



October 31, 2008

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street North East
Washington, DC 20426

Electronic Filing

**Re: Enloe Hydroelectric Project, Project No. 12569-001
Comments and Study Requests**

Dear Secretary Bose:

Enclosed for filing in the above referenced proceeding are comments and study requests for American Rivers, American Whitewater, the Center for Environmental Law and Policy, the North Cascades Conservation Council, and the Columbia River Bioregional Education Project (collectively, the Conservation Groups) on the Enloe Hydroelectric Project. Copies of this filing have been served on all parties of record to this proceeding.

Thank you for consideration of our comments and study requests. Please contact me at (503) 827-8648 or via email at bswift@amrivers.org for further information or if you have any questions.

Sincerely,

Brett Swift
American Rivers

Rachel Paschal Osborn
Center for Environmental Law and Policy

Tom O'Keefe
American Whitewater

Rick McGuire
North Cascades Conservation Council

Geraldine Gillespie
Stuart Gillespie
Columbia River Bioregional Education Project

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Public Utility District No. 1)	Project No. 21569-001
Of Okanogan County)	Enloe Hydroelectric
)	Project
)	
Application for New Major License)	
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AMERICAN RIVERS, AMERICAN WHITEWATER, THE CENTER FOR
ENVIRONMENTAL LAW AND POLICY, THE NORTH CASCADES
CONSERVATION COUNCIL, AND THE COLUMBIA RIVER BIOREGIONAL
EDUCATION PROJECT COMMENTS AND STUDY REQUEST IN THE ENLOE
HYDROELECTRIC PROJECT LICENSING PROCEEDING

I. Introduction

By notice dated October 1, 2008, the Federal Energy Regulatory Commission (hereafter Commission) provided Notice Soliciting Additional Study Requests on the Final License Application of the Public Utility District No.1 of Okanogan County's (hereafter District or PUD) Enloe Hydroelectric Project, FERC No. 21569-001. American Rivers, American Whitewater, the Center for Environmental Law and Policy, the North Cascades Conservation Council, and the Columbia River Bioregional Education Project (collectively, the Conservation Groups) previously submitted comments to the PUD on its Draft License Application on February 4, 2008. The Conservation Groups wish to provide additional comments and proposed study requests on this Final License Application (FLA). We have prepared our study requests in a manner designed to clearly spell out goals, public interest, and project nexus.

II. Comments

As stated in our February 2008 comments, Conservation Groups (and their members) have an interest in protecting the environmental, recreational, and other values of a fully-connected and continuously flowing Similkameen River system. Our interests include adequate assessment of the historic range of anadromous salmonids; fish passage; sufficient year-round flow necessary to protect aquatic resources and other designated beneficial use; water quality; the need for power and value of generation; and aesthetic and recreational values. The PUD has attempted unsuccessfully to license this project three times in the past. Nonetheless, the information presented in its final license application is insufficient to allow for a comprehensive assessment of the proposed projects or to fully evaluate project impacts.

In our February 2008 comments, which we incorporate by reference, the Conservation Groups identified numerous issues on which the PUD failed to provide adequate information. Upon review of the final application, several issues remain unaddressed. Importantly, the Final Application offers little improvement over the draft license application regarding several issues that critically impact proposed project operations, and the environmental, recreational and economic value of this project.

For example, the final application ignores all discussion of historic range of anadromous fish in the Similkameen River, fish passage, and potential habitat values above Enloe Dam by simply stating that “consensus” exists among agencies and stakeholders on this issue.¹ However, this statement is not accurate. The Yakama Nation and Confederated Tribes of the Umatilla Indian Reservation, as well as Conservation Groups have repeatedly requested additional studies and information on these issues. In addition, while agency, tribal, environmental and local stakeholders have commented that dewatering Similkameen Falls is unacceptable, the final application offers no discussion or option for providing adequate instream flows, and no useful information on which to discuss alternative flow scenarios. The final completely disregards aesthetic impacts from dewatering the Falls. The PUD also has failed to adequately address recreational issues to an as yet uncompleted Recreation Management Plan, thus unacceptably deferring this important issue to a post-license study. The final application provides little new or additional information on the need for power and no review of how flow changes from predicted climate change, climate change impacts on fishery populations, or required passage or minimum flows would impact this already marginally economic project. Finally, the final application once again avoids discussion of the proposed Shankers Bend project, which, if built, would dramatically change production capabilities, economic worth, and the operations of the proposed Enloe Project.

