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2d Session }

SENATE

{ TREATY DOC.
98-26 }

TREATY WITH CANADA RELATING TO THE SKAGIT
RIVER AND ROSS LAKE IN THE STATE OF WASH-
INGTON, AND THE SEVEN MILE RESERVOIR ON
THE PEND D'OREILLE RIVER IN THE PROVINCE OF
BRITISH COLUMBIA

M E S S A G E

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

A TREATY BETWEEN THE UNITED STATES AND CANADA RELAT-
ING TO THE SKAGIT RIVER AND ROSS LAKE IN THE STATE OF
WASHINGTON, AND THE SEVEN MILE RESERVOIR ON THE PEND
D'OREILLE RIVER IN THE PROVINCE OF BRITISH COLUMBIA,
SIGNED AT WASHINGTON ON APRIL 2, 1984



JUNE 11, 1984.—Treaty was read the first time, and together with the
accompanying papers, referred to the Committee on Foreign Relations
and ordered to be printed for the use of the Senate

U.S. GOVERNMENT PRINTING OFFICE

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WASHINGTON : 1984

LETTER OF TRANSMITTAL

THE WHITE HOUSE, June 11, 1984.

To the Senate of the United States:

With a view to receiving the advice and consent of the Senate to ratification, I transmit herewith a Treaty between the United States of America and Canada relating to the Skagit River and Ross Lake in the State of Washington, and the Seven Mile Reservoir and the Pend d'Oreille River in the Province of British Columbia, together with a report of the Department of State.

The primary purpose of this Treaty is to provide the necessary legal bases for an arrangement under which the City of Seattle, Washington will refrain from raising the Ross Dam on the Skagit River, thus avoiding additional flooding of the Skagit Valley in the Canadian Province of British Columbia, and will receive in return a guaranteed long-term supply of electrical power from British Columbia. Through this arrangement a longstanding dispute between Seattle and British Columbia over the construction of the High Ross Dam has been constructively and ingeniously settled, and a difficult and potentially divisive bilateral problem between the United States and Canada positively resolved. The British Columbia-Seattle Agreement and the United States-Canada Treaty that provides the necessary legal bases for the Agreement represent both a significant substantive achievement in terms of power provision and environmental conservation, and a model for the orderly and amicable settlement of international issues.

I recommend that the Senate give early and favorable consideration to the Treaty, and give its advice and consent to ratification.

RONALD REAGAN.

LETTER OF SUBMITTAL

DEPARTMENT OF STATE,
Washington, June 5, 1984.

The President:

I have the honor to submit to you a Treaty between the United States and Canada relating to the Skagit River and Ross Lake in the State of Washington, and the Seven Mile Reservoir on the Pend d'Oreille River in the Province of British Columbia, signed at Washington on April 2, 1984, with the recommendation that it be transmitted to the Senate for its advice and consent to ratification.

The following is a brief summary of the origin and background of this treaty. In 1942 the International Joint Commission (IJC), a binational body operating pursuant to the 1909 United States-Canada Boundary Waters Treaty, authorized the City of Seattle to raise by stages the Ross hydroelectric dam on the Skagit River. The dam reached its present level in 1953, inundating a limited area of the Province of British Columbia. Raising the dam to the highest level authorized by the 1942 IJC order would provide significant additional power capacity for Seattle; it would also, however, inundate approximately seven additional miles of the scenic Skagit Valley in British Columbia. For this reason, the 1942 Order conditioned the raising of Ross Dam to its highest level upon the achievement of an agreement between Seattle and British Columbia providing for satisfactory compensation to the Province for the resulting flooding.

In 1967, such an agreement was reached, stipulating a total of \$3.4 million in compensatory payments by Seattle to British Columbia. By 1972, however, British Columbia had altered its stance to one of unconditional opposition to the further flooding of the Skagit Valley. The Province attempted to withdraw from the 1967 agreement and petitioned the IJC to void its 1942 Order, thus invalidating the 1967 compensation agreement.

The United States and Canadian Governments subsequently became involved in the dispute, each filing statements with the IJC in support of the respective positions of Seattle and British Columbia. In Canada the issue has received substantial political attention; the House of Commons has twice resolved to oppose further flooding in the Skagit Valley. In April 1982 the IJC, responding to British Columbia's petition, issued a Supplementary Order that dismissed the petition, but required Seattle to maintain the negotiations with British Columbia for a year to explore alternative means of settling their dispute. In recognition of the fact that such alternative solutions might well eventually require the direct participation of the two federal governments, informal discussions involving representatives of the United States and Canadian Governments as

well as of Seattle, British Columbia and the IJC were begun in July 1982.

As an outgrowth of these discussions, formal treaty negotiations between the United States and Canada began in April 1983. From that time these negotiations proceeded in tandem with discussions between Seattle and British Columbia, with the full participation of the IJC. The Seattle-British Columbia discussions resulted in a formal agreement between those two parties, signed on March 30, 1984. The essential contents of that agreement, which is attached as an annex to the present Treaty, are as follows.

British Columbia will provide to Seattle, over approximately eighty years, the electricity that would have resulted from the raising of Ross Dam, in exchange for Seattle's foregoing its right to raise the dam and for payments by Seattle to British Columbia in an amount as nearly equivalent as possible to the annual cost that would have been incurred by Seattle in raising the dam. In addition, British Columbia is authorized to raise the level of its Seven Mile Reservoir, causing flooding into Washington State land owned by Seattle, in order to generate additional power for the Province. Should British Columbia cease to provide the agreed power to Seattle, Seattle will have the right to proceed immediately to construct the final stage of the Ross Dam, and British Columbia would be obliged to return a portion of the accrued annual payments made by Seattle.

Several appendices to the British Columbia-Seattle Agreement cover technical and financial matters.

The Treaty that has resulted from the negotiations between the United States and Canada provides necessary authorizations and guarantees for the British Columbia-Seattle Agreement, which is annexed to the Treaty. The essential elements of the Treaty are the following.

First, Article II of the Treaty authorizes Seattle, in the event of a discontinuance of power deliveries, or a material breach of the Agreement by British Columbia, to construct the High Ross Dam without regard to any provision of United States law that might be argued as limiting or negating this authority. This provision is designed to assure Seattle's right to construct the High Ross Dam upon the occurrence of the events specified above—a right which is Seattle's ultimate recourse for ensuring its power supply in the event of default by British Columbia—can be exercised in an effective and timely fashion. Seattle's right to construct High Ross Dam has been confirmed in the past by the International Joint Commission, United States regulatory agencies, and in the courts of the United States after exhaustive litigation.

Second, Article III authorizes the maintenance of certain water levels at the United States-Canada boundary. Seattle is authorized to maintain a water level at the boundary consistent with a level at the Ross Dam of 1,602.5 feet, the current level, unless British Columbia discontinues power deliveries or is determined by an arbitration tribunal to have materially breached the Agreement, in which case Seattle is authorized to raise the water level at the boundary to a point consistent with a level of 1,725.0 feet at Ross Dam, the level that would result from construction of High Ross Dam. British Columbia in turn is authorized to maintain the Seven Mile Reservoir at a level consistent with a water level at the boundary of 1,730.0 feet, a 15-foot increase from the current level,

unless British Columbia discontinues power deliveries to Seattle, or is determined by an arbitration tribunal to have materially breached the Agreement, and does not meet its payment obligation under the Agreement, in which case British Columbia would be authorized to maintain the Seven Mile Reservoir at a level consistent with its present level of 1,715.0 feet at the boundary.

Third, under Article IV the United States and Canada undertake to ensure that any financial liabilities incurred, respectively, by Seattle and British Columbia in the event of discontinuance of obligations or material breach of the Agreement by either of these parties, are met, if necessary by direct payment of the appropriate amount by Canada to the United States or vice versa. Were this remote contingency to occur, any money paid to Canada by the United States on Seattle's behalf would be recoverable from Seattle under the indemnification agreement between the United States and Seattle, which is included with the treaty documents. In that same agreement, the United States has promised to transmit to Seattle, in accordance with applicable statutory and constitutional procedures, any money paid to the United States by Canada as a consequence of a British Columbia default. In the event of a default on the part of the City of Seattle, the President if necessary would seek an appropriation to the Department of State for proper execution of the guarantee provision of the Treaty.

Fourth, Article V provides that rates imposed by the Bonneville Power Administration (BPA) for the transmission of power pursuant to the Agreement shall be no higher than if the power were generated and transmitted by an electric utility within the State of Washington using BPA transmission facilities. This provision is consistent with the general concept of the Treaty and the Agreement, which is to create a financial situation resembling as closely as possible the situation that would have existed if High Ross Dam had actually been constructed. Any rate application stemming from this provision would be unique and does not apply to other rates or contracts between the BPA and these or other parties.

Fifth, Article VI removes the Skagit River and Ross Lake, and the Seven Mile Reservoir and the Pend d'Oreille River from the scope of certain portions of the Boundary Water Treaty of 1909. This is in order to avoid the application of overlapping and potentially conflicting legal regimes to these boundary waters.

Sixth, Article VII provides that amendments to the Agreement proposed by Seattle and British Columbia must be submitted to the United States and Canada for review, and that if such amendments alter the rights and obligations of either Government under the Treaty, they can enter into force only upon an exchange of notes between the United States and Canada.

On the basis of an environmental assessment prepared by the Department of State (attached) adopting one prepared to satisfy State of Washington requirements, it has been determined that the Treaty will not have a significant impact on the environment of the United States.

Respectfully submitted,

KENNETH W. DAM.

Attachment: Environmental Assessment and Finding of No Significant Impact.

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United States Department of State
Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS


April 26, 1984

Memorandum to the Files

Pursuant to the National Environmental Policy Act (NEPA), and, in accordance with the Council on Environmental Quality's and the Department of State's implementing regulations, the Department has reviewed and adopted, with minor additions, an environmental assessment produced for the State of Washington on a proposed agreement between the City of Seattle and the Province of British Columbia. This agreement has been confirmed by a Treaty between the United States and Canada relating to the Skagit River and Ross Lake and the Seven Mile Reservoir on the Pend D'Oreille River, signed on April 2, 1984.

The Department's environmental assessment (attached) indicates that the conclusion of this Treaty would not have a significant impact on the environment of the United States. The assessment reviews the environmental consequences of British Columbia's raising of Seven Mile Dam. If British Columbia were to exercise this option pursuant to the Treaty, a small amount of land, approximately ten acres, owned by the City of Seattle, would be affected. This agreement was designed as an alternative to the raising of Ross Dam which would have significant environmental impacts.

Accordingly, I have made a finding of no significant environmental impact with regard to the proposal to conclude a Treaty with Canada to confirm the agreement of Seattle and British Columbia on the generating and the sharing of electrical power.


Jack W. Blanchard
Acting Director
Office of Environment and Health

Attachment:
Environmental Assessment

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Environmental Assessment

Proposed Action

Ratification of a Treaty between the United States and Canada to confirm an agreement reached by British Columbia and the City of Seattle to cooperate on electricity generation and supply. Under the Treaty, Seattle agrees not to raise Ross Dam and pays British Columbia an amount equal to what raising the dam would have cost; British Columbia agrees to provide the city with the same amount of electricity that would have been generated, and has the option of raising Seven Mile Dam, which would flood approximately ten acres of U. S. land owned by Seattle. The Seattle-British Columbia Agreement was specifically designed to minimize adverse environmental impacts, which, without the agreement, could have been much greater than those on the ten acres at issue here.

Environmental Impacts and Alternatives

An assessment of the probable environmental impacts of this action was prepared by the City of Seattle (see attachment) to meet the requirements of Washington's State Environmental Policy Act (RCW 43.21 C). This environmental assessment was reviewed by the Department of State, and its findings were discussed with the following individuals:

Stephen Ralph - City of Seattle (Environmental Analyst, Author of the Review)
Michael Stemple - U. S. Fish & Wildlife Service (Biologist)
Keith Fletcher - U. S. Forest Service (District Manager)
Anthony Eldred - Washington State (Program Manager, Habitat Management Division, Department of Game).

After an independent review, and, in accordance with the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (40 CFR 1506.2 and 1506.3), the Department of State's own NEPA regulations (22 CFR 161.9 (c)), and, in consultation with the General Counsel of the CEQ, the Department of State has adopted this environmental assessment to meet the requirement for an assessment of environmental impacts of and alternatives to the proposed action. Based on

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this assessment, the Department of State has made a finding of no significant impact on the environment of the United States. Accordingly, the preparation of an environmental impact statement is not required.

Attachment:
As stated

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Proposed _____ DECLARATION OF _____ NonSignificance _____
(Proposed/Final) (Significance/NonSignificance)

Proponent _____ City of Seattle _____

Location of Proposal _____
Pend Oreille River, Pend Oreille County, Washington;
Pend Oreille River, British Columbia; Ross Lake,
Whatcom County Washington and British Columbia.

Lead Agency _____ City of Seattle _____

Title and Description of Proposal

As part of the High Ross Settlement-Framework Agreement (Feb. 4, 1983), between the City of Seattle and Province of British Columbia, B.C. Hydro will raise the operating reservoir elevation of their existing Seven Mile Dam on the Pend Oreille River by approximately 15 feet. This action will allow for increased generation capacity at that facility, which will offset, in part, a portion of the energy supplied to Seattle under the Agreement. The increased reservoir elevation will result in the inundation of less than 20 acres in Canada, and a maximum of 7-12 acres on the U.S. side of the border, backing the reservoir up to the base of the City's Boundary Hydroelectric Facility. An additional component of the Agreement provides for removal of stumps and snags in Ross Reservoir and on the shoreline as deemed appropriate and consistent with wildlife habitat protection. This "reservoir grooming plan" will be the first funding priority of the Environmental Endowment Fund, set up as a feature of the Agreement. Comments relating to this feature will be denoted by an asterisk (*).

This proposal has been determined to not have a significant adverse impact upon the environment. An EIS is not required under RCW 43.21C.030(2)(c).

This proposal has been determined to have a significant adverse impact upon the environment. An EIS is required under RCW 43.21C.030(2)(c).

This determination was made after review by the responsible official on behalf of the lead agency of a completed environmental checklist and other information on file with the responsible department.

The intent of this declaration is to satisfy the requirements of the State Environmental Policy Act (RCW 43.21C), including the requirement to inform the public of agency determinations pursuant to SEPA. This document is not a permit, nor does it constitute a decision or recommendation to grant or deny a permit.

Responsible Official _____ Joseph P. Recchi _____

Position/Title _____ Superintendent, Seattle City Light _____

Date 12/15/83 _____ Signature Joseph P. Recchi _____

Revised: 12 July 1976

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ENVIRONMENTAL CHECKLIST FORM

I. BACKGROUND

1. Name of Proponent: City of Seattle
2. Address and Phone Number of Proponent:
3. Date Checklist Submitted: December 15, 1983
4. Agency Requiring Checklist: City of Seattle
5. Name of Proposal, if applicable:
British Columbia-Seattle Agreement regarding settlement over the High Ross Issue.
6. Nature and Brief Description of the Proposal (including but not limited to its size, general design elements, and other factors that will give an accurate understanding of its scope and nature):

The raising of the Seven Mile Reservoir (Province of British Columbia, Pend Oreille River) from an elevation of 1715 feet to 1730 feet would inundate approximately 7-12 acres on the U.S. side of the international border, and an amount estimated at less than 20 acres on the Canadian side. The small amount of acreage lost is a function of the steep, canyon-like character of the existing Seven Mile Reservoir. As part of the B.C.-Seattle Agreement resolving the High Ross Dispute, Seattle agrees to let B.C. operate Seven Mile reservoir to normal maximum operating elevation of 1730'. Other than increasing the height of the spill gates, by replacement with higher gates, no new construction will need to take place.

* An additional component of the Agreement provides for removal of stumps and snags in Ross Reservoir and on the shoreline as deemed appropriate and consistent with wildlife habitat protection. This "reservoir grooming plan" will be the first funding priority of the Environmental Endowment Fund, set up as a feature of the Agreement.
7. Location of Proposal (describe the physical setting of the proposal, as well as the extent of the land area affected by any environmental impacts, including any other information needed to give an accurate understanding of the environmental setting of the proposal):

On the U.S. side, the inundation zone would include lands directly adjacent to the existing hydroelectric dam known as the City of Seattle's Boundary Facility. This is located in the extreme northeast corner of Washington State, Pend Oreille County, on the Pend Oreille River. The dam is immediately upstream of the existing Seven Mile Dam and Reservoir in British Columbia.

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7. Continued.

The area to be affected in Canada (Province of British Columbia) extends from the existing Seven Mile Dam and Reservoir on the Pend Oreille River to the international border with the U.S.

* The aesthetic stump/snag removal and shoreline grooming will take place primarily on the British Columbia end of the existing Ross Lake Reservoir.
8. Estimated Date of Completion of the Proposal:

1986 - For raising of Seven Mile and Ross Lake Reservoir grooming.
9. List of all Permits, Licenses, or Government Approvals Required for the Proposal (federal, state and local--including rezones):
U.S. - Canada Treaty on Agreement Provisions.
National Environmental Policy Act (NEPA) Threshold Determination
10. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain:

No
11. Do you know of any plans by others which may affect the property covered by your proposal? If yes, explain:

No

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II. ENVIRONMENTAL IMPACTS

(Explanations of all "yes" and "maybe" answers are required.)

	<u>YES</u>	<u>MAYBE</u>	<u>NO</u>
1. <u>Earth</u> . Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?	_____	_____	<u>X</u>
b. Disruptions, displacements, compaction, or overcovering of the soil?	_____	_____	<u>X</u>
c. Change in topography or ground surface relief features?	<u>X</u>	_____	_____
d. The destruction, covering, or modification of any unique geologic or physical features?	_____	_____	<u>X</u>
e. Any increase in wind or water erosion of soils, either on or off the site?	_____	<u>X</u>	_____
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition, or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	<u>X</u>	_____	_____

Explanation: c,e,f) Inundation of existing shoreline/bench area will change the location and character of shoreline because of steeper incline of adjacent land. Erosion and sidewall soil sloughing, already a problem in the existing reservoir, may be exacerbated by elevated watertable and increased wave action.

