

UNited States of America
FEDERAL ENERGY REGULATORY COMMISSION

Black Creek Hydro, Inc.) Project No. 6221-041

ORDER APPROVING FINAL RIPARIAN VEGETATION MONITORING REPORT
(Issued April 9, 1997)

On March 17, 1997, Black Creek Hydro, Inc. (licensee) filed a final riparian vegetation monitoring report for the Black Creek Project. The report was filed pursuant to paragraph (B) of the Order Approving Supplement to Riparian Vegetation Monitoring Plan and Amending Previous Order Approving this Plan, issued August 30, 1993. 1/ The Black Creek Project is located on Black Creek in King County, Washington.

Paragraph (B) requires the licensee to file annual monitoring reports for three years, the final report is to be filed for Commission approval and should include any recommendations for additional monitoring or mitigation.

The filed plan summarizes the results from the studies conducted in 1992, 1994, 1995, and 1996. Based on comparisons between the data, no significant project-related vegetation or channel impacts were observed within the riparian zone above or below the diversion site. Wetland habitat upstream of the diversion dam has increased annually. As a result of the monitoring studies, the licensee is not proposing any additional monitoring or mitigation of the riparian area.

Since the riparian area appears to have stabilized to current operating conditions and no significant adverse changes to the riparian vegetation has occurred, additional monitoring or mitigation is not required. The licensee's final riparian vegetation monitoring report satisfies the requirements of paragraph (B) of the August 30, 1993 order; this report should be approved.

The Director orders:

(A) The final riparian vegetation monitoring report, filed on March 17, 1997, pursuant to paragraph (B) of the Order Approving Supplement to Riparian Vegetation Monitoring Plan and Amending Previous Order Approving this Plan, issued August 30, 1993, is approved.

1/ 64 FERC ¶62,143

Project No. 6621-041

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(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 CFR §385.713.

Kevin P. Madden
Kevin P. Madden
Acting Director
Office of Hydropower Licensing

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Weyerhaeuser Company

Project No. 6221-011
Washington

ORDER APPROVING FISH SCREEN DESIGN

(Issued August 2, 1990)

On April 27, 1990, the Weyerhaeuser Company, licensee for the Black Creek Project, filed functional fish screen design drawings pursuant to article 407 of the project's license.

Article 407 requires the licensee, after consultation with the Washington Department of Wildlife (WDW) and the U.S. Fish and Wildlife Service (USFWS), to file functional design drawings of a self-cleaning or automatic-cleaning fish screen designed to prevent the entrainment and impingement of the resident cutthroat trout in Black Creek. The screening structure must be designed so that the approach velocity does not exceed 0.5 feet per second and is composed of any rigid material, woven or perforated, with openings not to exceed 0.125 inch in the narrow direction.

The licensee transmitted its proposal to the WDW and USFWS by letter dated March 15, 1990. These agencies have not commented on the licensee's proposal.

The effectiveness of the licensee's proposed fish screen design in conveying fish safely past the project does not depend on a slow approach velocity. Consequently, the approach velocity criterion of 0.5 feet per second required by article 407 is inappropriate. The license's proposed design relies on water flowing over the diversion and the fish screen's curved, wedge-wire surface. Most water falls through the screen and enters the project intake. The remaining water flows over the screen, passing fish below the diversion.

The licensee's functional fish screen design would adequately protect fish resources in Black Creek and should be approved.

The Director orders:

(A) The functional fish screen design filed on April 27, 1990, is approved.

(B) This order is issued under authority delegated to the Director pursuant to section 375.314 of the Commission's

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regulations. Section 385.1902 of the Commission's regulations provides 30 days from the date of this action. Filing an appeal does not stay the effective date of this order or any date specified herein.


J. Mark Robinson
Director, Division of Project
Compliance and Administration

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Weyerhaeuser Company

Project No. 6221-010
Washington

ORDER APPROVING DESIGN OF MINIMUM FLOW RELEASE STRUCTURE

(Issued June 27, 1990)

On April 27, 1990 Weyerhaeuser, licensee for the Black Creek Project, filed functional design drawings of the project's diversion dam including the design of the minimum flow release structure, pursuant to article 408 of the project's license.

Article 408 requires the licensee, after consultation with the Washington Department of Wildlife (WDW) and the U.S. Fish and Wildlife Service (USFWS), to design the diversion dam to provide for the automatic release of the minimum flows required by article 403, and to pass the natural bedload material to maintain the existing channel structure downstream of the diversion dam.

The licensee transmitted its proposal to the WDW and USFWS by letter dated March 15, 1990. These agencies have not commented on the licensee's proposal.

The licensee's functional design of the minimum flow releases structure meets the requirements of article 408 and should be approved.

The Director orders:

(A) The design of the minimum flow release structure filed on April 27, 1990, is approved.

(B) This order is issued under authority delegated to the Director pursuant to section 375.314 of the Commission's regulations. Section 385.1902 of the Commission's regulations provides 30 days from the date of this order for an appeal to the Commission of this action. Filing an appeal does not stay the effective date of this order or any date specified herein.


J. Mark Robinson
Director, Division of Project
Compliance and Administration

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Weyerhaeuser Company

Project No. 6221-008
Washington

ORDER APPROVING RAMPING RATE

(Issued June 26, 1990)

On April 27, 1990, Weyerhaeuser licensee for the Black Creek Project, filed a ramping rate plan pursuant to article 405 of the project's license.

Article 405 requires the licensee, after consultation with the Washington Department of Wildlife (WDW), U.S. Fish and Wildlife (USFWS), and the Tulalip Tribes of Washington (TTW), to develop and file for Commission approval a plan to limit the maximum rate of change in stream flow (ramping rate) to not exceed 20 percent of the wetted width per hour. The ramping rate must be developed based on actual stream cross-sections of riffles and pools in the 0.3 miles of the bypassed reach immediately downstream of the diversion dam site.

The licensee transmitted its proposal to the WDW, USFWS, and the TTW by letter dated March 15, 1990. These agencies have not commented on the licensee's proposal.

The proposed ramping rate meets the requirements of article 405 and should be approved.

The Director orders:

(A) The ramping rate plan filed on April 27, 1990, is approved.

