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123 FERC ¶ 62,260

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp	Project Nos.	2111-018
		2071-013
		935-053
Public Utility District No. 1 of Cowlitz County, Washington		2213-011

ORDER ON OFFER OF SETTLEMENT AND ISSUING NEW LICENSE

(June 26, 2008)

1. On April 28, 2004, PacifiCorp filed an application for a new license, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),[1] for the continued operation and maintenance of the 240-megawatt (MW) Swift No. 1 Project No. 2111, located on the North Fork Lewis River in Cowlitz and Skamania Counties, Washington. The project occupies federal lands administered by the U.S. Bureau of Land Management (BLM) and the U.S. Department of Agriculture, Forest Service (Forest Service).[2]

2. PacifiCorp's application for Project No. 2111 is one of three applications it filed to relicense its projects on the North Fork Lewis River (referred to as the Lewis River in this order). In addition, PacifiCorp filed license applications for two downstream projects--the Yale Project No. 2071, located about 3 miles downstream, on May 5, 1999 and the Merwin Project No. 935, located immediately downstream of the Yale Project, on April 28, 2004. On April 28, 2004, the Public Utility District of Cowlitz County (Cowlitz PUD) filed a license application for the Swift No. 2 Project No. 2213, located immediately downstream of the Swift No. 1 Project. The existing licenses for these four projects expired between 2001 and 2006.[3] In this order, we refer to the four projects

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[1] 16 U.S.C. §§ 797(e) and 808 (2000), respectively.

[2] The project is required to be licensed under section 23(b)(1) of the FPA, 16 U.S.C. § 817 (2000), because it occupies federal lands.

[3] The Yale Project license expired in 2001, but the processing of that application was held in abeyance so that all four projects could be considered together in a single environmental document. In addition, the expiration date of the Merwin Project license

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collectively as the Lewis River Projects. While the granting of a new license for the Swift No. 1 Project and the Offer of Settlement are the subjects of this order, I am concurrently issuing three other orders granting new licenses for the other three Lewis River Projects.[4]

3. On December 3, 2004, the applicants filed a comprehensive Settlement Agreement (Agreement) related to the relicensing of the four Lewis River Projects. The applicants' proposed action is to relicense the projects in accordance with the terms of the Agreement. The Agreement is discussed in detail below.

4. On September 23, 2005, the Commission staff issued a draft environmental impact statement (EIS) for the relicensing of all four Lewis River Projects. American Rivers, Cowlitz Indian Tribe (Cowlitz Tribe), Cowlitz PUD, National Marine Fisheries Service (NMFS), PacifiCorp, Swiftview Owners Group, Three Rivers Recreational Area, U.S. Department of the Interior (Interior), Forest Service, U.S. Environmental Protection Agency (EPA), Washington Department of Fish and Wildlife (Washington Fish and Wildlife), Washington Department of Ecology (Washington Ecology), and the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) filed comments on the draft EIS. The final EIS was issued on March 24, 2006. The potential environmental impacts of the measures proposed in the Agreement, along with additional staff-recommended measures, were considered in the EIS. References in this order to the EIS are to the final EIS, unless otherwise noted.

5. On January 5, 2006, PacifiCorp filed draft license articles implementing the terms of the Agreement for each of its projects. Many of these requirements duplicate the mandatory conditions of the section 18 prescriptions and the water quality certifications and the provisions of the National Marine Fisheries Service (NMFS) Biological Opinion. While the proposed draft articles are not included in the license, this order includes requirements consistent with the Agreement and proposed articles, except as noted below.

6. As discussed below, this order issues a new license for the Swift No.1 Project and discusses the Agreement and issues common to this project and the other three Lewis River Projects (Master Order). First I describe the four Lewis River Projects and the provisions of the multi-project Agreement, and then I discuss issues and licensing provisions for the Swift No. 1 Project.

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was accelerated from December 2009 to April 2006 to coincide with the expiration dates for the Swift No. 1 and Swift No. 2 licenses.