2. <u>Air</u> . Will the proposal result in:			
a. Air emissions or deterioration of ambient air quality?	_____	_____	<u>X</u>
b. The creation of objectionable odors?	_____	_____	<u>X</u>

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	<u>YES</u>	<u>MAYBE</u>	<u>NO</u>
c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?	_____	_____	<u>X</u>
Explanation:			
3. <u>Water</u> . Will the proposal result in:			
a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	_____	<u>X</u>	_____
b. Changes in absorption rates, drainage patterns, or the amount of surface water runoff?	_____	_____	<u>X</u>
c. Alterations to the course or flow of flood waters?	<u>X</u>	_____	_____
d. Change in the amount of surface water in any water body?	<u>X</u>	_____	_____
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?	_____	<u>X</u>	_____
f. Alteration of the direction or rate of flow of ground waters?	_____	<u>X</u>	_____
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavation?	_____	<u>X</u>	_____
h. Deterioration in ground water quality, either through direct injection, or through the seepage of leachate, phosphates, detergents, waterborne virus or bacteria, or other substances into the ground waters?	_____	_____	<u>X</u>

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	<u>YES</u>	<u>MAYBE</u>	<u>NO</u>
1. Reduction in the amount of water otherwise available for public water supplies?	_____	_____	_____X_____

Explanation: a,c) Possible change in current velocities because of widened river channel. c) Flood waters may encroach on Boundary Facility and necessitate spilling at Seven-Mile, and may also flood bench areas above 1730' where they occur. d) Amount of surface water will increase as a function of the topography (i.e., gradient) of inundated nearshore areas. f,g) Water table in nearshore areas would be raised as a function of elevated reservoir.

4. Flora. Will the proposal result in:

a. Change in the diversity of species, or numbers of any species of flora (including trees, shrubs, grass, crops, micro-flora and aquatic plants)?	_____X_____	_____	_____
b. Reduction of the numbers of any unique, rare or endangered species of flora?	_____	_____	_____X_____
c. Introduction of new species of flora into an area, or in a barrier to the normal replenishment of existing species?	_____	_____	_____X_____
d. Reduction in acreage of any agricultural crop?	_____	_____	_____X_____

Explanation: a) Areas with cobble/boulder shoreline below 1730' would be inundated resulting in loss of some emergent vegetation. New shoreline, steeper gradient would differ in soil and thus the character of the vegetation may differ also. * a) Stump removal in Ross Lake Reservoir may reduce some algae growth or stumps as substrate.

5. Fauna. Will the proposal result in:

a. Changes in the diversity of species, or numbers of any species of fauna (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, or microfauna)?	_____	_____X_____	_____
b. Reduction of the numbers of any unique, rare or endangered species of fauna?	_____	_____	_____X_____

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	<u>YES</u>	<u>MAYBE</u>	<u>NO</u>
c. Introduction of new species of fauna into an area, or result in a barrier to the migration or movement of fauna?	_____	_____X_____	_____
d. Deterioration of existing wildlife habitat?	_____X_____	_____	_____

Explanation: a,d) Loss of existing shoreline habitat with consequent change in normal shoreline location to upland area with steeper gradient and denser vegetative cover. a,c) There is some concern that a reservoir @ 1730' would allow for rough fish from existing reservoir to enter the Salmo River system and thereby degrade the established resident trout population and the sport fishery utilizing it.

* a,d) Stump and snag removal in Ross Lake Reservoir may reduce habitat for fish and cavity nesting wildlife respectively. Removal will be done consistent with wildlife habitat protection.

6. Noise. Will the proposal increase existing noise levels?

	_____X_____	_____	_____
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7. Light and Glare. Will the proposal produce new light or glare?

	_____	_____	_____X_____
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Explanation: For a very short time, during construction, at the present dam location.

8. Land Use. Will the proposal result in the alteration of the present or planned land use of an area?

	_____	_____X_____	_____
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Explanation: Current land uses, primarily agricultural (i.e. grazing) and provincial wildlife management areas, would continue, but some fringe area near new reservoir may be lost. This would amount to less than 20 acres.

9. Natural Resources. Will the proposal result in:

a. Increase in the rate of use of any natural resources?	_____	_____	_____X_____
b. Depletion of any nonrenewable natural resource?	_____	_____	_____X_____

Explanation:

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	<u>YES</u>	<u>MAYBE</u>	<u>NO</u>
10. <u>Risk of Upset.</u> Does the proposal involve a risk of an explosion or the release of hazardous substances (including, but not limited to oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	_____	<u>X</u>	_____
Explanation: Possibly during construction, but highly unlikely due to the short duration and nature of construction activities at the existing dam facility.			
11. <u>Population.</u> Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	_____	_____	<u>X</u>
Explanation:			
12. <u>Housing.</u> Will the proposal affect existing housing, or create demand for additional housing?	_____	<u>X</u>	_____
Explanation: Although specific construction details are not yet available it is unlikely that the nature and duration of the work would require a significant increase in use of outside labor.			
13. <u>Transportation/Circulation.</u> Will the proposal result in:			
a. Generation of additional vehicular movement?	_____	<u>X</u>	_____
b. Effects on existing parking facilities, or demand for new parking?	_____	_____	<u>X</u>
c. Impact upon existing transportation systems?	_____	<u>X</u>	_____
d. Alterations to present patterns of circulation or movement of people and/or goods?	_____	_____	<u>X</u>
e. Alterations to waterborne, rail or air traffic?	_____	_____	<u>X</u>
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	_____	<u>X</u>	_____

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	<u>YES</u>	<u>MAYBE</u>	<u>NO</u>
Explanation: a,c,f) Some slight increase in vehicular traffic would occur for the short-term construction period. No permanent changes would result.			
14. <u>Public Services.</u> Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	_____	_____	<u>X</u>
b. Police protection?	_____	_____	<u>X</u>
c. Schools?	_____	_____	<u>X</u>
d. Parks or other recreational facilities?	_____	_____	<u>X</u>
e. Maintenance of public facilities, including roads?	_____	<u>X</u>	_____
f. Other governmental services?	_____	_____	<u>X</u>
Explanation: e) Possible increase in heavily laden trucks may damage existing roadways. This can easily be repaired.			
15. <u>Energy.</u> Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	_____	_____	<u>X</u>
b. Demand upon existing sources or energy, or require the development of new sources of energy?	_____	<u>X</u>	_____
Explanation: b) Some loss of generating capacity of City Light's Boundary Project due to encroachment of the elevated Seven-Mile Reservoir on existing Boundary tailrace. This energy will be returned to Seattle City Light as part of the overall settlement agreement.			
16. <u>Utilities.</u> Will the proposal result in a need for new systems, or alterations to the following utilities:			
a. Power or natural gas?	_____	_____	<u>X</u>
b. Communication systems?	_____	_____	<u>X</u>
c. Water?	_____	_____	<u>X</u>

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	<u>YES</u>	<u>MAYBE</u>	<u>NO</u>
d. Sewer or septic tanks?	_____	_____	<u>X</u>
e. Storm water drainage?	_____	_____	<u>X</u>
f. Solid waste and disposal?	_____	_____	<u>X</u>
Explanation:			
17. <u>Human Health</u> . Will the proposal result in the creation of any health hazard or potential health hazard (excluding mental health)?	_____	_____	<u>X</u>
Explanation:			
18. <u>Aesthetics</u> . Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	_____	_____	<u>X</u>
Explanation:			
* Removal of stumps/snags from existing Reservoir, and grooming of existing shoreline will improve overall aesthetics of area.			
19. <u>Recreation</u> . Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	_____	_____	<u>X</u>
Explanation:			
* Impact of stump removal and shoreline grooming will be positive.			
20. <u>Archaeological/Historical</u> . Will the proposal result in an alteration of a significant archaeological or historical site, structure, object or building?	_____	<u>X</u>	_____
Explanation: The steep nature of the terrain and the riverine character of the upper reservoir create doubt that any significant archaeological resources would be found in the proposed inundation zone. Surveys were done for the original construction of both the Seven-Mile and Boundary dams.			

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III. ALTERNATIVES TO THE PROPOSAL

1. Briefly describe any alternative modifications to the proposal (to project factors or external factors).

Because actual design and construction would be carried out under the authority of B.C. Hydro, Seattle is not familiar with any alternative modifications. Essentially the alternatives are to raise the reservoir level or not (see below).
- * For stump/snag removal, shoreline grooming, only alternatives are to do it or no action.
2. Briefly describe any alternative proposals including no action.

The raising of the operating level of Seven-Mile Reservoir from 1715' to 1730' is one significant element in the B.C.- Seattle Agreement resolving the High Ross Issue. The only alternative is not to allow the reservoir elevation increase. This would of course change the certainty of the Agreement and its ratification in the Treaty between the U.S. and Canada to resolve the issue at hand. One possible result would be the raising of Ross Dam as originally planned, an alternative with significant environmental impact.
- * No action would preserve status quo, felt by many to be aesthetically offensive.

I, the undersigned, state that to the best of my knowledge the above information is true and complete.

Date Dec 14, 1983 Signature Stephen J. Regel
Title Assoc. Environmental Analyst

Approved by Kelli Altha
Title Director of Environmental Affairs Date Dec. 14, 1983

TREATY BETWEEN THE UNITED STATES OF AMERICA AND CANADA RELATING TO THE SKAGIT RIVER AND ROSS LAKE, AND THE SEVEN MILE RESERVOIR ON THE PEND D'OREILLE RIVER

The Government of the United States of America and the Government of Canada,

Bearing in mind the purpose of the Boundary Waters Treaty, in particular with respect to the prevention of disputes between the United States and Canada regarding the use of boundary waters;

Recognizing the desirability of preserving the natural environment of the Skagit Valley, in the Province of British Columbia;

Acknowledging the importance to the economic growth and development of the City of Seattle of the electrical power that would have been produced by the raising of the Ross Dam;

Noting with approval the Agreement dated March 30, 1984 between the Province of British Columbia and the City of Seattle developed under the auspices of the International Joint Commission; and

Having encouraged the achievement of such a settlement and being desirous of securing and promoting the cooperative measures undertaken therein,

Have agreed as follows:

ARTICLE I

Definitions

For purposes of this Treaty:

(a) "Agreement" means the Agreement entered into between British Columbia and Seattle on March 30, 1984, and its several appendices, contained in the Annex to this Treaty;

(b) "Boundary Waters Treaty" means the Treaty between the United States and Great Britain relating to Boundary Waters and Questions Arising between the United States and Canada, dated January 11, 1909,

(c) "British Columbia" means the Province of British Columbia, Canada;

(d) "Seattle" means the City of Seattle, in the State of Washington, United States of America;

(e) "Normal full pool elevation" means the water level at the dam determined by means of measuring elevation above mean sea level, excluding variations due to wind and wave action on surface water and variations resulting from extraordinary flood conditions, and which in the case of Ross Lake is based on the City of Seattle Ross Dam datum for Ross Lake and in the case of the Seven Mile Reservoir is based on the Geodetic Survey of Canada datum for the Seven Mile Reservoir; and

(f) "Arbitration tribunal" means an arbitration tribunal established pursuant to section 10 and Appendix C of the Agreement.

ARTICLE II

Authorizations

1. (a) In the event that British Columbia discontinues its obligation to deliver electrical power to Seattle under the Agreement or an arbitration tribunal determines that conduct of British Columbia constitutes a material breach of the Agreement, Seattle is, in accordance with and subject to the terms and conditions specified in this Treaty and the Agreement, authorized to raise the level of Ross Lake on the Skagit River by means of construction and operation of Ross Dam to a normal full pool elevation of 1725.0 feet, subject to the terms and conditions contained in Opinion No. 808 of the United States Federal Power Commission issued July 5, 1977, Opinion No. 808A of the Federal Energy Regulatory Commission issued August 2, 1978, and in other actions of the Federal Energy Regulatory Commission in implementation thereof, including provisions for High Ross Dam in the relicensing by the Federal Energy Regulatory Commission of Seattle's Project No. 553, of which Ross Dam is a part.

(b) This authority is to be exercised by Seattle at its option, without regard to any United States law, decision, regulation or order which might be argued as limiting or negating this authority, including provisions of the Federal Power Act relating to the time in which project construction must otherwise commence or to the term of license, or any other provision, during the term of this Treaty, provided that full compensation to British Columbia in the event of operation of Ross Lake at a normal full pool elevation of 1725.0 feet shall be as provided for in the Agreement and in lieu of any conditions in Opinions 808 and 808A or in any licensing order or orders for Project No. 553 with respect to British Columbia, and provided further that unless and until the normal full pool elevation of Ross Lake is thus raised, Seattle shall not be required to pay any increase in annual charges attendant thereupon under section 10(e) of the Federal Power Act.

2. The Government of Canada shall obtain the legislative or other authority necessary to enable British Columbia to export electrical power in accordance with the terms and conditions of the Agreement.

ARTICLE III

Water Levels at the Boundary

1. During the term of this Treaty, Seattle shall be permitted to operate Ross Lake so as to maintain the level of the Skagit River at the United States-Canada boundary at an elevation consistent with a normal full pool elevation of 1602.5 feet.

2. During the term of this Treaty, British Columbia shall be permitted to operate Seven Mile Reservoir so as to raise the level of the Pend d'Oreille River at the United States-Canada boundary to

an elevation consistent with a normal full pool elevation of 1730.0 feet, subject to the delivery by British Columbia to Seattle of energy and capacity lost at Boundary Dam due to tailwater encroachment by the Seven Mile Reservoir.

3. In the event that Seattle discontinues its obligation under the Agreement to make payments to British Columbia for the delivery of electrical power or an arbitration tribunal determines that conduct of Seattle constitutes a material breach of the Agreement, Seattle shall not be permitted to operate Ross Lake so as to raise the level of the Skagit River at the United States-Canada boundary above a level consistent with a normal full pool elevation of 1602.5 feet.

4. In the event that British Columbia discontinues its obligation under the Agreement to deliver electrical power to Seattle or an arbitration tribunal determines that conduct of British Columbia constitutes a material breach of the Agreement, Seattle shall be permitted to operate Ross Lake so as to raise the level of the Skagit River at the United States-Canada boundary to an elevation consistent with a normal full pool elevation of 1725.0 feet.

5. In the event that either Seattle or British Columbia discontinues its respective obligations in accordance with paragraph 3 or paragraph 4 of this Article, or an arbitration tribunal determines that conduct of either constitutes a material breach of the Agreement, British Columbia nonetheless shall be permitted to operate Seven Mile Reservoir so as to maintain the level of the Pend d'Oreille River at the United States-Canada boundary at an elevation consistent with a normal full pool elevation of 1730.0 feet.

6. Notwithstanding paragraph 5 of this Article, in the event that British Columbia discontinues its obligation under the Agreement to deliver electrical power to Seattle or an arbitration tribunal determines that conduct of British Columbia constitutes a material breach of the Agreement, and the obligation of British Columbia to make payment under subparagraph 9(C)(iv) of the Agreement is not met, British Columbia shall not be permitted to operate Seven Mile Reservoir so as to maintain the level of the Pend d'Oreille River at the United States-Canada boundary above a level consistent with a normal full pool elevation of 1715.0 feet.

ARTICLE IV

Obligations on Discontinuance

1. The United States and Canada shall ensure, in the manner set out in this Article, that financial obligations on the part of Seattle and British Columbia in the event of discontinuance of certain of their respective obligations under the Agreement, are met.

2. (a) In the event that British Columbia discontinues its obligation under the Agreement to deliver electrical power to Seattle or an arbitration tribunal determines that British Columbia is in material breach of the Agreement, Canada shall endeavor to ensure that British Columbia pays to Seattle any amount owing under subparagraph 9(C)(iv) of the Agreement. In the event that an arbitration tribunal determines the amount owed by British Columbia to Seattle under that subparagraph and that British Columbia has

ARTICLE VIII

Entry Into Force and Duration

This Treaty shall enter into force on the date the Parties exchange instruments of ratification, and shall remain in force until terminated by agreement of the Parties, or by either Party upon not less than twelve months written notice which may be given no earlier than January 1, 2065.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Governments, have signed this Treaty.

DONE at Washington in duplicate, in the English and French languages, both texts being equally authentic, this second day of April, 1984.

FOR THE GOVERNMENT OF THE
UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF CANADA:



BRITISH COLUMBIA-SEATTLE AGREEMENT

This agreement made this 30th day of March, A.D. 1984 Between:

Her Majesty the Queen in Right of the Province of British Columbia (hereinafter called "British Columbia")

and

The City of Seattle, a Municipal Corporation of the State of Washington, one of the United States of America (hereinafter called "Seattle")

Whereas the International Joint Commission (IJC), by Order dated April 28, 1982, urged British Columbia and Seattle as parties under that Order, to come to some agreement with respect to their differences over the authorized construction of High Ross Dam by Seattle which would raise the elevation of Ross Lake and thus of the Skagit River at the International Boundary from its present normal full pool elevation of 1602.5 to elevation 1725; and

Whereas by said Order the IJC considered that in the then existing circumstances Ross Lake should not be raised above its existing level provided that the City receive appropriate compensation for the loss of a valuable and reliable source of electric power in the form of High Ross Dam; and

Whereas by said Order the IJC sought the formal participation of the Governments of Canada and of the United States in order to implement any non-high dam agreement which might be reached,

failed to discharge its obligation to pay that amount to Seattle, Canada shall pay such amount to the United States in United States currency.

(b) Payment of such amount by Canada shall be in full satisfaction of British Columbia's obligations under subparagraph 9(C)(iv) of the Agreement.

3. (a) In the event that Seattle discontinues its obligation under the Agreement to make payments to British Columbia, or an arbitration tribunal determines that Seattle is in material breach of the Agreement, the United States shall endeavor to ensure that Seattle pays to British Columbia any amount owing under Section 5 of the Agreement. In the event that an arbitration tribunal determines the amount owed by Seattle to British Columbia under that section and that Seattle has failed to discharge its obligation to pay that amount to British Columbia, the United States shall pay such amount to Canada in United States currency.

(b) Payment of such amount by the United States shall be in full satisfaction of Seattle's obligations under Section 5 of the Agreement.

ARTICLE V

Transmission of Power

The rate imposed by the Bonneville Power Administration, or its successor agency, for the transmission of power from British Columbia to Seattle pursuant to the Agreement shall be no greater than if the power were generated, and transmitted on the Federal Columbia River Power System, wholly within the State of Washington.

ARTICLE VI

Effect on Boundary Waters Treaty

1. Nothing in this Treaty shall affect the application of the Boundary Waters Treaty except as provided in paragraph 2 of this Article.

2. During the period in which this Treaty is in force, the powers, functions and responsibilities of the International Joint Commission under Article IV, paragraph 1 and Article VIII of the Boundary Waters Treaty shall not apply to the Skagit River and Ross Lake or to the Pend d'Oreille River and the Seven Mile Reservoir.