(B) This order is issued under authority delegated to the Director pursuant to section 375.314 of the Commission's regulations. Section 385.1902 of the Commission's regulations provides 30 days from the date of this order for an appeal to the Commission of this action. Filing an appeal does not stay the effective date of this order or any date specified herein.


J. Mark Robinson
Director, Division of Project
Compliance and Administration

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Weyerhaeuser Company

Project No. 6221-012
Washington

ORDER APPROVING WILDLIFE MITIGATIVE PLAN

(Issued June 15, 1990)

On April 30, 1990, Weyerhaeuser Company (licensee) filed the wildlife mitigative plan required by article 409 of the license for the Black Creek Project.

The wildlife mitigative plan describes methods for clearing and controlling vegetation during construction and operation of the project; sets restrictions on public access to portions of the project area to reduce disturbance of wildlife; and discusses measures for enhancing wildlife habitat on areas disturbed during construction.

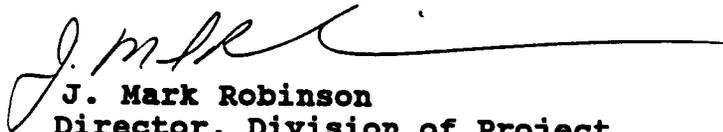
The licensee consulted with the U.S. Fish and Wildlife Service and the Washington Department of Wildlife concerning the plan. No objections to the plan were offered by the agencies.

Implementing the licensee's plan should adequately mitigate the project's impacts on wildlife.

The Director orders:

(A) The wildlife mitigative plan described in section 3.5 of the aquatic and terrestrial resources plan filed April 30, 1990, fulfills the requirements of article 409 and is approved.

(B) This order is issued under authority delegated to the Director pursuant to section 375.314 of the Commission's regulations. Section 385.1902 of the Commission's regulations provides 30 days from the date of this order for an appeal to the Commission of this action. Filing an appeal does not stay the effective date of this order or any date specified herein. The licensee's failure to appeal this order shall constitute acceptance of the order.



J. Mark Robinson
Director, Division of Project
Compliance and Administration

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Weyerhaeuser Company

Project No. 6221-006
Washington

ORDER APPROVING EROSION AND SEDIMENT CONTROL PLAN

(Issued June 15, 1990)

On April 30, 1990, Weyerhaeuser Company (licensee) filed the erosion and sediment control plan required by article 401 of the license for the Black Creek Project.

The plan describes the geology and soils of the project area and discusses erosion and sediment control measures to be implemented during construction and operation of the project. The filing includes topographic maps showing the location of the planned control measures. Restrictions on construction activities to protect the spawning and incubation of cutthroat trout are also part of the plan.

The licensee consulted with the U.S. Fish and Wildlife Service, the Soil Conservation Service, the Washington Department of Wildlife, the Washington Department of Ecology, and the Tulalip Tribes of Washington about the plan. None of the agencies objected to the plan.

Implementation of the licensee's erosion and sediment control plan should protect fish and wildlife resources and water quality during construction and operation of the project.

The Director orders:

(A) The erosion and sediment control plan filed on April 30, 1990, fulfills the requirements of article 401 and is approved.

(B) This order is issued under authority delegated to the Director pursuant to section 375.314 of the Commission's regulations. Section 385.1902 of the Commission's regulations provides 30 days from the date of this order for an appeal to the Commission of this action. Filing an appeal does not stay the effective date of this order or any date specified herein. The licensee's failure to appeal this order shall constitute acceptance of the order.



J. Mark Robinson
Director, Division of Project
Compliance and Administration

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Weyerhaeuser Company

Project No. 6221-016
Washington

ORDER APPROVING AND MODIFYING RIPARIAN
VEGETATION MONITORING PLAN
(Issued June 26, 1990)

On April 30, 1990, Weyerhaeuser Company (licensee) filed the riparian vegetation monitoring plan required by article 414 of the license for the Black Creek Project.

The monitoring plan describes pre- and post-construction mapping, sampling and data collection, data analysis, and reporting of the results to the resource agencies and the Commission. The licensee proposes to map and sample the riparian vegetation along Black Creek once during each of the first 3 years following project construction and then at 3-year intervals throughout the life of the project. The mapping and sampling will be done in late summer when vegetation is at its maximum height and lower flows provide easier access to the transect sites.

The licensee consulted with the U.S. Fish and Wildlife Service (FWS) and the Washington Department of Wildlife (WDOW). The agencies do not object to the plan.

Implementing the monitoring plan should allow the licensee to detect changes in riparian vegetation caused by reducing flows in the bypass reach. Only one minor modification is necessary. The licensee proposes to submit the monitoring reports to the Commission, FWS, and WDOW approximately 6 months after the data are collected. Instead, the licensee's filing with the Commission should include the comments of the agencies on the report.

The Director orders:

(A) The plan for monitoring riparian vegetation described in section 3.4 of the aquatic and terrestrial resources plan filed on April 30, 1990, as modified by paragraph B, fulfills the requirements of article 414 and is approved.

(B) The licensee shall file with the Commission annual reports providing the results of the monitoring plan approved in paragraph A. The reports shall include the results of the licensee's monitoring program, proposals for mitigation if the monitoring shows a significant decrease in the quality or amount of riparian vegetation, and comments of the U.S. Fish and

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wildlife Service and the Washington Department of Wildlife on the report. The annual reports shall be filed by April 1, 1994, 1995, and 1996, and then at 3-year intervals throughout the life of the project. The Commission reserves the right to require changes to the monitoring plan required by paragraph A or to require mitigation for impacts to riparian vegetation.

(C) This order is issued under authority delegated to the Director pursuant to section 375.314 of the Commission's regulations. Section 385.1902 of the Commission's regulations provides 30 days from the date of this order for an appeal to the Commission of this action. Filing an appeal does not stay the effective date of this order or any date specified herein.


J. Mark Robinson
Director, Division of Project
Compliance and Administration

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Martha O. Hesse, Chairman;
Anthony G. Sousa, Charles G. Stalon
and Charles A. Trabandt.

