounded area. Figure 12 shows that the 7-DADMax temperature was never more than 0.2°C higher at the downstream location. Figure 14 shows that this also was true in comparisons of RM 10.1 to the River 4 (RM 8.8) location below the waterfall. River 1 (RM 12.2) and River 6 (RM 5.3) locations were not used in making comparisons for determining water quality standards project compliance because they are outside of the project area.
20	Keith Kirkendall (Scott Carlon)	NMFS	E.2	<i>The DLA states that there are a couple of deep pools in the reservoir and that these pools do not stratify during the summer months. The DLA did not explain if this condition would change or not with installation of crest gates which are intended to raise the reservoir 4 to 5 feet.</i>	For the previous license application for the Enloe project, a procedure was undertaken to determine whether the reservoir was likely to be well-mixed or thermally stratified with the replacement of 4-ft flashboards on the existing dam (HDR 1991). Densimetric Froude numbers were calculated for a variety of flow scenarios and compared to the inverse of water density according to a U.S. Army Corps of Engineers procedure, both for existing conditions and with flashboards. Froude numbers greatly exceeded the inverse of water density under all flow scenarios and the study concluded that the reservoir will remain well-mixed and experience no significant thermal stratification. This conclusion also applies to the current project proposal that will have a similar effect on water depth and hydraulic residence time with the installation of crest gates.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
20	Keith Kirkendall (Scott Carlon)	NMFS	E.2	<i>The unintended development of an epilimnion during the summer months, combined with a shallow powerhouse intake, would supply extremely warm water to the lower Similkameen River. This should be addressed in the FLA.</i>	Hydraulic residence time in this run-of-river reservoir will remain relatively short with the installation of crest gates, increasing from approximately 22 to 31 hours at 300 cfs, and the water will remain well-mixed without significant stratification or development of an epilimnion.
20	Keith Kirkendall (Scott Carlon)	NMFS	Appendix E.2.1	<i>The table in Appendix A of Appendix E.2.1 lists the dissolved oxygen (DO) readings and gives the associated locations as DO#, DO#2, DO#3 and DOM at the top of the table. Please clarify the sample locations..</i>	River mile locations have been added to the table provided in Attachment A of Appendix E.2.1.
20	Keith Kirkendall (Scott Carlon)	NMFS	Appendix E.2.1	<i>DO readings should have been recorded during the period of highest temperature recordings as well as the period of lowest flow.</i>	The District acknowledges that, although 2006 monitoring did not find any DO levels less than 8.3 mg/L, monitoring was limited to a short period in mid-September and it is likely that DO dropped below the 8.0 mg/L minimum criterion earlier in the summer when the river was warmer - both upstream and downstream from the project. Turbine flow tubes will be equipped with vents to provide increased aeration when low DO is a concern. Adaptive management monitoring will inform decisions on when to open the vents and provide aeration.
20	Keith Kirkendall (Scott Carlon)	NMFS	E.2	<i>Monitoring plans for measuring changes in DO from above and below the Project should be included in the FLA.</i>	The PM&E's In Exhibit E.2 have been modified to include DO as well as TDG monitoring above the intake and below the tailrace. See Exhibit E.2.7 PM&Es WQ 01 and WQ 03.
20	Keith Kirkendall (Scott Carlon)	NMFS	E.2	<i>The FLA should also include a contingency to minimize reductions in DO should it be found to occur due to the new configuration of the Project (i.e., no spill).</i>	The turbine draft tubes will be designed to allow aeration during periods of low DO. Please see Exhibit E.2.7 PM&E WQ 03.
20	Keith Kirkendall (Scott Carlon)	NMFS	E.2	<i>We agree that TDG should be monitored. However, the FLA should contain plans for monitoring for the life of the license and not just 1 year. Monitoring does not have to be done every day year round, but the capability should be provided so that it can be measured during periods of spill or other times as necessary.</i>	Monitoring will be conducted during the season of the year when high flows cause higher TDG levels. Exhibit E.2.7 indicates that TDG will be monitored for five years (PM&E WQ 04). As part of the Project's adaptive management plan, any further TDG monitoring needs will be evaluated based on the results of the initial monitoring period.
20	Keith Kirkendall (Scott Carlon)	NMFS	A	<i>We agree that the capability to automatically lower the crest gates to bypass flow during an emergency shutdown of the powerhouse should be installed. The FLA should provide an account of how flows in the lower river will be maintained during an emergency powerhouse shutdown.</i>	The project will be operated in a run-of-river mode with no minimum instream flow release in the 320 foot long reach of river between the toe of Enloe Dam and the waterline at the toe of Similkameen Falls. During an outage the crest gates will automatically open to maintain tailwater level and therefore flow downstream of the powerplant. In the event of an emergency outage of both units of the powerplant due to a transmission line outage or similar causes, a warning siren will sound and then the crest gates will be gradually lowered to increase downstream flow to pre-outage flow rates. Changes in flow downstream of the powerplant will be attenuated by channel storage and storage in the pool at the toe of the falls. The pneumatic crest gates do not require power to open. The control system will be operated by a DC power supply with battery backup.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
20	Keith Kirkendall (Scott Carlon)	NMFS	E.3	<i>The DLA proposes that the Project be designed such that the water velocity exiting the turbines will prevent adult salmon and steelhead from entering the draft tubes. At this time NMFS is very cautious about such a design and strongly recommends that Okanogan PUD continue to consult with NMFS fish passage engineers. In NMFS' view, it is likely that upon start-up and ramp down of turbine units, velocities will exist that allow adult salmon and steelhead to ascend the draft tubes and potentially be struck by the turbine runners, especially when fish are staging below the powerhouse. The tailrace barrier design should be developed in consultation with NMFS before a final license application is filed.</i>	Tailrace net barriers have been proposed as PM&E FISH 06 in Exhibit E.3.2.3. Conical net barriers are proposed for the draft tube exits to prevent fish in the tailrace from swimming upstream into the draft tubes during periods of low flows. Under PM&E FISH 07, observations of the openings of the net barriers will be conducted using suspended underwater video cameras. The study will document that adult salmonids are not entering the nets at the downstream end of the barriers, or if some individuals do enter the nets, they are able to safely exit the barrier.
20	Keith Kirkendall (Scott Carlon)	NMFS	E.3	<i>NMFS believes that it is prudent to reserve its authority for upstream and downstream fish passage in this proceeding. NMFS may prescribe a tailrace barrier to protect adults staging below the Project.</i>	Thank you for this guidance.
21	Reed Waite	Washington Water Trails Association	E.7	<i>It is important to work to identify access points (including put-in, take-out, rest stops, portage routes, and camping sites) to enhance recreational use of the Similkameen before, in, and downstream of the Enloe project.</i>	The District does not propose to develop facilities outside the Project Area. Exhibit E.7.3 includes a conceptual plan for recreation facilities, including water access points, within the Project Area. Detailed plans will be developed during the FERC review period and are expected to be available early in 2009.
21	Reed Waite	Washington Water Trails Association	E.7	<i>The Okanogan PUD's proposal to develop a map of the recreation sites and access is greatly appreciated.</i>	Comment acknowledged
21	Reed Waite	Washington Water Trails Association	E.8	<i>Recreation studies or monitoring must continue as participation in kayaking has been increasing by a minimum of 20% each year according to the annual Outdoor Industry Foundation Participation Survey.</i>	The Recreation Management Plan will include a monitoring component. Proposals to monitor recreational use of the Project Area to assess changes in type and intensity and to employ management strategies in response to changes in recreational use, based on monitoring findings, have been included in the proposed PM&E's. The District is not aware of any data that indicates such levels of increased use by kayakers will occur in the Project Area.
22	Olney Patt (Robert Heinith)	CRITFC	n/a	<i>The reconfiguration and operation of the proposed Enloe Hydroelectric Project would impact the treaty-reserved and federal trust resources of the Tribes. Many of the fish stocks that would be impacted by the presence and operation of the Project support ceremonial, subsistence and commercial treaty fisheries. The Tribes are a co-manager of the anadromous fish resource, are directly involved with and concerned about the protection and enhancement of Mid-Columbia stocks, and have a treaty-secured interest in the outcome of this licensing process.</i>	Thank you for your comment. The District understands the role and interest of tribes in fisheries management.

