



american whitewater affiliation

ORIGINAL

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February 29, 1992

Lois D. Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street NE
Washington, DC 20426

RE: Relicensing of Washington's White Salmon River Hydro-electric Facilities - FERC # 2342-025

Dear Ms. Cashell:

We have reviewed the Pacific Power and Light Co. (hereinafter, The Company) application for the Condit Project (FERC # 2342) for relicensing the hydro electric power plant on the White Salmon River in Washington. The 2,000 members of the American Whitewater Affiliation (AWA) and members of its affiliated clubs are keenly interested in the opportunity offered by the new relicensing rules to seek recreational enhancements at this hydroelectric project. As you know, the Federal Power Act requires that the Federal Energy Regulatory Commission (FERC) give recreational opportunities "equal consideration with energy needs in deciding whether to issue a project license." (Section 4(e) FPA)

The White Salmon River is a river of national importance, as well as an outstanding resource for whitewater recreation. This national significance has been recognized by the White Salmon's recent addition to the National Wild and Scenic River System, as well as the being one of eighteen candidate rivers evaluated in the Washington State Scenic River Assessment.

The White Salmon River has also been included in the AWA's National Whitewater Inventory due to its exceptional whitewater qualities. This river offers an excellent whitewater run for kayakers and rafters (class III-IV) from BZ Corner to Northwestern Lake, the project reservoir and take out. In addition, the Condit bypass, downstream of the project, offers one of the best potential expert whitewater runs in the state of Washington. This project bypass offers a 1.5 mile expedition/wilderness experience starting at the head of this lower canyon to the confluence with the Columbia River, another .5 to 1 mile downstream.

The AWA supports continued improvements to the upper whitewater stretch of the White Salmon River. We would like to specifically address the deficiencies of the Company's final draft application as it impacts this lower canyon. Establishing this additional boating stretch will enhance the available recreation resources of this region. Economic studies comparing recreation and for-power resources must take into account the full range of possible recreation impacts. The proposed studies look to significantly increase these available resources.

Pursuant to regulations which appeared in the Federal Register December 2, 1991, [FR Vol. 56, # 231, Section 4.32(b)(6)] and modified by the Commission's January 15, 1992 "Notice of Applications filings, et seq.", we have described several study deficiencies of this application. Without satisfactory completion of the studies discussed below, the application will fail to "form an adequate factual basis for a complete analysis of the application on its merits." [FR 12/2/91 - P 61,155]

Prior to any intervention in the instant docket by AWA and/or its affiliated groups, we request copies of any documents circulated between and notification and inclusion in any telephone, video, or in-person interactions among the Company, consultants, resource agencies and the FERC staff with respect to the issues that our study request raises. Copies of any documents should be addressed to:

AWA/American Rivers Relicensing Coalition
801 Pennsylvania Ave. SE
Suite 400
Washington D.C. 20003
202-547-6900

Attn: Mr. Richard Bowers
Mr. Matthew Huntington

FERC DOCKETED

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Summary
of
Studies Needed

1) A Dam Removal study for the Condit project needs to be completed, addressing potential whitewater recreation opportunities if this project were removed. This report should include the economic benefits of this removal based on potential regional whitewater recreation opportunities, as well as the regional cost of lost power generation. Removal of the Condit project would add an additional 1.5 miles of whitewater, and fully restore the White Salmon river to its historic free flowing condition. This removal would also restore the river segment from project headwaters (Northwestern Lake) to the top of the lower canyon, a potential recreation resource now inundated by the projects facilities. This additional recreational attraction would increase the number of boaters traveling to this area, as well as the economic value of recreational whitewater to this area.

The opportunity to return an entire river corridor to its natural, free flowing state is a worthy prize. The possibility of accomplishing this on other rivers, in the state of Washington and nationally, is rare!

2) A scenic enhancement study is needed to determine how the hydro facilities can be made more visually attractive. There is also a need for a study of what flows are appropriate in bypassed reaches to recreate the image of a natural White Salmon River corridor.