Weyerhaeuser Company) Project No. 6221-000
Puget Sound Power)
and Light Company) Project No. ~~5440-000~~ 5460

ORDER ISSUING LICENSE AND
DENYING APPLICATION FOR PRELIMINARY PERMIT

(Issued July 29, 1988)

Weyerhaeuser Company (Weyerhaeuser or licensee) has filed a license application under Part I of the Federal Power Act (FPA) to construct, operate, and maintain the Black Creek Hydroelectric Project No. 6221, to be located in King County, Washington, on Black Creek, a tributary of the North Fork Snoqualmie River. The project would affect the interests of interstate or foreign commerce.

The proposed project would consist of a six-foot-high diversion structure, a 6,340-foot-long pipeline/penstock, a powerhouse containing a single generating unit rated at 3,700 kW, a tailrace, and a six-mile-long transmission line.

Notice of the application has been published, and comments have been received from interested federal and state agencies. As discussed in detail in another order issued today, 1/ Project No. 6221 was examined under the Cluster Impact Assessment Procedure (CIAP) for the Snohomish River Basin and was included in the draft and final environmental impact statements (DEIS and FEIS) 2/ prepared on six proposed projects in the

1/ See Order on Rehearing, Lifting Stay, Denying Applications for License, and Rescinding Issued License (Project Nos. 2959, 5305, 5853, 6220, 6221, and 6310), _____FERC ¶ 61, _____(1988).

2/ Final Environmental Impact Statement, Snohomish River Basin, FERC Docket No. EL85-19-101, Washington, D.C., Federal Energy Regulatory Commission, Office of Hydropower Licensing, June 1987. This document is in the Commission's public file and is available for inspection at the Commission's Office of Public Information in Washington, D.C., and at the Commission's Portland, Oregon, Regional Office.

Project Nos. 6221-000
and 5440-000

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basin. 3/ The Washington Department of Game (subsequently renamed Washington Department of Wildlife) (WDW), the National Marine Fisheries Service (NMFS), the Washington Department of Fisheries (WDF), and the Tulalip Tribes of Washington (Tulalip Tribes) became intervenors in the proceeding.

In determining whether to issue this license, the Commission has considered all comments filed by agencies, individuals, and the intervenors in the proceeding. The significant concerns of the commenters and intervenors are discussed in the appropriate sections below.

Environmental Considerations

A. FEIS Conclusions and Recommendations

As discussed in detail in our companion order issued today, 4/ the FEIS examined the six proposed projects' potential cumulative impact on six target resources (salmon (chinook, coho, chum, pink), steelhead trout, sea-run trout, resident trout, black-tailed deer, and bald eagles) and their site-specific impacts on other resources. In our companion order issued today, we are denying the applications for license for Project Nos. 5305 and 5853, rescinding the license for Project No. 6220 and denying the application for the project, and taking no action on Project Nos. 2959 and 6310 pending the submittal of additional information by the applicants.

B. Environmental Impacts and Mitigation for Project No. 6221

Project No. 6221's impacts on the six target resources and the other environmental resources, together with the mitigation measures necessary to protect such resources, are discussed in detail in our companion order issued today and need not be repeated here. Additional discussion regarding certain aspects of the project's impact on target and other resources is set out below.

1. Water Quality

The FEIS found that disturbance and subsequent erosion of soils near the stream channel during project construction could

3/ In addition to Project No. 6221, the FEIS examined the environmental impacts of Project Nos. 2959, 5305, 5853, 6220, and 6310.

4/ See n. 1, supra.

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increase turbidity and sedimentation in Black Creek. The FEIS found that impacts to water quality from project construction would be negligible if a detailed erosion and sedimentation control plan were developed and implemented. Article 401 of this license requires the licensee to develop a detailed erosion and sedimentation control plan prior to commencing any project-related land-clearing or land-disturbing activities.

The FEIS found that operation of the project could affect water temperatures in the bypassed reach of Black Creek and dissolved gas concentrations in an unnamed creek and in the North Fork Snoqualmie River. It is however not expected that project operation would affect water temperature in the bypassed reach, because of the cool maritime climatic influences. Further, it is not expected that project operation would affect dissolved gas concentration of the unnamed tributary below the project tailrace, because entrainment of dissolved gases at the project intake is unlikely. In order to ensure that releases from the project tailrace do not affect fish and aquatic resources in the unnamed tributary, the tailrace should discharge into the North Fork Snoqualmie River. Relocating the tailrace in this manner would allow the large volume of water in the North Fork Snoqualmie River to dilute any effects from project-induced changes in water quality (i.e., dissolved gas concentration). Further, a new tailrace location would eliminate any potential impacts from constructing and operating the project on the fish and aquatic resources of the unnamed tributary. Article 402 requires the licensee to consult with the resource agencies and the Tulalip Tribes on locating the tailrace so that it empties into the North Fork Snoqualmie River.

The FEIS also recommended that the project's siphon should cross Black Creek at the existing bridge rather than being buried under Black Creek. Relocating the siphon crossing so that it parallels the nearby bridge would eliminate construction activities in the Black Creek stream bed. Article 402 requires the licensee to locate the siphon crossing Black Creek at the nearby bridge. Weyerhaeuser should design the siphon crossing in consultation with the resource agencies and the Tulalip Tribes.

2. Resident Fish

The FEIS concluded that construction and operation of the Black Creek Project would have negligible and short-term impacts to the resident cutthroat trout that inhabit Black Creek, so long as Weyerhaeuser implements specific mitigative measures, including releasing an appropriate minimum flow in the bypassed reach, implementing ramping rates during project operation, installing a fish screen, and redesigning the diversion dam to pass the natural bedload downstream.

As discussed in the FEIS, it was determined that a minimum flow of 11 cubic feet per second (cfs), which was derived via the toe-width methodology, would adequately protect the cutthroat trout habitat in the 0.97-mile-long bypassed reach, because it corresponds to the widest stream width of 34 feet based on 29 measurements. Therefore, any stream segments that are less than 34 feet wide would have an adequate volume of water to ensure the protection of the resident cutthroat trout and the aquatic habitat in Black Creek. Article 403 requires the licensee to release a minimum flow of 11 cfs from the diversion dam, as recommended in the FEIS. Article 404 requires the licensee to develop a stream flow gaging plan to ensure that the required minimum flow release is maintained and appropriate records are maintained.