ARTICLE VII

Amendment of the Agreement

Amendments to the Agreement proposed by British Columbia and Seattle shall be submitted to the Parties for timely review. Amendments that, in the view of either Party, would affect the rights and obligations of the parties under the Treaty shall enter into force only upon an exchange of notes between the Parties. All other amendments shall enter into force as agreed upon between British Columbia and Seattle.

and toward that end established a Joint Consultative Group consisting of representatives of the two Governments, of the Commission, and of the parties, to receive quarterly reports from the parties on their efforts to arrive at such an agreement; and

Whereas the parties have held numerous meetings, including those of their financial and technical groups since the above referenced Order of the IJC of April 28, 1982 and have reported fully to meetings of the Joint Consultative Group in June, September and December of 1982 and February, August and December of 1983 concerning their negotiations; and

Whereas the IJC, the parties and the respective Governments have concluded that an agreement between the parties should be confirmed by and be subject to a treaty between the Governments;

Now therefore the parties do hereby solemnly agree as follows:

SECTION 1.—DEFINITIONS

The following terms used in this Agreement or in Appendices hereto shall mean:

"Agreement" means this Agreement and its Appendices A-E.

"Normal full pool elevation" means the water level at the dam determined by means of measuring elevation above mean sea level, excluding variations due to wind and wave action on surface water and variations resulting from extraordinary flood conditions, and which in the case of Ross Lake is based on The City of Seattle Ross Dam datum for Ross Lake and in the case of Seven Mile reservoir is based on the Geodetic Survey of Canada datum for the Seven Mile Reservoir.

"Notification" means notice in writing from the Premier of British Columbia to the Mayor of Seattle, or vice versa, of intention to discontinue certain provisions of the agreement. Such notice shall be deposited, registered and prepaid in the United States or the Canadian mail, as appropriate. Following mailing, such notice shall also be published in a daily newspaper of general circulation in both Seattle, Washington and Victoria, British Columbia. The notice shall be deemed to have been given upon the date of publication in Seattle or Victoria, whichever is later.

"Skagit bus" means the Diablo switchyard on the Skagit River, or its successor switchyard, which is the collection point for power from Diablo and Ross power houses on the Skagit River.

"Treaty" means the "Treaty between Canada and the United States of America relating to the Skagit River and Ross Lake, and the Seven Mile Reservoir on the Pend d'Oreille River" confirming this Agreement.

SECTION 2.—TERM OF AGREEMENT

This Agreement will come into force on the date executed by British Columbia and Seattle and shall continue through January 1, 2066. If the Treaty has not come into force by December 31, 1984, this Agreement shall terminate on that date.

Seattle and British Columbia will jointly request the IJC to terminate its 1942 Order of Approval regarding the Ross Dam on the Skagit River, effective only upon the entry into force of the Treaty and the Agreement. Seattle and British Columbia recognize that

the IJC may take such action on its own motion and agree that neither will object should the IJC so act.

SECTION 3.—NON-FLOODING OF SKAGIT VALLEY

Seattle shall not raise Ross Dam or operate Ross Lake above a normal full pool elevation of 1602.5, unless before January 1, 2061, a five-year notice of discontinuance period has commenced at the instance of British Columbia pursuant to Section 9, or a determination of material breach of the Agreement by British Columbia has been made pursuant to Section 10.

SECTION 4.—BRITISH COLUMBIA TO SUPPLY ELECTRICITY

British Columbia shall supply Seattle with the electricity approximately anticipated from High Ross Dam, consisting of 37.3 average MW of firm energy, capacity based upon the difference between existing Ross Dam production and 532 MW, in the months of November through March, and capacity not exceeding 150 MW in the months of April through October, commencing January 1, 1986 and for the term of this Agreement. The specific amounts of firm energy and capacity and schedule of deliveries shall be as detailed in Appendix A, subject to modifications which may result from future discussions and mutual agreement between British Columbia Hydro and Power Authority and the Seattle City Light Department, or their successor agencies. Such schedule of deliveries shall only be excused during an event of force majeure, i.e., one beyond the control of British Columbia or which could not be avoided by the exercise of due care.

SECTION 5.—SEATTLE PAYMENTS FOR ELECTRICITY

Seattle shall make annual fixed capital payments to British Columbia prior to December 31 of each year beginning in 1986 to, and including the year 2020, of \$21,848,000 (U.S.), which represents the annual cost that would have been incurred by Seattle through the construction of High Ross Dam. This amount will be augmented by annual payments by Seattle prior to December 31 of each year beginning in 1986 to and including the year 2065, representing the operating and maintenance expenses that would have been incurred by Seattle in the annual operation of High Ross Dam. The initial payment shall be \$100,000 (U.S.), subsequent payments to change annually at the same rate as the U.S. Consumer Price Index. Although the fixed capital payments terminate in 2020, it is agreed that they shall be considered sufficient, together with the operation and maintenance equivalency payments, and the benefits of Seven Mile flooding rights, to pay British Columbia for the delivery of electricity under Section 4 through January 1, 2066.

SECTION 6.—WHEELING COSTS

The costs of wheeling up to 230 MW of power to the Seattle load center shall be the responsibility of British Columbia. Seattle will only be responsible for wheeling costs for capacity in excess of 230 MW. Specific wheeling arrangements shall be as described in Appendix A. British Columbia and Seattle will work in concert to

achieve mutually beneficial wheeling arrangements, but in no case will the costs be at a higher rate than those paid by Seattle for similar wheeling.

SECTION 7.—FLOODING IN THE UNITED STATES BY SEVEN MILE RESERVOIR

Seattle agrees that British Columbia may operate Seven Mile Reservoir to normal full pool elevation of 1730 feet, flooding into Washington State to a depth of approximately 15 feet until January 1, 2066, subject to the provisions of 9(D)(ii). British Columbia shall deliver to Seattle energy and capacity lost at Boundary Dam due to tailwater encroachment by the Seven Mile Reservoir in accordance with Appendix A. British Columbia shall also deliver energy as required by 9(C)(ii). British Columbia shall not raise Seven Mile Reservoir across the international boundary prior to January 1, 1986, without prior agreement with Seattle.

SECTION 8.—PERIODIC REVIEW

At intervals of no more than ten years after coming into force of this Agreement, British Columbia and Seattle shall review the terms and conditions of the Agreement in light of all applicable circumstances in order to determine the advisability of beneficial changes. Failure to agree to any proposed change shall not be subject to the provisions of Section 10.

SECTION 9.—DISCONTINUANCE OF CERTAIN OBLIGATIONS

A. Seattle may discontinue its obligation to make payments under Section 5, and British Columbia may discontinue its obligation to deliver capacity and energy under Sections 4 and 6 by notification. Following notification of either British Columbia's or Seattle's decision to so discontinue there will be a one-year review period during which the notification may be withdrawn unilaterally by the notifying party upon like notification. At the end of this one-year review period, if the notification is not withdrawn, a five-year notice period shall commence, at the end of which period discontinuance will become effective and the relevant obligations will end, unless notification is withdrawn by consent of both British Columbia and Seattle, or unless both agree to earlier discontinuance. Notification of intent to so discontinue may not be given prior to January 1, 1991, by either British Columbia or Seattle.

B. In the event of discontinuance initiated by Seattle, its authority to flood into British Columbia will be limited to normal full pool elevation of 1602.5 feet.

C. In the event of discontinuance initiated by British Columbia and the commencement of a five-year notice period:

(i) Seattle may begin construction of High Ross Dam immediately and flood land in British Columbia up to normal full pool elevation 1725 feet. Full compensation to British Columbia for the duration of this Agreement for such operation will be provided for by payment for actual costs of road relocation, recreation improvements, and reservoir clearing as set forth in Appendix B, by the continued flooding of the Seven Mile Reservoir into the United States to

normal full pool elevation 1730 feet and by continued contributions to and operation of the Environmental Endowment Fund.

(ii) If Seattle does not exercise its right under 9(C)(i), compensation to be provided by British Columbia to Seattle for the continued operation of the Seven Mile Project, in addition to delivery to Seattle of energy and capacity lost at Boundary Dam by tailwater encroachment, will be the equivalent of 1.05 average MW of firm energy delivered annually at Blaine.

(iii) Subject to the provisions of 9(D)(ii), British Columbia will continue to have authority to operate the Seven Mile Project at normal full pool elevation 1730 feet.

(iv) British Columbia shall return to Seattle:

(a) should Seattle opt to construct High Ross Dam, a sum of money in U.S. currency sufficient to construct High Ross Dam, and either money or replacement power sufficient to fully replace power losses to Seattle due to construction. The sum to be returned shall include only cost items specified in Appendix B, adjusted to reflect actual costs at the time construction is commenced, less the capitalized value at that date of Seattle's capital payments not made or to be made under this Agreement through the year 2020;

(b) should Seattle opt not to construct High Ross Dam, the lesser of: a sum in U.S. currency sufficient to acquire equivalent energy resources until 2066 less the capitalized value, in the year Seattle so opts, of Seattle's capital payments not made or to be made under this Agreement through the year 2020; or that sum provided in 9(C)(iv)(a).

(v) Seattle shall exercise its option either to construct High Ross Dam under 9(C)(iv)(a) or not to construct under 9(C)(iv)(b) by giving notice to British Columbia. Seattle's notice shall include an estimate of the lesser of a sum sufficient to construct High Ross Dam or to acquire equivalent energy resources, as appropriate, less the capitalized value of capital payments not made or to be made to British Columbia, together with a schedule for construction of High Ross Dam or acquisition of alternative resources. Within three months of such notice British Columbia shall give notice to Seattle of its intention to: repay immediately, as construction costs are incurred, or on the completion of High Ross or its alternative resource; its decision to provide Seattle either money or power to replace power losses during construction; and, any objections to Seattle's estimate of British Columbia's repayment obligation. Failure to give such notice by British Columbia shall be deemed to indicate: British Columbia's agreement with Seattle's cost estimates; its repayment on the earliest repayment date; and its payment for replacement power losses in money. Notices hereunder shall be given in writing from the Premier of British Columbia to the Mayor of Seattle, or vice versa, which shall be deposited, registered and prepaid in the United States or Canadian mail, as appropriate, and shall be deemed to have been given as of the date of mailing.

(vi) Seattle shall retain the option to exercise the provisions of either 9(C)(iv)(a) or 9(C)(iv)(b) for the remaining period of this Agreement, provided that British Columbia shall retain control of funds paid by Seattle prior to such discontinuance, until following

exercise of such option by Seattle, repayment is made by British Columbia in accordance with the terms of 9(C) (iv) and (v).

D. Interim remedies to Seattle shall include the following:

(i) In order that Seattle not be damaged pending the submission to and determination by the arbitration tribunal provided for in Section 10, that British Columbia has failed to discharge its obligations to deliver energy and capacity to Seattle under the Agreement, British Columbia shall take all possible measures during this Agreement to ensure that there shall be immediately transferred to Seattle from sources available to British Columbia in the United States, or exported by British Columbia to the United States, such energy and capacity as may be required to fulfill British Columbia's obligation to deliver electricity under the Agreement.

(ii) If the amounts of energy and capacity required under the Agreement are not delivered or transferred to Seattle, except during an event of force majeure, or if British Columbia does not satisfy an arbitration award under Section 10, British Columbia shall forthwith lower Seven Mile Reservoir so as not to extend across the international boundary. Upon satisfaction of British Columbia's obligations to Seattle to deliver energy and capacity under the Agreement, and payment in full of any arbitration award to Seattle by British Columbia, or by Canada to the United States under the Treaty, British Columbia may raise the normal full pool elevation of the Seven Mile Reservoir to 1730 feet.

(iii) Should the arbitration tribunal determine that British Columbia had not failed in its obligations under 9(C) (iv) or (v), had not failed to deliver power, or had not otherwise been in material breach, the tribunal may find compensation payable to British Columbia from Seattle to the extent of the electricity received by Seattle from British Columbia sources and the loss of electricity through lowering the Seven Mile Reservoir as provided for in subparagraphs (i) and (ii) above.

SECTION 10.—DISPUTE RESOLUTION

Disputes between British Columbia and Seattle arising out of this Agreement shall be resolved exclusively as provided in this Section. Pending any decision by a consulting board or by arbitration, the obligations of the parties shall remain effective and outstanding, including without limitation the obligation of British Columbia to deliver electricity under this Agreement.

(a) At the request of both British Columbia and Seattle, any matter may be referred to a consulting board composed of four members, two of whom shall be appointed by British Columbia and two by Seattle. A decision of a majority of the consulting board shall be final and binding on the parties. Any matter not decided by majority vote within three months of the date of submission shall be referred to the arbitration tribunal. The consulting board may not consider an allegation, or make a determination, of material breach of the Agreement.

(b) At the request of either British Columbia or Seattle, any matter may be referred for determination to an arbitration tribunal which shall decide such questions in accordance with the rules in Appendix C. All decisions of the arbitration tribunal shall be

final and binding and promptly carried out by the British Columbia and Seattle.

(c) If the consulting board or the arbitration tribunal deems it appropriate, it may assess an amount of compensation in either electricity or money to reimburse the complainant for any losses resulting from nonperformance under the Agreement. Upon a determination of material breach by an arbitration tribunal, the performance of obligations and consequences upon discontinuance set forth in Section 9 shall be required and imposed by such tribunal.

(d) The Governments of Canada and the United States of America shall be notified of the reference of any matter to an arbitration tribunal. Although not parties, they may appear before and make submissions to such tribunal.

(e) Copies of all documents and notices of all proceedings shall be provided to the Governments of Canada and the United States of America in the same manner and at the same time as they are provided to the parties to the arbitration pursuant to the rules contained in Appendix C.

SECTION 11.—ENVIRONMENTAL ENDOWMENT FUND

British Columbia and Seattle shall establish an Environmental Endowment Fund to finance and an Environmental Endowment Commission to administer the provision and maintenance of environmental amenities and recreation facilities in the Ross Lake/Skagit Valley area, as outlined in Appendix D, to which Seattle will be the prime initial contributor.

SECTION 12.—REVERSION OF SEATTLE PROPERTY TO BRITISH COLUMBIA

Seattle shall convey to British Columbia, upon the coming into force of the Treaty, Lots 221 and 222, Group 1, Yale Division, Yale District, Penticton Assessment Area, but such conveyance will not adversely affect Seattle's rights under Sections 3 and 9. British Columbia shall not administer the Skagit Valley below elevation 1725 in a manner inconsistent with Seattle's exercise of rights upon discontinuance as provided in Sections 3 and 9, nor shall it divert any water of the Skagit River from its natural channel for any use other than consumptive use within the watershed of that river.

SECTION 13.—AGREEMENT REPORT

A general description of the Agreement, as defined in Section 1 hereof, its background and its intended operation, is attached hereto as Appendix E. It is a part of the Agreement, provided that in the event of any conflict between Appendix E and Sections 1-12, the latter shall govern.

LIST OF APPENDICES

- Appendix A: Seattle City Light—B.C. Hydro Proposed Technical Arrangements
- Appendix B: High Ross Dam Project—Cash Flow Projection
- Appendix C: Arbitration Rules
- Appendix D: Environmental Endowment Fund and Commission
- Appendix E: Agreement Report

In witness whereof this Agreement has been executed on behalf of the parties by their duly authorized representatives.

In the presence of:

Attest:

Arthur T. Lane
Deputy City Comptroller

) On behalf of the Province of
) British Columbia

) By:
) The Honourable A. J. Brummett
) Minister of Environment

) By:
) The Honourable G. B. Gardom
) Minister of
) Intergovernmental Relations

) On behalf of The City of Seattle

) By:
) Mayor of Seattle

APPENDIX A.—TECHNICAL ARRANGEMENTS WITH REGARD TO SKAGIT HIGH ROSS DELIVERIES INVOLVING THE BRITISH COLUMBIA HYDRO AND POWER AUTHORITY [BCH] AND THE CITY OF SEATTLE, CITY LIGHT DEPARTMENT [SCL]

SECTION 1—ENERGY

BCH on behalf of British Columbia shall have the responsibility to deliver to SCL 35.4 Average Annual MW at the Seattle load center.

This amount is derived from 37.3 Average Annual MW at the Skagit Bus, and using the Berry/Gordon figures in the report of April, 1982, losses to Seattle are computed at 5 percent, or 1.9 MW, which produces 35.4 average MW at the Seattle load center.

The modified rule curve studies of June 30, 1982 show an average of 336.9 for High Ross and 298.9 for existing Ross. It has been agreed that these studies will be used for the purpose of determining base monthly energy shape from BCH to SCL.

Prorating this shaping to the 35.4 MW average annual energy gives the following monthly numbers in average MW which BCH shall have the responsibility to deliver to SCL at the Seattle load center.

July	24.0
August	17.7
September	13.0
October	18.5
November	34.7
December	45.2
January	58.0
February	67.3
March	59.4
April	27.3
May	25.7
June	36.3

BCH shall not be required to deliver more than one half of the monthly energy entitlement in any one week.

SECTION 2—CAPACITY

BCH shall deliver to SCL capacity at the Seattle load center as follows:

April through October: 150 MW at Skagit bus.

November through March: 532 MW less actual capacity of existing Ross at Skagit bus. Capacity entitlement for the following week shall be calculated each Friday as the difference between 532 MW and the actual capacity at existing Ross.

Actual capacity deliveries at the Seattle load center for both time periods will be reduced by 5% to cover losses. For purposes of this Section 2, capacity shall mean the right of SCL to schedule

hourly amounts from BCH up to the maximum capacity set forth above.

SECTION 3—TRANSMISSION

BCH shall be responsible for the cost of transmission and associated losses of up to 230 MW delivered to the Seattle load center. BCH and SCL shall jointly work towards arranging an annual wheeling agreement with BPA. SCL shall be responsible for the cost of transmission above 230 MW, but not losses.

The firm wheeling capacity contracted between BCH and SCL shall be available for BCH's use when not scheduled for deliveries under this agreement to the extent that this can be arranged with BPA.

SECTION 4—ENERGY SHIFTS AND STORAGE TRANSACTIONS

A. *Inter-month energy balance account*

At SCL's request energy may be shifted among months from the amounts listed in Section 1 according to the following provisions:

(1) Beginning July 1 of each year an energy balance account will be established consisting of the cumulation of MW.h of energy shifted among months. The value in this account may be either positive or negative, but may in magnitude not exceed 5,000 MW.h. unless otherwise mutually agreed. This account must be zero on June 30 of each year. Energy shifts increasing the amount for a month will be counted as positive.

(2) The magnitude of energy shifted in any month may not exceed 5,000 MW.h.

(3) SCL shall notify BCH of energy shifts in subparagraph 4.A.1 at least ten days in advance except in the circumstances described in Section 5.A.

B. *Storage account*

Upon the request of BCH, SCL will accept delivery of energy for storage in Ross Lake with the following conditions:

(1) The total amount of energy in the Storage Account shall not exceed 50,000 MWh unless otherwise mutually agreed.