Should the ensuing dam removal study not prove ecologically or economically feasible, the following two studies will need to be completed to enhance the recreation resources of the lower canyon, now impacted by the Condit project bypass.

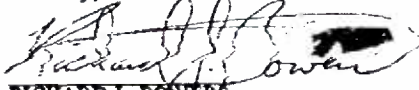
3) A whitewater feasibility study for the downstream reach through the lower canyon must be carried out to determine the overall whitewater experience available on the White Salmon River. This section is currently un-usable as a boating resource due to the Company's policy on instream flow for this bypass.

4) A whitewater opportunity enhancement program (flow) study for the bypassed reach is needed to determine how scheduled releases and optimal flows would benefit paddling opportunities in this lower section.

We have attached descriptions of the studies that we seek in a format which addresses the five areas of information sought by FERC in its new regulations [section 4.32(b)(6)]. We look forward to working with FERC staff, state and federal resource agencies and other affected groups on the implementation of these efforts. After the studies are complete, we will comment on the results and participate in procedures established to implement necessary resource impact mitigation activities.

On behalf of both AWA, its affiliated clubs and American Rivers, thank you for the opportunity to propose and describe these important studies. If you have any questions, feel free to contact me at 202-547-6900.

Sincerely,



RICHARD J. BOWERS
AWA Conservation Director

Enclosure

1) Dam Removal Study

0) The problem

When the power dams on the White Salmon River were installed, whitewater recreation was not a popular activity. As a result, several miles of rapids were inundated. If these additional miles of rapids were made available once again, whitewater recreation would be substantially increased in length and increased greatly in challenge and enjoyment. The visitor days to the river would increase more than proportionally as would increases in the regional economic product due to visitor spending.

A study is therefore needed to determine the recreation, fishery, flood damage mitigation, power production and other impacts associated with removal of impoundments and in returning the White Salmon River to its true sense of "run-of-river."

1) who should conduct and participate in the study

The study should be conducted by a reputable engineering firm familiar with power production optimization and the design of underground facilities. Other participants would include the Company, WA Parks and Recreation Comm., the US Fish and Wildlife Service, the AWA and regional boating interests. The costs of the study should be borne by the owner of the facility.

2) its methodology and objectives

The objective of this study would be to characterize the bottom morphology of the impoundments and bypassed reach and to interpret this morphology vis a vis river recreation requirements and limitations.

The job of mapping the topography of the channel beneath the impoundment could be easily accomplished by dropping a weight on a line from a boat traversing a prearranged surface grid. Subsurface channel mapping where sediments have accumulated, however, is more challenging. Characterizing the elevational interface of erodible sediments and channel bedrock surfaces has been the focus of substantial efforts in recent years. In 1989, the USGS released a report "Use of Surface-Geophysical Methods to Assess Riverbed Scour at Bridge Piers" by Gorin and Haeni (Water Resources Invest. Rpt. 88-4212) which compared the characteristic advantages and disadvantages of four such systems: 1) ground-penetrating-radar, 2) black and white fathometer, 3) color fathometer, and 4) a sidescan transducer. The first of these may be most useful for this purpose as long as the water is not too deep. Finally, high resolution seismic profiling methodologies have been used to define sedimentary stratigraphy. For more information, we recommend that the Company contact a Mr. Decker in the Demonstration Projects Division of the Federal Highway Administration who has devoted considerable effort on development of bridge pier scour assessment techniques.

Interpretation of the channel morphology vis a vis whitewater potential presents a different, but we believe tractable problem. While the exact International River Classification for the segment will be difficult to estimate from a channel map created this way, obvious difficulties and average declivity gradients will be discernable. Discussions with experienced paddlers will help the consultant characterize the nature of the whitewater experience which would obtain if the river were to run free once more.

3) whether the recommended study methods are generally accepted in the scientific community

Characterization of subsurface stratigraphy is a well established science. AWA's research described above provides some of the authority for appropriate study methods. Additional support can be provided.