Implementing a ramping rate developed specifically for Black Creek would minimize the effect of project-induced flow fluctuations on fish habitat and the aquatic resources in Black Creek. A ramping rate that limits the rate of change in flow so as not to exceed 20 percent of the wetted width per hour would prevent stranding of fish during project start-up and the displacement of smaller fish during project shut-down. Article 405 requires the licensee to develop a ramping rate to limit the allowable change in flow to no more than 20 percent of the wetted width per hour.

Operating the project in a run-of-river mode would ensure constant flow levels to the bypassed reach, thus minimizing the effect of the project on the aquatic resources in the bypassed reach. Article 406 requires the licensee to operate the project in a run-of-river mode.

Installing a fish screen would ensure that most of the cutthroat trout, especially the fry life stage, that approach the project intake would not be killed or injured by entrainment or impingement. A self-cleaning or automatic-cleaning fish screen that has an approach velocity of 0.5 feet per second and is composed of any rigid material, woven or perforated, with openings not to exceed 0.125 inches in the narrow direction, would prevent the entrainment and impingement of most of the resident cutthroat trout that approach the project intake. Article 407 requires the licensee to design and install a self-cleaning or automatic-cleaning fish screen that meets these criteria.

Designing and installing an automatic flow release structure would ensure that the 11-cfs minimum flow is maintained in the bypassed reach. Further, designing the diversion dam to pass the natural bedload minimizes the effect of the project on bedload movement, thereby maintaining the channel structure and substrate

composition below the diversion dam. Article 408 requires the licensee to redesign the diversion dam to include an automatic flow release structure and to pass the natural bedload material.

3. Terrestrial Resources

The FEIS found that construction and operation of the Black Creek Project would cause the permanent loss of two acres of wildlife habitat, of which approximately 1.3 acres are black-tailed deer winter range. Project structures and the diversion pond could cause a partial blockage to deer movement, but over a small and low-gradient area. The FEIS concluded that these impacts to deer would be at a very low level. The FEIS also concluded that the project is not expected to affect bald eagles, because its location is removed from bald eagle use area. However, the FEIS stated that other raptors do occur in the area. Overall, the FEIS found that the project's impacts on wildlife and wildlife habitat would be reduced to an insignificant level if a detailed wildlife mitigation plan were implemented.

Article 409 of the license requires the licensee to develop and implement a detailed wildlife mitigative plan that would provide for non-chemical means of controlling vegetation, restriction of construction activities and public access to reduce disturbance to wildlife, and replacement of permanent loss of habitat.

Designing and constructing the aerial transmission lines according to guidelines set forth in "Suggested Practices for Raptor Protection on Power Lines--State of the Art in 1981", Raptor Research Report No. 4, Raptor Research Foundation, Inc., 1981, would prevent the accidental electrocution of perching raptors. Article 410 of the license requires that all aerial transmission lines be designed and constructed in accordance with these practices to prevent electrocution of raptors.

The FEIS found that loss of vegetation and wildlife habitat would be reduced if an erosion control plan were implemented and all disturbed areas were revegetated. Accordingly, Article 411 requires the licensee develop and implement a plan to revegetate all disturbed areas with native plant species beneficial to wildlife. Also, with proper placement and revegetation of the spoil disposal site, the impact of spoil disposal on vegetation and wildlife habitat would be short-term and minor. Article 412 therefore requires that the placement of a spoil disposal site be in an upland area so that riparian vegetation would not be affected and the disposal site would be reclaimed.

The FEIS found that one state-listed endangered plant species, three state-listed threatened plant species, and a large

number of state-listed sensitive plant species may occur in the county where the project would be located. The impact to rare and sensitive plant species would be minimal if the areas in which they occur are avoided. Article 413 therefore provides for pre-construction surveys of the project area for rare and sensitive plant species and the development and implementation of a mitigative plan if such species are found.

The FEIS concluded that, so long as the minimum diversion flows with the project in operation do not increase the period of time that the channel has very little or no flowing water, there should be only minor impacts to riparian vegetation. Article 414 requires the licensee to develop a plan to monitor riparian vegetation between the diversion structure and the powerhouse for the first year of project operation and thereafter at appropriate intervals. Accordingly, Article 414 also requires the licensee to implement mitigative measures over the term of the license if needed.

4. Erosion, Sedimentation, and Slope Stability

Land-disturbing activities during project construction would cause erosion and sedimentation, and could cause slope instability, due to the fact that soils in the project area have moderate to high erosion potential. To reduce the potential for significant sedimentation impacts, the FEIS recommended that an erosion, slope stability, and sedimentation control plan be developed in consultation with the resource agencies and the Tulalip Tribes. Article 401 therefore requires the licensee to develop an erosion control plan and to file the plan with the Commission prior to any land-clearing or land disturbing activities.

5. Cultural Resources

The project area has a low potential for containing any archeological or historic sites. 5/ The area also appears to have a low potential for containing any sites of religious or other cultural concern to either the Tulalip Tribes or the Snoqualmie Tribe, although the United States Forest Service has noted that the project is located within the general vicinity of

5/ See the letter from Dr. Robert Whitlam, Archeologist, Washington State Office of Archeology and Historic Preservation, Olympia, Washington, May 19, 1982.

a religious use area of the Snoqualmie Tribe. 6/ The Tulalip Tribes and the Snoqualmie Tribe were contacted concerning such sites, but did not reply. Further, the Tulalip Tribes did not express any concern about religious sites or other sites of cultural importance in written comments on the DEIS prepared for projects in the Snohomish River Basin. The Snoqualmie Tribe did not provide any comments on the DEIS.

The Washington State Historic Preservation Officer recommended that a cultural resources survey be conducted to ensure that archeological or historic sites eligible for inclusion in the National Register of Historic Places will not be affected by the project. 7/ The survey should be of sufficient scope to identify any sites of religious or other cultural concern to the Tulalip Tribes and the Snoqualmie Tribe, and to ensure that such sites are not inadvertently affected by the project.

In accordance with above, Article 415 requires the licensee, prior to the commencement of any land-clearing or land-disturbing activity at the project, to conduct a cultural resources survey and to prepare and file for Commission approval a cultural resources management plan. The management plan must include measures to avoid or mitigate any impacts to archeological or historic sites and to any sites of religious or other cultural concern to the Tulalip Tribes and the Snoqualmie Tribe inventoried by the survey. Also, Article 416 requires a cultural resources survey and a cultural resources management plan in the event that any changes are proposed in the location of project facilities and in the event that any previously-unidentified archeological or historic sites are discovered during land-clearing or land-disturbing activities associated with the project.