Fish passage and historic range

Okanogan PUD has tried to relicense the Enloe Hydroelectric Project three times prior to the current effort. In each of the previous proceedings, the issue of fish passage at the project has played a central role, including the existence of federal legislation requiring fish passage. Dam removal, fish ladders, and constructing the project so that it could later be retrofitted with fish passage facilities have all been discussed. Parties to those proceedings have differed greatly in their views of whether anadromous salmonids, in particular steelhead, ever passed Similkameen Falls to access miles of habitat in the Similkameen drainage. Significant documentation was provided in each of those proceedings regarding the question of fish passage, making it clear that there is no conclusive evidence that Similkameen Falls served as a barrier to fish passage. The PUD has failed to undertake additional study since the last relicensing effort to help resolve the issue, 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. The record is replete with information calling into question the PUD’s assertions and the District has failed to conduct scientific studies that would help resolve the issue.

¹ “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.”

Shankers Bend

The PUD continues to omit important information regarding the proposed Shanker's Bend project, asserting that the two projects are wholly separate. While the Shankers Bend project may not come to fruition, there is a definitive proposal that should be factored into the analysis of the proposed Enloe project. Consideration of projects in a piecemeal fashion has contributed to the decline of salmon and steelhead stocks in the Columbia River basin and is no longer the manner in which analysis is conducted. Importantly, it runs counter to FERC's call for comprehensive basin analysis.

Water Quality

Water quality data in the final application is deficient in several respects. In its comment response table, the PUD acknowledges the limitations of its own analysis of dissolved oxygen (DO) and the lack of early summer testing when violations are likely to occur. The PUD proposes to implement a mitigation measure that will provide aeration when DO is low. While the measure may improve conditions, its implementation in no way negates the need to fully understand the impacts of the project. There will be no data to determine whether the PUD has successfully addressed the impacts of the project which may lead to future disagreements about the level of effort that the PUD must undertake to ensure that water quality standards are met. Commitment to a measure that may improve things does not negate the need for the PUD to undertake the required analysis.

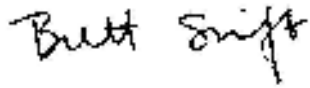
In addition to DO, questions remain regarding wetland and macroinvertebrate issues. The impacts to macroinvertebrates are not fully understood, and as such, there is no way to assess whether the proposed side channel habitat will provide the necessary level of mitigation. The PUD repeatedly relies on construction of side channel habitat to mitigate a multitude of project impacts, however, it can neither accurately define the level of impact of the expected benefit. With regard to wetlands, the PUD cannot rely on future development of a plan to address a significant impact of the project, loss of wetlands. Not only is there no way to determine the adequacy and therefore making a public interest finding regarding the proposed project, but such loss runs counter to state law.

The first step to address some of the flaws of the final application is to require that the PUD conduct additional critical analysis. On October 28, 2008, the Commission issued an order requesting additional information from the PUD. We support that initial request, however, it falls short in identifying all the additional information necessary to ensure a complete record on which to base a licensing decision. As such, we urge the Commission to request the PUD to conduct additional studies consistent with our filing, to request the necessary information on which to base decisions regarding necessary protection, mitigation, and enhancement measurements associated with this project.

III. Conclusion

In summary we request that the Commission direct the applicant to provide additional information and conduct additional studies that will enable a more complete review of this project and its impacts.

Respectfully submitted this 31st day of October, 2008.

A handwritten signature in black ink that reads "Brett Swift". The signature is written in a cursive, slightly slanted style.

Brett Swift
American Rivers
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cc:
Service List

Study No. 1
Fish Passage, Historical Range of Anadromous Fish
and Habitat Suitability Study
Enloe Hydroelectric Project 12659-001

1.1 Study Description and Objectives (§5.9(b)(1))

This study would evaluate fish passage, the historical range of anadromous fish and habitat suitability at the project and in the upstream reaches of the Similkameen River.