4) how the study and information sought will be useful in furthering the resource goals that are affected by the proposed facilities, and

Return of more than 1.5 miles of the natural bed of the White Salmon River now partially dammed up could serve many purposes. It could possibly facilitate passage of migrating fish species. As long as reasonable flow regimes were maintained in this new natural bed, fishery propagation, flood damage mitigation and recreational boating would be enhanced.

~~How long the study will take to complete and~~

We believe that this study could be completed within six to ten months. We will, however, attempt to provide greater specificity as our research into the appropriate methodologies progresses.

4) how the study and information sought will be useful in furthering the resource goals that are affected by the proposed facilities, and

Facility owners have a responsibility to the river corridor users and the community to make their facilities as unobtrusive as possible or as best adapted to their environmental surroundings. Likewise, knowledge about optimum flows for visual mitigation will guide decision makers choosing the best operational regimes to facilitate a rebirth of the historic White Salmon River corridor.

5) approximately how long the study will take to complete and

The visual impact study for the structures should be easily completed within one year. Photographs from various viewsheds should be obtained during each of the four seasons. Audio recordings can also be made to characterize the sounds of various flow regimes. During that time, the group conducting the study would undertake and later summarize discussions with individuals and groups who appreciate scenic and architectural resources after exposure to these images and recordings. A report on mitigation and other issues would take approximately six additional months to issue in draft state. An additional three months would be needed to circulate the draft and obtain comments from interested persons. A final report would require an additional three months. A schedule for implementation of the recommendations is not possible a priori.

Data and image and audio collection for the study of optimum flows should take one spring season when overflows are normal and can serve as no-cost bases for the study.

6) [the requester] must explain why the study objectives cannot be achieved using the data already available. (FR 12/2/91, P - 61155)

AWA is not aware of any studies having been undertaken by the Company to this degree.

3) Whitewater Feasibility at the Condit Facility for the bypass reach.

0) The problem

AWA's whitewater assessment of the Company's facilities identified the Condit Facility as one which due to its bypass drop, distance, and appropriate channel morphology offers significant whitewater opportunities. This 1.5 mile bypass reach (dropping approximately 180 feet), has the potential of becoming one of few expert, wilderness runs in the area. This lower canyon continues as a free flowing river down to the confluence with the Columbia River. This expedition experience offers continuous falls and cascades until reaching the Columbia River.

When one looks at the rapid advances in interest, technology, and economics for this sport, and the 30 to 50 year life of a license, one has a better appreciation of the importance of projecting non-power resource impacts throughout this license term. Currently this resource is not usable due to the Company's policy on flow releases for this bypassed section of the White Salmon. Special significance is placed upon the White Salmon due to its overall (except for this project) continuous free-flowing nature.

1) who should conduct and participate in the study

The AWA recommends that these studies include the AWA, the Company, the WA Parks and Recreation Comm., and the Fish and Wildlife Service and the regional boating and rafting representatives in this area. If additional studies are needed, we recommend the services of Alec Giffen, Consultant, Hallowell, Maine.

2) its methodology and objectives

The methodology needed for this study has been well established at other relicensing projects across the country. In 1990 and 1991, the New England Power Corporation undertook a detailed whitewater recreation survey for a segment of the Deerfield River (MA). This is similar to the approach used by ME Dept. of Conservation and Georgia Pacific on the Moosehead Lake Project East Outlet (FERC #2671). This project, in relation to effective whitewater feasibility studies, offers perhaps one of the best examples to date. All surveys must include the expert opinion of river users.

The objective of this study is to give equal consideration to the true recreation resources available on the White Salmon River, and to preserve, increase and enhance the unique wilderness values of this free flowing river.

3) whether the recommended study methods are generally accepted in the scientific community

We believe that the study methods above are accepted in the scientific community. They have been used at various projects across the country (Moosehead Lake, East Outlet, FERC #2671).

4) how the study and information sought will be useful in furthering the resource goals that are affected by the proposed facilities, and

Without addressing this study information, resource managers, the Company, and FERC will not be able to assess the existing and potential value (over the next 30 years) of whitewater recreational resources, or of recreating historic river habitat on this segment of White Salmon River.

