FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON D.C. 20426
October 11, 2007

OFFICE OF ENERGY PROJECTS

Project No. 2149-131-Washington
Wells Hydroelectric Project
Public Utility District No. 1 of
Douglas County

William C. Dobbins, Manager
Public Utility District No. 1 of Douglas County
1151 Valley Mall Parkway
East Wenatchee, WA 98802

Reference: Study Plan Determination for Wells Hydroelectric Project

Dear Mr. Dobbins:

This letter contains, pursuant to 18 CFR §5.13(c), my study plan determination for Public Utility District No. 1 of Douglas County's (Douglas PUD) Wells Hydroelectric Project (Wells Project). My determination is based on the staff's review of the revised study plan and comments on the proposed and revised study plans.

Most study issues have been resolved. I accept the staff's findings on the proposed studies and the issues still in dispute, which are discussed in Appendix A. A list of approved studies is attached as Appendix B.

Background

On May 16, 2007, Douglas PUD filed their proposed study plan that included studies on fish, water quality, cultural, recreation, and terrestrial resources. The Cities of Brewster and Pateros filed comments on the proposed study plan on August 14 and 15, 2007, respectively.

On June 14, 2007, Douglas PUD held a study plan meeting to discuss the study plans. Douglas PUD filed a revised study plan on September 14, 2007. The Confederated Tribes of the Umatilla Indian Reservation (Umatilla) sent a letter to Douglas PUD on August 14, 2007, that included comments on the proposed lamprey

studies and new requests for salmon and steelhead studies. Umatilla did not address the study criteria or file the study requests with the Commission; however, Umatilla's request and Douglas PUD's responses were included in the revised study plan and reviewed by Commission staff. Comments on the revised study plan were filed by the City of Pateros on October 1, 2007.

Study Plan Determination

The study plan filed on September 14, 2007, as modified herein, is approved.

If you have any questions, please contact Bob Easton at (202) 502-6045 or robert.easton@ferc.gov.

Sincerely,

J. Mark Robinson, Director
Office of Energy Projects

Enclosures: Appendix A, Study Request Issues
Appendix B, Approved Studies

cc: Public Files
Mailing List

APPENDIX A – STUDY REQUEST ISSUES
Staff's Findings/Response to Comments on the Study Plan

The following includes staff's findings on studies proposed by Douglas PUD. Except as explained below, we concur with Douglas PUD's conclusions and basis for its proposed studies and conclude that the study plan filed on September 14, 2007, adequately addresses all study needs at this time.[1]

Survival and Rates of Predation for Juvenile Pacific Lamprey Migrating through the Wells Hydroelectric Project (Juvenile Lamprey Study)

As part of the Juvenile Lamprey Study, Douglas PUD proposes to conduct a literature review that will compile all of the available information regarding juvenile lamprey survival at hydroelectric projects in the Columbia River Basin. Douglas PUD indicates that they will conduct a literature review because a juvenile lamprey survival study is infeasible at this time.[2] Because compilation of existing information does not constitute a study, there is no need to approve this portion of the juvenile lamprey study.

The Juvenile Lamprey Study also includes an assessment of the occurrence of juvenile lamprey in the diets of predatory birds and fish. Douglas PUD indicates that the information collected through this study would be used to modify, as appropriate, the ongoing predator control programs in a manner that would maximize protection for outmigrating juvenile lamprey while continuing to ensure protection for juvenile salmonids.

Douglas PUD indicates that evaluation of predation on juvenile lamprey by birds would be assessed as part of the Piscivorous Wildlife Control Study. The information collected through this study would be useful for addressing effects of the wildlife control program on juvenile lamprey. We recommend approval of this study.

To address the effects of predatory fish on juvenile lamprey, Douglas PUD proposes to examine the stomach contents of approximately 20 smallmouth bass and 20 walleye from the Wells tailrace and 500 northern pikeminnow from the Wells tailrace and reservoir. Douglas PUD indicates that fish collection will occur through angling and

---

[1] None of the comments made by the Umatilla persuaded staff to modify the study plan.