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22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>On January 9,2006, CRITFC filed formal and specific comments with respect to fish resource, hydrologic and socioeconomic studies to the applicant on the Supplement to the ICD....For example, CRITFC requested that the applicant conduct fish passage studies. No studies or information are presented in the DLA to address these issues.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
22	Olney Patt (Robert Heinith)	CRITFC	n/a	<i>CRITFC finds that the DLA lacks an ecosystem perspective. Dams and impoundments significantly alter ecological and trophic systems within their boundaries, and also below their boundaries. These effects are immediate and obvious and gradual and subtle. The applicant must analyze these effects and place the licensing into an ecological framework.</i>	We believe that the application provides sufficient information to meet the requirements for filing.
22	Olney Patt (Robert Heinith)	CRITFC	D	<i>We do not believe that the applicant has properly balanced environmental and power resources in the DLA as is required under the Federal Power Act.</i>	We believe that the application provides an adequately balanced analysis that meets the requirements for filing.
22	Olney Patt (Robert Heinith)	CRITFC	n/a	<i>The applicant must step up and provide funding, studies and analyses for these issues ... in order to have a complete license application that properly and comprehensively describes the environmental effects of the project. This is critical for the applicant and affected fishery managers to construct protection, mitigation and enhancement measures and for FERC in order to conduct a thorough environmental analysis on different licensing alternatives.</i>	Thank you for your comment. The District believes that the License Application provides sufficient information to meet the requirements for filing.
22	Olney Patt (Robert Heinith)	CRITFC	A	<i>Operational flow regimes below the proposed project are not specified, but the DLA speculates that the project will always be operated as a exact "run of the river" project. Among other things, ramping rates are not provided.</i>	Compared to many larger hydro projects which follow load or shape flows, the operation of the Enloe Project is relatively simple. The project will be operated in a run-of-river mode with no minimum instream flow release in the 370 foot long reach of river between the toe of Enloe Dam and the waterline at the toe of Similkameen Falls. A fixed ramping rates would be inapplicable to this project's operation. Implementation of such a ramping rate may make it impossible for the project to operate in run-of-river mode and balance inflow and outflow from the reservoir. The goal is for outflow to be controlled by inflow to the reservoir.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>Water quality information is deficient and is considered only under existing conditions without the proposed project</i>	We believe that the application provides sufficient information to meet the requirements for filing. It is not clear what is meant by "is considered only under existing conditions without the proposed project." Existing water quality is described (Exhibit E.2.5), and impacts of the proposed project are identified in Exhibit E.2.6. Protection, mitigation and enhancement measures are presented in Exhibit E.2.7.
22	Olney Patt (Robert Heinith)	CRITFC	E.3	<i>Mitigation for proposed project impacts on critical habitat for ESA listed salmon is not adequate.</i>	Mitigation for all potentially impacted fish species is provided in Exhibit E.3.2. The District does not agree that the mitigation is inadequate.
22	Olney Patt (Robert Heinith)	CRITFC	n/a	<i>The proposed project does not conform with the Northwest Power and Conservation Council's 2000 Fish and Wildlife Program.</i>	Exhibit E.9 considers the Northwest Power and Conservation Council's Fish and Wildlife Program, which is also cited in Exhibit E.3.
22	Olney Patt (Robert Heinith)	CRITFC	n/a	<i>The cumulative and synergistic impacts of the proposed project and climate change are not considered.</i>	Generally, the development of hydropower avoids the emission of greenhouse gases. The Enloe reservoir already exists, and reservoir emissions would not be expected to increase. The effects of climate change on instream flows for power generation are considered speculative.
22	Olney Patt (Robert Heinith)	CRITFC	n/a	<i>The potential impact of the Enloe project with the proposed Shanker's Bend project {is not considered}....The applicant has filed for a preliminary permit with FERC for this project. The applicant has not provided any information regarding the cumulative and/or synergistic effects of the Shanker's Bend project with the Enloe Project with respect to resources impacted by both.</i>	The Enloe and Shanker's Bend license proceedings are entirely separate. No part of a Shanker's Bend project is included in the Enloe License Application. The Enloe project design does not include any facilities designed to accommodate a Shanker's Bend project. Enloe project operations and financing have been analyzed and described in the License Application on a stand-alone basis. The Shanker's Bend project is speculative, and no decision has been made to move forward. A Preliminary Permit has not yet been issued for the project by FERC. The District will be initiating an appraisal study of the project during 2008, review of that study is not expected until late 2008 or 2009. Until the project's feasibility has been studied, no decision can be reached as to whether to move forward with the project, or the project's design and scale. A map of the Enloe project area is provided in Exhibit G.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>Fish passage is not adequately considered. No upstream or downstream fish passage facilities are proposed. The applicant is attempting for the fourth time to license this project without fish passage.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
22	Olney Patt (Robert Heinith)	CRITFC	B.2	<i>The applicant does not propose installing State and federal criteria screening in the intake facility. This would subject fish to turbine entrainment, causing high levels of direct and indirect mortality.</i>	PM&E FISH 04 proposes to install an intake trashrack with bars spaced such that smaller fish can pass safely through the racks without becoming impinged and larger fish will be discouraged or prevented from passing through the turbines. PM&E FISH 05 Entrainment Studies and Fish Monitoring, will examine seasonal variation in entrainment susceptibility, 2) observe trauma and mortality associated with placement of fish species in the power canal, and 3) sample fish in the reservoir to relate the entrainment observations with the fish distribution and abundance in the reservoir. Potential losses will be mitigated through the habitat enhancement projects FISH 10 and 11. These PM&Es are described in detail in Exhibit E.3.2.3.
22	Olney Patt (Robert Heinith)	CRITFC	B.4	<i>Actual powerhouse operation will depend on loading of turbines within certain efficiency ranges and power demand. Because the applicant is not proposing spill as a way to balance inflows and outflows it is not likely that inflows will always equal outflows because operation of the powerhouse will drive downstream flow levels. This will be most evident when the project load-follows demand. Ramping rates under such conditions were not provided in the DLA.</i>	The District proposes to operate the power plant in a run of river mode whereby output is controlled by the flow in the river. The District does not propose to use the project as a load following resource.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
22	Olney Patt (Robert Heinith)	CRITFC	D.1	<i>There is no assurance that the Department of Ecology will issue the applicant a new water right.</i>	FERC does not take jurisdiction over State water rights. The District will apply to the Washington Department of Ecology for a new 600 cfs nonconsumptive water right for hydropower purposes after FERC issues its order on the project. To be granted a water right, the District's application must pass the State's "four-part test," showing that (1) water is available for appropriation; (2) the proposed use will not impair existing water rights; (3) the use will be for a beneficial purpose (and that water will not be wasted); and (4) the use is in the public interest. Based on our review of Similkameen River water rights and flows, the nature of the proposed use, and early consultation with the Department of Ecology, the District believes that the project will qualify for the water right. The District intends to discuss mitigation with Ecology that will allow the application to qualify for expedited processing.
22	Olney Patt (Robert Heinith)	CRITFC	D.6	<i>The applicant has not included other power sources other than purchases from BPA.</i>	Exhibits D.6 and D.7 have been expanded to include other power source options.
22	Olney Patt (Robert Heinith)	CRITFC	D.6	<i>The potential for conservation for the applicant's use area was not explored in the DLA.</i>	Exhibits D.6 and D.7 have been expanded to include other power source options.
22	Olney Patt (Robert Heinith)	CRITFC	D.7	<i>A potential consequence of license denial would be removal of the dam, or providing fish passage over the dam by the federal government through the BLM. This was not addressed in the DLA.</i>	As stated in Exhibit D.7 the dam would continue to be maintained in the event of denial. Dam removal or fish passage requirements in the event of license denial are speculative.
22	Olney Patt (Robert Heinith)	CRITFC	E.2.5	<i>Figures E.2.1 and E.2.8 indicate that temperatures are cooler in the lower portion of the reservoir than the upper portions at times in excess of 3 degrees C, which is probably due to some temperature stratification in the reservoir. Unfortunately, the applicant provided only daily maximum temperatures, so it is not known if there is a significant diel temperature regime. The applicant should seriously investigate if there is a potential for temperature regulation using the Enloe impoundment.</i>	Figures E.2.1 and E.2.8 include data from all monitoring sites, including those outside the project area. Comparisons between the head of the reservoir and above the dam at Pool 2 show how temperatures changed through the impounded area. Attachment B shows how the 7-DADMax temperature was never more than 0.2°C higher at the downstream location. This also was true in comparisons of RM 10.3 to the River 4 location below the waterfall. River 1 and River 6 locations were not used in making comparisons for determining water quality standards project compliance because they are outside of the project area. Data from vertical profile measurements (see Appendix E.2.1) show that the reservoir was not stratified. As described in Exhibit E.2 and Appendix E.2.1, a study from the previous Enloe license application that concluded the reservoir will remain well mixed with no thermal stratification under current conditions or with the addition of 4-ft flash boards to the existing dam. With no thermal stratification and no storage capabilities, temperature regulation using the Enloe impoundment is n