Project Safety

The project would impound a small amount of water, and failure of project structures would not pose a threat to downstream life or property. The project structures will be safe and adequate if constructed in accordance with sound engineering practices and with the requirements of the articles included in this license.

Need for Power

6/ See the letter from Madonna Moss, Forest Archeologist, Mt. Baker-Snoqualmie National Forest, Seattle, Washington, February 6, 1986.

7/ See the letter referenced in n. 5, supra.

As discussed in detail in the companion order issued today, until needed to meet a resource deficit, project power could be used to displace fossil-fueled power generation in the Pacific Northwest region, thereby conserving non-renewable fossil fuels and reducing noxious emissions that result from use of these fuels.

Economic Benefits and Financial Feasibility

As discussed in detail in the companion order issued today, the FEIS indicated that Project No. 6221 would have a projected levelized net annual economic benefit of -26.2 mills/kWh with the mitigation measures recommended in the FEIS. However, on July 11, 1988, Weyerhaeuser filed additional information regarding the economic benefits and financial feasibility of the project, including a new construction cost estimate, new estimates of applicable local taxes and operation and maintenance expenses, and a new projection of the cost of money to Weyerhaeuser.

We have reviewed the new information submitted by Weyerhaeuser and have concluded that the project, with the mitigation measures recommended in the FEIS, including the recommendation that a minimum flow of 11 cfs be released, would have a projected levelized net annual economic benefit of 2.9 mills/kWh. Thus, the mitigated project would be economically beneficial. In any event, and as indicated in the companion order issued today, the issue of whether to license a project found to be environmentally acceptable and otherwise in the public interest depends on its financial feasibility. Based on the economic benefits of the project and the financial strength of Weyerhaeuser, we conclude that Project No. 6221 would be financially feasible with the mitigation measures recommended in the FEIS.

Comprehensive Plans

Section 10(a)(2)(A) of the FPA, as added by the Electric Consumers Protection Act of 1986 (ECPA), Pub. L. No. 99-495 (Oct. 16, 1986), requires the Commission to consider the extent to which a project is consistent with comprehensive plans (where they exist) for improving, developing, or conserving a waterway or waterways affected by the project prepared by appropriate federal or state agencies. The Commission's policy with respect to comprehensive plans under Section 10(a)(2)(a) 8/ was revised

8/ Order No. 481, 52 Fed. Reg. 39,905 (October 26, 1987), III FERC Stats. & Regs. ¶ 30,773 (1987).

on rehearing by order issued April 27, 1988. 2/ On rehearing, the Commission instructed the Director, Office of Hydropower Licensing, to request the state and federal agencies to file plans they believe meet the revised guidelines. Until the process is completed, the Commission will consider all available plans pursuant to Section 10(a)(2)(A).

The Commission has reviewed four plans that touch on various aspects of waterway management in relation to the proposed project. 10/ No conflicts were found.

Recommendations of Federal and State Fish and Wildlife Agencies

Section 10(j) of the FPA, which was added by ECPA, requires the Commission to include license conditions based on the recommendations of federal and state fish and wildlife agencies for the protection, mitigation, and enhancement of fish and wildlife. The FEIS for the Snohomish River Basin, which included the Black Creek Hydroelectric Project, addressed the concerns of the federal and state fish and wildlife agencies, and provided recommendations consistent with those of the agencies.

Conclusion

Based upon our review of the agency and public comments filed in this proceeding, and our independent analysis, as discussed herein and in the companion order issued today, we conclude that the Black Creek Hydroelectric Project No. 6221 is best adapted to the comprehensive development of the Snohomish River Basin, taking into consideration the beneficial public uses described in Section 10(a)(1) of the FPA.

Competing Application

The license application for Project No. 6221 was filed in competition with a preliminary permit application filed by Puget

- 2/ Order No. 481-A, 53 Fed. Reg. 15,802 (May 4, 1988), III FERC Stats. & Regs. ¶ 30,811 (1988).
- 10/ Northwest Conservation and Electric Power Plan, 1986, Northwest Power Planning Council; Washington Statewide Comprehensive Outdoor Recreation Plan, 1983, Washington State Parks and Recreation Commission; Washington State Coastal Zone Management Program, 1976, Washington Department of Ecology; Hydroelectric Project Assessment Guidelines (draft) 1987, Washington Department of Fisheries.

Sound Power and Light Company for Project No. 5440. The permit application failed to substantiate the technical, environmental, economic, and other aspects of its proposal and was therefore dismissed, subject to automatic reinstatement if the competing development application were subsequently rejected or denied. See Dennis V. McGrew, 32 FERC ¶ 61,299 (1985). Since we are issuing a license for Project No. 6221, the preliminary permit application is now dismissed with prejudice.

The Commission orders:

(A) This license is issued to Weyerhaeuser Company (licensee) for a period of 50 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the Black Creek Hydroelectric Project No. 6221. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project as authorized in this license consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G:

<u>Exhibit G-</u>	<u>FERC Drawing No. 6221</u>	<u>Showing</u>
1	7	Vicinity Map
2	8	Location Map
3	9	Project Boundary Description

(2) Project works consisting of: (a) a 6-foot-high, 50-foot-long rockfill diversion structure at elevation 2,282 feet msl; (b) a concrete box intake structure with a slide gate and trashrack; (c) a 2,600-foot-long, 36-inch-diameter reinforced concrete pipeline; (d) a 30-foot-high, 10-foot-diameter concrete surge tank; (e) a 3,740-foot-long, 30-inch-diameter steel penstock; (f) a powerhouse containing one generating unit rated at 3,700 kW; (g) 4.16-kV generator leads; (h) a 3-phase, 4.16/115-kV, 3,570 kVA transformer; (i) a 6-mile-long, 115-kV transmission line to the Snoqualmie Falls Substation; (j) an access road; and (k) appurtenant facilities.

(3) The project works generally described above are more specifically described and shown in the following exhibits or portions thereof:

Exhibit A: The following sections of Exhibit A filed on

April 19, 1982:

Page A-2, paragraphs 5 and 6, entitled "Turbine" and "Generator"; Page A-3, paragraph 1, entitled "Transmission"; and Page A-5, paragraphs 1 and 2, entitled "Turbine/Generator" and "Transmission".