[2] Douglas PUD indicates that obtaining sufficient numbers of juvenile lamprey to conduct a survival study is not practicable and the technology for tagging juvenile lamprey is in the development stage.

coordination with existing programs that already capture these species. Examination of 500 pikeminnow stomachs could provide information that would be useful in assessing the effectiveness of the ongoing pikeminnow removal program and deriving potential modifications to the program. However, the benefit of examining approximately 20 smallmouth bass and walleye stomachs is not apparent. We are not aware of any ongoing predator control activities for these species that could be modified based on these data and the sample sizes for sampling smallmouth bass and walleye appear to be too small to have any statistical validity or value for creating such a program. We conclude that this information is not necessary for our analysis [18 CFR §5.9(b)(4)]; therefore, we do not recommend that Douglas PUD be required to conduct this portion of the proposed study.

An Assessment of Adult Pacific Lamprey Spawning within the Wells Project (Lamprey Spawning Assessment)

Douglas PUD proposes to identify areas within Wells Reservoir that are consistent with spawning habitat requirements for Pacific lamprey and conduct surveys to determine if spawning is occurring in the reservoir. If spawning is observed, Douglas PUD proposes to assess whether Wells Dam operations adversely affect lamprey spawning habitat.

From 1998 to 2005, adult lamprey passage over Wells Dam ranged from 73 to 1,417 fish (annual average was approximately 400). Pacific lamprey spawning has not been documented within Wells Reservoir and Douglas PUD has suggested that spawning habitat within Wells Reservoir may be marginal and patchy. Existing information suggests that the habitat preference of spawning lamprey includes small tributaries consisting of shallow (approximately 1 meter deep) tailouts of pools over large gravel to small cobble substrates. This habitat is generally not available within Wells Reservoir because the vast majority of the reservoir is much deeper than 1 meter.

Based on available information, we conclude that it is unlikely that there would be substantial adult lamprey spawning habitat within Wells Reservoir. Additionally, there are several tributaries upstream of Wells Dam and outside of the project area that are better candidates for providing suitable adult lamprey spawning habitat and we have no reason to conclude that the adult lamprey passing over Wells Dam would be unable to access these areas. Therefore, we conclude that existing information is adequate for our needs and the proposed study is not necessary for our environmental analysis [18 CFR §5.9(b)(4)]. We do not recommend that Douglas PUD be required to conduct the proposed study.

Continued Monitoring of Dissolved Oxygen (DO), pH, and Turbidity in the Wells Forebay and Lower Okanogan River (DO, pH, and Turbidity Study)

Douglas PUD is proposing to conduct two additional years of monitoring DO, pH, and turbidity in the Wells forebay and Lower Okanogan River within the project area. Douglas PUD indicates that monitoring of these parameters began in August 2005 and continued in 2006. They do not indicate if any monitoring was conducted in 2007.

The monitoring data collected in 2005 and 2006 suggest that waters within the Wells Project area are generally in compliance with state standards for DO, pH, and turbidity. All surface water measurements collected had DO values greater than 8.0 milligrams per liter (mg/L), pH was within the specified range, and turbidity was generally low except for a few elevated measurements collected in tributaries to the project reservoir. Douglas PUD states that during times when waters in the project area exceed state numeric criteria, the waters entering the Wells Project area are also out of compliance.

