

U.S. DEPARTMENT OF ENERGY
Bonneville Power Administration
Non-Treaty Storage Agreement
Finding of No Significant Impact

AGENCY: Bonneville Power Administration (BPA), DOE.

ACTION: Finding of No Significant Impact (FONSI) for BPA's Proposed Non-Treaty Storage Agreement (NTSA).

SUMMARY: BPA proposes to enter into agreements with British Columbia Hydro and Power Authority (BCH) and with the group of utilities that operate non-Federal dams on the Columbia River, the mid-Columbia participants (MCP). The proposed agreements will provide the flexibility to more effectively use existing storage space in Canada for generation of marketable energy in both Canada and the United States. These agreements, known as the NTSA, will extend the existing NTSA from 1993 to 2003 and expand the amount of storage available from approximately 2 million acre-feet (MAF) to approximately 4.5 MAF.

BPA has completed an Environmental Assessment (EA) (DOE/BP-1342) on the proposed NTSA which included a technical report and appendices. Alternatives analyzed in the EA are: (1) no action and (2) the proposed NTSA. The proposed NTSA is a power planning and marketing action. There will not be any direct environmental effects because there will not be any construction, alteration of existing facilities, or any particular required operation of resources. By enabling changes in the operation of the Pacific Northwest power system, it is possible that additional non-Treaty storage could have indirect environmental effects. However, any changes in operation at

existing hydroelectric and thermal generating facilities will be small and within existing operating limits and permit requirements. This FONSI includes conclusions about environmental effects at non-Treaty storage reservoirs in Canada. These are intended to fully disclose reasonably foreseeable effects of the NTSA, not necessarily for compliance with the National Environmental Policy Act (NEPA), or its implementing regulations and guidelines.

None of the indirect impacts from either alternative are considered significant because: hydroelectric projects will continue to operate within established constraints; relative system survival changes for migrating anadromous fish are expected to be less than 1 percent; reservoir fluctuations that could affect resident fish, cultural resources, or riparian vegetation and wildlife are not expected to occur; there will be no deterioration of air or water quality; there will be no changes in fuel use and land use; projected changes in water usage at thermal plants are unmeasurably small; and no threatened or endangered species will be affected.

FOR FURTHER INFORMATION CONTACT: Steven A. Montfort, Project Manager, Office of Energy Resources, Bonneville Power Administration, P.O. Box 3621-RPSC, Portland, Oregon 97208; telephone (503) 230-3952, or call the Public Involvement office at 503-230-3478 in Portland; toll-free 800-452-8429 for Oregon outside Portland; 800-547-6048 for other Western States. Information may also be obtained from:

Mr. George E. Gwinnutt, Lower Columbia Area Manager, Suite 243, 1500 NE. Irving Street, Portland, Oregon 97232, 503-230-4551.

Mr. Robert N. Laffel, Eugene District Manager, Room 206, 211 East Seventh Avenue, Eugene, Oregon 97401, 503-687-6952.

Mr. Wayne R. Lee, Upper Columbia Area Manager, Room 561, West 920 Riverside Avenue, Spokane, Washington 99201, 509-456-2518.

Mr. George E. Eskridge, Montana District Manager, 800 Kensington, Missoula, Montana 59801, 406-329-3060.

Mr. Ronald K. Rodewald, Wenatchee District Manager, Room 307, 301 Yakima Street, Wenatchee, Washington 98801, 509-662-4377, extension 379.

Mr. Terence G. Esvelt, Puget Sound Area Manager, Suite 400, 201 Queen Anne Avenue North, Seattle, Washington 98109-1030, 206-442-4130.

Mr. Thomas V. Wagenhoffer, Snake River Area Manager, 101 West Poplar, Walla Walla, Washington 99362, 509-522-6225.

Mr. Richard J. Itami, Idaho Falls District Manager, 1527 Hollipark Drive, Idaho Falls, Idaho 83401, 208-523-2706.

Mr. Thomas H. Blankenship, Boise District Manager, Room 494, 550 West Fort Street, Boise, Idaho 83724, 208-334-9137.