The purpose of this study is to:

- Fully investigate the historical range of anadromous fish above Similkameen Falls.
- Investigate the feasibility of developing fish passage at Similkameen Falls and Enloe Dam.
- Assess the alternative fishway types that would be most applicable.
- Examine the relative benefits gained by allowing anadromous fish access to the habitat upstream contrasted against the possible additional instream flow requirements, energy generation reduction, and alternative fishery enhancement measures.

1.2 Resource Management Goals (§5.9(b)(2))

In its November 1991 filing, the Columbia River Inter-Tribal Fish Commission stated that it disagreed with the PUD's assertion that natural falls have historically represented the upper terminus of anadromous fish migration. It identified several studies that documented salmon and steelhead well into the Canadian Similkameen Basin. (CRITFC Petition to Intervene and Request for Studies, November 27, 1991). The Confederated Tribes of the Colville Reservation similarly questioned the PUD's assertion, noting that there is strong evidence that salmon utilized at least part of the Similkameen River above the Enloe Project before the dam was built. (Confederated Tribes of the Colville Reservation Petition for Leave to Intervene, November 25, 1991). The U.S. Department of Interior argued that "while the evidence at this time may not be clear that anadromous fish ever ascended the Similkameen River above Enloe Falls, neither is there clear evidence to the contrary." (U.S. Department of Interior Request for Rehearing and Finding of No Significant Impact, March 1, 1993, p. 5) Even FERC stated that it found that "the evidence was inconclusive as to . . . the historic presence of anadromous fish above the Falls prior to the dam's construction." (FERC, Order on Rehearing, Rescinding License, Denying License Application, and Terminating Stay, February 23, 2000).

More recently, a report prepared for the Colville Tribes, Department of Fish and Wildlife, states that "photographic interpretations of the Falls suggest possible passage" and that "[t]he presence of redband trout upstream of Enloe Dam . . . gives strong evidence that at certain times these Falls were likely passable by Interior Columbia River Redband Steelhead. (Aterburn, K. Kistler, and C. Fisher, Barriers to Anadromous Fish in the Okanogan Basin, January 2007). In addition, the National Marine Fisheries Service recently adopted its recovery plan for Upper Columbia listed stocks. In NMFS' response to comments, the agency stated: "NMFS agrees with the commenter that there is a

possibility that steelhead once made it past the natural barrier where Enloe Dam is presently located. Studies show that many miles of high quality habitat exist in the Similkameen River above Enloe Dam. If passage were provided, the upper Similkameen River could become an important area for recovery of the Okanogan steelhead population, especially if actions in other areas of the Okanogan watershed are not successful. NMFS will wait for discussions to be completed with FERC, tribal governments, and others before providing a final position on passage.” (NMFS Responses to Public Comments On the Proposed Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan, September 2007).

The need to resolve the issue of the historic extent of fish runs in the Similkameen River prior to construction of Enloe Dam has been around for years. For example, the National Marine Fisheries Service, in its June 1, 1992 filing in one of the previous attempts to relicense the project, stated that “[d]espite the clear potential for anadromous fisheries in the Similkameen River Basin, there is an unresolved issue of the presence of anadromous fish in the Similkameen River Basin prior to construction of Enloe Dam.” (National Marine Fisheries Service Comments, Recommendations, and Fishway Prescriptions and Conditions, June 1, 1992, p. 3).

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in this has been expressed through comments from Conservation Groups, the Columbia River Inter-Tribal Fish Commission, state and federal agencies, and others. This interest lies in the opportunity for further discussion and information relating to the issue of historic access above the Falls and hundreds of miles of critical habitat for steelhead, summer chinook, coho, sockeye and likely Pacific lamprey in the US and British Columbia.

1.4 Existing Information (§5.9(b)(4))

Information on each of these issues has been gathered and discussed for years as the Okanogan PUD attempted several times to pursue a new license application for the Enloe Project. This information needs to be revised and updated. In addition, new science and techniques are now available for determining the historical range of salmonids in the Similkameen River. Conservation Groups request that the Commission require the PUD to undertake the studies set forth in the January 8, 2008 letter to Dan Boettger, Okanogan Public Utility District from Virginia Butler, Portland State University.