[4] *See PacifiCorp*, 123 FERC ¶¶ 62,257 and 62,258, (2008); and *Public Utility District No. 1 of Cowlitz County*, 123 FERC ¶ 62,259 (2008).

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I. THE MULTI-PROJECT PROCEEDING

PROJECT AREA

7. The Lewis River is a tributary of the Columbia River in southwest Washington, with a drainage area of 1,050 square miles. The river originates in the Cascade Range of the Gifford Pinchot National Forest and flows westward about 93 miles, joining the Columbia River near Woodland, Washington. Two volcanic peaks, Mount Adams and the recently active Mount St. Helens, lie on the northern and eastern extremities of the basin. Mount St. Helens is about 9 miles to the north of Swift dam. Foothills in the central portion of the watershed are generally steep and forested and extend up to 3,000 feet above mean sea level (msl).

8. From upstream to downstream, the Lewis River hydropower projects include Swift No. 1 [river mile (RM) 47.9], Swift No. 2 (RM 44), Yale (RM 34.2), and Merwin (RM 19.5), and affect almost 40 miles of river.

9. The Lewis River Basin downstream of Merwin dam supports wild fall Chinook salmon and hatchery stocks of spring Chinook, early and late coho salmon, and winter and summer steelhead. Chum salmon, Columbia River smelt (Eulachon), Pacific lamprey, white sturgeon, and sea-run cutthroat trout also spawn and rear in the mainstem Lewis River and tributaries below Merwin dam. The Lewis River enters a terrain of rolling hills that transition to the essentially flat woodland bottoms near the confluence with the Columbia River. Forested areas are dominated by conifer, including Douglas-fir and western hemlock forest types. Multiple recreational facilities and opportunities are available within the region; most recreational areas, including the Mount St. Helens National Volcanic Monument and Gifford Pinchot National Forest, are managed by federal and state agencies.

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PROJECT DESCRIPTIONS[5]

10. PacifiCorp's Swift No. 1 Project is the furthest upstream and largest project in the Lewis River system. The project, which is described in more detail below, includes a 412-foot-high, 2,100-foot-long embankment structure, impounding an 11.5-mile-long, 4,600-acre reservoir. All flow from the Swift No. 1 powerhouse enters Swift No. 2 canal (a Swift No. 2 Project facility), which terminates approximately 3 miles downstream at the Swift No. 2 powerhouse. The Swift No. 1 Project has a generating capacity of 240 megawatts (MW) and a maximum hydraulic capacity of 9,120 cubic feet per second (cfs).

11. Cowlitz PUD's recently reconstructed Swift No. 2 Project is located just downstream of the Swift No. 1 Project and immediately upstream of the Yale Project. It operates with flows released from the Swift No. 1 powerhouse into the 3-mile-long Swift No. 2 canal. The approximately 3-mile-long reach of the North Fork Lewis River bypassed by the Swift No. 2 canal is known as the Lewis River bypassed reach. The Swift No. 2 Project has an authorized capacity of 66.8 MW and maximum hydraulic capacity of 9,000 cfs. PacifiCorp operates the project under contract with Cowlitz PUD.

12. PacifiCorp's Yale Project includes two zoned embankment dams--the largest being 323 feet high and 1,500 feet long)--and a 10.5-mile-long reservoir with a surface area of 3,800 acres at full pool elevation. The Yale Project has a total generating capacity of 134 MW and maximum hydraulic capacity of 9,640 cfs.

13. The oldest and most downstream project in the basin is PacifiCorp's Merwin Project. Its 313-foot-high concrete arch dam extends 1,300 feet across the Lewis River, impounding a 14.5-mile-long reservoir with a surface area of 4,000 acres at full pool. The Merwin Project has a total generating capacity of 136 MW and maximum hydraulic capacity of 11,470 cfs.

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[5] The Swift No. 1 Project is described in more detail later in this order. More detailed project descriptions of the remaining three projects are contained in each individual license order.