(2) No charges shall be assessed by SCL for the return of the stored energy.

(3) If the return of storage energy causes spill on the SCL system, then the Storage Account will be reduced by the amount of spill. SCL will advise BCH if return of storage energy may result in spill and if so, the approximate amount.

(4) SCL will give BCH notice of not less than five days of impending spill of stored energy at Ross Lake. Any such energy spilled will be deducted from the Storage Account.

(5) SCL will not be required to accept or return storage energy if such action violates its contractual obligations, legal constraints or operating requirements.

(6) In case of spill the last non-SCL water stored will be the first non-SCL water spilled.

(7) BCH will notify SCL of storage energy delivery or return at least one day in advance.

SECTION 5—SCHEDULING

A. SCL will provide BCH a schedule of desired operation by 09:00 each Friday morning. This schedule will include desired hourly deliveries for the seven day period from 01:00 Saturday through 24:00 on the following Friday.

This schedule will only be changed in the following circumstances:

- (1) forced outages on the SCL system,
- (2) severe weather changes,
- (3) fulfillment of firm contractual obligations, or
- (4) legal constraints.

One such schedule change may be requested each week. The schedule change shall be requested by 09:00 to be effective no sooner than 00:00 the following day. BCH will make such schedule change to the extent that the BCH system can reasonably respond. Severe weather changes are those that cause load changes or streamflow changes which would produce spill or threaten SCL system integrity.

B. Capacity and associated energy may be scheduled by SCL up to 24 hours per day, subject only to monthly energy limitations after any shifts pursuant to Section 3.

SECTION 6—FORCED OUTAGES OR MAINTENANCE OUTAGES AT EXISTING ROSS

It is agreed that maintenance outages or forced outages longer than one day in duration at existing Ross will reduce capacity deliveries by BCH under this agreement in proportion to the number of units out of service.

SECTION 7—OPERATING COMMITTEE

There shall be an Operating Committee of one BCH and one SCL representative who will meet not less than twice per year to review operations and to plan for any special operations in the coming period—special operations would include storage of energy.

Meetings shall alternate between Seattle and Vancouver.

SECTION 8—SEVEN MILE—BOUNDARY ENCROACHMENT

BCH shall return to SCL all capacity and energy lost due to the encroachment of the Seven Mile Reservoir on Boundary Dam which shall be returned on a daily basis on the seventh day after loss. Boundary encroachment losses shall be calculated on a "real time" basis, or on a negotiated amount by SCL and BCH. Such approaches may be agreed to and modified from time to time.

Encroachment energy & capacity losses are deemed to be delivered at Boundary.

Discussions concerning final solution will be initiated upon completion of above studies.

SECTION 9—CONTINUITY OF SUPPLY

BCH will use its best efforts to remove, curtail or contain any cause of delay, interruption, or failure to deliver power and to

resume deliveries with the least possible delay. Any energy deliveries interrupted for any reason shall be rescheduled for delivery by BCH to SCL during comparable time periods as soon as practicable.

BCH shall not be responsible for transmission problems outside of its own system.

APPENDIX B
ROSS HIGH DAM PROJECT CASH FLOW PROJECTION (SUMMARY)

(\$'000 of the year)

To date	1982				1983				1984				1985				1986				1987			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. Engineering and administration.....	7,192	40	103	157	537	418	810	1,069	927	803	1,065	1,323	1,336	1,103	1,151	1,011	612	439	257	291	252	143	.....	21,039
2. Permanent equipment cost.....	.....	.....	.....	99	101	103	106	108	552	563	575	587	598	610	623	634	646	.....	.....	.....	.....	.....	.....	6,251
3a. Construction—United States.....	713	2,242	2,828	7,168	9,752	8,445	5,390	8,003	11,043	11,460	7,453	6,134	5,527	2,537	5,611	701	852	589	352	.....	.....	.....	.....	96,700
3b. Canada:	.....	.....	.....	.....	77	417	577	589	616	566	627	639	667	612	677	689	717	550	560	572	335	.....	9,487	
(1) Reservoir clearing, clearing and road credit).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	826
(2) Recreation (special credit).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,762
(3) Road relocation.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4. Subtotal.....	7,192	40	105	959	2,880	3,526	8,501	11,506	10,513	7,372	10,562	14,094	14,347	9,946	8,900	8,203	4,823	7,324	1,508	1,703	1,413	830	136,165	
5. Sales tax 5.6 percent.....	3	7	64	190	233	561	759	694	487	697	930	947	656	587	541	318	477	100	112	93	55	.....	8,511	
6. Interest during construction.....	.....	.....	.....	30	118	212	457	788	1,091	1,201	1,481	1,855	2,235	2,333	2,553	2,757	2,876	.....	.....	.....	.....	.....	.....	19,987
7. Replacement power during construction.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,046
8. Replacement power during rell.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28,154
9. Total construction and installation.....	7,192	43	110	1,063	3,188	4,248	9,802	13,343	12,594	9,362	13,048	17,192	17,848	13,261	12,372	16,918	13,538	13,340	7,346	7,664	1,506	885	195,863	

Note—The values shown in the "To date" column are expressed in first quarter 1982 dollars; values for subsequent quarters were escalated to reflect inflation.

RESERVOIR CLEARING, ROAD CONSTRUCTION AND RECREATION
CONTRIBUTION IN CANADA

Introduction

This is description of the line items 3b (1), (2), and (3) of Appendix B. It is intended to provide a specifications guide for work to be performed in Canada upon the construction of High Ross Dam. Certain cost estimates expressed in January 1982 dollars (U.S.) which have been escalated through a projected 39-month construction period are also included, but are intended only as illustrative of what costs would have approximated if the project had been undertaken in 1982; they also serve as a general point of reference on the amount and type of work to be performed under line items 3b (1), (2), or (3).

Reservoir clearing

General description

The principal types and acreages which would require clearing have been classified on the basis of forest cover and ground conditions. Each type was assigned one or more clearing treatments based on the size and density of forest stand and the ground conditions as shown on Table I.

The following criteria was established for estimating purposes.

Clearing

(A) Areas between the drawdown line, elevation 1669, and the clearing boundary, generally elevation 1727.

(1) Flat ground and slopes of less than 40 percent: All trees and brush removed to the level of the surrounding ground. All down timber removed.

(2) Slopes of 40 percent and greater: All trees removed to a stump height not exceeding six inches above the ground surface measured on the up-hill side. All solid down timber larger than three inches in diameter at the butt and/or longer than eight feet removed. Woody material remaining after clearing would not exceed 20 cubic feet per acre cleared.

(B) Areas below the drawdown line, elevation 1669—

(1) All trees removed to a stump height not exceeding 12 inches or the stump top diameter, whichever is greater, above the ground surface measured on the up-hill side so as not to protrude above the drawdown elevation. All solid down-timber larger than three inches diameter at the butt and/or longer than eight feet would be removed provided any volume of wood remaining would not exceed 20 cubic feet per acre cleared.

Table I
CLEARING AND FOREST TYPES IN CANADA

TYPE	FOREST DESCRIPTION	GROUND CONDITIONS	CLEARING TREATMENT	ACRES TO BE CLEARED				CLEARING TYPE TOTALS
				Elevation 1669-1727 ft 40% slope	Elev. <1669 40% slope	Other	Other	
1	Mature stand of cottonwood, cedar and hemlock - 8,000 c.f./acre, average dbh 22", range 10" - 40"	Generally flat, moderately firm ground, and 20% soft-wet ground	Down, pile and burn with D6 Cat.- Hand fall, pile and burn with D6 Cat.-	45		187		232
2	Immature deciduous stands of cottonwood, alder, birch, cedar, hemlock and Douglas fir; 20 - 50 ft. tall, 400 cress/acre plus scattered residual trees; volume 1,000-4,000 c.f./acre	Flat to gentle slope, 20% soft-wet ground	Operate when ground is driest. Down, pile and burn with D6 Cat.- Hand fall, float off site - Down, pile and burn with D6 Cat. -	236	10	249		495
3	Young, immature coniferous stands of Douglas fir, cedar, hemlock and pine; 20-30 ft. tall, 500-1,000 cress/acre plus scattered residual Douglas fir and hemlock; minor volume	Gentle to moderate slopes, 10% rocky	Down, pile and burn with D6 Cat.- Hand fall, float off site - Down pile and burn with D6 Cat. -	523	130	652		1,305
4	Immature coniferous stands of Douglas fir, pine, hemlock and cedar; 10-50 ft. tall, 800 cress per acre, av. dbh 10" to 12", volume 2,000-4,000 c.f. per acre	Gentle to moderate slopes, gravel benches firm ground, 5% rocky	Down, pile and burn with D6 Cat.- Hand fall, float off site - Down, pile and burn with D6 Cat. -	645	45	662		1,352
5	Immature coniferous stands of Douglas fir, cedar and balsam; 40-80 ft. tall, 500-1,000 cress per acre; av. dbh 10" to 16", volume 1,000-7,000 c.f. per acre	Gentle to moderate slopes, mainly firm ground, 5% soft ground	Down, pile and burn with D6 Cat.- Hand fall, float off site - Down, pile and burn with D6 Cat. -	177	5	88		270
6	WC - cottonwood, willow and brush, 10-30 ft. tall, dense and sparse stocking	Flat ground, 20% soft and wet ground	Down, pile and burn with D6 Cat. on moderately firm ground - Hand fall pile and burn on wet ground -			140		140
						50		190
7	Recent logged - scattered residual trees of cedar, hemlock, fir and slash; no merchantable volume	Flat to gentle slopes, moderately firm ground, 10% soft ground	Down, pile and burn with D6 Cat. - Down, pile and burn - or, hand fall, skid, pile and burn with D6 Cat. -	52		308		360
8	Fringe area, elevation 1,725 - 1,727	Gentle to moderate slopes	Hand slash, pile and burn or float off site -				360	360
9	Skaqit River and swamps	Wet, swampy, soft	Crane, pile and burn -			50		50
10	Meadows - brush and stumps	Flat to gentle slopes	Pile and burn -	10	10			20
AREA OF CLEARING Elevation 1,669 - 1,727 feet, less than 50% slope Elevation 1,669 - 1,727 feet, 40% slope and steeper Elevation below 1,669 feet, assumed all slopes less than 40% Other				1,448	200	2,336	110	4,534
TOTAL AREA TO BE CLEARED								

Grubbing

In specific areas to be designated before clearing commences, all wood material to be removed to a depth of two feet below ground line in areas specified for recreational development. The total area to be so treated within the drawdown zone was estimated at 200 acres.

Disposal of material

Wood material burned within the area except that any salvageable material would be removed to a place of use, manufacture, or storage prior to burning the residual.

Material that could not be disposed of by burning would be buried with a covering of at least 18 inches of earth.

Proposed clearing operations

Machine clearing

The reservoir site comprises about 4,200 acres of forest land to be cleared. Ninety percent of this area would be suitable for machine clearing and the remaining 10 percent would require hand clearing on steep rocky slopes or wet soft ground.

The crane and grapple method would be used along the Skagit River and numerous swamp areas. The slash, snags, and windfall trees would be lifted by machine from the wet areas and piled on dry ground for burning.

Manual (hand) slashing

Approximately 400 acres (10 percent of forest land) would require the application of hand clearing methods. These areas are comprised of immature forest stands on moderately to steep rocky slopes and residual forest stands on soft wet soils.

All trees, slash, and brush would be hand felled by power saw. The material left and floated off the site, piled on the beach with tractors or taken to a pile-out site.

Final cleanup around the fringe of the reservoir (elevation 1725 to 1727 feet) would be done by hand. All windfalls and slash would be bucked, dragged free by tractors or floated free when the reservoir reaches full pond.

Grubbing operations

Grubbing operations would be confined to the beaches, boat launching ramps, recreation sites and visual areas within the drawdown zone of the reservoir. The areas to be treated at the recreation sites would be about 200 acres.

Grubbing would be done primarily with large tractors to remove the stumps and roots from below ground level and to re-grade the ground surface. Final cleanup would be carried out by small tractors cleaning the beaches during a spring drawdown.

Total estimated cost of clearing operation

The total estimated cost of clearing operations including floatage control and disposal was estimated to be \$7,288,000 in January 1982 U.S. dollars as follows:

Estimated cost of contractor clearing.....	\$5,907,000
Assessment for immature forest.....	718,000
10 percent contingency.....	663,000
<hr/>	
Total cost of clearing, excluding forestry, engineering and management	7,288,000

Details of the total estimated cost of contractor clearing operations is shown on Table II.

Since all merchantable trees and logs within the reservoir area would be sold by the B.C. Forest Service and removed by the purchaser prior to commencement of clearing operations, no stumpage charges would be payable. However, the removal of the immature trees during clearing might result in a penalty being charged by the Government of B.C. For estimate purposes this penalty was assumed to be \$718,000.

Clearing schedule

The reservoir clearing activities would be controlled by the Ross High Dam construction schedule and related water levels. With this in mind a cash flow for a 39-month clearing operation was escalated and is summarized in dollars of the year as shown on Appendix B, line 3b(1) for a total of \$9,487,000.

Table II
TOTAL ESTIMATED COST
January 1982 U.S. Dollars
CONTRACTOR CLEARING OPERATION
CANADA

CLEARING TYPE	CLEARING TREATMENT	ACRES TO BE CLEARED				COST ESTIMATES	
		Elevation 1669-1727 ft.		Elev. < 1669	OTHER	January 1982	
		<40% Slope	>40% Slope			U.S. Dollars	TOTAL
1	Down, pile, burn with D8 Cat.- Hand fell, pile & burn with D8 Cat	45		187		\$ 1,334 1,524	\$ 60,030 284,988
2	Operate where ground is direct. Down, pile, burn with D8 Cat.- Hand fell, float off site - Down, pile, burn with D8 Cat.-	236	10	249		1,143 1,334 1,143	269,748 13,340 284,607
3	Down, pile, burn with D8 Cat.- Hand fell, float off site - Down, pile, burn with D8 Cat.-	523		130	652	1,143 1,334 1,143	597,789 173,420 745,236
4	Down, pile, burn with D8 Cat.- Hand fell, float off site - Down, pile, burn with D8 Cat.-	645	45		662	1,334 1,524 1,334	860,430 68,580 883,108
5	Down, pile, burn with D8 Cat.- Hand fell, float off site - Down, pile, burn with D8 Cat.-	177	5		86	1,334 1,524 1,334	236,118 7,620 117,392
6	Down, pile, burn with D8 Cat. on moderately firm ground - Hand slash, pile & burn on wet ground -			140	30	1,143 1,906	160,020 95,300
7	Recent logged Down, pile, burn with D8 Cat.- Down, pile, burn - or, hand fell, skid, pile and burn with D8 Cat.-	52			308	1,143 1,524	59,436 469,392
8	Fringe areas: elevation 1725-1727 Excluding unaccessible areas Hand slash, pile & burn or float off site	10	10			1,906	38,120
9	Skagit River and swamps crane/hoist and burn			360		763	274,680
10	Meadows with brush and stumps - pile and burn			50		230	11,500
11	Floccage control and disposal - (50% Canada + 50% U.S.A.) of \$490,000						196,000
TOTAL COST OF CLEARING OPERATIONS - CANADA							\$5,906,554

Road construction and recreation contribution

Background

By the agreement of January 10, 1967 between the City of Seattle and the Province of British Columbia the City would replace, at no cost to the Province, the entire public road situated within the proposed reservoir site.

The proposed reconstruction of the public road above High Ross Reservoir was designed to end about two miles north of the Canadian/U.S. border. The net reduction in road costs so generated was to be applied to recreational developments adjacent to the High Ross Reservoir in British Columbia. The City also agreed to carry out special clearing for recreation facilities on the Canadian portion of the High Ross Reservoir.

Two sections of proposed road were considered in the cost assessment, namely:

- (1) from mile 0.0 to 8.4 which provides access to a main boat launching site on the east shore of High Ross Reservoir about two miles north of the Canadian/U.S. border,
- (2) from mile 7.6 to 10.5 which would extend the proposed road to the Canadian/U.S. border.

Standards used in road design

The design standards selected provided the best compromise between existing ground conditions and required specifications. Road standard would be satisfactory for recreation traffic and controlled, highway-type log truck hauling from the Reservoir area.

The design standards were:

- Horizontal alignment—35 mph average speed;
- Maximum grades—8 percent;
- Subgrade width—30 feet, except near Muddy Creek where 26 feet of width is permitted to reduce the high construction costs in this section of the road;
- Running surface—24 feet, except for the Muddy Creek section which will be 20 feet wide;
- Ditches—generally 2 feet deep with side slopes 2:1;
- Fill slopes: 1½:1;
- Cut slopes: rock, ¼-½:1; silts, 1½- :1; other materials 1¾-1:1.
- Gravel surfacing: base 12 inches deep of less than 4-inch size, top 6 inches deep of less than 2-inch size.

Certain section of cut and fill would be widened or narrowed to achieve balance within reasonable overhaul distances.

Road locations

The alignment of the proposed roads are shown on Plate Nos. 1 and 2. The selection of the alignments were based on soil conditions creek crossing while maintaining park and aesthetic standards.

Construction estimates for roads

Volumes

Volumes were calculated for subgrade construction including clearing removing overburden, earth movement, overhaul and rock movement. Earth movement within free haul distances and through overhaul distances for the 8.4- and 2.9-mile roads were calculated to be 141,100, 21,500, 80,500, and 9,200 cubic yards respectively.

Drainage

The 8.4-mile road would require ditching along 5 miles of the route and 43 culverts varying from 12 inches to 84 inches would be required. The 2.9-mile road would require 23 culverts and ditching along the entire length.

Muddy Creek Bridge

A 70-foot standard H20S15 highway loading bridge would be constructed. The bridge crossing would require a 15-foot high bin wall type abutment at the north end and a 6-foot concrete footing at the south end.

Clearing and grubbing

To preserve park setting, stringent clearing and grubbing standards were established. All slash and debris would be piled and burned, leaving none on the roadside or under the roadbed. Width of right-of-way and grubbing requirements would vary with road character.

Recreation contribution

The City of Seattle agreed to make the following contribution to the costs of the ultimate development of recreation facilities on the Canadian portion of the High Ross Reservoir:

- (1) In lieu of not having to reconstruct the Silver Skagit Road to the International Boundary, the City will provide for recreation development of equal value in Canada.
- (2) The City will carry out special shoreline grubbing grooming for the recreation plan in Canada.

Construction costs

The estimated construction costs for the 2.9-mile road, 8.4-mile road, 10.5-mile road, trail replacement and for special clearing for recreation sites are shown in January 1982 U.S. dollars on Table III.