1.5 Nexus to Project (§5.9(b)(5))

Fish passage is an issue at nearly every FERC licensed hydropower project in the Northwest, and this project is no exception. A determination of the direct and indirect impacts of the propose project on salmonids access to the area directly below Enloe Dam (and above Similkameen Falls), as well as hundreds of miles of river and potential habitat upstream in both the US and British Columbia, must be made. Results from the studies being requested will help inform stakeholders about the issues of historic salmon habitat and fish passage at the project, as well as contribute to development of an acceptable resolution to the long-running issue on the historical range of salmonids.

1.6 Study Methodology (§5.9(b)(6))

This study would be segmented into three phases:

- Phase I would be based on methods outlined in the January 2008 Letter from Dr. V. Butler regarding determination of historical presence of anadromy above Similkameen Falls.² Dr. Butler's letter outlines two scientific approaches: study the archaeological record of animal remains, particularly fish bone, from sites along the river and Palmer Lake, and examine the geochemistry of Palmer Lake sediments. The proposed methods for this study are consistent with professional practices.
- If Phase I shows evidence of fish presence above Enloe Dam, the PUD should then undertake Phase II. The objective of this phase is to fully understand the suitability and extent of habitat that would become accessible. Some information regarding habitat suitability has been developed, however, a more comprehensive would need to be undertaken, one that really focuses in on anadromous fish habitat above Enloe Dam.
- Concurrent with Phase II, the PUD should also evaluate the technical feasibility of various fish passage alternatives at the Enloe Project.

1.7 Level of Effort and Cost (§5.9(b)(7))

The total cost is hard to determine in part because of the phased nature of this study. Historical range studies could be completed in one study season. The outcome would affect implementation of the remaining parts of the study. If the results establish anadromous fish presence above the project, the PUD would then both assess habitat suitability as well as technical fish passage options. Collectively, this information would inform an ultimate decision on fish passage.

² eLibrary Accession Number 20080130-0139.

Study No. 2
Aquatic Resources and Habitat Flow Study
Enloe Hydroelectric Project 12659-001

1.1 Study Description and Objectives (§5.9(b)(1))

The final application describes operations for the Enloe Project that will result in a dewatering of a stretch directly below the dam for more than 400 feet. This dewatering undoubtedly affects a range of resources – resident and anadromous fish habitat, ecosystem health, macroinvertebrate production, connectivity, stream flow integrity. The purpose of this study is to fully understand the impacts of the proposed flow regime in the reach below the dam and to identify a range of flow regimes that will adequately protect the affected values.

1.2 Resource Management Goals (§5.9(b)(2))

In addition to ensuring protection of the designated uses, the Environmental Protection Agency's regulations implementing the Clean Water Act require that states adopt anti-degradation policies to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected (40 C.F.R. 131.12). Washington's anti-degradation policy is set forth in Part III of Washington's water quality standards for surface waters for the State of Washington, Chapter 173-201A WAC. 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. (WAC 173-201A-310). The Final Application 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.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in this has been expressed through comments from Conservation Groups, the Columbia River Inter-Tribal Fish Commission, state and federal agencies, and others.

1.4 Existing Information (§5.9(b)(4))

The Final Application states that flows over the dam and waterfall would be reduced from July through March. It is unknown whether or not salmon or steelhead could ascend the fall to potentially utilize this reach. The Final Application fails to consider any mitigation for this loss of river habitat or to offer alternative flow scenarios (year round minimum flows) in this bypass. The Final Application does not address designated uses of the river – aesthetics, salmonids spawning and rearing.

1.5 Nexus to Project (§5.9(b)(5))

This is a direct project flow-related impact on a resource identified by FERC as needing to be studied.

1.6 Study Methodology (§5.9(b)(6))

A study of the impacts of the proposed flow regime as well as potential alternative flow regimes need to be undertaken. However, given the unique characteristics of this project,

at this time, we recommend that the PUD work with interested stakeholders, including the Conservation Groups, to identify the most appropriate instream flow methodology. The relevant science on this issue is currently evolving and often depends on the unique nature of the site. There is a comprehensive discussion of possible flow study methodologies ranging from Instream Flow Incremental Methodology (IFIM) to habitat mapping to macroinvertebrate community assessments at <http://www.hydroreform.org/hydroguide/science/4-1-instream-flows> This information should inform the discussion among stakeholders as to the most appropriate instream flow study to be implemented.