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>In our January 9, 2006 comments on the ICD, we recommended that the applicant employ a trilevel thermograph system to develop thermal profiles in the river above the reservoir, in the reservoir proper and in the river below the dam. We suggested that the data loggers be assessed weekly for proper functioning; once a month checking risks considerable lost opportunity if there is a malfunction in the equipment.</i>	The approved QAPP (Attachment F to Appendix E.2.1) encompassed the study design, locations for tri-level thermograph deployment in the reservoir, temperature profile measurement, frequency of downloading and maintenance, etc. The QAPP considered all of the comments and balanced risks of data loss with deployment and retrieval methods feasible at each monitoring site and costs for frequent downloading.
22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>Dissolved oxygen should also be obtained at these sites. The applicant only measured DO at one site for just 2 days for baseline data.</i>	Table 2 of Appendix E.2.1 displays the dissolved oxygen profile results measured at six locations, including one site above the reservoir (China Rock RM 12.2), three locations within the reservoir, and two locations in the river below the dam.
22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>We also recommended that the applicant obtain temperature data through the fall, winter and spring periods to assess the possibility that the reservoir maybe affecting river temperatures during these periods. The applicant has not provided this approach or data. We recommend the applicant proceed with obtaining this baseline data as important to evaluate the environmental impacts of the proposed project.</i>	To determine compliance with temperature criteria in the water quality standards, the study design approved in the Quality Assurance Project Plan prioritized monitoring water temperatures through the warmer months beginning in late spring and ending in early fall, 2006. Water temperature data will be collected through all seasons during the first five years of project operations (See Exhibit E.2.7 PM&E WQ 01).
22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>The applicant has not provided any modeling or data that indicates how the present cooling temperature regime of the river would be affected by the operation of the large intake proposed for the powerhouse or increased reservoir size and thermal capacity due to flashboards.</i>	As described in Exhibit E.2, streams with smaller volumes of water change temperature faster than streams or rivers with larger volumes of water. Additional reservoir surface area will be maintained during operation of crest gates, compared to the surface area under current conditions. Additional energy from solar radiation will enter the reservoir and additional heat loss will occur from greater evaporative cooling. There will be a much greater mass of water to heat and the longer hydraulic residence time will provide more time for mixing of cool nighttime river inflows with warm daytime inflows within the reservoir. Overall, maximum daily temperatures are not expected to increase. Diverting water through the powerhouse rather than flowing over the dam is not expected to have a measurable influence on water temperatures.
22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>The applicant only secured a few TDG measurements in a below average flow year. Powerhouse rejection and/or high flows could cause significant elevations of TDG that would be harmful to the beneficial biota downstream of the proposed project.</i>	Plans for additional TDG monitoring are identified in Exhibit E.2.7 under PM&E WQ 03. The project can reduce the flows passing over the dam and waterfall by up to 1,600 cfs, and this diversion is expected to reduce elevated TDG conditions. When less flow is diverted through the powerhouse, due to rejection, maintenance or other circumstances, there will be less reduction of TDG. The project has no ability to reduce high river flows.