To justify the need for the DO, pH, and turbidity study, Douglas PUD states that additional monitoring is necessary to make a final determination that the project is in compliance with state criteria. We have reviewed the existing information and we conclude that there is little justification for additional monitoring. Various entities, including Chelan PUD and Grant PUD, have recently conducted water quality monitoring in the mid-Columbia River and none of these studies have indicated concerns with DO, pH, or turbidity conditions downstream of Wells Dam. Additionally, long-term monitoring of water quality in areas upstream of the Wells Project, primarily the Okanogan River and Methow River, suggest that tributary flow into the project area meets state criteria for DO, pH, and turbidity under most conditions.[3] Lastly, the site-specific data reported by Douglas PUD indicates that waters in the project area are not exceeding state criteria for DO, pH, or turbidity. Based on this information, we conclude that existing information is adequate for our needs and additional monitoring is not necessary for our analysis [18 CFR §5.9(b)(4)]. We do not recommend approving this study.

Socioeconomic Impact of the Wells Project on Okanogan County and the Cities of Pateros, Brewster, and Bridgeport

The Cities of Pateros (Pateros) and Brewster request that Douglas PUD conduct a study of the socioeconomic impacts of the Wells Project on Okanogan County and the Cities of Pateros, Brewster, and Bridgeport. Pateros states that (a) construction of the

[3] High turbidity measurements have been recorded in these areas; however, they appear to be related to background conditions or periods of higher stream flows.

Wells Dam caused a direct impact on the City of Pateros by flooding the city's downtown area and displacing much of its business, civic, and population centers; and (b) the past, present, and future operation of the Wells Dam has and will continue to cause direct, indirect, and cumulative effects on the City of Pateros' economic, civic, and social conditions, including the loss of area businesses and revenue (property, sales, excise and hotel/motel taxes), changes in the cost of providing services, increased maintenance costs of new park assets, damage to the city's civic and social fabric, the loss of valuable agricultural land and warehouses, the loss of different kinds of recreation opportunities associated with a free-flowing river, and environmental costs. Pateros requests that a cost-benefit analysis (or an appropriate variation thereof) be conducted to evaluate the impact that the construction of the Wells project had, and will continue to have, on lost revenues from property, sales, excise and hotel/motel taxes. Pateros would have Douglas PUD identify: (a) factors that influence regional and local economics, including health care, agriculture, schools and other public entities, industry, and tourism; (b) socioeconomic impacts of the Wells Project on Okanogan County and the Cities of Pateros, Brewster, and Bridgeport; (c) future growth opportunities and estimated impacts of project operations on these resources; and (d) past and continuing socioeconomic impacts resulting from the City of Pateros' relocation and displacement when the Wells Dam was originally constructed.

Douglas PUD states that it does not propose to conduct a socioeconomic study, arguing that the information would not be of use during the development of license requirements and because the study would focus on original project impacts that were already mitigated during the term of the original license. Douglas PUD further argues that the purposes of any socioeconomic analysis must be to identify socioeconomic impacts specifically related to the project and its proposed operations. Douglas PUD states that the scope of any socioeconomic effects must be limited to the extent that the project's environmental effects are interrelated to any social/economic impacts on the community. They add that an analysis should not consider those areas of Pateros' socioeconomic conditions for which the city is the responsible entity or which are unrelated to the project, including tax structure, business incentives, and other local economic conditions.

The subjects of Pateros' proposed socioeconomic study are the uncompensated effects of inundation and relocation of parts of the city and forgone tax revenues that would continue into the future because of the lost tax base on lands inundated by the reservoir. As the Commission has explained, the environmental baseline at relicensing is

the environment as it exists at the time of relicensing, not pre-project conditions.[4] Moreover, while the Commission will consider pre-project conditions to help inform the Commission's judgment concerning appropriate mitigation and enhancement measures, it will not require a licensee to re-create or analyze the environmental conditions that existed before the project was built. The Commission evaluates and considers the appropriateness of requiring enhancement measures in the context of today's environment and in relation to today's needs and problems, not in the context of the world as it existed 50 years ago.[5]

The City of Brewster did not address the study criteria [18 CFR §5.9(b)]. Pateros does not explain why its requested additional information is needed [18 CFR §5.9(b)(4)]. The information that Pateros would have Douglas PUD gather and analyze already exists (i.e., demographics, tax statistics, property valuations, etc.). We expect that the existing available information would be analyzed by Douglas PUD in its application, and that the analysis would be done in the context of proposed operational and environmental measures of any future license as noted by Douglas PUD.