1.7 Level of Effort and Cost (§5.9(b)(7))

It is difficult to assign a level of cost and effort at this time. That will depend on the identification of the best methodology by the PUD and other stakeholders. Cost and effort will be part of the discussion.

Study No. 3
Aesthetic Flow Evaluation Study Request
Enloe Hydroelectric Project 12659-001

1.1 Study Description and Objectives (§5.9(b)(1))

This study would describe and evaluate the impacts of the project on aesthetic flows over Enloe Dam and Similkameen Falls. In coordination with interested stakeholders and the Washington Department of Ecology and National Park Service (NPS), 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.

1.2 Resource Management Goals (§5.9(b)(2))

The NPS has authority to consult with the FERC and applicants concerning a proposed project's affects on outdoor recreation resources under the Federal Power Act (18 CFR 4.38(a), 5.41(f)(4)-(6), and 16.8(a)); the Outdoor Recreation Act (Pub Law 88-29) and the National Park Service Organic Act (39 Stat. 535). Washington's water quality standards for surface waters provide Ecology's authority under (WAC 173-201A-310). These agencies represent the national interest regarding recreation, and assure that hydroelectric projects subject to re-licensing recognize the full potential for meeting present and future public outdoor recreation demands, while maintaining and enhancing a quality environmental setting for those projects. Identifying the minimum and optimum aesthetic flows is consistent with agency policy and FERC guidelines to identify project impacts and enhancements to recreation and aesthetics.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in this has been expressed through comments from BLM, NPS, Department of Ecology, Conservation Groups, and American Whitewater. The public currently enjoys the views over the Falls and any changes to views need to be evaluated.

1.4 Existing Information (§5.9(b)(4))

The Final Application states that flows over the dam and waterfall would be reduced from July through March.

1.5 Nexus to Project (§5.9(b)(5))

This is a direct project flow-related impact on a resource identified by FERC as needing to be studied.

1.6 Study Methodology (§5.9(b)(6))

Study methodology would include:

1. A comparative *description* of what are the current/baseline conditions and the expected new flow regimes. This would include how often and the amount of flows spilled over the dam and water falls. The description should include assessment of different seasons and years (i.e. dry, normal, and wet).

2. An *evaluation* of what this change would have is also needed. What are the minimal and optimal aesthetic flows? How will these minimal and optimal flows change with the project in place?
3. A more in-depth and credible aesthetic survey must be completed. The PUD did a survey, but was limited in time (21 days) during one recreational use season, and was completed in an area which the PUD admits only to informal current recreation use. The 59 completed surveys are inadequate to determine either existing or potential use at this project. A new survey must be completed that uses standard approaches including both on and off-site surveys and that offer a variety of flow conditions. The survey should answer a set of standard questions that address scenic “value” and where constituents rate their viewing experience and the relative importance of the feature to them personally. The PUD should proactively reach out to local and regional stakeholders for this survey (a phone survey may suffice if robust), including those most likely to appreciate the aesthetic value of a flowing Similkameen Falls. Aesthetic studies considering waterfalls and cascades have been conducted at the Carmen-Smith Hydroelectric Project (FERC Project No. 2242), on the McKenzie River, Oregon; and at the Spokane Hydroelectric Project (FERC Project No. 2545), on the Spokane River, Washington.

Please see Whittaker, Shelby and Gangemi (2005 “Recreation and Flows: A Guide for River Professionals” for methodologies to describe and study recreation flows in the area <http://www.nps.gov/ncrc/programs/hydro/flowrec.pdf>. Additional references for aesthetic flow studies can be found online in Scientific Approaches for Evaluating Hydroelectric Project Effects <http://www.hydroreform.org/hydroguide/science/8-3-waterfalls-and-cascades>.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would be a phased approach with a desktop analysis. The decision to progress into future phases should be made in consultation with stakeholders.

Study No. 4 Recreation Needs Analysis Study Request

1.1 Study Description and Objectives (§5.9(b)(1))

This study would evaluate the recreation needs over the future term of the license. On October 29, 2008 the Commission's Application Accepted for Filing and Request for Additional Information recognized the recreational deficiencies of the Final Application's recreation management plan, including issues such as public access, signage, trails, parking, and campsites.