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ENLOE COMMENT RESPONSE TABLE

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22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>Since 2008 is likely going to be an above average runoff for the Similkameen, the applicant should install TDG monitors above and below the dam and acquire additional data this spring. Further, the applicant should investigate structural means to reduce TDG in the event of load rejection or high flows that cause spill.</i>	The most recent water supply forecast for the Similkameen River (http://www.cbrfc.noaa.gov/wsup/westwide/cbrfc/2008/fcstapr.html), based on data through the end of March, indicates that the most probable forecast is 88% of normal and above-average runoff is not likely. Beyond the ability of the project to divert up to 1,600 cfs through the powerhouse that would otherwise pass over the dam and waterfall, there are no structural means to reduce TDG by reducing flows over the dam and waterfall. This run-of-river project has no ability to reduce river flows.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>Historical salmon anadromy is not considered. The applicant states that no salmon ever ascended Similkameen Falls below the dam, but the evidence for this statement is highly speculative.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
22	Olney Patt (Robert Heinith)	CRITFC	E.1	<i>The applicant should conduct a historical survey of archeological findings as suggested by V. Butler of Portland State University in her proposal to the applicant.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.

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22	Olney Patt (Robert Heinith)	CRITFC	E.1	<i>Further, the applicant should fund paleolimnological studies consistent with that provided by Ford (2007). This approach evaluates core sediments of a watershed above a dam for stable nitrogen isotope signals, indicative of salmon presence.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>Obviously there is no regional consensus not to provide fish passage at Enloe Dam. The CRITFC treaty tribes continue to support examination of fish passage over Enloe Dam.2 Enloe Dam continues to block hundreds of miles of critical habitat for steelhead, summer Chinook, Coho, sockeye and likely Pacific lamprey, both in the U.S. and British Columbia. These fish stocks represent living cultural and treaty trust resources to which CRITFC's member tribes depend and are duty bound to protect and restore.</i>	It is not necessary to achieve unanimity to establish a consensus. In this case, consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls and that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>We recommend that the applicant investigate fish passage designs and structures contemplated in the past under other Enloe licensing attempts and those presented in IEC Beak (1985).</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>Further, the salmon and steelhead habitat below Enloe Dam is designated critical habitat under the ESA as noted in the NOAA Fisheries figure below (from Federal Register / Vol. 70, No. 170/ Friday, September 2, 2005 / Rules and Regulations 52763).</i>	Thank you for this reminder.