SUPPLEMENTARY INFORMATION:

Background

BPA proposes to enter into a new NTSA with BCH. Some actions that affect Columbia River flows at the U.S.-Canadian border, may also affect generation at the non-Federal mid-Columbia River projects. Therefore, BPA desires additional agreements with the owners of those projects and their power purchasers. The proposed NTSA would expand the amount of already-existing non-Treaty storage space in Canadian reservoirs on the Columbia River from the current 2.0 (MAF) to about 4.5 MAF, and would extend the terms of the agreement from 1993, when the existing agreement ends, to 2003. The proposed NTSA would enhance hydroelectric power production; increase the operating flexibility of the Columbia River power system within existing guidelines; and help ensure an adequate, efficient, and economical power supply for the

Pacific Northwest. In meeting the underlying need for more marketable energy, BPA will act consistently with its statutory responsibilities, including the Pacific Northwest Electric Power Planning and Conservation Act, while taking into consideration the Pacific Northwest Power Planning Council's (Council) Power Plan and Fish and Wildlife Program.

Reasons Why There Will Be No Significant Effects on the Quality of the Human Environment

1. The proposed action is a power planning and marketing function. There will be no construction or alteration of existing facilities. There will be no direct effects on air, land, or water. There will be no direct Federal development as a result of the proposed agreement. (EA section 1.3.)

2. Operation of existing Federal dams on the Columbia and Snake Rivers will be similar to existing conditions. Projects will continue to operate within established constraints including those for flood control, irrigation, navigation, recreation, and fisheries. The proposed action will not result in operational changes that would cause these constraints to be violated. (EA section 3.0.)

3. No effects are expected on anadromous fish because:

a. The maximum expected change in Columbia River flow during the spring migration period is 10 thousand cubic feet per second (kcfs) on either a daily or monthly average basis. Typical monthly average flows in the mid-Columbia at Priest Rapids during this time of year are approximately 125 kcfs to 160 kcfs, while flows in the lower Columbia at The Dalles average approximately

230 kcfs to 260 kcfs. These flow changes are not expected to significantly affect juvenile anadromous fish migration under either alternative. (EA section 3.1.1.)

b. Although in some cases, spring flows may be reduced by up to 10 kcfs under the proposed agreement, they would not be reduced to a level less than that provided by the Water Budget developed by the Council. Provisions of the Vernita Bar Agreement and the Water Budget will be met with the same probability under either alternative. (EA section 3.1.1.)

c. Planned spill for fish as required by the Spill Agreement for Federal projects and by the Federal Energy Regulatory Commission (FERC) at non-Federal projects will not be affected by either alternative. The proposed action may result in reduced overgeneration and forced spill at dams on the Columbia River. Monthly average reductions in spill of 0 to 45 megawatts (MW) during the April through August period are projected for the proposal. These changes are small when compared to reductions of up to 900 MW examined and found to be not significant in the Intertie Development and Use Final Environmental Impact Statement (IDU Final EIS, DOE/EIS-0125-F). The small projected overgeneration spill reductions resulting from the proposal will not substantially affect anadromous fish migration. (EA section 3.1.3.)

d. Both the proposed NTSA and the no-action alternative are expected to have a greater than 95 percent chance of being able to meet the maximum spring flow protection level for fall chinook spawning downstream of Priest Rapids in the Hanford Reach. No

significant impact on the fall chinook spawned in the Hanford Reach is expected because the likelihood of not meeting flow requirements is so small and does not change as a result of the proposal. The additional flexibility created by the proposed NTSA may make it somewhat easier to comply with spring flow requirements. (EA section 3.1.2.)

e. Changes to flow and spill resulting from the proposed action have little effect on predicted survival rates of anadromous fish migrating in the Columbia and Snake Rivers. Over the study period, the average relative system survival changes (positive and negative) are expected to be less than 1 percent for all stocks of fish. (EA section 3.1.4)

4. No significant effects are expected on resident fish because:

a. U.S. reservoirs will continue to operate according to current guidelines and within existing constraints. (EA sections 3.0 and 3.2.1.)

b. Changes in reservoir levels during the April through November period are expected to be slightly higher or remain unchanged as a result of the proposed action. (EA section 3.2.1.)

c. Reservoir elevations at Arrow are not expected to change as a result of the proposal. (EA section 3.2.1.)

d. Although Mica reservoir elevations are expected to be lower with the proposed action, the primary effect would be in three tributary streams which likely contribute little to overall reservoir production. There may be an increase in resident fish downstream of Mica due to entrainment of fish and food supply. (EA sections 3.2.1 and 3.2.2.)

e. The Council has recommended flow levels to protect fish populations downstream from Hungry Horse and Libby Dams. These flow levels will not be affected by either the no-action alternative or the proposal. (EA section 3.2.2.)