1.2.1 Resource Management Goals (§5.9(b)(2))

NPS, Bureau of Land Management (BLM) and Washington's Department of Ecology each have authority to consult with the FERC and applicants concerning a proposed project's affects on outdoor recreation resources under the Federal Power Act (18 CFR 4.38(a), 5.41(f)(4)-(6), and 16.8(a)); the Outdoor Recreation Act (Pub Law 88-29) and the National Park Service Organic Act (39 Stat. 535). These agencies represent the national interest regarding recreation, and assure that hydroelectric projects subject to re-licensing recognize the full potential for meeting present and future public outdoor recreation demands, while maintaining and enhancing a quality environmental setting for those projects.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in recreation has been expressed through comments from BLM, NPS, Washington Recreation and Conservation Organization, American Whitewater, Washington Water Trails, and the Greater Columbia Water Trail Coalition. In addition, recreation interest including trail opportunities and access to the water is further defined in the 2008 SCORP.

1.4 Existing Information (§5.9(b)(4))

The Final Application does contain information on an existing survey of limited recreation users at the site. It also acknowledges that recreation use will be changing in the future due to two major trails being developed (the Greater Columbia Water Trail and the Proposed Nighthawk to Oroville Rail to Trail). However, it does not include an assessment of how this will change future use or what types of facilities would be needed. The Final License Application does not adequately address the recreation needs and future recreation use as required by FERC regulations. *See* 18 C.F.R. § 4.41 which state the license application should address "current *and future* recreation use". It also provides direction to conduct a recreation needs analysis. The plan should consider recreation trends and accommodate future recreational activities in the recreation proposals. An assessment of the needs related to the project and potential future use should be identified. Connectivity of trails and facilities is a strong need. This has been outlined in the SCORP. In addition providing opportunities for short walks is important. Access across the dam or other near-by site would allow campers at Enloe Dam to access the new rail-to-trail. In addition, it would be an opportunity for people using the trail to see and learn more about the project

1.5 Nexus to Project (§5.9(b)(5))

The Project has direct and indirect effects on recreation resources within and adjacent to the Project boundary and in the affected reach of the river below Enloe Dam. These effects include providing public access to natural open space areas within and surrounding the Project for a variety of recreation activities and access to and use of the river and lake for recreation purposes. Study results will help inform stakeholders by synthesizing the information collected during relicensing and defining existing and future recreation needs that may be considered for potential PME's, if appropriate.

1.6 Study Methodology (§5.9(b)(6))

A recreation needs analysis is needed that includes the recreation demand, supply, capacity and needs/ synthesis analysis. There is some information on demand in the report, but it is limited to existing use and does not fully integrate the two new trails that are in the foreseeable future. Additional demand analysis as outlined by BLM should be included to assess existing use. In addition, the demand analysis needs to integrate the two new trails. Interviews with recreation managers on similar trails should be conducted to determine the potential new demand and management needs. A carrying capacity analysis should be conducted to assess the capacity of the project to accommodate existing and future use of the water and land trail opportunities. An assessment of the noise levels with the dam should also be conducted to see if this would impact users at proposed Enloe Dam site. This assessment should include the feasibility of providing access across the river either via Enloe Dam or another crossing. A recreation needs analysis would be the final component and compile results of the demand, supply, and carrying capacity and identify needs over the license term. The analysis then could be used to further develop protection, enhancement, and mitigation measures.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would include desktop analysis as well as interviews with recreation managers. Estimate cost is \$30,000 - \$40,000.

Study No. 5

Value of Generation Study Request

1.1 Study Description and Objectives (§5.9(b)(1))

Marginal economic value has been a central issue throughout the history of Enloe Dam. The focus of the study would be to provide a detailed analysis of the project economics, with a particular consideration given to the cost of measures necessary to provide adequate protection, mitigation, and enhancement. For example, the analysis should include an alternative that includes flows in the bypass reach as well as fish passage. Such analysis is necessary to understand project economics and would allow all interests to accurately weigh the value of potential power production against the impacts to the Similkameen River and related resources. As FERC stated in its February 23, 2000 Order on Rehearing , Rescinding License, Denying License Application, and Terminating Stay “[T]he obligation to construct and operate a fish ladder would significantly increase the costs of a project that already appears to be uneconomical.” Given its marginal economic value, a major resource management goal for this Project is a robust study and analysis that proceeding is in the public interest in terms of cost, future generation, and the Projects environmental, aesthetic and recreational impacts.