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SETTLEMENT AGREEMENT

A. Description of Agreement

14. On November 30, 2004, 22 stakeholders[6] entered into an Agreement that resolved all issues between the parties related to the relicensing of and ongoing operations of the Lewis River Projects. The Agreement was reached after three years of negotiations covering multiple issues including fish passage, instream flow, hatcheries and supplementation, aquatic habitat, monitoring and evaluation, wildlife habitat, recreation, cultural resources, flood management, socioeconomics, reporting, and coordination among the signatories.

15. A major goal of the Agreement is the restoration of anadromous salmonids to the Lewis River Basin "to achieve genetically viable, self-sustaining, naturally reproducing, harvestable populations above Merwin dam greater than minimum viable populations."[7] As such, the Agreement includes many proposed environmental measures designed to achieve this goal. These measures include: (1) improvements to the existing Merwin Project adult salmon and steelhead collection and transport facility; (2) installation of modular surface collectors for downstream passage of salmon and steelhead smolts at the Merwin, Yale, and Swift No. 1 Projects; (3) installation of adult salmon and steelhead collection and transport facilities at the Yale and Swift No. 2 Projects; (4) installation of upstream and downstream passage facilities for bull trout at the Merwin, Yale, and Swift Projects in the event that the anadromous fish passage facilities are not constructed; (5) provision of minimum flows from the Swift No. 2 power canal into the Lewis River bypassed reach; (6) construction of an enhanced habitat side channel next to the Lewis River bypassed reach; (7) provision of seasonally adjusted minimum flows, ramping rate restrictions, and plateau operations (periods of near steady discharge) downstream of Merwin dam; (8) habitat enhancement measures, including programs to store and place

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[6] PacifiCorp; Cowlitz PUD; NMFS; National Park Service; BLM; U.S. Fish and Wildlife Service (FWS); Forest Service; Yakama Nation; Washington Fish and Wildlife; Washington Interagency Committee for Outdoor Recreation; Cowlitz County; Cowlitz-Skamania Fire District No. 7; North Country Emergency Medical Service; City of Woodland; Woodland Chamber of Commerce; Lewis River Community Council; Lewis River Citizens-at-Large; American Rivers; Fish First; Rocky Mountain Elk Foundation, Inc; Trout Unlimited; and the Native Fish Society. On February 10, 2005, PacifiCorp filed additional signature pages to add the following four parties to the Agreement: the Lower Columbia River Fish Recovery Board, Clark County, Skamania County, and Cowlitz Indian Tribe.

[7] Section 3.1 of the Agreement.

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large woody debris in selected locations; (9) upgrades to and continued maintenance of the three Lewis River hatcheries, with an increase in the hatchery production of salmon, steelhead, and resident species; (10) a supplementation program in which fish in excess of hatchery production are released in the upper watershed to spawn and rear naturally; (11) a comprehensive monitoring program to review the results and assess the status of the fisheries restoration efforts; (12) funding of some measures under the Aquatics Fund to support habitat enhancement and fish recovery efforts; (13) an In-lieu Fund in the event salmon passage is not feasible; and (14) a gravel augmentation program, including a study to determine baseline gravel availability downstream of Merwin dam, with a program for supplementation if monitoring shows levels are decreasing over the current baseline.[8]

16. The Agreement also includes proposed measures for terrestrial resources, recreation, flood management, cultural resources, and socioeconomics, such as: (1) the Yale Land Acquisition and Habitat Protection Fund; (2) the Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund; and (3) the Lewis River Land Acquisition and Habitat Enhancement Fund, which would support the acquisition and protection of lands in the basin for wildlife habitat; (4) development and implementation of Wildlife Habitat Management Plans (Habitat Plans) for existing and new lands acquired for wildlife management; (5) continued maintenance and improvements to recreational facilities on Swift reservoir, Yale Lake, and Lake Merwin; (6) development of a fishing access site on Swift No. 2 power canal; (7) investigation for the location for the proposed barrier-free bank fishing facility either below Merwin dam or on Swift reservoir, Yale Lake, or Lake Merwin; (8) improvements to river access below Merwin dam; (9) funding to manage dispersed camping sites; (10) improvements to visitor management controls on project recreational lands; (11) continued dedication of 70,000 acre-feet for flood control storage in the Swift reservoir, Yale Lake, and Lake Merwin, along with establishment of high runoff procedures, improved emergency notification, and funding for improved flow information; (12) implementation of a Historic Properties Management Plan and other measures to protect cultural resources; (13) funding maintenance of Forest Road 90; (14) funding law enforcement; and (15) funding for construction of a Visitor Information Center in the town of Cougar, Washington.