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22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>There are no supporting references to tables E.3.6 and E.3.7</i>	The tables reference information in Appendix E.3.2 (Turbine Mortality Calculations). This has been noted in the text.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>The increased impoundment of the proposed project with flashboards could reduce turbidity and sediment movement to downstream salmon critical habitat.</i>	Hydraulic and sediment-transport modeling of both current and proposed dam configurations indicates that the Enloe reservoir is in a state of dynamic equilibrium with respect to sediment inputs from upriver. During the relatively low-flow portions of the year, what little sediment comes down the river is deposited within the reservoir, but during annual peak flows the river is capable of transporting all of the incoming sediment through the reservoir, and there is excess transport capacity which likely removes the sediment that accumulated during the rest of the year. During the low-flow periods when the flashboards will be in use, very little sediment currently passes over the dam, and that will continue to be the case. During the peak flow period, when sediment load and turbidity is high, the flashboards will be lowered and the spillway will be operating just as it does in its current configuration.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>The applicant has neither obtained baseline turbidity data nor conducted an investigation as to how turbidity levels may change from the proposed increased impoundment.</i>	Baseline turbidity and TSS data were been obtained from 12 sampling locations upstream and downstream of the existing dam and infrastructure. Turbidity and TSS data were obtained during six sampling events between April and September 2006. BMPs will be implemented that include preventative measures to minimize sediment disturbance and maximize sediment containment during construction activities as described in Exhibit E.2.7 PM&Es WQ 06 and WQ 08.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>The bypass reach, which is critical habitat, is lost to biotic production under the DLA. Again, it is unknown whether or not salmon or steelhead could ascend the fall to potentially utilize this reach. The applicant fails to consider any mitigation for this loss of river habitat.</i>	The bypass reach offers no habitat for cold water fish. This area consists of a small "splash" pool below the dam and a bedrock sheet that is about 370 feet in length. Although the impact on this area is extremely limited, the District has proposed mitigation as described in Exhibit E.3.2.3 PM&E FISH 10 Side Channel/Off Channel Development/Enhancement and Appendix E.3.3.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>The applicant does not propose turbine intake or tailrace barriers to prevent fish from entering turbine draft tubes. This is unacceptable. Fish have been demonstrated to achieve burst speeds greater than cited in the DLA. Pacific lamprey have been found in turbine draft tubes after they are shut down for maintenance at other Columbia Basin dams. Load rejection or other shut down could provide opportunities for fish to enter draft tubes, some which are ESA listed. This would result in a direct take of these animals.</i>	Several PM&Es are proposed to address these concerns. FISH 04 proposes to install an intake trashrack with bars spaced such that smaller fish can pass safely through the racks without becoming impinged and larger fish will be discouraged or prevented from passing through the turbines. PM&E FISH 05 will monitor the effectiveness of PM&E 04. Under FISH 06 conical net barriers installed in the draft tube exits will prevent fish in the tailrace from swimming upstream into the draft tubes during periods of low flows. Under PM&E FISH 07, effectiveness of the nets will be monitored using underwater video cameras. For additional details on the PM&Es see Exhibit E.3.2.3. As stated in Exhibit E.3.2.1, although suitable spawning and rearing habitat were present, attempts to document Pacific lamprey in the Okanogan River Basin were unsuccessful.

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22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>Conventional screen criteria should be met for downstream passage for juvenile salmon and fry and adult anadromous and resident fish.</i>	Exhibit B-1 has been changed to better describe the intake design and characteristics including the proposed trashrack. In addition, information on turbine mortality rates has been included in Appendix E.3.2. PM&E FISH 04 in Exhibit E.3.2.3 describes mitigation associated with the proposed trashrack.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>Upstream passage criteria should be developed considering advanced fishway designs offered by Orsborn (1987). Upstream passage criteria should also be developed to assist the passage of adult lamprey.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
22	Olney Patt (Robert Heinith)	CRITFC	E.5	<i>The DLA fails to adequately address socioeconomic impacts. The potential impact of the project on anadromous fish resources to which the CRITFC tribes and other fishers and the fishing industry depend upon from the Similkameen River to SE Alaska should be put in context with the power generation value of the proposed project.</i>	With the implementation of the proposed PM&E's, the Project is expected to have a beneficial effect on the abundance of anadromous fish throughout the life of the Project. The proposed side channel enhancement in the Similkameen will increase the habitat available for spawning and rearing of anadromous fish. No anadromous fish habitat will be lost as a consequence of the Project. The expected increase in fish resources would be a positive socioeconomic impact to the CRITFC tribes and the rest of the fishing industry. Exhibit E.7.2 has been modified to explain that the Project is expected to have a beneficial effect on anadromous fish habitat and no deleterious effect on fish resources.
22	Olney Patt (Robert Heinith)	CRITFC	E.3.2	<i>The impacts {to fish} of flow changes, temperature, DO, TDG and upstream and downstream entrainment into the powerhouse turbines are left unmitigated.</i>	The project is not changing the quantity or timing of streamflow after project initiation, so no mitigation is required. The project is expected to improve TDG, although it may still exceed TDG limits during high flows. The project is not expected to change water temperature, but mitigation measures will provide cool water habitat for rearing salmonids. The project also include mitigation for potential DO impacts.
22	Olney Patt (Robert Heinith)	CRITFC	E.2	<i>Dissolved oxygen should also be obtained at these sites. The applicant only measured DO at one site for just 2 days for baseline data.</i>	Table 2 of Appendix E.2.1 displays the dissolved oxygen profile results measured at six locations, including one site above the reservoir (China Rock RM 12.2), three locations within the reservoir, and two locations in the river below the dam.