<u>Exhibit F-</u>	<u>FERC Drawing No.</u>	<u>Showing</u>
1	1	Power Generator Plan and Profile
3	3	Pipeline, Transmission and Road Sections
4	4	Diversion Site Plan and Sections
5	5	Powerhouse Site Plan and Profile
6	6	Powerhouse Plan and Section

(4) All of the structures, fixtures, equipment and facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A, F, and G described above are approved and made part of this license.

(D) This license is subject to the articles set forth in Form L-11 (October 1975), entitled "Terms and Conditions of License for Unconstructed Major Project Affecting the Interests of Interstate or Foreign Commerce," except Article 20 thereof, and the following additional articles:

Article 201. The licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued:

For the purpose of reimbursing the United States for the cost of administration of Part I of the FPA, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The

authorized installed capacity for that purpose is 4,930 horsepower.

Article 202. Pursuant to Section 10(d) of the FPA, after the first 20 years of operation of the project under license, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. One-half of the project surplus earnings, if any, accumulated after the first 20 years of operations under the license, in excess of the specified rate of return per annum on the net investment, shall be set aside in a project amortization reserve account at the end of each fiscal year. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year after the first 20 years of operation under the license, the amount of that deficiency shall be deducted from the amount of any surplus earnings subsequently accumulated, until absorbed. One-half of the remaining surplus earnings, if any, cumulatively computed, shall be set aside in the project amortization reserve account. The amounts established in the project amortization reserved account shall be maintained until further order of the Commission.

The annual specified reasonable rate of return shall be the sum of the annual weighted costs of long-term debt, preferred stock, and common equity, as defined below. The annual weighted cost for each component of the reasonable rate of return is the product of its capital ratio and cost rate. The annual capital ratio for each component of the rate of return shall be calculated based on an average of 13 monthly balances of amounts properly includable in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rates for long-term debt and preferred stock shall be their respective weighted average costs for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 203. The licensee shall clear and keep clear to an adequate width all lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which result from maintenance, operation, or alteration of the project works. All clearing of lands and disposal of unnecessary material shall be done with due diligence to the satisfaction of the authorized representative of the Commission and in accordance with appropriate federal, state, and local statutes and regulations.

Article 301. The licensee shall commence construction of the project works within two years from the issuance date of the license and shall complete construction of the project within four years from the issuance date of the license.

Article 302. The licensee shall, at least 60 days prior to start of construction, submit one copy to the Commission's Regional Director, and two copies to the Director, Division of Dam Safety and Inspections, of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures. The Director, Division of Dam Safety and Inspections, may require changes in the plans and specifications, to assure a safe and adequate project.

Article 303. The licensee shall review and approve the design of contractor-designed cofferdams and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the licensee shall submit to the Commission's Regional Director and Director, Division of Dam Safety and Inspections, one copy each of the approved cofferdam construction drawings and specifications and the letter(s) of approval.

Article 304. The licensee shall, within 90 days of completion of construction, file, for approval by the Commission, revised Exhibits A, F, and G to describe and show the project as built.

Article 401. The licensee, after consultation with the U.S. Fish and Wildlife Service, the U.S. Soil Conservation Service, Washington Department of Wildlife, Washington Department of Ecology, and the Tulalip Tribes of Washington, shall prepare and file with Commission for approval a plan to control erosion, dust, and slope stability, and to minimize the quantity of sediment or other potential water pollutants resulting from project construction, spoil disposal, and project operation and maintenance. The Commission reserves the authority to require changes to the plan. No project-related land-clearing, land-disturbing, or spoil-producing activities shall begin until the licensee is notified that the plan complies with the requirements of this article.

The plan shall be based on actual-site geological, soil, slope, and groundwater conditions and the final project design, and shall include detailed descriptions of the actual-site conditions, detailed descriptions and functional design drawings

of control measures, topographic map locations of all control measures, a specific implementation schedule, specific details of monitoring and maintenance programs for the project construction period and for project operation, and a schedule for periodic review of the plan and for making any necessary revisions to the plan. Project construction shall be limited to the period after the resident cutthroat trout have spawned and after their progeny have emerged from the gravel. The licensee shall include in the filing documentation of consultation with the agencies before preparing the plan, copies of agency comments or recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how all of the agency comments and recommendations are accommodated by the plan. The licensee shall allow a reasonable time, in no case less than 30 days, for agencies to comment and make recommendations prior to filing the plan. If the licensee disagrees with any agency recommendations, the licensee shall provide a discussion of the reasons for disagreeing, based on actual-site geological, soil, and groundwater conditions.

Article 402. The licensee, after consultation with the Washington Department of Wildlife, the U.S. Fish and Wildlife Service, and the Tulalip Tribes of Washington, shall determine the location of the siphon crossing Black Creek and the location of the tailrace. The licensee shall file with the Commission for approval functional design drawings of the siphon crossing and the tailrace. The filing shall include documentation of consultation with the resource agencies and the Tulalip Tribes of Washington and the agencies' and tribes' comments on the drawings and maps. The licensee shall not commence any land-clearing or land-disturbing activities until the Commission approves the functional design drawings. The licensee shall file as-built drawings and maps with the Commission within 180 days after completion of project construction. The Commission reserves the right to require changes in the functional design drawings and the location of the siphon and the tailrace.

Article 403. The licensee shall discharge from the Black Creek Hydroelectric Project a continuous minimum flow of 11 cubic feet per second, as measured downstream from the project diversion, or the inflow to the project, whichever is less, for the protection of the fish and wildlife resources in Black Creek. This flow may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon agreement among the licensee, the Washington Department of Wildlife, and the U.S. Fish and Wildlife Service.

Article 404. The licensee, after consultation with the Washington Department of Wildlife, the U.S. Fish and Wildlife Service, and the U.S. Geological Survey, shall develop and file for Commission approval a plan to install a streamflow gage in

Black Creek to monitor the minimum flow release required by Article 403. The plan shall include a determination of the location and design of the gage, the method of flow data collection, a provision for providing the flow data to the agencies within 30 days from the date of the agencies' request for the data, and comments from the consulted agencies on the plan. The Commission reserves the right to require modification to the plan. The licensee shall not commence any land-clearing or land-disturbing activities until the Commission approves the plan.