B. Discussion of Agreement Proposals

17. In this section, I discuss the pertinent terms of the Agreement with particular emphasis on Commission staff's analysis in the EIS. The ultimate disposition of these terms with respect to each project license is explained below for the Swift No. 1 Project license and in the license orders issued concurrently for the remaining three Lewis River

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[8] *See* Section 2.1.3 of the EIS.

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Projects. The Agreement is attached to this order for informational purposes (Appendix A).

18. In general, the Commission looks with favor on settlements in licensing cases. When parties are able to reach settlements, it can save time and money, avoid the need for protracted litigation, promote the development of positive relationships among entities who may be working together during the course of a license term, and give the Commission, as it acts on license and exemption applications, a clear sense as to the parties' views on the issues presented in each settled case.[9] At the same time, however, the Commission cannot automatically accept all settlements, or all provisions of settlements. Section 10(a)(1) of the FPA requires that the Commission determine that any licensed project is "best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes referred to in section 4(e)."[10]

19. Consequently, in reviewing settlements, the Commission looks not only to the wishes of the settling parties, but also at the greater public interest, and whether settlement proposals meet the comprehensive development/equal consideration standard. As discussed below, the four Lewis River Project licenses include most of the substantive provisions of the Agreement, with certain modifications. With respect to each project, I discuss those portions of the Agreement provisions that we do not adopt, consistent with the provisions of FPA section 10(a)(1), or would not adopt, were they not mandatory under the FPA section 4(e) and the Clean Water Act (section 401) or included as terms of a biological opinion (BO) under the Endangered Species Act. I also discuss those modifications or additions necessary for the Commission to effectively administer this license and ensure that the measures achieve project purposes and are in the public interest.

20. Although Staff supported almost all of the provisions of the Agreement, staff did not recommend that the following five provisions be included in the licenses: (1) establishing a contingency fund (In-lieu Fund) in the event anadromous fish passage is determined not to be feasible; (2) funding the appropriate agency to support three

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[9] *See* Settlements in Hydropower Licensing Proceedings under Part I of the Federal Power Act, 116 FERC ¶ 61,270 at P 2-12 (2006).

[10] 16 U.S.C. § 803(a)(1) (2000).

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additional marine- and land-based full-time equivalent law enforcement officers; (3) making improvements to five river access sites outside of the Merwin Project boundary along the lower Lewis River because of lack of physical nexus to that project; (4) providing funds to the Forest Service for managing dispersed camping sites outside of the Swift No. 1 and Swift No. 2 Project boundaries because of insufficient nexus to those projects; and (5) providing funds to the Forest Service for maintenance of Forest Road 90. However, as discussed below, many of these measures are included in individual licenses because they are subject of mandatory conditions or the conditions of NMFS' BO.

21. Many of the measures in the Agreement include specific cost caps that limit the licensees' responsibility for implementing specified measures. Consistent with Commission policy, I include the caps to memorialize the intent of the parties but not to approve the limits. Although it is likely that the funding specified in the Agreement will be sufficient to implement the proposed measures, we cannot constrain the fulfillment of our statutory responsibilities by agreeing to such spending caps.[11] The Commission has stated that it is the licensee's obligation to complete the measures required by the license articles, in the absence of authorization from the Commission to the contrary, and that dollar figures agreed to by settlement parties are not absolute limitations.[12]

22. The comprehensive Agreement addresses the following resource areas: (1) anadromous fish reintroduction, (2) aquatic habitat enhancement, (3) minimum flows, (4) terrestrial resources, (5) recreation, (6) dispersed camping sites, (7) flood management, (8) cultural resources, and (9) socioeconomics.