1.2 Resource Management Goals (§5.9(b)(2))

The need for power and the value of the proposed project undoubtedly affect the licensing determination. In turn, that determination affects numerous resources in the Similkameen River basin. Given that project economics is a critical determination regarding potential fish passage, habitat restoration, daily and adequate flows in all sections of the river, and the aesthetic and recreational values of the Similkameen, each of the resource management goals listed in Studies 1, 2, 3, and 4 would be relevant for this study also.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in project economics, power needs, and generation value has been expressed through comments from the Conservation Groups, the Columbia River Inter-Tribal Fish Commission, and other agencies and stakeholders. It is in the general public interest to provide an adequate understanding of the full cost and potential for any proposed project.

1.4 Existing Information (§5.9(b)(4))

The Final Application fails to provide sufficient economic information to consider the power generation benefits and the natural resource impacts. The PUD states that “Enloe leaves a minimal carbon footprint and can contribute to reduced emissions when compared to the fossil fuel alternative power projects discussed in Section D.6.” but offers no specific economic review of the projects footprint or comparison with other renewable power generation. In addition, there is no analysis of generation benefits if historic flows were to change as a result of climate change. The final does provide some reference to wind power, but provides no comparison between wind (and other renewables) and hydro. The final application asserts that the PUD’s conservation program could “be expanded to the extent reasonable” (Page D 6), but it does not

describe the level of conservation potential and whether it is sufficient to eliminate the need for Enloe. The Final Application claims that if Enloe is not built, then the PUD will need to fall back to natural gas, wind power, or possibly coal-fired power generation. No firm statistics are given on how wind or conservation would play into this mix. One existing source of information on constructing an integrated assessment model as a tool for analyzing biological-economic tradeoffs can be found in the Cost-Effective Management Alternatives for Snake River Chinook Salmon: A Biological-Economic Synthesis by David L. Halsing, U.S. Geological Survey and Michael R. Moore, School of Natural Resources & Environment
http://sitemaker.umich.edu/micmoore/working_papers.

1.5 Nexus to Project (§5.9(b)(5))

It goes without saying that the value of power is directly related to the project. The need for power and the value of generation have direct and indirect effects on the PUD's ability to pay for any final requirements for fish passage, habitat improvements, daily and adequate minimum flows in all sections of the Similkameen, as well as the aesthetic and recreation resources within and adjacent to the Project. Study results will help inform stakeholders by synthesizing and expanding the information collected during relicensing and defining existing and future power and generation needs and costs.

1.6 Study Methodology (§5.9(b)(6))

Study methodology could include:

1. An accurate, credible and river specific assessment of the expected cost for fish passage, habitat restoration, adequate flows through the proposed bypass to address habitat, recreation and aesthetic values, and mitigation for aesthetic and recreation (a full range of beneficial uses). This data to be gathered through the previous study requests.
2. An evaluation of how these costs, if required, would affect the overall economic value of the Enloe Project (including construction, operation and management costs).
3. A substantial Water and Power Pricing Economics study that includes:
 - A more vigorous review of bulk power prices and a long-term trends analysis.
 - Substantial analysis in support of a realistic consideration of the carbon that could be emitted by various sources of replacement power – including conservation.
 - Full disclosure of the potential of the PUD's conservation program, including if conservation could potentially replace all of the power generated by Enloe, at less cost.
 - Power projections if seasonal flows change dramatically (climate change) and the timing, quantity and quality of future stream flows become increasingly uncertain.

This study should be undertaken by an independent researcher, and peer reviewed.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would be a phased approach. The decision to progress into future phases should be made in consultation with stakeholders.

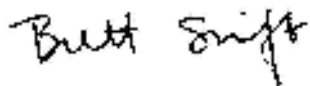
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Public Utility District No. 1)	Project No. 12569-001
Of Okanogan County)	Enloe Hydroelectric
)	Project
)	
Application for New Major License)	
_____)	

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated this 31st day of October 2008



Brett Swift
American Rivers

Document Content(s)

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