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22	Olney Patt (Robert Heinith)	CRITFC	n/a	<i>we find the DLA seriously deficient in detail, analyses and presentation of alternatives.</i>	The District believes that the License Application provides sufficient information to meet the requirements for filing.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	E.3.2	<i>the DLA relies heavily on the implementation of a proposed Adaptive Management Plan (AMP) to determine changes in implementation of proposed PMEs and assess the effectiveness of the proposed PM&E measures. While the Service does advocate the use of the adaptive management concept, we note that it would appear to be more productive to include thresholds and timelines related to changes in PM&E implementation over the course of the proposed Project's new license term.</i>	Exhibit E.3.2.3 addresses the proposed Adaptive Management Plan and incorporates the suggested concept.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	E.3	<i>The Service recommends that the Applicant develop and implement baseline aquatic and terrestrial studies as part of its proposed AMP to determine how the proposed Shanker's Bend Dam would affect the Project from a resource impact standpoint (i.e., inundation of sites contaminated with heavy metals). At this time the DLA does not include this analysis.</i>	The Enloe and Shanker's Bend license proceedings are entirely separate. No part of a Shanker's Bend project is included in the Enloe License Application. The Enloe project design does not include any facilities designed to accommodate a Shanker's Bend project. Enloe project operations and financing have been analyzed and described in the License Application on a stand-alone basis. The Shanker's Bend project is speculative, and no decision has been made to move forward. A Preliminary Permit has not yet been issued for the project by FERC. The District will be initiating an appraisal study of the project during 2008, review of that study is not expected until late 2008 or 2009. Until the project's feasibility has been studied, no decision can be reached as to whether to move forward with the project, or the project's design and scale. A map of the Enloe project area is provided in Exhibit G.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	E.3.3	<i>The presence of federally-listed, endangered, or threatened species in the project area should be investigated and documented.</i>	Wildlife surveys were conducted in the Project area in 2006 as part of the re-licensing studies. The only occurrence of a federally listed species was the presence of a foraging, but not nesting, bald eagle, as is reported in Exhibit E.3.3. The bald eagle was delisted by USFWS in 2007.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	E.2.5 pg E.2-61	<i>The discussion contained in this section appears to lack an analysis of water temperature effects resulting from the proposed powerhouse to be located on the left-bank of the Similkameen River.</i>	The powerhouse operation is not expected to have a measurable influence on water temperatures. The turbines are approximately 90% efficient in capturing the potential energy from the elevation drop between the forebay and tailrace, while much more of that potential energy is converted to heat when the same volume of water falls over the dam. Therefore, the powerhouse will not have a warming effect compared to water flowing over the dam.

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ENLOE COMMENT RESPONSE TABLE

Letter Number	Commentor Name	Affiliation	DLA Exhibit	Comment	District Response
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	E.3.2 pg E.3-30	<i>This section would benefit from a discussion regarding how the proposed implementation of the crest gates would be operated to minimize downstream flow fluctuation impacts resulting from project load following and periodic powerhouse outages.</i>	The project will be operated in a run-of-river mode with no minimum instream flow release in the 370 foot long reach of river between the toe of Enloe Dam and the waterline at the toe of Similkameen Falls. During an outage the crest gates will automatically open to maintain tailwater level and therefore flow downstream of the powerplant. In the event of an emergency outage of both units of the powerplant due to a transmission line outage or similar causes, a warning siren will sound and then the crest gates will be gradually lowered to increase downstream flow to pre-outage flow rates. Changes in flow downstream of the powerplant will be attenuated by channel storage and storage in the pool at the toe of the falls. The pneumatic crest gates do not require power to open. The control system will be operated by a DC power supply with battery backup. Exhibit E.3.2.2 Instream flow impacts, has been modified to reflect this information.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	pg E.3-30	<i>The Service and Washington Department of Fish and Wildlife have developed ramping criteria that restrict hydroelectric project flow changes to no more than two inches per hour and in some cases, require flat flows (Hunter 1992 and DOI 1992). The Applicant should develop the final license application within these criteria.</i>	It is assumed that the flow change of 2 inches/hour mentioned in the comment refers to tailwater levels and not flow rates through the Project which will be operated in run-of-the river mode. Existing water levels at the tailrace exit vary more than 2 inches per hour during storms. Text describing run-of-the river operation has been added to Exhibit B.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	pg E.3-35	<i>This section does not contain a PM&E measure designed to salvage fish in the vicinity of the Kaplan turbines, during unscheduled outages and/or scheduled maintenance activities.</i>	In Exhibit E.3.2.2 text has been added to describe actions during planned and unplanned outages: "During a planned outage of both units, outflow from the reservoir would be maintained by partially opening the spillway crest gates to maintain tailwater level and therefore flow downstream of the powerplant. In the event of an emergency outage of both units of the powerplant the crest gates will be gradually lowered to increase downstream flow to pre-outage flow rates. Any fluctuation in river flow downstream of the project would be of short duration and would be attenuated by water storage in the large pool below the tailrace and in the river channel further downstream. Therefore no significant effects on fish are expected." Because no impacts on fish are expected, no PM&Es designed to salvage fish are required.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	pg E.3-36	<i>The Service recommends incorporating flexibility into the timeframe in which to assess the impact of entrainment at the Project, to account for inherent variability in flow hydrology and species abundance in the project area over time. We suggest assessing entrainment effects at numerous points over the course of the Project's subsequent license term.</i>	PM&E FISH 05 described in detail in Exhibit E.3.2.3 provides for entrainment monitoring. To gain an understanding of the magnitude of the potential impact, it will be necessary to seasonally examine fish entrainment. The District proposes to conduct quarterly fish sampling over a one-year period. Sampling will occur at fixed intervals (e.g., every six hours) over two consecutive 24-hour periods for each quarterly sampling period. At this time the District does not plan to monitor over the term of the license, however, the adaptive management program under FISH 12 will provide for ongoing refinement and measure of effectiveness of the PM&Es.