Additionally, it is not clear whether the methods described by Pateros would be appropriate [18 CFR §5.9(b)(5)] because a comparison of pre-project conditions to existing conditions would not likely shed any light on the effects of relicensing the project. A "then and now" comparison would reflect how the present differs from the past, but would not necessarily reveal whether the differences are due to the passage of time, regional factors, or other factors outside Douglas PUD's control or related to the project.

While tax-related issues are important for local communities, reviewing all tax information related to the project and surrounding communities is beyond the scope of this licensing. As the Commission has recently stated, it will not usurp the state's taxation function.[6]

Therefore, for the above reasons, including those stated by Douglas PUD, we do not recommend requiring Douglas PUD to conduct a socioeconomic study.

---

[4] Order No. 513, 54 Fed. Reg. 23756 (June 2, 1989), FERC Stats. & Regs., Reg. Preambles 1986-1990 ¶ 30,854 at 31,401, citing Confederated Tribes of the Yakima Indian Nation v. FERC, 746 F.2d 466 (9th Cir. 1984), cert. denied, 471 U.S. 1116 (1985).

[5] 47 FERC 61,225 (1989).

[6] New York Power Authority, 120 FERC ¶ 61,266 at P.33 (2007).

Visitor Information Center

Pateros requests that Douglas PUD study the feasibility of constructing a new regional Visitor Information Center because Douglas PUD's Revised Study Plan does not provide an assurance that the existing visitor center would be relocated.

As part of its Recreational Needs Analysis, Douglas PUD would identify future recreation needs in the Wells Project area and evaluate existing information, including historic and current Wells Dam Visitor Information Center records. Following completion of the study, the need for reopening or relocating the Wells Dam Visitor Information Center would be evaluated. Consequently, Douglas PUD does not believe a separate feasibility study is warranted.

Pateros also did not include any of the requisite information stipulated in 18 CFR §5.9(b) to justify their request and to assist in our analysis of the recommendation, including the methods for conducting the feasibility assessment [18 CFR §5.9(b)(6)]. Moreover, consideration of the need for this measure is premature. Data collected and analyzed from the Recreational Needs Analysis would identify existing and future recreation needs, as well as, determine whether demand exists to justify the construction or enhancement of recreation facilities, including the Wells Dam Visitor Information Center. We, therefore, do not recommend requiring Douglas PUD to conduct a feasibility study for a new Visitor Information Center.

APPENDIX B
APPROVED STUDIES

#	Study Name
1	Cultural Resource Investigation
2	Evaluation of Public Access To and Use of the Wells Reservoir as it Relates to Reservoir Fluctuations, Aquatic Plants, and Substrate Buildup (Public Access Study)
3	An Evaluation of Recreational Needs within the Wells Project (Recreational Needs Analysis)
4	An Evaluation of the Effects Of and Alternatives To the Existing Bird and Mammal Control Programs (Piscivorous Wildlife Control Study)
5	Plant and Wildlife Surveys and Cover Type Mapping for the Wells Hydroelectric Project 230 kV Transmission Corridor (Transmission Line Wildlife and Botanical Study)
6	Survival and Rates of Predation for Juvenile Pacific Lamprey Migrating through the Wells Hydroelectric Project (Juvenile Lamprey Study)
7	Adult Pacific Lamprey Passage and Behavior Study (Adult Lamprey Passage Study)
8	An Investigation into the Total Dissolved Gas Dynamics of the Wells Project (Total Dissolved Gas Investigation)
9	Development of a Water Temperature Model Relating Project Operations to Compliance with the Washington State and EPA Water Quality Standards (Water Temperature Study)
10	Assessment of DDT and PCB in Fish Tissue and Sediment in the lower Okanogan River (Okanogan Toxins Study)