1. Anadromous Fish Reintroduction

23. As discussed above, one of the major goals of the Agreement is the restoration of anadromous salmonids (salmon and steelhead) to the Lewis River Basin. Sections 3 through 9 of the Agreement propose measures designed to achieve this goal. Section 3 describes the goals of the anadromous fish restoration program and also provides for status checks, 27 and 37 years after the licenses are issued (Phase I and Phase II, respectively), to determine if restoration goals are being met, and to take appropriate actions if these goals are not being met. Section 4 includes measures for upstream and downstream fish passage through the four projects, to be implemented in a phased

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[11] *See City of Seattle, WA*, 71 FERC ¶61,159 at 61,535 (1995), and cases cited therein.

[12] *See Virginia Electric Power Co.*, 110 FERC ¶ 61,241 (2005) and *Portland General Electric Company and Confederated Tribes of the Warm Springs Reservation of Oregon*, 111 FERC ¶ 61,450 (2005).

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approach over specific time periods, ranging from 1 to 17 years after issuance of the licenses. Section 5 has measures related to non-anadromous bull trout enhancement and public information programs for both bull trout and the anadromous fish programs. Section 6 includes provisions for flow releases in the Lewis River bypassed reach below Swift dam, and flow releases, ramping rates, and plateau operations below Merwin dam. Section 7 provides for several aquatic habitat enhancement actions, including a large woody debris (LWD) program, spawning gravel study and augmentation plan, a predator study, habitat preparation plan, an aquatics fund (to support resource protection measures), and an "In-lieu Fund" (to be implemented if the agencies determine that fish passage facilities are not required at some projects). Section 8 is the hatchery and supplementation program, which provides specific hatchery production targets, a program to maintain and upgrade the existing hatcheries, a supplementation program for both juvenile and adult salmonids (these are fish in excess of hatchery production that are released in the upper watershed to spawn and rear naturally), and a resident trout and kokanee hatchery production program. Finally, section 9 of the Agreement is the aquatic monitoring and evaluation program, which provides for water quality and flow monitoring and for assessing the results of the upstream and downstream passage measures, the hatchery and supplementation program, the bull trout program, and resident fish programs.[13]

24. The stated purposes of the anadromous fish restoration measures are mitigation for the continuing effects of the Lewis River Projects on anadromous fish resources in the Lewis River Basin. The original licenses for these projects required the construction and operation of fish hatcheries in the basin, and the Agreement further enhances those mitigation efforts by providing for increased hatchery production and reintroduction of anadromous species into habitat in the upper basin, which fish have been unable to access due to the presence of the projects. Currently, anadromous species are limited to the lower 19 miles of the Lewis River, and the fishery for these species is concentrated in that reach. The proposed restoration program would provide these species access to about 174 miles of potential habitat within the basin, likely resulting in larger populations and providing fishing opportunities throughout the basin.

25. I concur with staff's analysis in the EIS that the wider geographic distribution of anadromous fish facilitated by the proposed passage facilities would likely increase life history diversity and fitness of introduced stocks. These naturally-produced fish would be better adapted to the Lewis River and its tributaries and should exhibit higher smolt to adult survival rates than their hatchery counterparts. Higher survival would also increase system productivity and the available prey base for bull trout in all three introduction reaches of the Lewis River. Development of passage facilities and programs would help

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[13] *See* EIS at 5-24.

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increase bull trout distribution and abundance, especially in stream reaches where resident hatchery fish are not planted, by reducing competition for available spawning and rearing habitats.[14]

26. In the EIS, however, staff did not recommend adoption of the $30 million In-lieu Fund for the three PacifiCorp projects.[15] Because this is a contingency monetary fund that may or may not be established, staff was unable to determine what measures would be supported by this fund, whether they would be directly tied to effects of the projects or their operations, or determine the cost. Furthermore, it was unclear to staff what circumstances would be the basis for the fund's implementation. Therefore, staff did not recommend that the In-lieu Fund be made a condition of the licenses. Instead, staff recommended that PacifiCorp file a report that presents the rationale for how any decision to forego fish passage was made, and a plan that describes the procedures for determining which specific measures in lieu of fish passage would be implemented, consistent with the intent of the In-lieu Fund. The In-lieu Fund, however, is a provision of NMFS's BO. Therefore, it is included as a provision in the Swift No. 1, Yale, and Merwin Projects licenses.