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ENLOE COMMENT RESPONSE TABLE

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23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	pg E.3-39 E.3-40	<i>The Service recommends that the Applicant, as a proposed PM&E measure, develop and implement studies over the course of the proposed Project's license term that would assess the impact of project operations on aquatic resources during low flow periods (i.e., water quality impacts).</i>	Exhibit E.2.7 describes PM&E's proposed to address water quality impacts including: water temperature, DO and TDG monitoring at three locations for 5 years (WQ 01 and 04); and providing aeration in the flow tubes of the turbines during critical summer months (WQ 03). Monitoring of TDG will be conducted during the first 5 years of the project to determine the optimal time for aeration.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	E.3-42	...details linked to the systematic implementation of the AMP are not included in this section for the proposed aquatic PM&E measures. The Service recommends inserting appropriate timelines and criteria for establishing success in determining when and how the proposed PM&E measures are adapted within the AMP. The Service also suggests closely coordinating all relevant study reports with federal, state, and tribal parties.	Exhibit E.3.2 addresses the proposed Adaptive Management Plan and incorporates the suggested concept.
23	Jessica L. Gonzales (Steve Lewis)	USFWS Central Washington Field Office	n/a	<i>the DLA lacks an appropriate level of detail regarding the scope of project effects, implementation of the PM&E measures, as well as associated effectiveness monitoring measures.</i>	The District believes that the License Application now provides sufficient information to meet the requirements for filing.
24	Ken Farquharson	Public Stakeholder	E.3.2	<i>As a Canadian I strongly support the provision of fish passage at Enloe Dam. The original construction has had severe impacts on the aquatic environment of the Similkameen River in Canada.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
24	Ken Farquharson	Public Stakeholder	n/a	<i>I believe that the impacts of the Shanker's Bend project in Canada are high and the extensive flooding of valley bottom proposed in BC will not be acceptable to Canadians. Please be advised that this project will be strongly opposed by many of the same groups that formed the ROSS Committee which successfully opposed Seattle City Light's High Ross project.</i>	Comment acknowledged

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ENLOE COMMENT RESPONSE TABLE

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25	Thomas O'Keefe	American Whitewater	A	<i>The DLA fails to clearly describe project operations for the Enloe Hydroelectric project. ...we are not able to determine what the flow regime will be in the Similkameen River. This river is part of a water trail that is being developed and a more complete description of impacts to the flow regime is required to fully evaluate recreational and aesthetic impacts.</i>	The project will be operated in a run-of-river mode with no minimum instream flow release in the 370 foot long reach of river between the toe of Enloe Dam and the waterline at the toe of Similkameen Falls. Since the flow downstream of the project will be similar to inflow the gage record from the USGS Gage Similkameen River At Nighthawk has 97 years of flow data which can be used to understand the flow regime as it may affect recreational or aesthetic impacts.
25	Thomas O'Keefe	American Whitewater	n/a	<i>The nexus to the proposed Shanker's Bend Hydro Project (FERC P-12804) is not adequately described.</i>	The Enloe and Shanker's Bend license proceedings are entirely separate. No part of a Shanker's Bend project is included in the Enloe License Application. The Enloe project design does not include any facilities designed to accommodate a Shanker's Bend project. Enloe project operations and financing have been analyzed and described in the License Application on a stand-alone basis. The Shanker's Bend project is speculative, and no decision has been made to move forward. A Preliminary Permit has not yet been issued for the project by FERC. The District will be initiating an appraisal study of the project during 2008, review of that study is not expected until late 2008 or 2009. Until the project's feasibility has been studied, no decision can be reached as to whether to move forward with the project, or the project's design and scale. A map of the Enloe project area is provided in Exhibit G.
26	L. Simpson	Public Stakeholder	D.5	<i>it appears that very little has been done to substantiate the value of this project, and that there are substantially prohibitive restrictions and drawbacks to each facet of going forward with this project regarding each issue regarding it.</i>	The District believes that it has fulfilled FERC requirements with regard to establishing the benefits and costs of the Project. Projected economic and social benefits for the Project would be greater than the cost of the Project.
26	L. Simpson	Public Stakeholder	D	<i>Also, the benefits of doing so are outweighed by the negative aspects of such a project, not the least of which are the costs of moving forward with such a project which is grossly underestimated in dollars, time, and environmental and wildlife degradation.</i>	The District believes that it has fulfilled FERC requirements with regard to establishing the benefits and costs of the Project. Projected economic and social benefits for the Project would be greater than the cost of the Project.
26	L. Simpson	Public Stakeholder	n/a	<i>It is my desire that this dam be removed, rather than rebuilt/changed/restored.</i>	Thank you for your comment. The District believes that redeveloping the Enloe Project will best meet the needs of its ratepayers and the region in providing a cost-effective, green energy resource.
26	L. Simpson	Public Stakeholder	D.5	<i>Also, the water source is questionable due to the intermittent water flow and is inadequately categorized lending to a lack of requirement to qualify the value of the dam.</i>	The water source is highly variable, but not intermittent. The Similkameen River flows year-round, and has a consistent peak in early summer. During autumn and winter low-flow periods the dam will not be able to operate at capacity, but during the annual spring/summer freshet there will be more than enough water to run the powerhouse and spill over the dam.

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ENLOE COMMENT RESPONSE TABLE

