

Kingsbury

United States Government

Department of Energy

memorandum

DATE: DEC 9 1983

REPLY TO:

ATTN OF: EP-36

SUBJECT: Finding of No Significant Impact on Proposed Agreements for Filling Revelstoke Reservoir (DOP/ES-0227)

TO: Peter T. Johnson
Administrator
Bonneville Power Administration

This is in response to your November 18, 1983, memorandum on the Finding of No Significant Impact for the proposed agreements for filling Revelstoke Reservoir.

Based on the environmental assessment (EA), which was previously approved for publication, and a review of the comments received on the EA, we have determined that the proposed action will not have significant effects on the quality of the human environment. Therefore, the preparation of an environmental impact statement is not required.

This determination is explained in the attached Finding of No Significant Impact, which should be made available to the public in accordance with 40 CFR 1506.6.

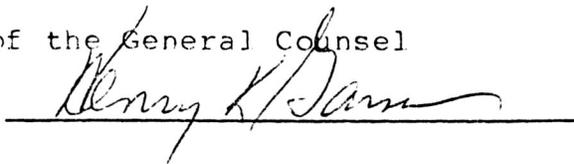


William A. Vaughan
Assistant Secretary
Environmental Protection, Safety,
and Emergency Preparedness

Attachment

Office of the General Counsel

Concur



Date

11/30/83

Nonconcur

Date

U.S. DEPARTMENT OF ENERGY
Bonneville Power Administration

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Proposed Agreements to Resolve Revelstoke Reservoir Filling Issues
and Access Reservoir Storage Space in British Columbia

Bonneville Power Administration (BPA) proposes to enter into agreements with British Columbia Hydro and Power Authority (B.C. Hydro) and with the group of utilities which operate non-Federal dams on the Columbia River referred to as the mid-Columbia purchasers. These agreements will last for up to 10 years with a possible extension of up to 7 years.

BPA's purposes in negotiating an agreement with B.C. Hydro are threefold. The first purpose is to resolve a dispute over the filling of inactive storage space (space in a reservoir which is kept filled to produce head) at Revelstoke, Seven Mile, and, potentially, other B.C. Hydro reservoirs. The inactive storage space behind Revelstoke Dam will be filled by releasing water from Mica Dam upstream. The second purpose is to provide both BPA and B.C. Hydro the ability to use storage space in reservoirs in British Columbia to produce more usable energy than is possible under existing arrangements. The third purpose is to protect both parties from harm as a consequence of each other's actions under the agreement; that is, to provide financial or energy compensation for losses suffered during storage. All three purposes are discussed in pages 1-3 of the environmental assessment (EA) published in October 1983.

The purposes of the agreement with the mid-Columbia purchasers are:

1. To protect the mid-Columbia purchasers from power-related adverse effects resulting from the initial filling of Revelstoke and other reservoirs in British Columbia.
2. To obtain from such purchasers a release and discharge from claims they might make as a result of the initial filling of Revelstoke and other reservoirs in British Columbia.
3. To provide for the participation of the mid-Columbia plants for B.C. Hydro's benefit when B.C. Hydro stores and releases water.
4. To provide for the participation of the mid-Columbia plants for the purchasers' benefit when BPA stores and releases water.

REASONS WHY THE PROPOSED ACTION WILL NOT HAVE A SIGNIFICANT EFFECT ON THE
HUMAN ENVIRONMENT

1. The proposed action is a power planning and marketing function. There will be no construction. Nothing will be built, altered, or torn down. There will be no direct effects on air, land, or water. Page 24 of the EA indicates that there will be no direct Federal development as a result of the proposed agreement.