Article 405. The licensee, after consultation with the Washington Department of Wildlife, the U.S. Fish and Wildlife Service, and the Tulalip Tribes of Washington, shall develop and file for Commission approval a plan to limit the maximum rate of change in stream flow (ramping rate) to not exceed 20 percent of the wetted width per hour. For the protection of fish resources in the bypassed reach of Black Creek, the licensee shall develop the ramping rate based on actual stream cross sections of riffles and pools in the 0.3 miles of the bypassed reach immediately downstream of the diversion dam site. The filing shall include the comments on the plan of the consulted agencies and the Tulalip Tribes. The Commission reserves the right to require modifications to the plan. The licensee shall not commence any project-related land-clearing or land-disturbing activities until the Commission approves the plan.

Article 406. The licensee shall operate the Black Creek Project in an instantaneous run-of-river mode for the protection of fish and wildlife resources in Black Creek. The licensee, in operating the project in an instantaneous run-of-river mode, shall at all times act to minimize the fluctuation of the impoundment surface elevation by maintaining a sufficient discharge from the project so that the flow in Black Creek, as measured immediately downstream of the project tailrace, approximates the instantaneous sum of the inflow to the impoundment plus the sum of the contribution by the three tributaries. Instantaneous run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee or for short periods upon mutual agreement among the licensee, the Washington Department of Wildlife, and the U.S. Fish and Wildlife Service.

Article 407. The licensee, after consultation with the Washington Department of Wildlife and the U.S. Fish and Wildlife Service, shall develop a self-cleaning or automatic-cleaning fish screen designed to prevent the entrainment and impingement of the resident cutthroat trout in Black Creek. The screening structure shall be designed so that the approach velocity does not exceed 0.5 feet per second and is composed of any rigid material, woven

or perforated, with openings not to exceed 0.125 inches in the narrow direction. The licensee shall file with the Commission for approval functional design drawings of the fish screen. The filing shall include documentation of consultation with the resource agencies and the agencies' comments on the drawings. The licensee shall not commence any project-related land-clearing or land-disturbing activities until the Commission approves the drawings. The licensee shall file as-built drawings with the Commission within 180 days after completion of project construction. The Commission reserves the right to require changes in the functional design drawings of the fish screen.

Article 408. The licensee, after consultation with the Washington Department of Wildlife and the U.S. Fish and Wildlife Service, shall design the diversion dam to provide for the automatic release of the minimum flows required by Article 403 and to pass the natural bedload material to maintain the existing channel structure downstream of the diversion dam. The licensee shall file with the Commission for approval functional design drawings of the diversion dam. The filing shall include documentation of consultation with the resource agencies and the agencies' comments on the drawings. The licensee shall not commence any project-related land-clearing or land-disturbing activities until the Commission approves the drawings. The licensee shall file as-built drawings with the Commission within 180 days after completion of project construction. The Commission reserves the right to require changes in the functional design drawings of the diversion dam.

Article 409. The licensee, after consultation with the U. S. Fish and Wildlife Service and the Washington Department of Wildlife, shall file for Commission approval a wildlife mitigative plan that includes, but is not necessarily limited to, (1) use of non-chemical means for clearing and controlling vegetation in rights-of-way for the benefit of wildlife resources, providing for vegetative clearing activities timed to avoid disturbance to overwintering black-tailed deer and local species' breeding and nesting seasons, to include an implementation schedule; (2) restriction of public access to the site to reduce disturbance of wildlife, in particular... overwintering black-tailed deer; (3) ~~purchase of any old-growth forest removed by project development~~ ~~by purchase of a comparable tract of forest land that is in jeopardy of harvest and transfer of management responsibility of the tract to the Washington Department of Wildlife;~~ and (4) mitigation for the permanent loss of habitat from project construction and operation, which addresses in-kind replacement of habitat by either the protection of previously unprotected habitat or the enhancement of degraded habitat. Agency comments shall be included in the filing. The licensee shall not commence any

land-clearing or land-disturbing activities until the plan is approved by the Commission. The Commission reserves the right to require changes to the plan.

Article 410. The licensee shall design and construct the transmission line in accordance with guidelines set forth in "Suggested Practices for Raptor Protection on Power Lines--the State of the Art in 1981", Raptor Research Report No. 4, Raptor Research Foundation, Inc., 1981. Further, the licensee, after consultation with the U. S. Fish and Wildlife Service and the Washington Department of Wildlife, shall file for Commission approval a transmission line design plan that shall include adequate separation of energized conductors, groundwires, and other metal hardware, proper insulation, and any other measures necessary to protect raptors from electrocution hazards. The plan shall include detailed design drawings of the transmission line, clearly showing phase spacing, configuration, and grounding practices. Agency comments on the adequacy of the design plan shall be included in the filing. The licensee shall not commence any land-clearing or land-disturbing activities until the plan is approved by the Commission. The licensee shall construct the transmission line as approved by the Commission.

Article 411. The licensee, after consultation with the U. S. Fish and Wildlife Service and the Washington Department of Wildlife, shall file for Commission approval a plan to revegetate all disturbed areas with native plant species beneficial to wildlife. The plan shall include at a minimum: (a) a description of the plant species to be used, an indication of each species' habitat value and/or food value, and planting densities; (b) fertilization and irrigation requirements; (c) a monitoring program to evaluate the effectiveness of the plantings; (d) a description of procedures to be followed if monitoring reveals that the revegetation is not successful; and (e) an implementation schedule that provides for the revegetation as soon as practicable after completion at a particular site and the filing of periodic monitoring reports. The plan shall include, where appropriate, native plant species as described in Juelson, Suggestions for Streambank Revegetation in Western Washington. Information Report No. 13, Applied Wildlife Ecology, Habitat Management Division, Washington Department of Game, Olympia, Washington (1980). Agency comments shall be included in the filing. The licensee shall not commence any land-clearing or land-disturbing activities until the plan is approved by the Commission. The Commission reserves the right to require changes to the plan.

Article 412. The licensee, after consultation with the U. S. Fish and Wildlife Service and the Washington Department of Wildlife, shall file for Commission approval a comprehensive spoil-disposal plan. The plan shall include provisions to

analyze dredge spoil contaminants, identify the location of an upland disposal site, and provide mitigative measures for reclaiming the site.