5) approximately how long the study will take to complete and

We believe that this study could be completed within six to eight months. Field assessment techniques as used in the Farmington and Deerfield cases can be completed in 2-3 months. Writeups can be completed in the following three to five months. Coordinating with the recreation users, who are familiar with the resource, will accelerate this study.

6) [the requester] must explain why the study objectives cannot be achieved using the data already available. (FR 12/2/91, P - 61155)

The Company, in its existing assessment of project recreation facilities, makes no mention of whitewater opportunities in regards to this lower stretch of the bypass.

6) [the requester] must explain why the study objectives cannot be achieved using the data already available." (FR 12/2/91, P - 61155)

AWA knows of no data describing the pre-dam morphology of the impounded segments of the White Salmon River in the segment described.

2) Scenic Impact and Mitigation Study

0) The Problem

The Condit hydro electric facilities, could be made more pleasing to river appreciators and could be better blended with the local environment through modest changes to their exterior features. A study is therefore needed to determine how the hydro facilities along the White Salmon River can best be made more visually attractive and blend in better with the historic river corridor experience.

During low flow periods, releases into some of the bypass reaches of dams associated with these facilities are very small to non-existent. The visual images and audio signatures of bare rock channels do not enhance the aesthetics of the riverway. A second, but related study is therefore needed to identify the minimum flow needed in this bypass segment of White Salmon River and over exposed structures in the river corridor to recreate the aesthetics of a viable river.

Whether the economics defend or reject dam removal for the Condit project, scenic enhancement studies are needed to improve both the visual and audio viewshed for the White Salmon River. In the event of dam removal, these studies will offer invaluable information on returning this river to its historical and natural state.

1) who should conduct and participate in the study

This study should be conducted by a firm familiar with such studies in conjunction with the AWA, the Company, WA Parks and Recreation Comm., and the US Fish and Wildlife Service. The costs of the study should be borne by the owner of the facility.

2) Its methodology and objectives

A landscaping study should assess the visual images created by each facility and how these images impact various key viewsheds in the area. The objective of the study should be to identify elements of the image which significantly detract from the natural setting of the river corridor. In addition, the study should provide a menu of exterior modifications and vegetative alternatives for screening and/or physically changing or eliminating the offending elements. The Commission recently issued an approval of a visual resource protection plan (2/3/92) for the NY Power Authority's Niagara Project (FERC # 2216-021) which will mitigate visual impacts of a tunnel ventilation system "by installing a variety of mature plant materials to screen the facility and using structural materials that are harmonious with the existing structures."

Similarly, the study should identify elements of the facility which do or could blend well with other local structures or accentuate the environmental setting. The study should identify engineering and/or other methods to attain the desired effect.

Lastly, a study should be undertaken to establish visual and audio flow preference curves for the bypass. Video images and audio recordings should be created to facilitate the study and assist in the determination of optimum flows. These curves will provide the bases for choosing visual mitigation flows when shown and played back to a reasonable sample of recreational resource users and river appreciators. In addition, the study should target populations which enjoy these resources and what periods of time such mitigation would most enhance the environment of the corridor.

3) whether the recommended study methods are generally accepted in the scientific community

Viewshed and audio impact identification and mitigation studies are not new and have been widely used in river corridor management planning. These studies are accepted and widely used by the scientific community to address a wide range of restoration and aesthetic issues, including landscape architecture, and in urban river renewal. Optimum visual and audio flows determination methodologies also exist. One example of alternate visual futures is the Regional Science Research Institute Discussion Paper Serial Number 53, Coughlin et al. (1972) which was utilized in the development of a Visual Resources Assessment Procedure (VRAP) which was used by the U.S. Army Corps of Engineers for water resource projects.

We also draw the reader's attention to Table 2, pages 12 & 13 in the US Dept. of Agriculture Forest Service general technical report RM-209, by Shelby, Brown & Taylor entitled "Streamflow and Recreation". Referenced articles by Brown and Davis (1991), Gari (1986), Hawkins (1975), Litton (1984), and Stender (1972 unpublished) could serve as research foundations. Mr. Tom Brown at the US Fish and Wildlife Service in Fort Collins, Colorado is familiar with some of the methodologies commonly used. AWA will search the literature to further identify appropriate study methods for comparable situations accepted by the regulatory and scientific community. We will supplement our request in a timely fashion.