It was assumed that if a complete road system were to be constructed to the Canadian/U.S. border it would include the section between mile 0 and mile 8.4 and the section between mile 7.6 and 10.5 (International Boundary) for a total cost of \$1,757,500. It was further assumed that trail replacement is interrelated with road relocation; thusly, the total cost for a complete road system from mile 0 to mile 10.5 and trail replacement would be \$1,825,500.

In consideration of the agreement between the City of Seattle and the Province of British Columbia the following allocated costs were developed for road relocation, and recreation contribution

based on the ratio of an 8.4-mile road and a 10.5-mile road and a recreation contribution for special clearing.

$$\text{Ratio} = \$1,218,400 / \$1,655,400 = 0.74;$$

$$\text{Allocated cost for road relocation and trail replacement} = (0.74)(\$1,825,500) = \$1,351,000;$$

$$\text{Allocated cost for recreation contribution} = \$1,825,500 - \$1,351,000 + 240,000 = \$714,500.$$

TABLE III
Construction Cost

<u>Roads</u>	<u>2.9 Mile</u>	<u>8.4 Mile</u>	<u>10.5 Mile</u>
Clearing and Grubbing	\$ 78,200	\$ 153,000	\$ 215,600
Earth Movement	174,000	323,200	466,200
Rock Work	22,200	55,600	72,500
Culverts	82,900	51,800	129,700
Gravel Surfacing	127,200	368,800	460,700
Muddy Creek Bridge	0	142,500	142,500
Clean Up	<u>5,600</u>	<u>12,700</u>	<u>16,700</u>
Sub-Total	\$490,100	\$1,107,600	\$1,504,900
10% Contingency	<u>49,000</u>	<u>110,000</u>	<u>150,500</u>
Total Direct Cost of Construction	\$539,100	\$1,218,400	\$1,655,400
<u>Trails</u>			
Galene Creek Access Trail	27,000 ft. @ \$1.80		\$48,600
Parking Area for Galene	5,000 ft. @ \$1.32		6,600
Parking Area for Skyline/Contennial	5,000 ft. @ \$1.32		<u>6,600</u>
Sub-Total			\$61,800
10% Contingency			<u>6,200</u>
Total Direct Cost of Construction			\$68,000
<u>Special Clearing</u>			
Total Direct Cost of Construction			\$240,000

Construction schedule for road relocation

The construction of the proposed road would be coordinated with the reservoir clearing operation so that engineering and supervision requirements are minimized and so that access would be available when the existing road is flooded. The following construction schedule is developed in coordination with the reservoir clearing plan.

Year 1

- (1) Brief contractors on the site for road and bridge construction.
- (2) Start road construction during May and complete to Muddy Creek bridge site.
- (3) Prepare bridge site and install footings.

Year 2

- (1) Continue road construction in early May and complete the 8.4 miles.
- (2) Install Muddy Creek bridge and complete construction of protection features and approaches.

A cash flow for road relocation, based on the allocated cost and the above schedule, was developed in dollars of the year (i.e., escalated) and is shown on Appendix B, line 3b (3), for a total of \$1,762,000.

Schedule of recreation contribution

It was assumed that recreation work would parallel the road relocation work. A cash flow, in dollars of the year (i.e., escalated), based on the allocated cost including special clearing is shown on Appendix B, line 3b(2) for a total of \$926,000.

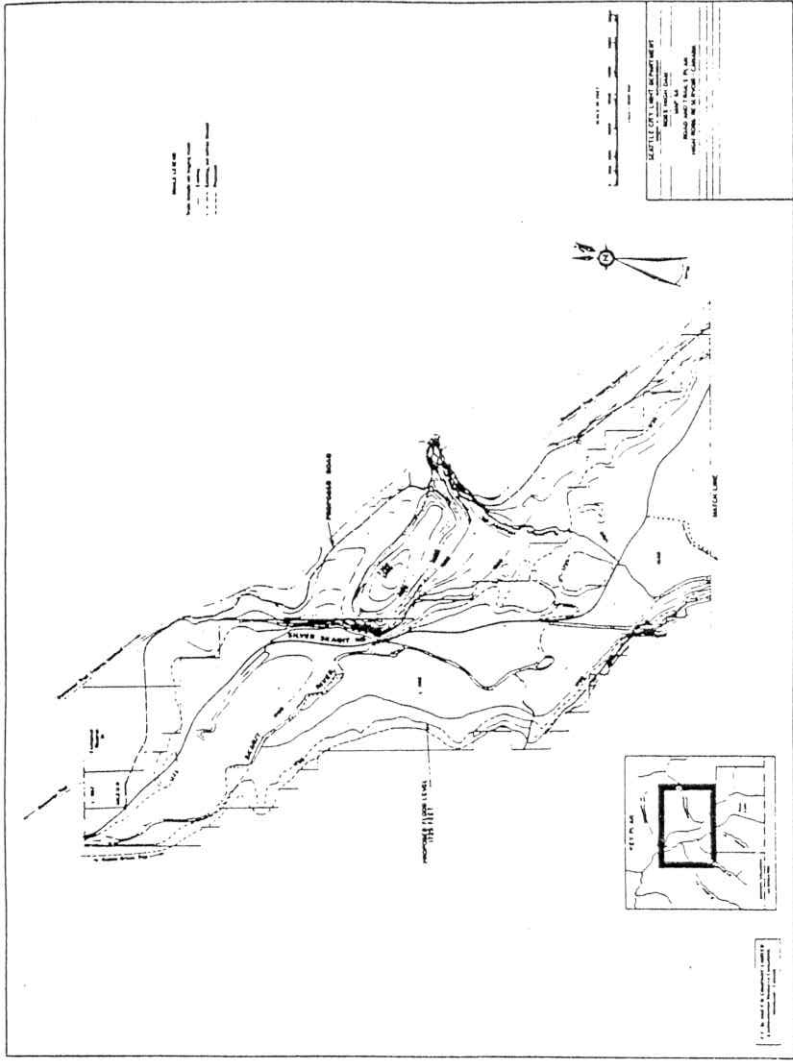


PLATE 1

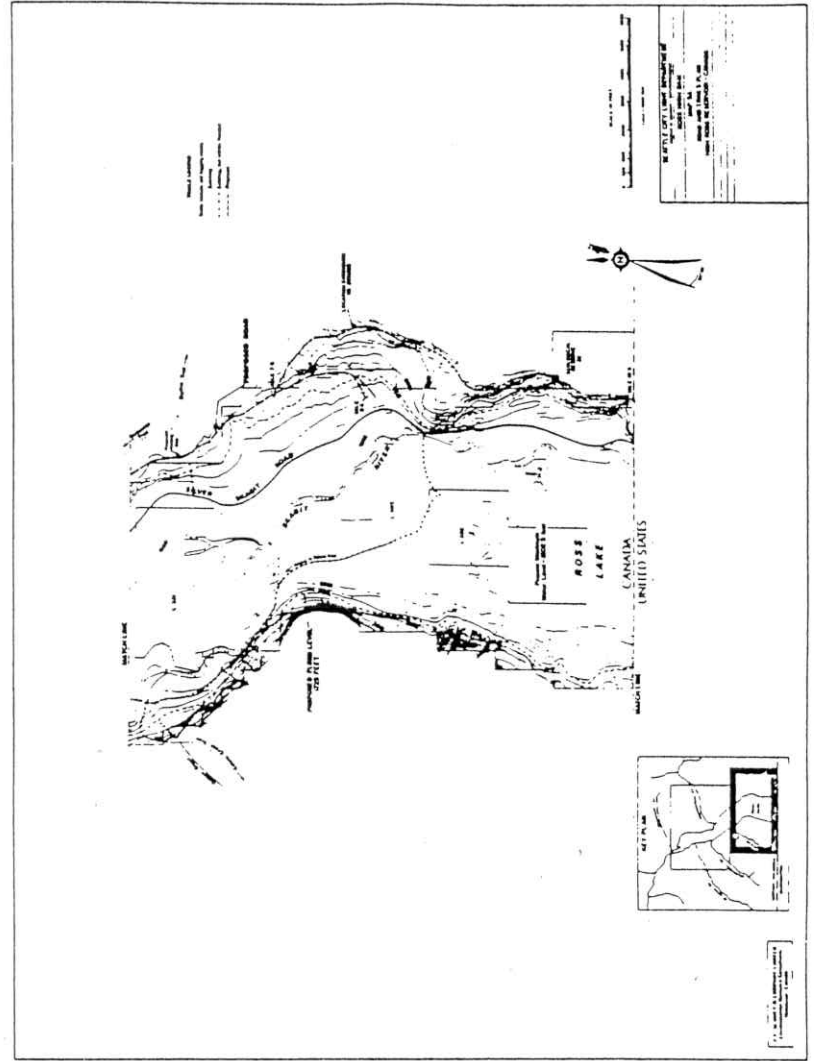


PLATE 2

APPENDIX C.—ARBITRATION RULES: BRITISH COLUMBIA-SEATTLE
AGREEMENT

SECTION I—INTRODUCTORY RULES

Article 1.—Notice, calculation of periods of time

(1) For the purposes of these Rules, any notice, including any communication or proposal, is deemed to have been received if it is physically delivered to the addressee. Notice shall be deemed to have been received on the day it is so delivered.

(2) For the purposes of calculating a period of time under these Rules, such period shall begin to run on the day following the day when a notice, communication or proposal is received. If the last day of such period is an official holiday or a non-business day at the residence or place of business of the addressee, the period is extended until the first business day which follows. Official holidays or non-business days occurring during the running of the period of time are included in calculating the period.

Article 2.—Notice of arbitration

(1) The party initiating recourse to arbitration (hereinafter called the "claimant") shall give to the other party (hereinafter called the "respondent") a notice of arbitration.

(2) Arbitration proceedings shall be deemed to commence on the date on which the notice of arbitration is received by the respondent.

(3) The notice of arbitration shall include the following:

- (a) A brief description of the dispute;
- (b) A demand that the dispute be referred to arbitration;
- (c) A statement of claim as provided in Article 9.

SECTION II—COMPOSITION OF THE ARBITRATION TRIBUNAL

Article 3.—Appointment of arbitrators

(1) Each party shall appoint one arbitrator. The two arbitrators thus appointed shall choose a third arbitrator who will act as the presiding arbitrator of the tribunal.

(2) If within 15 days after the receipt of a party's notification of the appointment of an arbitrator the other party has not notified the first party of the arbitrator he has appointed, the first party may thereupon request the Secretary-General of the International Center for the Settlement of Investment Disputes at Washington, D.C. to appoint the second arbitrator.

(3) If within 15 days after the appointment of the second arbitrator the two arbitrators have not agreed on the choice of the presiding arbitrator, the presiding arbitrator shall be appointed by the Secretary-General of the International Center for the Settlement of Investment Disputes at Washington, D.C. as follows:

The Secretary-General shall, at the request of one of the parties, appoint the presiding arbitrator as promptly as possible. In making the appointment, the Secretary-General shall use the following list-procedure, unless both parties agree that the list-procedure should not be used or unless the Secretary-General determines in his discretion that the use of the list-procedure is not appropriate for the case:

(a) Within 15 days after notice, each party shall submit to the Secretary-General a list containing at least three names,

(b) The Secretary-General shall appoint the presiding arbitrator from among the names on the above lists.

If for any reason the appointment of the second or presiding arbitrator cannot be made according to this procedure, the Secretary-General may exercise his or her discretion in appointing the second or presiding arbitrator.

When the Secretary-General is requested to appoint an arbitrator, the party which makes the request shall send to the Secretary-General a copy of the notice of arbitration and a copy of the Agreement. The Secretary-General may require from either party such information as deemed necessary to fulfill its request. Upon appointment of the presiding arbitrator, the arbitration tribunal shall be deemed to have been formed and shall so notify the parties.

Article 4.—Replacement of an arbitrator

In the event of the death or resignation of an arbitrator during the course of the arbitration proceedings, a substitute arbitrator shall be appointed or chosen pursuant to the procedure that was applicable to the appointment or choice of the arbitrator being replaced.

Article 5.—Repetition of hearings in the event of the replacement of an arbitrator

If the presiding arbitrator is replaced, any hearings held previously shall be repeated; if any other arbitrator is replaced, such prior hearings may be repeated at the discretion of the arbitration tribunal.

SECTION III—ARBITRATION PROCEEDINGS

Article 6.—General provisions

(1) Subject to these Rules, the arbitration tribunal may conduct the arbitration in such manner as it considers appropriate, provided that the parties are treated with equality and that at any stage of the proceedings each party is given a full opportunity of presenting its case.

(2) If either party so requests at any stage of the proceedings, the arbitration tribunal shall hold hearings for the presentation of evidence by witnesses, including expert witnesses, or for oral argument. In the absence of such a request, the arbitration tribunal shall decide whether to hold such hearings or whether the proceedings shall be conducted on the basis of documents and other materials.

(3) All documents or information supplied to the arbitration tribunal by one party shall at the same time be communicated by that party to the other party.

(4) The Governments of Canada and the United States of America shall be notified of the reference of any matter to an arbitration tribunal and, while not parties, may appear before and make submissions to such tribunal.

(5) Copies of all documents and notices of all proceedings shall be provided to the Governments of Canada and the United States of America in the same manner and at the same time as they are provided to the parties to the arbitration pursuant to these rules.

Article 7.—Place of arbitration

The place of arbitration shall be either Vancouver, B.C. or Seattle, WA., selected by lot by the presiding arbitrator; or sessions may alternate between the two cities at the presiding arbitrator's discretion.

Article 8.—Language

The arbitration tribunal shall conduct its proceedings in English.

Article 9.—Statement of claim

(1) The statement of claim shall be contained in the notice of arbitration, and the claimant shall communicate a statement of claim in writing to the respondent and to each of the arbitrators. A copy of the British Columbia—Seattle Agreement and the Treaty shall be annexed thereto.

(2) The statement of claim shall include the following particulars:

- (a) A statement of the facts supporting the claim;
- (b) The points at issue;
- (c) The relief of remedy sought.

The claimant may annex to a statement of claim all documents deemed relevant or may add a reference to the documents or other evidence to be submitted.

Article 10.—Statement of defense

1. Within thirty days of receipt of a statement of claim the respondent shall communicate a statement of defense in writing to the claimant and to each of the arbitrators.

2. The statement of defense shall reply to the particulars (a), (b) and (c) of the statement of claim. The respondent may annex the documents on which reliance is placed or may add a reference to the documents or other evidence to be submitted.

3. In its statement of defense, the respondent may make a counter-claim, arising out of the Agreement, or a claim arising out of the Agreement, for the purpose of a set-off.

Article 11.—Amendments to the claim or defense

During the course of the arbitration proceedings either party may amend or supplement a statement claim or defense unless the arbitration tribunal considers it inappropriate to allow such amendment having regard to the delay in making it or prejudice to the other party or any other circumstances.

Article 12.—Further written statements

The arbitration tribunal shall decide which further written statements, in addition to the statement of claim and the statement of defense, shall be required from the parties or may be presented by them and shall fix the periods of time for communicating such statements.

Article 13.—Periods of time

The periods of time fixed for the communication of written statements should not exceed 30 days. However, the arbitration tribunal may extend the time-limits if it concludes that an extension is justified.

Article 14.—Evidence and hearings

(1) Each party shall have the burden of proving the facts relied on to support a claim or defense, save those conceded by the other party.

(2) The arbitration tribunal may, if it considers it appropriate, require a party to deliver to the tribunal and to the other party, within such a period of time as the arbitration tribunal shall decide, a summary of the documents and other evidence which that party intends to present in support of the facts in issue set out in a statement of claim or statement of defense.

(3) At any time during the arbitration proceedings the arbitration tribunal may require the parties to produce documents, exhibits or other evidence within such a period of time as the tribunal shall determine.

(4) In the event of an oral hearing, the arbitration tribunal shall give the parties adequate advance notice of the date, time and place thereof.

(5) If witnesses are to be heard, at least fifteen days before the hearing each party shall communicate to the arbitration tribunal and to the other party the names and addresses of the witnesses to be presented, and a synopsis of the witness' proposed testimony.

(6) The arbitration tribunal shall make arrangements for the record of the hearing if it is deemed necessary by the tribunal under the circumstances of the case, or if the parties have agreed thereto and have communicated such agreement to the tribunal at least fifteen days before the hearing.

(7) Hearings shall be held in camera unless the parties agree otherwise. The arbitration tribunal may require the retirement of any witness or witnesses during the testimony of other witnesses. The arbitration tribunal is free to determine the manner in which witnesses are examined.

(8) Evidence of witnesses may also be presented in the form of written statements signed by them.

(9) Formal rules of evidence shall not apply and the arbitration tribunal shall determine the admissibility, relevance, materiality and weight of the evidence offered.

Article 15.—Interim measures of protection

At the request of either party, the arbitration tribunal may take any interim measures it deems necessary in respect of the subject-matter of the dispute.

Article 16.—Default

(1) If, within the period of time fixed by the arbitration tribunal, the respondent has failed to communicate a statement of defense, or any other written statement, without showing sufficient cause for such failure, the arbitration tribunal shall order that the proceedings continue.

(2) If one of the parties, duly notified under these rules, fails to appear at a hearing, without showing sufficient cause for such failure, the arbitration tribunal may proceed with the arbitration.

(3) If one of the parties, duly invited to produce documentary evidence, fails to do so within the established period of time, without showing sufficient cause for such failure, the arbitration tribunal may make the award on the evidence before it.

Article 17.—Closure of hearings

(1) The arbitration tribunal may inquire of the parties if they have any further proof to offer or witnesses to be heard or submissions to make and, if there are none, or in its discretion, it may declare the hearings closed and the matter finally submitted to it by the parties.

(2) The arbitration tribunal may, if it considers it necessary owing to exceptional circumstances, decide, on its own motion or upon application of a party, to reopen the hearings at any time before the award is made.

Article 18.—Waiver of rules

A party who knows that any provision of, or requirement under, these Rules has not been complied with and yet proceeds with the arbitration without promptly stating an objection to such non-compliance, shall be deemed to have waived the right to object.

SECTION IV—THE AWARD

Article 19.—Decisions

Any award or other decision of the arbitration tribunal shall be made by a majority of the arbitrators within 45 days of final submission of the matter to it by the parties.

Article 20.—Form and effect of the award

(1) In addition to making a final award, the arbitration tribunal shall be entitled to make interim, interlocutory, or partial awards.

(2) The award shall be made in writing signed by at least a majority of the arbitrators and shall be final and binding on the parties. If a majority cannot be obtained, the decision of the presiding arbitrator shall be final and binding on the parties. The parties undertake to carry out the award without delay.