2. Operation of existing Federal dams on the Columbia River will be similar to existing conditions. The operators of these dams have established constraints related to flood control, irrigation, navigation, etc., which represent absolute limits on flow and water levels. The proposed action will not result in operational changes which would cause these constraints to be exceeded. See Chapter 3, pages 12 and 14 of the EA.
3. Under certain runoff conditions, spring flows may be reduced under the proposed agreement, but not to a level less than that provided by the Water Budget developed by the Northwest Power Planning Council. BPA, the Corps of Engineers, and the Bureau of Reclamation have adopted the Council's Water Budget as a fixed planning constraint. The EA (page 16, section 3.1.3, and page 21, section 3.6) indicates that the Water Budget will mitigate any adverse environmental impacts resulting from BPA's operations and related to these flow reductions.
4. Storage of water in reservoirs controlled by B.C. Hydro under the proposed action will reduce supersaturation of dissolved gasses at times when affected dams in the U.S. on the Columbia River would ordinarily have excessive spill. Therefore, the incidence of gas bubble disease will be reduced as discussed in sections 3.2, 3.3, and 3.4 of the EA. The storage would represent a small portion of the total flow of the Columbia River at affected dams. For example, page 17, section 3.2.1 of the EA, indicates that flow reductions on the mainstem Columbia at the U.S.-Canada border would average 10.8 kcfs (thousand cubic feet per second) for the May-June period. For purposes of comparison, the graph on page 13 of the EA indicates an average flow of 150-165 kcfs for the same period below the border.
5. The proposed action may result in reduced spill at dams on the Columbia River, particularly during the initial filling of Revelstoke and other reservoirs mentioned in the EA. Such spill is needed at dams with inadequate bypass facilities to reduce mortality of migrating smolts. The Council's Fish and Wildlife Program (Section 404(a) and (b)) requires operators of hydroelectric projects without effective bypass systems to provide spill which will achieve a level of smolt survival comparable to or better than that achievable by the best available bypass system. BPA will do nothing as a result of the proposed agreement which could hinder provisions of fish passage spill provided for under the annual spill program developed in accordance with Section 404(a) and (b) of the Council's Program. See page 16, Section 3.1.3 of the EA.
6. In years with a wet fall followed by a dry spring, the stored water can be used to meet firm nonpower commitments, such as increasing the flexibility of the Water Budget. The volume of water involved is low compared to normal flow of the Columbia River.
7. The proposed action will result in a reduction of Firm Energy Load Carrying Capability (FELCC) of the Coordinated System by 1.0 billion kWh of which 0.7 billion kWh will be suffered by BPA during the initial fill of the Revelstoke reservoir. The agreement will result in transmission losses, head losses, and varying efficiencies of

resources, but energy generation will be substantially increased as a consequence of storage of unusable water and subsequent release when it is more marketable. These power marketing changes, however, have no foreseeable effect on air, land, or water, particularly on river flows and fish.

RELATED DOCUMENTS

Bonneville Power Administration, May 1983, Environmental Assessment on Proposed Power System Changes to Implement the Water Budget (DOE/EA-0214).

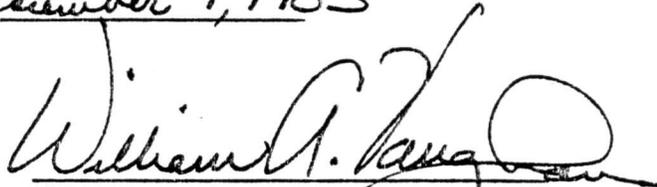
PUBLIC AVAILABILITY

Copies of the EA were sent to potentially affected utilities and agencies, and other organizations and individuals who expressed interest in power marketing actions which affect the Columbia River and its tributaries. Review of the EA by these agencies, utilities, and interested groups and individuals did not reveal any additional environmental consequences from the proposed action. Copies of this finding will be sent to all persons and agencies who were sent copies of the EA. Additional copies of either document are available upon request from the Environmental Manager, Bonneville Power Administration - SJ, P.O. Box 3621, Portland, Oregon 97208; telephone (503) 230-5136.

DETERMINATION

On the basis of the information contained in the EA as summarized above, the Department of Energy determines that this proposal is not a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act, 42 U.S.C. 4321 et seq., and, therefore, an environmental impact statement will not be prepared.

Issued in Washington, D.C., on December 9, 1983


WILLIAM A. VAUGHAN
Assistant Secretary
Environmental Protection, Safety,
and Emergency Preparedness