4) A whitewater opportunity enhancement program (flow) study at the Condit Facility for the downstream reach.

0) The problem

Again, without a flow study being completed for this lower bypass reach, the full potential of the opportunities for diversified whitewater experiences cannot be assessed. This section, due to its higher gradient and more technical drops, needs additional input to determine the optimal levels for recreation. Without this study, neither recreation interests, FERC, the Company, nor affected resource agencies can produce a credible recreation vs. power use economic balance.

1) who should conduct and participate in the study

This study should be conducted by those most familiar with the needs of the resource, and directly benefiting from this recreational enhancement. The AWA recommends that these studies include the AWA, the Company, the WA Parks and Recreation Comm., the US Fish and Wildlife Service and the regional boating and rafting representatives in this area. If additional studies are needed, we recommend the services of Alec Giffen, Consultant, Hallowell, Maine.

2) Its methodology and objectives

There are a number of candidate methodologies available for implementation of a study of this kind. We draw attention to Table 2, pages 12 & 13 in the US Dept. of Agriculture Forest Service general technical report RM-209, by Shelby, Brown & Taylor entitled "Streamflow and Recreation." A more in-depth description of appropriate protocols is being prepared now by Doug Whittaker in collaboration with the National Park Service in Alaska. Publication of it is expected by this Summer and will be entitled "A Handbook On Instream Flows for Recreation." When this document is available, we recommend that the Company and FERC staff obtain this methodology review. After AWA receives a copy, we reserve the right to supplement our comments accordingly.

In late 1991, Mr. Giffen supervised a flow preference survey on the Farmington River near Satans Kingdom, Connecticut. This survey was entitled "Field Evaluation of How Flow Levels Affect Recreation and Scenic Values on the West Branch of the Farmington River." The field manual on this study could serve as one methodology. The 1991 Masters Thesis at Colorado State University by Ms. Kathleen Williams on the Cache La Poudre in Colorado offers some of the most insightful assessment of the issue of flow preferenda creation.

In 1990 and 1991, the New England Power Corporation undertook a detailed whitewater recreation survey for a segment of the Deerfield River. Paddler impressions of each rapid at each flow rate were collected over a two day period. This methodology offers another potential method to create information needed to determine the most appropriate flow regimes for particular river segments. It is similar to the approaches used on the Farmington and the East Outlet from Moosehead Lake in Maine.

Mr. Giffen, in conjunction with Company staff, should also be tasked with the job of determining what if any hydrologic, operational and/or engineering impediments could limit the number, volumes and/or timing of episodic releases needed to meet particular flow preferenda.

3) whether the recommended study methods are generally accepted in the scientific community

Flow studies have been used at numerous sites and are accepted in the scientific community.

4) how the study and information sought will be useful in furthering the resource goals that are affected by the proposed facilities, and

Without a study of this kind, resource managers will not be able to assess the value of non-power use of this resource, or determine an optimal flow for the purpose of enhancing whitewater recreational resources on this segment of the White Salmon River.

5) approximately how long the study will take to complete and

We believe that this study could be easily completed within six to eight months. Field assessment techniques as used in the Farmington and Deerfield cases can be completed in 2-3 months. Writeups can be completed in the following three to five months.

6) [the requester] must explain why the study objectives cannot be achieved using the data already available." (FR 12/2/91, P - 61155)

We know of no studies that the Company has undertaken so far for establishment of flow preferenda in the bypass reach.

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon the applicant, Pacific Power and Light Co., as required by section 4.32(b)(7) of the Commission's regulations.

Dated in Washington, D.C.
this 1st day of March, 1992


Richard J. Bowers

March 4, 1992
AWA/American Rivers/Northwest Rivers Council
Relicensing Coalition
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Washington, D.C. 20003
(202) 547-6900