(3) The arbitration tribunal shall state the reasons upon which the award is based, unless the parties have agreed that no reasons are to be given.

(4) An award shall contain the date on which and the place where the award was made. Where there are three arbitrators and one of them fails to sign, the award shall state the reason for the absence of the signature.

(5) Copies of the award signed by the arbitrators shall be communicated to the parties by the arbitration tribunal.

(6) Any monetary award shall be made and shall be payable in the currency of the recipient, free of any tax or other deductions.

(7) The award shall include interest at an appropriate rate from the date of the violation of the Agreement or other event on which the award is based until the date of the award. The arbitration tribunal shall also affix an appropriate rate of interest to be paid from the date of the award until the date when the award is paid in full. In no event shall the interest rate during the latter period be lower than the prime commercial lending rate then prevailing in New York City.

Article 21.—Applicable law

In all cases, the arbitration tribunal shall decide the dispute and impose sanctions in accordance with the terms of the Agreement. It may take into account the relevant usages of the trade. Subject always to the terms of the Agreement, the Tribunal may apply such choice of law rules and principles of commercial and international law as it determines will assist it in applying the terms of the agreement.

Article 22.—Settlement or other grounds for termination

(1) If, before the award is made, the parties agree on a settlement of the dispute, the arbitration tribunal shall either issue an order for the termination of the arbitration proceedings or, if requested by both parties and accepted by the tribunal, record the settlement in the form of an arbitration award on agreed terms. The arbitration tribunal is not obliged to give reasons for such an award.

(2) Copies of the order for termination of the arbitration proceedings or of the arbitration award on agreed terms, signed by the arbitrators, shall be communicated by the arbitration tribunal to the parties.

Article 23.—Interpretation of the award

(1) Within 30 days after the receipt of the award, either party, with notice to the other party, may request that the arbitration tribunal give an interpretation of the award.

(2) The interpretation shall be given in writing within 30 days after the receipt of the request. The interpretation shall form part of the award.

Article 24.—Correction of the award

(1) Within thirty days after the receipt of the award, either party, with notice to the other party, may request the arbitration tribunal to correct in the award any errors in computation, any clerical or typographical errors, or any errors of similar nature.

The arbitration tribunal may within thirty days after the communication of the award make such corrections on its own initiative.

(2) Within thirty days after the receipt of the award, either party, with notice to the other party, may request the arbitration tribunal to make an additional award as to claims presented in the arbitration proceedings but omitted from the award.

(3) If the arbitration tribunal considers the request for an additional award to be justified and considers that the omission can be rectified without any further hearings or evidence, it shall complete its award within thirty days after the receipt of the request.

Article 25.—Costs

(1) The arbitration tribunal shall fix the costs of arbitration in its award. The term "costs" includes only:

(a) The fees of the arbitration tribunal to be stated separately as to each member and to be fixed by the tribunal itself in accordance with this Article;

(b) The travel and other expenses incurred by the arbitrators;

(c) The travel and other expenses of witnesses to the extent such expenses are approved by the arbitration tribunal;

(d) The costs for legal representation and assistance of the successful party if such costs were claimed during the arbitration proceedings, and only to the extent that the arbitration tribunal determines that the amount of such costs is reasonable;

(e) Any fees and expenses of the Secretary-General of the International Center for the Settlement of Investment Disputes at Washington, D.C. in the establishment of the arbitration tribunal.

(2) The fees of the arbitration tribunal shall be reasonable in amount, taking into account the amount in dispute, the complexity of the subject-matter, the time spent by the arbitrators and any other relevant circumstances of the case.

(3) Except as provided in the following paragraph, the costs of arbitration shall in general be borne by the unsuccessful party. However, the arbitration tribunal may apportion each of such costs between the parties if it determines that apportionment is reasonable, taking into account the circumstances of the case.

(4) With respect to the costs of legal representation and assistance to the successful party, the arbitration tribunal, taking into account the circumstances of the case, shall be free to determine which party shall bear such costs or may apportion such costs between the parties if it determines that apportionment is reasonable.

(5) When the arbitration tribunal issues an order for the termination of the arbitration proceedings or makes an award on agreed terms, it shall fix the costs of arbitration in the text of that order or award.

(6) No additional fees may be charged by an arbitration tribunal for interpretation or correction or completion of its award.

Article 26.—Deposits of costs

(1) The arbitration tribunal, on its establishment, may request each party to deposit an equal amount as an advance for costs.

(2) During the course of the arbitration proceedings the arbitration tribunal may require supplementary deposits from the parties.

(3) If the required deposits are not paid in full within thirty days, the arbitration tribunal shall so inform the parties in order that one or another of them may make the required payment. If such payment is not made, the arbitration tribunal may proceed to an award against the defaulting party or order the suspension or termination of the arbitration proceedings.

(4) After the award has been made, the arbitration tribunal shall render an accounting to the parties of the deposits received and return any unexpended balance to the parties.

APPENDIX D.—SKAGIT ENVIRONMENTAL ENDOWMENT FUND AND
COMMISSION

This appendix is part of an agreement between the City of Seattle and British Columbia and relates to the establishment, and administration through a Commission, of a Skagit Environmental Endowment Fund.

The City of Seattle ("Seattle") and the Government of the Province of British Columbia ("British Columbia"):

Recognizing that the settlement regarding High Ross Dam presents recreational and environmental opportunities in both the United States and Canada; and

Recognizing that certain physical improvements to recreational facilities have been delayed due to the uncertainty surrounding the raising of Ross Dam; and

Recognizing that Americans and Canadians enjoy recreation on both sides of the border; and

Desiring to enhance recreational opportunities and protect environmental resources consistent with authority of governmental agencies in the United States and Canada:

Have agreed as follows:

ARTICLE I

British Columbia and Seattle herewith establish a fund to be called the "Skagit Environmental Endowment Fund," administered by a commission. The Fund shall have as its purposes, within the watershed of the Skagit River:

- (a) To conserve and protect wilderness and wildlife habitat;
- (b) To enhance recreational opportunities in the Skagit Valley;
- (c) To acquire mineral or timber rights consistent with conservation and recreational purposes;
- (d) To conduct studies of need and feasibility of projects;
- (e) To plan for and construct hiking trails, foot bridges, interpretive displays and the like;
- (f) To cause the removal of stumps and snags in Ross Lake and on the shoreline as deemed appropriate, and the grooming and contouring of the shoreline, consistent with wildlife habitat protection; and
- (g) To connect, if feasible, Manning Provincial Park and the North Cascades National Park by a trail system.

ARTICLE II

Seattle shall contribute the sum of \$1,000,000 (U.S. currency) to the Fund per year for four years and British Columbia shall contribute the sum of \$250,000 (U.S. currency) to the Fund per year for four years. The first such payments shall be made within four

months after the coming into force of the Treaty but in any event not before January 30, 1985. Subsequent payments shall be made not later than the anniversary dates of the first payment.

Seattle shall supplement the Fund by annual payments at a rate set by the Commission not to exceed 20¢ (U.S. currency) per megawatt hour from purchases of electricity pursuant to this agreement. Annual payments shall be made on or before December 31 of each year commencing in 1986.

British Columbia shall supplement the Fund by annual payments at a rate set by the Commission not to exceed 20¢ (U.S. currency) per megawatt hour of electricity resulting from the raising of the operating level of Seven Mile Reservoir and Dam. Annual payments shall be made on or before December 31 of each year commencing in 1986.

Subsequent to 1986, the authorized maximum rate of supplemental funding shall be adjusted by the Commission on an annual basis to account for inflation. Adjustment for inflation shall be based on the rate of general inflation in the United States. The Commission shall determine annually, based on budgetary needs, the actual millage rate to be applied to these energy sources for supplemental funding, subject to the maximum limitation above. Additional funds for the Endowment may be sought from other public or private sources in Canada and the United States.

The annual budget of the Commission shall be subject to review and approval by Seattle and British Columbia. All supplemental funding and expenditures shall be established by the annual budget and there shall be no annual carryover of unspent budgeted amounts, except for amounts for contracts authorized by British Columbia and Seattle in a previous budget process. Such budget may authorize expenditures both from the principal and interest earnings from the Fund.

The Commission shall make an annual report to British Columbia and Seattle by March 31 of each year. The records and accounts of the Commission shall be established and maintained in accordance with generally accepted accounting principles subject to review and approval by British Columbia and Seattle, and such records and accounts shall be subject to audit at all times by British Columbia and/or Seattle.

ARTICLE III

It is the intent of the parties that a large majority of the expenditures from the Fund, averaged over a period of ten years, shall be made in British Columbia. Exceptions to this policy shall be made only with the unanimous concurrence of the Commission. No expenditures of the Fund shall be made outside of the Skagit River drainage north of Ross Dam.

ARTICLE IV

There is hereby established a Commission which shall consist of eight members, four of whom shall be appointed by the Mayor of Seattle and four by the Premier of British Columbia. Both the Mayor and the Premier shall endeavor to appoint one member from their respective governments, one member with financial

management experience, one member with property management or property acquisition experience, and one member representing the environmental or conservation interests of the Skagit Valley. Alternates may be appointed for each member of the Commission in the same manner as the members. Initially, terms of two of the four members appointed by both the Mayor and the Premier shall be for two years, and terms of the remaining two members appointed by the Mayor and the Premier shall be for four years. Subsequently, all terms shall be for a period of four years. Members are subject to removal at the discretion of the authority who appointed them at any time. In the event a member does not complete a term, an alternate may do so.

The Commission shall elect co-chairpersons, one of whom shall have been appointed by the Mayor and one by the Premier, for a term of two years each. A quorum shall consist of at least six members of the Commission or their alternates, including always three appointed by the Premier and three by the Mayor. The affirmative vote of at least two members appointed by the Premier and two by the Mayor shall be required for any decision to be taken by the Commission. Minutes of all meetings shall be kept.

ARTICLE V

The Commission shall be a non-profit corporate entity and is to be operated without purpose of gain for its members, and any profit or other accretions to the Fund are to be used in promoting its objects. The Commission shall have all powers and capacity necessary and appropriate for the purposes of performing its functions under the agreement, including, but not by way of limitation, the following powers and capacity:

- (a) To acquire and dispose of real property;
- (b) To enter into contracts;
- (c) To sue or be sued in either Canada or the United States;
- (d) To invest the Endowment Funds in either or both United States and Canada;
- (e) To solicit, accept and use donations, grants, bequests, or devises intended for furthering the functions of the Endowment Fund; and
- (f) To adopt such rules of procedure as it deems desirable to enable it to perform the functions set forth in the agreement.

ARTICLE VI

It is the intent of the parties that expenditures from the Fund for administrative costs, consultants, travel and the like be kept to an absolute minimum. It is not the intent of the parties that expenditures from the Fund replace or supplant operating budgets or responsibilities of public agencies, nor is it the intent that the Commission enter into obligations for maintenance projects on a continuing basis. It is agreed by the parties that Seattle and British Columbia shall provide staff support to the Commission on an as needed basis. The members shall receive no remuneration from the Fund; however, they may be paid reasonable per diem and travel expenses as authorized by the annual budget.

ARTICLE VII

It is intended that the Fund and the Commission shall not be subject to Federal, State, Provincial or local taxation in Canada or the United States.

SECTION 3: NON-FLOODING OF SKAGIT VALLEY

APPENDIX E.—AGREEMENT REPORT: BRITISH COLUMBIA-SEATTLE
AGREEMENT

SECTION 1: DEFINITIONS

Several terms that recur in the Agreement and that are of great significance to operation and interpretation of the Agreement, require the specific definitions set forth in Section 1. The first defines the Agreement to encompass its five appendices. Each of the appendices covers certain subjects in considerably greater detail than does the main text of the Agreement, and the detail is necessary for clear interpretation of the Agreement. Thus, unless there is direct conflict between the appendices and the sections that precede them, they have equal standing.

The "normal full pool elevation" definition is intended to provide a workable basis for Seattle's and British Columbia's operation of Ross Dam and Seven Mile Dam, respectively, as contemplated by the Agreement. Each project has normal full pool elevations under various conditions stipulated in the Agreement. These elevations are defined at the dams rather than at the international border to avoid the difficulties of attempting to anticipate the unpredictable wave and wind action and reservoir slope that can occur due to extreme run-off or operating conditions. For example, flood control requirements imposed on Seattle in some high flow situations may mandate that Ross Lake be overfilled beyond the normal full pool elevation of Ross Dam.

The remaining definitions are fully described by the text of Section 1 of the Agreement.

SECTION 2: TERM OF AGREEMENT

As described in this section, the terms of the Agreement will be in effect from January 1, 1986, through January 1, 2066, except as altered according to Sections 9 and 10 of the Agreement, or as revised by the parties as part of their periodic review of the Agreement. It is intended that elements of the Agreement not expressly discontinued will remain in effect through January 1, 2066, even following orderly discontinuance of the obligations of Sections 4, 5, or 6 of the Agreement. Such continuing elements of the Agreement include operation of Ross Lake at its existing normal full pool elevation of 1602.5 feet, or as raised pursuant to (C)(i), payments to and use of the Environmental Endowment Fund, and operation of Seven Mile Reservoir a normal full pool elevation of 1730 feet, subject only to the limitation in 9(D)(ii). The parties expect that a Treaty confirming this Agreement will be concluded before December 31, 1984. If that proves impossible, the parties may extend the period for conclusion of the Treaty.

This section sets the conditions for the operation by Seattle of the Ross Dam project pursuant to the Agreement. Specifically, it establishes that Seattle may continue to operate Ross Lake only at levels consistent with a normal full pool elevation at the Dam of 1602.5 feet, subject to emergency flood control regulations as established by the appropriate United States federal agency, as long as British Columbia continues to deliver electricity under the Agreement. This elevation obtains under the present reservoir extension into the Province, and will continue while the energy deliveries under Section 4 of the Agreement continue.

The language of this section allows further flooding up to a normal full pool elevation of 1725 feet in the event that British Columbia discontinues electricity deliveries under the Agreement. The parties intend that if British Columbia were to initiate the discontinuance of power deliveries and Seattle were to raise Ross Dam to an elevation of 1725 feet, Seattle's operation of the higher reservoir would permit the City to continue to receive by generation at least the amounts of power it will receive from British Columbia under the Agreement, according to the schedule and other terms specified in Section 4 and Appendix A.

SECTION 4: BRITISH COLUMBIA TO SUPPLY ELECTRICITY

This section and its companion Appendix A describe the amount, schedule, and other terms of power deliveries from British Columbia to Seattle under this Agreement. These deliveries and their schedule are intended to make Seattle as well off as if it had raised Ross Dam, by duplicating the expected output of High Ross except where departures from the High Ross schedule and flexibility were deemed to benefit both the British Columbia and Seattle.

Section 4 states, and Appendix A describes in detail, the British Columbia electrical energy delivery obligation, which is 37.3 MW average (or 326,748 MWh/year), all firm energy. This is intended to be invariant from year to year, and thus more predictable for both parties than an exact estimation and delivery of the energy that would have been produced by High Ross Dam itself in each year. The 37.3 average annual megawatt figure is calculated at the Skagit bus, as defined in Section 1 of the Agreement. It includes consideration for hypothetical operating rule restrictions on the operation of High Ross and is subject to no further diminution for environmental compensation or any other considerations. The only specific adjustments to the basic energy figure are for transmission losses and monthly scheduling flexibility, as set forth in Appendix A. It is intended that the parties be permitted to negotiate mutually beneficial departures from the basic energy delivery schedule, should such opportunities arise and should the parties mutually agree to such departures.

Appendix A describes the size and schedule of the Province's electrical peak capacity delivery obligation. By providing for and limiting the British Columbia capacity delivery rate in the months of April through October, the Agreement approximates the capacity that would have been available to Seattle from High Ross and ensures British Columbia a high level of available carrying capac-

ity on the B.C. Hydro interties to the U.S. in those months. During other months, the Province's capacity obligation is simply whatever is required to bring the City of Seattle's sum of existing Ross peak generating capability plus capacity deliveries received under the Agreement up to a total of 532 MW at the Skagit bus. It is intended that this obligation raise Seattle's Ross project plus Agreement capacity to 532 MW, independent of any year's water conditions, so the City will have the greatest possible planning certainty and the Province will maintain the greatest surplus management flexibility in most years.

It is the intent of the parties that B.C. Hydro may elect to use the right to store up to 50 GWh in Ross Lake to maintain head and peak generating capacity at the existing Ross project and thus limit the additional capacity deliveries under the Agreement, subject to the constraints set forth in Appendix B, Section 3(b). It is further recognized that B.C. Hydro's right to store energy in Ross Lake may be exercised for any purpose consistent with normal utility practice.

Appendix A also describes the operating obligations and procedures under the Agreement as they apply to both parties. It is intended that British Columbia and Seattle will treat the power delivery terms and obligations in the Agreement and Appendix A as an operating point of departure, and that they will continue to seek means of scheduling their joint operating systems that will allow for mutually beneficial departures from this Agreement, either in annual energy delivery scheduling or in the mix of energy and capacity deliveries.

In particular, if British Columbia develops or otherwise identifies a specific power source, such as the Seven Mile project as enhanced by additional upstream storage in the Pend Oreille River, or a portion of the Province's downstream power benefit entitlement or Kootenay diversion rights under the Columbia River Treaty, that has economic present value, security, and operating characteristics sufficiently similar to High Ross, the parties may mutually agree to substitute rights to the output from these specific resources for the compensation deliveries in this section. The parties specifically intend to monitor such potential substitute resources that generate power in the United States or that otherwise offer means of achieving transmission or other efficiencies.

SECTION 5: SEATTLE PAYMENTS FOR ELECTRICITY

Seattle's compensation to British Columbia for electricity deliveries under Section 4 is specified in this section as: (a) two direct annual payments, described in the next paragraph; and (b) Seattle's permission and support for a Treaty right to allow British Columbia to operate Seven Mile Reservoir at a normal full pool elevation of 1730 feet, which operation would flood Seattle-owned land in the United States, and British Columbia's right to the *net* power increment so gained (after adjustment for backwater encroachment losses at Boundary Dam that must be returned to Seattle). In addition, Seattle's overall compensation to British Columbia is understood to include Seattle's primary contribution to the initial capital

funding and annual financing of the Environmental Endowment Fund established under Section 11.

The amount and schedule of payments Seattle will make to British Columbia is stipulated in this section. Both the amount and the schedule are intended to approximate the financial obligations Seattle would face if it were to construct High Ross for power production beginning in January 1986. Seattle will make a two-part annual payment to British Columbia at the end of each year. The first component of this payment represents what Seattle would have spent for capital if it had built High Ross; the second represents the amount that Seattle would have otherwise spent on operation and maintenance associated with High Ross.