5. Reservoir fluctuations that may affect riparian vegetation and wildlife are not expected to occur as a result of the proposed action. Fluctuations in U.S. reservoirs are minimal and within usual operating ranges. Few species would be affected at Mica and reservoir elevation changes at Arrow are not expected, with no impacts on bald eagles or other fish-eating species. (EA section 3.3.)

6. No substantial difference in impacts on cultural resources in the U.S. or Canada are expected under either alternative because:

a. A Programmatic Agreement will mitigate effects at the major Federal storage projects. (EA section 3.4.)

b. Projects will continue to be operated within existing constraints. (EA sections 3.0 and 3.4.)

c. At Mica, known sites will remain inundated.
(EA section 3.4.)

d. Other sites in Canada are already affected and no further effects are expected. (EA section 3.4.)

7. Impacts on air quality are not expected to be significantly different under either alternative. Differences in generation by individual thermal plants between the proposal and no action alternatives are small and consequent projected differences in thermal generation and air pollutants are very small in the context of overall thermal generation and air quality standards. For example,

projections of changes in ambient air quality for individual coal plants indicate a maximum change of 0.1 percent of the Prevention of Significant Deterioration Criteria. (EA section 3.5.)

8. The impacts on both ground and surface water of the proposed NTSA relative to the no-action alternative are very small. The largest changes in water use by any thermal plant relative to a very conservatively estimated minimum annual flow in the stream used as the water source or relative to aquifer recharge are less than 3 percent. (EA section 3.7.)

9. Impacts on water quality under either alternative are not expected to be significant because water quality impacts of thermal power plants are typically well regulated and, in Canada, improvements in pulp mill effluent treatment will lead to generally improved water quality in the area downstream of Arrow. (EA section 3.8.)

10. Cumulative impacts are assumed to include actions covered under the IDU Final EIS as well as the proposed action. No significant cumulative impacts are expected. The proposed NTSA decreases overgeneration during the April through August period by only 3.3 percent beyond that resulting from Intertie expansion. (EA section 3.9.1.) Increased Intertie capacity did not affect stream flows or reservoir levels; therefore, there is no cumulative impact on the ability to meet the Columbia River Water Budget, or the Vernita Bar requirements. The total effect of the proposed NTSA in addition to actions taken under the IDU Final EIS with respect to thermal resource operations would continue to be very small or negligible. (EA section 3.9.2.)

11. Although the correlation between carbon dioxide (CO₂) production and global warming is not well-defined, it is assumed that increased CO₂ production could lead to an increase in global warming. The analysis of coal and gas-fired generation levels indicates that the proposed NTSA would result in little net change in CO₂ production on the West Coast. Therefore, it is reasonable to conclude that the proposed NTSA would not contribute significantly to global warming. (EA section 3.9.2.)

12. BPA evaluated the alternatives with respect to current legislation affecting Federal actions and found both the alternatives to be in compliance with those laws and regulations. (EA Chapter 4.0.) There will be no effects on threatened or endangered species or their critical habitat; noise levels; solid and hazardous waste disposal; or floodplains, wetlands, and farmlands.

Public Availability

The EA was distributed for public review. Comments were subsequently received and those comments requiring a change in the EA were addressed within the EA. Copies of this finding will be distributed to the commenters and other interested parties.

Determination

Based on the information in the EA, DOE determines that neither of the alternatives addressed in the EA for BPA's proposed NTSA is a

major Federal action significantly affecting the quality of the human environment. Therefore an environmental impact statement will not be prepared.

Issued in Washington, DC on June 25, 1990.

/s/ Peter N. Brush