2. Aquatic Habitat Enhancement – Aquatic Fund

27. Section 7.5.3.1 of the Agreement proposes the establishment of an Aquatic Fund. The Agreement explains that this fund may be used for projects that would benefit fish recovery throughout the North Fork Lewis River. In contrast to the In-lieu Fund, the Agreement notes some specific aquatic habitat enhancement objectives that would be implemented with the funds, but provides no nexus to project purposes. The EIS emphasized, however, that the fund should be used only for measures that provide a demonstrated benefit to resources affected by project facilities and operation and that the strategic plan and annual report describing proposed resource measures be filed with the Commission for approval so that our approval can be made on a suite of measures.[16] I concur and require that the annual report be filed for our approval in each of the Lewis River Project licenses.

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[14] *Id.* at 3-94.

[15] *Id.* at 5-26 to 5-27.

[16] *Id.* at 5-25 to 5-26.

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3. Minimum Flows

28. Minimum flows are proposed for the Lewis River bypassed reach, which currently only receives leakage flow and minimal local negligible inflow from groundwater seepage and a small creek totaling about 21 cfs. Flows would be released from two points in the bypassed reach: at an upper release point located in the vicinity of the Swift No. 1 powerhouse, to release flows into the upper bypassed reach, and at the canal drain, about 1 mile downstream of the Swift No. 1 tailrace, to release flows into the newly constructed habitat channel. These minimum flows would result in improved aquatic habitat in the bypassed reach, which has only received minimal leakage and local inflow for decades (except for infrequent spillage events) thus enhancing fishery resources in the reach.[17]

29. A revised minimum flow regime, ramping rates, and plateau operations are proposed for the downstream reach of the Merwin Project. The existing minimum flow regime, as required by Article 49 of the current license, would be modified/refined for the purpose of maintaining and enhancing anadromous species downstream of Merwin dam, including native fall Chinook. The new minimum flows would range from 1,200 to 4,200 cfs, according to 10 seasonal adjustments. Ramping rates would be limited to no more than 2 inches per hour for downramping and 1.5 feet per hour for upramping. Plateau operations (maintaining periods of near-steady discharge for as long a duration as practicable) would be established, with plateau steps and changes to the plateau levels specified. A Flow Coordination Committee (FCC), comprised of representatives from PacifiCorp, NMFS, FWS, Washington Fish and Wildlife, the Cowlitz Tribe, and Yakama Nation, would be established to determine appropriate minimum flow levels during low-flow periods. While this appears to be an adequate procedure for adjusting minimum flows based on flow availability, the procedure should also include notification of the Commission regarding any deviations from required minimum flows. Therefore, I have included this provision in each of the Lewis River Project licenses. The proposed minimum flows, ramping rate restrictions, and plateau operations would protect and enhance the existing fishery downstream of Merwin dam, including the natural spawning of several of the anadromous salmonid species.[18]

4. Terrestrial Resources

30. Section 10 of the Agreement includes measures for protection and enhancement of terrestrial resources, including conservation easements, separate PacifiCorp and Cowlitz PUD Wildlife Habitat Management Plans (Habitat Plans), and three funds: the Yale

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[17] *Id.* at 5-26.

[18] *Id.* at 5-29.