The component of Seattle's payment representing the construction cost of High Ross will be \$21,848,000 (U.S.) per year, payable on December 31 of each year from 1986 through 2020. This corresponds to an estimated High Ross construction cost of \$208,376,000 (U.S.) as of January 1, 1986, which includes all costs for High Ross Dam incurred to date, as described in the IJC's "Berry/Gordon Report" (April 1982), fully financed at 10.1267 percent, with 35 annual serial payments beginning December 31, 1986. The cost elements included in this total estimate are those listed in Appendix B. Funds expended to date by Seattle for preliminary project costs were an integral part of the cost projections agreed to. The estimated 1986 capital cost will remain the basis for payments, independent of actual inflation and interest subsequent to the estimate's derivation. Thus, the parties intend that Seattle will make 35 annual payments of \$21,848,000 (U.S.) to British Columbia on this schedule regardless of future changes in estimated High Ross construction cost or interest rates, assuming no discontinuance of power deliveries under the Agreement within that period. The parties may, by mutual consent, subsequently agree to a semi-annual or other payment schedule that preserves the present value of payments generated by the arrangement specified above.

Seattle's annual payment will also include an element reflecting operating and maintenance costs that would have been associated with High Ross if built. These payments will be made in every year of the Agreement for which power deliveries occur pursuant to Section 4. The first payment, based on the IJC report's estimate of operation and maintenance costs, will be \$100,000 (U.S.) on December 31, 1986. Subsequent payments will be adjusted annually thereafter, to vary at the rate of the United States Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), or a consistent successor index.

These two streams of payments will constitute the direct financial portion of Seattle's compensation to British Columbia for electricity deliveries in lieu of High Ross. The scheduling of the preponderance of the payments in the first 35 years of the Agreement shall be considered adequate financial compensation to British Columbia for electricity deliveries during the entire period, since annual payments in the initial years are deemed to exceed the value of the electricity delivered at the outset of the Agreement, and since they closely replicate the level and schedule of cost obligations Seattle would have faced had High Ross Dam been constructed.

SECTION 6: WHEELING COSTS

This section, along with terms in Appendix A to the Agreement, establishes the parties' obligations for paying wheeling costs of power from its delivery point at Blaine to the Seattle load center.

British Columbia is intended to bear the primary responsibility for such wheeling costs except as described below. The basic intent is that, since Seattle would incur no additional wheeling expense were it to raise Ross Dam, it should not be exposed to such costs under the Agreement.

The parties anticipate two specific exceptions, and intend that Seattle should participate in the wheeling costs in these circumstances. First, if Seattle receives more than 230 MW of capacity from British Columbia, the Agreement and Appendix A stipulate that Seattle will pay the costs for wheeling any power in excess of 230 MW, thus providing the Province with a more predictable cost exposure for wheeling. Second, if the wheeling rates applicable to the Province's wheeling from Blaine to Seattle exceed those the City would be charged for the same wheeling route and capacity wheeled, the City will pay the full differential between its rate and the rate charged to the Province. This exposure is intended to be limited by a specific Treaty clause ensuring that the transmission costs for wheeling the power delivered under the Agreement will be no greater than if the power has been generated and wheeled over BPA lines within the States of Washington.

It is intended by these arrangements that the City and the Province will retain a shared interest in reasonable transmission rates for the Bonneville Power Administration and that they will work jointly with BPA to maintain the lowest rates possible in view of the firmness of this Agreement's power delivery obligation and schedule.

It is further understood that the City, consistent with its own financial and operational constraints, will attempt to minimize the requirement for wheeling above 200 MW and that the parties will examine wheeling cost responsibilities as part of their periodic review described in Section 8 of the Agreement. If opportunities for mutual benefit are available through reassignment of these responsibilities, or modified operation of these resources, the parties may modify these arrangements by mutual consent.

SECTION 7: FLOODING IN THE UNITED STATES BY SEVEN MILE RESERVOIR

This section covers British Columbia's rights and obligations under the Agreement that involve its Seven Mile Reservoir. It is intended that British Columbia's rights will include the operation of the Reservoir at a normal full pool elevation of 1730 feet and ownership of the net increment of power generated by the Seven Mile Project. The higher Reservoir level will cause backwater encroachment and attendant power losses at Seattle's Boundary Dam. British Columbia will be required to return such lost power to Seattle at the Boundary Project in the full amount and on the same schedule as it would have been generated by the Boundary Project, had the Seven Mile Reservoir remained at a normal full pool elevation of 1715 feet. Calculations of these amounts will be performed jointly by Seattle and British Columbia, at the expense of British

Columbia, as further described in Appendix A, subject in the event of dispute to resolution under the provisions of Section 10 of the Agreement.

The British Columbia flooding rights described in this section are intended to last from January 1, 1986, through January 1, 2066, in parallel with the schedule of power deliveries to Seattle, with the following exceptions. First, the flooding and higher Reservoir operation may begin prior to 1986, under a separate agreement. Second, in the event of orderly discontinuance by either party and fulfillment by British Columbia of all its obligations upon discontinuance, the Province is intended to retain its flooding rights and its right to the net power increment from the higher Seven Mile Reservoir operation through January 1, 2066, except as it may be modified pursuant to 9(C)(ii). Third, under the conditions of 9(D)(ii), British Columbia's right to operate Seven Mile Reservoir above 1715 feet will cease immediately, and the right will only be reactivated upon satisfaction of the conditions of 9(D)(iii).

SECTION 8: PERIODIC REVIEW

This section formalizes the intent of both parties to keep the Agreement in the most mutually beneficial form as conditions may change. It is intended as a guaranteed opportunity for the Province and the City to review the status of their utility systems' operations and their policy issue priorities and to seek any changes to the Agreement, in light of these operations and priorities, that they agree would make both better off. Only if such mutual motives are identified will the parties propose amendments. The review is expressly *not* intended as a mechanism for unilateral changes, and any proposed changes not agreed to in concept by both parties cannot be referred for resolution pursuant to Section 10.

It is further intended that these formal periodic reviews will occur at intervals of no more than 10 years. They may occur more frequently, with the same requirements and procedures for action.

SECTION 9: DISCONTINUANCE OF CERTAIN OBLIGATIONS AFTER NOTICE

The first paragraph of this section establishes the notification procedures for orderly discontinuance by either party. These procedures include a one-year notification review, or "cooling off," period, followed by a five-year notice period. The intent of allowing for a separate notification review period is to allow both parties an opportunity to consider (or reconsider), plan for, and possibly preclude by renegotiation an impending discontinuance, thus helping to stabilize the Agreement. A party considering discontinuance may want the procedures to begin while it retains the option of withdrawing its notification. During the one-year notification review period, such withdrawal may be made unilaterally and without damage to the other party. Seattle, for example, would not be allowed to commence construction of High Ross until the beginning of the notice period.

Once the five-year notice period has begun, the notified party is expected to begin planning for development and timing or disposition of resources, which will be necessary once the deliveries under

the Agreement have ceased. To prevent harm to the notified party so proceeding, it is intended that either withdrawal of notice of discontinuance in the five-year notice period or acceleration of discontinuance in advance of the five-year horizon will require mutual consent.

The second paragraph (B) of this Section is intended to express the limits of Seattle's options under the Skagit Agreement if the City initiates discontinuance. Seattle may, in that event, continue under the terms of the Agreement, but with no residual right to flood beyond a normal full pool elevation of 1602.5 feet. The option of raising Ross Dam can only be reactivated by British Columbia's discontinuance of power deliveries under the Agreement.

It is intended that the second paragraph will not necessarily apply to a situation in which Seattle gains access to a power source more financially advantageous than the power it receives from British Columbia under the Skagit Agreement. The parties intend that such a situation, which affords the opportunity for both parties to benefit from renegotiation of some terms of the Agreement, need not trigger discontinuance, but may instead be handled through renegotiation of terms of the Agreement under Section 8.

9(C)(i)-(vi) of this section describe the consequences of British Columbia exercising its option to discontinue power deliveries under the 80-year Skagit Agreement prematurely.

9(C)(i) provides that Seattle will be permitted, without further procedural requirements, to proceed with construction of High Ross under the Treaty confirming this Agreement and the Federal Energy Regulatory Commission license which will continue in force for the term of this Agreement. It is intended that Seattle could begin construction one year after receipt of British Columbia's notification of discontinuance, so that construction and Ross Lake refill could be completed before such discontinuance takes effect. During both the review period and the five-year notice period, power deliveries by British Columbia and annual power payments by Seattle are intended to continue as defined in the Agreement.

If, however, Seattle were able to complete construction of High Ross and commence full operation in less than the five years provided by the notice period, the power deliveries by British Columbia and payments by Seattle would cease upon such operation.

9(C)(i) also defines the terms of compensation by Seattle, should British Columbia initiate discontinuance of the Agreement and should Seattle then proceed with the construction of high Ross. It is intended that in such a situation Seattle would not be obligated to make any additional mitigation payments or pay taxes or other compensation to British Columbia. Seattle's obligation associated with the High Ross Dam would be limited in such an event to the costs of road relocation, recreation improvements, and reservoir clearing activities described in Appendix B to this Agreement and its background reports, with appropriate adjustments to reflect these items' costs at the time of construction.

It is further intended that the compensation terms in this Agreement other than Seattle's power payments will remain in effect if the Province initiates discontinuance. British Columbia will retain the right to operate Seven Mile Dam at a normal full pool elevation of 1730 feet, and both parties will continue to contribute annu-

ally through an energy charge for the financing of the continuing operations of the Environmental Endowment Fund. Further, it is intended that these terms of the Agreement will constitute the only compensation and mitigation obligation of Seattle if British Columbia discontinues power deliveries and Seattle raises Ross Dam to a normal full pool elevation of 1725 feet.

9(C)(ii) is intended to ensure some reciprocal benefit to Seattle if upon British Columbia's discontinuance of its power delivery obligation Seattle does not gain a power supply increment from the construction of High Ross Dam. British Columbia would be obligated to deliver this compensation for any period of this Agreement following British Columbia's discontinuance during which Seattle did not exercise its option to construct High Ross Dam, irrespective of its other resource decisions. It is intended that the 1.05 MW of average annual energy delivered at Blaine (or its equivalent delivered elsewhere) in this case would be in addition to full return by British Columbia of any power lost by Seattle at Boundary Dam due to backwater encroachment. The monthly schedule of delivery of this power is intended to reflect the monthly schedule of energy deliveries called for under the Agreement.

9(C)(iii) affirms that the right of British Columbia to raise the operating level of Seven Mile Reservoir is not conditioned on the status of the Skagit Agreement subsequent to its enactment, nor on the construction of High Ross Dam in the event that British Columbia elects to discontinue power deliveries. That right would only lapse upon conclusion of the Agreement in 2066 or in the event that British Columbia breached the Agreement, as set forth in 9(D)(ii).

9(C)(iv) is intended generally to prevent Seattle from being harmed financially by discontinuance initiated by British Columbia. Specifically, it is intended to ensure that Seattle receives a sum sufficient to construct High Ross Dam upon British Columbia's discontinuance and does not experience any capital cost burden beyond that agreed to in Section 5 of the Agreement. The construction cost of High Ross Dam will include all categories of cost listed in Appendix B of the Agreement, with specific details as described therein.

To accomplish this, the parties have devised a formula for calculating British Columbia's exact obligation. British Columbia would, if it discontinued power deliveries, be obligated to return the fully financed construction cost of High Ross Dam, less only the discounted value of any capital cost-derived portions of payments that Seattle had not yet made at the time of discontinuance.

$$B.C. \text{ Repayment Obligation}_t = \text{High Ross Cost}_t - [\$21,848,000(1+r)^{-1} + \$21,848,000(1+r)^{-2} + \dots + \$21,848,000(1+r)^{-n}]$$

t = year in which discontinuance becomes effective.

r = Seattle's borrowing rate on Seattle City Light's most recent major bond issue prior to effective discontinuance.

n = number of years from discontinuance until Seattle's last scheduled capital payment to British Columbia in 2020.

\$21,848,000 = annual "capital" payment obligation of Seattle, 1986-2020.

The amount of the repayment shall be calculated using the formula stated above, and keeping in mind three objectives: (1) Seat-

tle's obligation to pay any costs associated with construction of High Ross shall be limited to the discounted value of any remaining Seattle payments under the Agreement; (2) the scheduling and other arrangements for British Columbia's payment of its calculated share of High Ross costs shall be done in such a way as to minimize overall costs to the Province; and (3) the discount rate selected should represent as closely as possible the rate Seattle would be required to pay for capital to construct High Ross or its replacement upon discontinuance.

The formula above specifies the size of the British Columbia repayment obligation if Seattle opts to proceed immediately with construction of High Ross Dam upon notice of discontinuance by British Columbia. The size of the obligation will be adjusted to afford Seattle the same degree of cost protection if the repayment is rescheduled.

If Seattle exercises its option to construct High Ross Dam or its replacement after a delay of some years, the British Columbia repayment obligation will be recalculated as of the year in which the Dam or its replacement is completed. The size of the obligation will be the cost of High Ross Dam in the year it is actually completed (or the cost of its replacement, if lower) minus the discounted value in that year of Seattle's capital payments not made. It is intended that this would give Seattle equivalent protection, while allowing British Columbia to retain any real earnings on the funds it had received from Seattle until Seattle exercises its option of 9(C)(iv) (a) or (b).

British Columbia may elect to repay Seattle under the provisions of 9(C)(iv) (a) or (b) for construction of High Ross or acquisition of alternative resources, immediately upon notice of Seattle's intent to proceed with such construction or acquisition, as those costs are incurred by Seattle, or on the project's date of completion, with full payment being due no later than on the project's completion date. In the latter case, Seattle would be required to obtain interim financing for construction, and British Columbia would be responsible for Seattle's interest-during-construction expenses at Seattle's lowest available rates (as envisioned in Appendix B). British Columbia may also devise some combination of the above means of discharging its financial obligations upon its discontinuance, provided only that the Present Value of Seattle's costs is no greater than specified by the preceding formula. In addition, British Columbia may elect to provide Seattle directly with replacement electricity during construction and Ross Lake refill, as specified in Appendix B, rather than reimbursing Seattle for purchase of this electricity from other sources, provided the net cost to Seattle is no higher than if British Columbia had compensated Seattle in cash for replacement power.

The parties intend that if Seattle has access at the time of discontinuance to a supply of resources less costly than High Ross in Seattle's sole determination, and if Seattle therefore opts not to proceed with the construction of High Ross, then the British Columbia obligation would be reduced by the difference between the estimated cost of High Ross and the lower cost of the equivalent amount and configuration of these other resources. If the lower cost option involves a long-term purchase, rather than a construc-

tion alternative, the projected cost of such purchases to the year 2066 will be capitalized at the borrowing rate on Seattle City Light's most recent bond issue prior to its exercise of this resource option, and will be payable from British Columbia to Seattle upon Seattle's exercise of such option.

9(C)(v) specifies the procedures by which the British Columbia repayment obligation and schedule will be determined. It is intended that Seattle, as the source of High Ross construction cost information, will convey to British Columbia its estimate of the High Ross construction cost size and schedule, the cost and schedule of any resource selected instead of High Ross Dam pursuant to 9(C)(iv)(b), if appropriate, and the size of the allowance for capital payments not yet made by Seattle prior to British Columbia's discontinuance of power deliveries. This information will be provided by Seattle at the time it exercises its option between the resources and terms described in 9(C)(iv) (a) and (b).

Following Seattle's official exercise of this option and provision of the stipulated cost information, British Columbia will have three months to respond to the cost estimates and to propose a repayment schedule within the constraints described above. This limit on response time is intended to allow Seattle the time necessary to plan for and obtain any necessary short-term financing and to design any appropriate contract payment terms for construction work on High Ross Dam or its equivalent replacement resources.

9(C)(vi) affirms that if discontinuance is initiated by British Columbia, Seattle may retain for the duration of the Agreement the option of either proceeding with construction of High Ross or officially abrogating its construction right. The repayment obligation of British Columbia, described in 9(C)(iv), will be due only upon Seattle's exercise of either the construction or non-construction option, and the amount of the obligation will be calculated at that time. For any period between British Columbia's discontinuance and Seattle's exercise of its option, British Columbia will retain control of all funds paid by Seattle prior to effective discontinuance, and it will retain rights to any earnings of those funds beyond the amount necessary to discharge its repayment obligation at the time Seattle exercises its option with respect to High Ross. Upon Seattle's exercise of its option, British Columbia will retain the further flexibility in repayment scheduling described above.

9(D) establishes specific penalties and remedies to be imposed on British Columbia if it ceases power deliveries prematurely or breaches the Agreement, either because its repayment obligations upon discontinuance are not met, it ceases to make the power deliveries required by Section 4, or for other reasons.

An automatic remedy for Seattle in the event of British Columbia's breach of its power delivery obligation is provided by 9(D)(i). This provision is intended to ensure that Seattle would experience no power delivery interruptions in such situations, even though financial compensation awards by the arbitration tribunal may not be available for some time. It calls for the transfer to Seattle, upon British Columbia's default, of equivalent power to that described in Section 4 of the Agreement. This power would be made available from either: power supplies generated in the United States but ultimately controlled by Canada, such as the Canadian entitlement to

downstream benefits under the Columbia River Treaty; or power being exported to other entities in the United States by British Columbia.

This transfer is intended to last for the full period of default on deliveries, which would be either five years or until Seattle commenced operation of High Ross Dam following discontinuance, whichever occurred sooner. Furthermore, such transfer rights of Seattle upon British Columbia power delivery default would constitute the first claim on any power required to effect this conditional transfer.

The power would be transferred either by British Columbia directly or by any other entity with control over the power. Upon failure to deliver power on the part of British Columbia, the United States government or other entity charged with transmission of such power will be directed to arrange for delivery of the power to Seattle.

9(D)(ii) establishes that a second automatic consequence of British Columbia default on energy deliveries or its failure to satisfy an arbitral award will be revocation of the authority to operate Seven Mile Reservoir above a normal full pool elevation of 1715 feet. This penalty will be in effect until full compensation has been awarded to Seattle pursuant to either Section 9 or Section 10, which compensation may take whatever form is deemed appropriate by the arbitration tribunal. The parties intend that this penalty should serve as a strong deterrent to non-orderly discontinuance or default.