The licensee shall include in the filing documentation of consultation with the agencies before preparing the plan, copies of agency comments or recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how all of the agencies' comments and recommendations will be accommodated by the plan. Before filing the plan, the licensee shall allow a reasonable time, in no case fewer than 30 days, for the consulted agencies to comment and to make recommendations. No project-related land-clearing, land-disturbing, or spoil-producing activities shall begin until the licensee is notified that the plan complies with the requirements of this article and is approved by the Commission. The Commission reserves the right to require changes to the plan.

Article 413. The licensee, after consultation with the U. S. Fish and Wildlife Service and the Washington Department of Wildlife, and at least 90 days prior to commencing any land-disturbing, land-clearing, or spoil-producing activities, shall file the results of preconstruction surveys of all areas within the project proposed to be disturbed by project construction to determine the location of any rare or sensitive plant species that may occur in the project area. The plant survey shall be conducted by a qualified botanist during the flowering period. The licensee shall provide for a review of the survey results by the resource agencies.

If the results of the preconstruction surveys indicate that a rare or sensitive plant species would be affected by the construction or operation of the project, the licensee shall file for approval a mitigative plan to protect the affected species developed after consultation with the resource agencies. The licensee shall not commence any land-clearing or land-disturbing activities until the plan is approved by the Commission. Agency comments shall be included in the filing. The Commission reserves the right to require modifications to any mitigative plan submitted.

Article 414. The licensee, after consultation with the U. S. Fish and Wildlife Service and the Washington Department of Wildlife, shall file for Commission approval a plan and implementation schedules for pre- and post-construction studies to monitor the effects of the minimum flow releases on riparian vegetation between the diversion structure and the powerhouse. The plan shall include, but need not be limited to: (1) pre- and post-project mapping of riparian habitat along the bypassed reaches; (2) determination of the number of acres and lineal

extent of riparian habitat in the bypassed reach, and the density, frequency, and dominance of plant species; (3) establishment of fixed survey transects to achieve a representative sample of the riparian habitat; (4) development of methodology and techniques for monitoring and evaluating impacts of the flow release on riparian vegetation on an annual basis over the first 12 months of project operation, and thereafter at appropriate intervals; and (5) development of a schedule for analyzing data and implementing mitigative measures over the term of the license. Agency comments on the plan shall be included in the filing. The licensee shall not commence any land-clearing or land-disturbing activities until the plan is approved by the Commission. Study results shall be filed with the Commission as outlined in the implementation schedule.

Article 415. The licensee shall conduct a cultural resources survey of the project area of sufficient scope to identify any archeological or historic sites in the area, including any sites of traditional cultural value to the Tulalip Tribes of Washington and the Snoqualmie Tribe, that are eligible for inclusion in the National Register of Historic Places, and shall prepare and file for Commission approval a cultural resources management plan to avoid or mitigate any project-related impacts to any sites identified as eligible for inclusion in the National Register. The cultural resources survey and the cultural resources management plan shall be based on the recommendations of the Washington State Historic Preservation Officer (SHPO), the Tulalip Tribes, and the Snoqualmie Tribe, and shall adhere to the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation and to the guidelines proposed by the Advisory Council on Historic Preservation to protect sites of traditional cultural value to ethnic groups in a memorandum to the SHPO dated July 31, 1985.

The cultural resources management plan shall include the following: (1) copies of letters documenting consultation with the SHPO, the Tulalip Tribes, and the Snoqualmie Tribe prior to conducting the cultural resources survey and preparing the plan; (2) the results of the survey, including a description of each eligible site on a National Register Nomination Form; (3) a description of the impacts of the project on any eligible sites; (4) the measures necessary to avoid or mitigate impacts to these sites; (5) a schedule for conducting any avoidance or mitigative work; and (6) copies of letters from the SHPO, the Tulalip Tribes, and the Snoqualmie Tribe commenting on the survey and the plan. The Commission may require additional cultural resources survey of the project plan and may require changes to the cultural resources management plan.

No land-clearing or land-disturbing activities associated with the project shall begin until the licensee is notified that the cultural resources management plan has been approved. The licensee shall make funds available in a reasonable amount for conducting the cultural resources survey and preparing and implementing the plan. If the licensee, the SHPO, the Tulalip Tribes, and the Snohomish Tribe cannot agree on the amount of money to be spent for conducting the survey and preparing and implementing the plan, the Commission reserves the right to require the licensee to conduct the necessary work at the licensee's own expense.

Article 416. The licensee, before starting any land-clearing or land-disturbing activities within the project boundaries, other than those specifically authorized in this license, shall consult with the Washington State Historic Preservation Officer (SHPO), and shall file for Commission approval a cultural resources management plan, prepared by a qualified cultural resources specialist. If the licensee discovers any previously unidentified archeological or historic sites during the course of constructing or developing project works or other facilities at the project, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the sites, shall consult with the SHPO, and shall file for Commission approval a new cultural resource management plan prepared by a qualified cultural resource specialist.

Either management plan shall include the following: (1) a description of each discovered site, indicating whether it is listed on or eligible to be listed on the National Register of Historic Places; (2) a description of the potential effect on each discovered site; (3) proposed measures for avoiding or mitigating effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for mitigating effects and conducting additional studies. The Commission may require changes to the plan.

The licensee shall not begin land-clearing or land-disturbing activities, other than those specifically authorized in this license, or resume such activities in the vicinity of a site discovered during construction, until informed by the Commission that the requirements of this article have been fulfilled.

Article 417. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority

only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted user occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved exhibit R or approved report on recreational resources of an exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted,

and any federal or state approvals required for the proposed use. Unless the Director, Office of Hydropower Licensing, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraphs (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreation value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures of facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the

project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(E) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(F) The application for preliminary permit for Project No. 5440-000 filed by Puget Sound Power and Light is dismissed with prejudice.

(G) This order is final unless an application for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the FPA. The filing of an application for rehearing does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to request rehearing of this order shall constitute acceptance of this license.

By the Commission. Commissioner Trabandt concurred with a separate statement to be issued later.

(S E A L)

Lois D. Cashell,
Acting Secretary.