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27	Bev Ramey	BC Nature (Federation of BC Naturalists)	E.3.2	<i>As a Canadian provincial organization, representing 50 local natural history clubs throughout BC, we strongly support the provision of fish passage at Enloe Dam. The original construction has had severe impacts on the aquatic environment of the Similkameen River in Canada.</i>	Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls. Fish passage above the Project has been vigorously opposed by the Upper and Lower Similkameen Indian Bands (Canadian First Nations), and the Colville Confederated Tribes (co-managers of the Similkameen River Fisheries). The basis of opposition to passage includes both cultural and social issues (see Cultural Resources Exhibit E.4) and concerns about the introduction of disease to fisheries, mostly in Canada. Because of these concerns, tribal managers and state and federal agencies have formed a general regional consensus that passage of anadromous fish past the Similkameen falls and Enloe Dam will not be part of the Project. The NWPCC Subbasin Plan for the Okanogan Basin does not recognize anadromous habitat above Similkameen Falls.
27	Bev Ramey	BC Nature (Federation of BC Naturalists)	n/a	<i>the impacts of the Shanker's Bend project in Canada are high and the extensive flooding of valley bottom proposed in BC will not be acceptable to Canadians. Please be advised that this project will be strongly opposed by many Canadian groups. As a provincial organization, we request intervenor status.</i>	The Enloe and Shanker's Bend license proceedings are entirely separate. No part of a Shanker's Bend project is included in the Enloe License Application. The Enloe project design does not include any facilities designed to accommodate a Shanker's Bend project. Enloe project operations and financing have been analyzed and described in the License Application on a stand-alone basis. The Shanker's Bend project is speculative, and no decision has been made to move forward. A Preliminary Permit has not yet been issued for the project by FERC. The District will be initiating an appraisal study of the project during 2008, review of that study is not expected until late 2008 or 2009. Until the project's feasibility has been studied, no decision can be reached as to whether to move forward with the project, or the project's design and scale. A map of the Enloe project area is provided in Exhibit G.
28	Nancy Lopez	WA State Dept. of Natural Resources	pg B-22	<i>DNR encourages Okanogan PUD to include as much detail as possible, as early as possible, about the relationship between these two projects, particularly the amount of state-aquatic lands affected.</i>	The Enloe and Shanker's Bend license proceedings are entirely separate. No part of a Shanker's Bend project is included in the Enloe License Application. The Enloe project design does not include any facilities designed to accommodate a Shanker's Bend project. Enloe project operations and financing have been analyzed and described in the License Application on a stand-alone basis. The Shanker's Bend project is speculative, and no decision has been made to move forward. A Preliminary Permit has not yet been issued for the project by FERC. The District will be initiating an appraisal study of the project during 2008, review of that study is not expected until late 2008 or 2009. Until the project's feasibility has been studied, no decision can be reached as to whether to move forward with the project, or the project's design and scale. A map of the Enloe project area is provided in Exhibit G.
28	Nancy Lopez	WA State Dept. of Natural Resources	pg E.9-15	<i>DNR encourages Okanogan PUD to complete its application to use state-owned aquatic lands, and work with District Staff to resolve any questions.</i>	Thank you for this reminder. The District intends to continue consulting with WDNR on State-owned aquatic lands.

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28	Nancy Lopez	WA State Dept. of Natural Resources	pg E.9-15	<i>Okanogan Public Utility District will need to contact the District Office where the project is located and complete the required forms to request use of state-owned aquatic lands. The services of a registered land surveyor is then required for platting the location. The application must be accompanied by a plat, technical data sheet, and State Environmental Policy Act (SEPA) checklist. To date, DNR has not received an application to use state-owned aquatic lands.</i>	Thank you for this reminder. The District intends to continue consulting with WDNR on State-owned aquatic lands.
28	Nancy Lopez	WA State Dept. of Natural Resources	pg E.9-14	<i>The DNR has no basis to conclude that the proposed project is anything other than a hydroelectric project. DNR has not discussed this project with the applicant as being anything other than a hydroelectric activity.</i>	The Enloe Project is not anything other than a hydroelectric project.
28	Nancy Lopez	WA State Dept. of Natural Resources	pg E.9-14	<i>The DNR encourages Okanogan PUD to apply for use of state-owned aquatic lands as early as possible.</i>	Exhibit E.9.4 and the Initial Statement, Item (5) explain that the District will apply to the DNR for an Aquatic Use Authorization for aquatic lands affected by the Project after the licensing decision.
28	Nancy Lopez	WA State Dept. of Natural Resources	E.7	<i>Will further state-aquatic lands need to be inundated, thus restricting even more state-owned aquatic land available for public access?</i>	Exhibit E.9.3 reads "The Project would be operated with five-foot crest gates from approximately mid-July through mid-April of each year. The crest gates would result in permanent inundation of land that is currently seasonally inundated, including 5.1 acres of wetlands (0.2 acres of Riparian Forested wetland, 2.8 acres of Riparian Shrub wetland, and 2.1 acres of Herbaceous wetland). With the proposed crest gates, the reservoir surface area would increase by about 12.2 acres during low flow (approximately mid-July through mid-April). Figure E.9-3 shows the reservoir inundation zone with and without crest gates. The area that would be inundated during the spring and early summer high-flow period would not change."
28	Nancy Lopez	WA State Dept. of Natural Resources	E.7	<i>In order to evaluate the full impacts on public use and access, DNR will also need information on the cumulative impacts of hydroelectric and other activities on the Similkameen River.</i>	Cumulative impacts analysis is not a requirement for filing under 18CFR4.41. The District believes that the License Application provides sufficient information to meet the requirements for filing.
28	Nancy Lopez	WA State Dept. of Natural Resources	E.7	<i>Is the public access going to be modified in such a way so that recreational opportunities - planned or current - are significantly impacted?</i>	1): Per Exhibit E.7.3: "Access to a riparian area on the east bank of the Similkameen River, just downstream from Shanker's Bend, will also be restricted. The area is used as a boaters' take-out. Parts of the area will be permanently inundated due to the use of crest gates on the dam. In addition, the area will be fenced to prevent damage to wetlands by livestock. The District proposes to erect a sign facing the water advising boaters to use an alternative take-out." The displaced use will not be directly mitigated. Two other take outs are available in the vicinity. 2): Per Exhibit E.7.3, the existing informal, user-developed launch ramp will be replaced with an improved ramp that will offer easier access.

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					<p>3): Per Exhibit E.7.3, camping will no longer be allowed in the riparian woodland above the dam. The District proposes to develop primitive campsites nearby.</p> <p>4): Per Exhibit E.7.3, access to areas below Enloe Dam is now via an abandoned road and primitive foot trails. The District proposes to develop a gravel road to provide access to the generating facilities for District personnel. That road would be built over the existing abandoned road. Visitors would be able to use the road on foot, and continue on the remaining segment of the existing abandoned road and trails, to access the area below the dam. The proposed route is expected to improve access for recreational users. The proposal is subject to FERC requirements related to security of the generating facilities.</p>