9(D)(iii) recognizes that while the immediate remedies contemplated by 9(D)(i) and 9(D)(ii) are necessary to protect the certainty of Seattle's power supply, subsequent review by an arbitration tribunal may find that British Columbia had not been in default. In such an event, it is intended that Seattle would be required to return to British Columbia such amounts as the tribunal determined were necessary to compensate for any power transfers or other lost power rights of British Columbia occasioned by the terms of 9(D)(i) and 9(D)(ii).

SECTION 10: DISPUTE RESOLUTION

This section, together with Appendix C, establishes the exclusive means for resolving disputes that might arise under the Agreement. Two categories of disputes are envisioned by the parties. Questions on matters of financial and technical interpretation will be referred to a Consulting Board for prompt resolution. Questions of material breach will be referred to and resolved by an arbitration tribunal.

The parties intend that financial and technical performance issues may be referred to the Board by both parties, or by the arbitration tribunal in a case in which a complaint of alleged breach is determined by the arbitration tribunal to involve a technical dispute rather than outright breach.

In the event that: technical disputes have not been decided by the Board within three months of referral; the Board is deadlocked; or the Board determines after consultation with the parties that breach or default is at issue: matters shall be referred to the arbi-

tration tribunal for final disposition. It is also intended that a party may elect to refer a technical or financial dispute directly to the arbitration tribunal. The parties intend that all matters referred ultimately to the arbitration tribunal will be resolved by that group within 45 days of final submission to it by the parties, and that its decisions will be final and binding. Other procedures of the arbitration tribunal and their intended timing will be as described in Appendix C.

With respect to allegations of breach, the first question will be whether breach or default has occurred. Conditions in which material breach would clearly be at issue include failure of Seattle to deliver funds as set forth in Section 5, failure of British Columbia to deliver power under Section 4 when not excused by an event of force majeure, non-payment by British Columbia of the amount required by 9(C)(iv) of the Agreement, and incompatible development of British Columbia land in the Skagit Valley between elevations 1602.5 feet and 1725 feet, as covered in Section 12 of the Agreement. British Columbia would be excused from the delivery of power only due to events beyond its control or which could not be avoided by the exercise of due care, subject to the resumption of deliveries with the least possible delay pursuant to Section 7 of Appendix A. It is intended that British Columbia apply the same standard of care with respect to its generation and transmission system in delivering power to the border that Seattle applies to its generating and transmission system in delivering power to its own receiving substations.

The parties anticipate that in some circumstances it may be extremely difficult for one or the other party to perform its obligations under Sections 4, 5, or 6 of the Agreement, despite its intention to compensate the other party and continue under the Agreement. The parties also foresee the possibility that in some circumstances there may be disputes over precise obligations under the Agreement. It is intended that in such circumstances the parties will first seek a mutually satisfactory resolution of the problem. If that fails for whatever reason, and if either party believes the unresolved situation constitutes a breach of the Agreement, the party that so believes may unilaterally request a determination by an arbitration tribunal.

The second question involves compensation. If the arbitration tribunal determines that a material breach has occurred, it will also determine the appropriate compensation. The tribunal will have flexibility in the amount and size of compensation it assigns, other than the automatic power transfer that would be required by 9(D)(i). The parties intend, however, that this compensation will leave the non-defaulting party no worse off than if orderly discontinuance had occurred. To achieve this, it is intended that the tribunal will select forms of compensation most certain to leave the non-defaulting party whole. It is further intended that this compensation may be augmented beyond the amount involved in discontinuance. This extra compensation is to ensure that the non-defaulting party suffers no losses due to default both for the period prior to final determination by the tribunal and for the period of notification it would have enjoyed under orderly discontinuance,

had such notification instead been given at the time of the tribunal's determination.

To minimize any losses imposed by the defaulting party on the other party under the Agreement, it is intended that the residual rights of the damaged party will be exercised as soon as practicable upon a determination that default has occurred. In particular, if Seattle is found in default, British Columbia's obligation to make power deliveries pursuant to Section 4 will cease immediately. In the event that British Columbia is found in default, Seattle would have the right to begin construction of High Ross Dam and raise Ross Lake to a normal full pool elevation of 1725 feet as soon as possible.

The parties intend that compensation payments by either party upon default may be in cash payments conveyed under the terms of Canadian and United States guarantees, or in the event of British Columbia's default, in the form of assignment of Canadian power rights under the Columbia River Treaty and its successor instruments or other power assignments, such as transfer of the increment of power gained by raising Seven Mile Reservoir.

SECTION 11: ENVIRONMENTAL ENDOWMENT FUND

This section establishes an Environmental Endowment Fund, under terms more fully explained in Appendix D to the Agreement. The Appendix embodies flexible intent in an abbreviated form. Initially, the appointments to the Commission and the commencement of planning by that group, as set forth in Appendix D, may occur prior to funding under the Agreement, and may be assisted by any funds from outside sources. Several other matters in Appendix D cover actions of the body once funding is established, and reflect specific intent of Seattle and British Columbia.

First, the funding of the Environmental Endowment is intended to continue even if other provisions of the Agreement are discontinued. The \$5 million endowment contributed by the parties over the first four years of Treaty coverage of the Agreement is intended to be used as a revolving fund, which can be used to acquire, restrict, and resell crucial land parcels as well as to make permanent acquisitions or improvements of the types listed in Appendix D. The annual fund contributions in addition to the initial endowment are intended to be limited in three ways: (1) they constitute annual budget authorizations or limits, so that any time they are deemed excessive to the Environmental Endowment Fund needs, a smaller levy may be selected instead; (2) the annual limits are independent of any earlier years' expenditure or unspent authorization; and (3) if either the British Columbia power deliveries cease because of discontinuance or the Seven Mile power increment is not developed, the annual levy authorization will not extend to the power not delivered or developed. The annual budget and acquisition plans will be reviewable by both British Columbia and Seattle.

Second, while the area of coverage is the Skagit River Basin upstream of Ross Dam, significant restrictions already apply to the United States portions of that area. Consequently, it is expected and intended that over an extended period, the great majority of expenditures will be made on the Canadian side of the border. The

parties anticipate, however, that in a given year the Fund may be focused on a few major acquisitions and that as a result expenditures in the United States may be relatively large.

Third, a reservoir grooming plan will be the first funding priority of the Environmental Endowment Fund. Aesthetic stump removal will be a key feature of the grooming plan, but the parties intend that total stump removal will be tempered by consideration of bird and fish habitat preservation. Other Fund uses, as described in Appendix D, are intended primarily to preserve the area and its pristine and wilderness values, while enhancing uses that are consistent with this emphasis or with present recreational uses of the area.

Fourth, it is intended that the Environmental Endowment Fund not be used extensively for capital-intensive projects or maintenance expenditures, which are intended to remain primarily the responsibility of the governments with jurisdiction over the lands in question. Among the detailed purposes and Fund uses listed in Appendix D to the Agreement, it is intended that a high priority be given to the establishment of a firm connection between North Cascades National Park in the United States and Manning Provincial Park in the Province of British Columbia, forming an International Park and providing an opportunity for a continuing international cooperative emphasis for the Board and staff of the Environmental Endowment Fund. The parties intend that staffing for the Fund will be provided by qualified City and Provincial staff they will assign, to help maintain a model of direct, cooperative involvement by the parties.

Finally, the parties intend that the Environmental Endowment Fund should be a joint creature of the Province of British Columbia and the City of Seattle.

SECTION 12: REVERSION OF SEATTLE PROPERTY TO BRITISH COLUMBIA

This section covers the transfer of ownership of Canadian lands in the upper Skagit Valley now owned by Seattle. Seattle will transfer ownership of these lands to British Columbia, but without any prejudice to its other rights and protections under this Agreement.

In particular, it is the understanding of both parties that neither the disposition of this land, nor any other development in the Skagit Valley below an elevation of 1725 feet above mean sea level will adversely affect Seattle's right to proceed with High Ross construction and reservoir raising upon British Columbia's discontinuance of power deliveries under the Agreement. The parties intend by this clause to prevent strategic development in the Skagit Valley which might inhibit reservoir raising upon discontinuance.

INDEMNIFICATION AND PAYMENT AGREEMENT

This indemnification and payment agreement, dated as of May 30, 1984, is entered into between the United States of America (hereinafter called "United States"), and the city of Seattle, a Municipal Corporation of the State of Washington (hereinafter called "Seattle"). Capitalized terms not otherwise defined herein shall have the respective meanings specified in the British Columbia-Se-

attle Agreement dated March 30, 1984, (hereinafter called the "Agreement" and attached hereto as Annex A) or the Treaty between the United States and Canada relating to the Skagit River and Ross Lake, and the Seven Mile Reservoir on the Pend D'Orville River, done April 2, 1984, (hereinafter called the "Treaty" and attached hereto as Annex B).

Witnesseth:

Whereas, Seattle and the Province of British Columbia (hereinafter called "B.C.") have entered into the Agreement pursuant to which each will realize certain benefits;

Whereas, the Governments of the United States and Canada, bearing in mind the purposes of the Boundary Waters Treaty of January 11, 1909, with respect to the prevention of disputes between the United States and Canada regarding the use of boundary waters have encouraged the execution of the Agreement;

Whereas, in order to facilitate the purposes of the Agreement, Seattle and B.C. have requested that the United States and Canada execute the Treaty;

Whereas, the United States and Seattle desire to clarify their respective rights and obligations with respect to the Treaty and Agreement;

Now, therefore, in consideration of the execution of the Treaty and the assumption of obligations thereunder, by the United States and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

Section 1.—Representations and warranties of Seattle

Seattle represents and warrants that:

(a) it is a municipal corporation created by and existing under and by virtue of the Constitution and the laws of the State of Washington;

(b) it has the power to enter into, and to perform fully and observe completely the representations, warranties, covenants and agreements of this Indemnification and Payment Agreement and the Agreement;

(c) by ordinance number 111530, dated January 27, 1984, and by all other necessary governmental action, it has duly authorized the execution and delivery of the Agreement;

(d) by ordinance number 111701 dated May 30, 1984, and by all other necessary governmental action, it has duly authorized the execution and delivery of this Indemnification and Payment Agreement;

(e) it is not in default under any of the provisions of the laws of the State of Washington which would affect its existence or its powers referred to in the preceding subsections (b), (c) and (d);

(f) the execution and delivery of this Indemnification and Payment Agreement and the Agreement and the consummation of the transactions contemplated hereby and thereby and the fulfillment of the terms hereof and thereof do not and will not conflict with or result in a breach of any constitutional provision, law, ordinance, order, rule or regulation (whether of

general or specific applicability) of any Federal, state, county, municipal or other governmental or public authority to which it is subject or any of the terms, conditions or provisions of any restriction or any agreement or instrument to which it is now a party or by which it is bound, or constitute (or, with due notice or lapse of time or both, would constitute) a default under any of the foregoing;

(g) the Agreement is in full force and effect, and Seattle is in full compliance with all of its terms and conditions;

(h) it shall pay to the United States any and all amounts due the United States pursuant to the terms of this Indemnification Agreement.

Section 2. Covenants of Seattle.

Seattle covenants that:

(a) it will remain in full compliance with all of the terms and conditions of the Agreement and this Indemnification and Payment Agreement; and

(b) it will pay to the United States any and all amounts due the United States pursuant to the terms of this Indemnification and Payment Agreement.

Section 3. Payment obligation of the United States for Canadian payment

In the event the United States receives a payment from Canada ("Canadian Payment") pursuant to Article IV, Section 2 of the Treaty, the United States shall notify Seattle and, upon notice by Seattle, shall transfer, by wire transfer, the amount of the Canadian Payment to Seattle. The notice of Seattle to the United States shall provide all necessary wire transfer instructions.

Section 4. Payment obligations of Seattle

(a) If, pursuant to Article IV, Section 3 of the Treaty, an Arbitration tribunal has determined that Seattle owes British Columbia an amount under Section 5 of the Agreement, and that Seattle has failed to discharge its obligation to pay British Columbia said amount, the United States shall, on behalf of Seattle, make a payment to Canada equal to said amount owing ("United States Payment"), and Seattle agrees to repay the United States for such United States Payment as follows:

(i) Immediately upon receipt of the notice provided for in subsection (a) (ii) hereof, Seattle will pay to the United States the United States Payment plus interest from the day the United States made the United States Payment until the repayment thereof by Seattle at the then current bond equivalent of the 13-week Treasury bill rate as determined by the United States Treasury plus $\frac{1}{2}$ of 1% per annum. Interest on any unpaid amount due under this provision shall be added to principal at 13-week intervals from the date of the United States Payment. The United States Treasury shall establish a new Treasury bill rate applicable after each 13-week interval from the date of the United States Payment as long as any amount remains unpaid by Seattle. Interest shall be calculated

on the basis of a year of 365 days and the actual number of days elapsed.

(ii) At the time the United States makes any United States Payment, it shall notify Seattle immediately and, in such notice, shall specify the amount of interest that accrues daily.

(iii) Payment by Seattle to the United States is due immediately upon receipt of the notice specified in subsection (ii) above and nothing herein shall be construed as granting Seattle the right to defer such payment.

(b) Any payments by Seattle to the United States shall be made by wire transfer to the following account:

United States Treasury
New York, New York
021030004
Treasury NYC/(20180099)
for . . .

(c) The payment obligations of Seattle under this Indemnification and Payment Agreement shall be unconditional and irrevocable, and shall be paid strictly in accordance with the terms of this Indemnification and Payment Agreement under all circumstances, including, without limitation, the following circumstances:

(i) any lack of validity or enforceability of this Indemnification and Payment Agreement or any other agreement or instrument relating hereto;

(ii) any amendment or waiver of or any consent to departure from the Treaty or the Agreement;

(iii) the existence of any claim, set-off, defense or other right which Seattle may have at any time against British Columbia, Canada, the United States or any other person or entity, whether in connection with this Indemnification and Payment Agreement, the transactions contemplated herein or any unrelated transaction; or

(iv) any statement or any other document presented pursuant to this Indemnification and Payment Agreement proving to be forged, fraudulent or invalid in any respect or any statement therein being untrue or inaccurate in any respect.

Section 5. Legal opinion

Simultaneous with, and dated the day of, the execution of this Indemnification and Payment Agreement, Seattle shall deliver to the United States a legal opinion from Douglas Jewett, Seattle City Attorney, to the effect that:

(a) the City of Seattle is a municipal corporation created by and existing under and by virtue of the Constitution and the laws of the State of Washington;

(b) Seattle has the power to enter into, and to perform fully and observe completely the representations, warranties, covenants and agreements of, the Agreement and the Indemnification and Payment Agreement and the Agreement and the Indemnification and Payment Agreement constitute legal, valid and binding contracts enforceable against Seattle in accordance with their terms;

(c) by proper and sufficient governmental action Seattle has duly authorized the execution and delivery of the Agreement and the Indemnification and Payment Agreement;

(d) Seattle is not in default under any of the provisions of the laws of the State of Washington which would affect its existence or its powers referred to in the preceding paragraphs (b) and (c);

(e) the execution and delivery of the Agreement and the Indemnification and Payment Agreement and the consummation of the transactions contemplated thereby and the fulfillment of the terms thereof will not conflict with or result in a breach of any constitutional provision, law, ordinance, order, rule or regulation (whether of general or specific applicability) of any Federal, state, county, municipal, or other governmental or public authority which Seattle is subject to and will not conflict with or result in a breach of any of the terms, conditions or provisions of any restriction, agreement or instrument to which Seattle is now a party or by which it is bound, or constitute (or, with due notice or lapse of time or both would constitute) a default under any of the foregoing; and,

(f) to the best knowledge of such counsel, after reasonable investigation, there are no material actions, suits, or proceedings pending or threatened against Seattle, except for such actions, suits or proceedings relating to the Washington Public Power Supply System, which, if determined adversely to Seattle, would significantly affect Seattle's ability to perform all of the terms and provisions of the Agreement and the Indemnification and Payment Agreement, including but not limited to the ability to pay pursuant to Section 5 of the Agreement and Section 4 of the Indemnification and Payment Agreement, in any court or by or before any arbitrator or governmental agency or authority;

(g) in delivering the opinions set forth in subparagraphs (b) thru (e) above, and without limiting in any respect those opinions, the City Attorney shall refer specifically to the Washington Supreme Court decision in *Chemical Bank v. Washington Public Power Supply System*, 666 P.2d 329 (1983), concluding that that decision does not affect Seattle's authority to enter into or ability to perform under either the Agreement or the Indemnification and Payment Agreement.

Section 6. Notices

All communications under this Indemnification and Payment Agreement shall be in writing and shall be mailed by registered mail, return receipt requested and postage prepaid;

(i) if to the United States:

The Secretary of the Treasury
Department of the Treasury
15th and Pennsylvania Avenue, N.W.
Washington, D.C. 20220
Attention: Assistant Secretary (Domestic Finance)

(ii) if to Seattle:

Mayor
City of Seattle
Seattle Municipal Building
600 Fourth Avenue
Seattle, Washington 98104
Attn: City Attorney

Section 7. Governing law

This Indemnification and Payment Agreement and the rights and obligations of the parties hereunder shall be governed by, and construed and interpreted in accordance with, the Federal laws of the United States.

Section 8. Amendments and assignment

This Indemnification and Payment Agreement may not be amended, except in each instance pursuant to a written document executed by the United States and Seattle. Neither this Indemnification and Payment Agreement nor any of Seattle's interest herein or rights hereunder shall be assignable (whether by operation of law or otherwise) without the prior written consent of the United States, which consent shall not be unreasonably withheld.

Section 9. Course of dealing

No course of dealing by the United States shall operate as a waiver of any rights with respect to this Indemnification and Payment Agreement and no delay or omission on the part of the United States in exercising any right hereunder shall operate as a waiver of such right or any other right hereunder.

Section 10. False claims

Each person signing this Indemnification and Payment Agreement on behalf of Seattle acknowledges that he has received copies of Sections 286, 287, 641, 1001 and 1361 of Title 18, United States Code, "Crimes and Criminal Procedures."

Section 11. Counterparts

This Indemnification and Payment Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, and it shall not be necessary in making proof of this Indemnification and Payment Agreement to produce or account for more than one such counterpart.

Section 12. Survival of liability

All liability for breach of any representation or warranty contained in this Indemnification and Payment Agreement shall survive the execution and delivery hereof. No investigation by the United States or any of its representatives shall impair or waive any such representation or warranty or the right of the United States to rely thereon.

In witness whereof, the parties hereto have caused this Indemnification and Payment Agreement to be duly executed on their behalf by their respective authorized representatives as of the date first above written.

CITY OF SEATTLE

By: Charles Royer
MAYOR

Attest: [Signature]
CITY COMPTROLLER

(SEAL)

THE UNITED STATES OF AMERICA

By: [Signature]