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Land Acquisition and Habitat Protection Fund, the Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund, and the Lewis River Land Acquisition and Habitat Enhancement Fund. All three funds would be used to acquire and protect wildlife habitat in the vicinity of the Yale and Swift Projects, and elsewhere within the Lewis River Basin. Additionally, any lands acquired with these funds, as well as lands currently owned or controlled by PacifiCorp and Cowlitz PUD adjacent to the projects and lands within the Swift No. 2 project boundary, would be managed under integrated Habitat Plans developed by PacifiCorp and Cowlitz PUD. The Habitat Plans would provide management direction for a broad range of habitat types and wildlife species, including elk winter and foraging habitat, elk movement corridors between winter and summer ranges, bald eagle and northern spotted owl habitat, and riparian and wetland habitat.[19]

31. Although reservoir fluctuations would continue to affect riparian and wetland habitat and impede wildlife access to the reservoirs, the Agreement's proposed measures would improve current conditions and mitigate for ongoing project effects by acquiring, protecting, and enhancing wetland and riparian habitat. The proposed measures would help achieve management goals for the Mt. St. Helen's herd and ensure its long-term sustainability, and contribute to habitat restoration for anadromous fish re-introduction. Therefore, I make the proposed land acquisition and Habitat Plans part of the licenses Once lands are acquired and included in the Habitat Plans, they must also be included in the appropriate project boundary.

5. Recreation

32. Section 11 of the Agreement provides for a wide range of recreational enhancements at the Lewis River Projects, although measures proposed at the Swift No. 2 Project are limited (power canal fishing access site) because the project does not include a reservoir and only limited lands. Enhancements are proposed at existing facilities on Swift reservoir, Yale Lake, and Lake Merwin. For the Swift No. 1 Project, the primary enhancements are hardening dispersed camping sites along Swift reservoir, expanding Swift Camp when the need arises, providing a new group picnic area, renovating Eagle Cliff Park, developing a trail from Eagle Cliff Park to the Forest Service boundary, and providing a barrier-free fishing access site.

33. For the Swift No. 2 Project, the Agreement provides for Cowlitz PUD to construct a concrete fishing pier at Swift No. 2 canal and also to assist in the funding for some of the measures to be implemented by PacifiCorp on Swift reservoir, including expanding Swift Camp when the need arises, and renovating Eagle Cliff Park.

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[19] *Id.* at 5-30.

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34. For the Yale Project, the primary enhancements would be hardening dispersed camping sites along Yale Lake, expanding Cougar Camp when the need arises, renovating Cougar Campground, providing a new group picnic area at Swift Park, parking and trail improvements at Saddle Dam Park, developing a trail from Cougar Campground to Beaver Bay Campground, improving the Yale-IP road as a non-motorized trail, improving boat launch facilities at Yale Park and Beaver Bay, and providing a barrier-free fishing access site.

35. For the Merwin Project, the primary enhancements would be implementing an Interpretation and Education (I&E) program, prohibiting dispersed camping along Lake Merwin, upgrading restrooms and parking areas and the boat launch at Speelyai Bay Park, upgrading recreational facilities at Merwin Park, upgrading Marble Creek Trail to barrier-free standards, developing a takeout for non-motorized boats at Yale bridge, and providing a barrier-free fishing access site.

36. Implementation of these recreational measures would provide significant enhancement of recreational opportunities in the project area. In the EIS, however, staff did not recommend improvements to five river access sites outside the Merwin Project boundary along the lower Lewis River because staff found that they were not needed to serve project purposes and there is no physical nexus between these sites and the Merwin Project, located 5 miles upstream. Recreational use of these areas is typically associated with floating, swimming, and angling along the lower Lewis River, and recreational use would not be associated with displaced recreational use from the project.[20] As such, I have not included these lower Lewis River recreational sites within the project boundary for the Merwin Project. PacifiCorp, however, is free to implement this measure outside the license.

37. Finally, section 11 of the Agreement provides that the licensees will provide annual funding to the Forest Service to maintain dispersed camping sites on Forest Service lands outside the project boundaries to address demand during peak periods. In the EIS, staff did not recommend this measure because many of these sites may not be well known or mapped in any way, or have no direct nexus to a project purpose.[21] Staff concluded that other measures in the Agreement would be sufficient to address camping use during peak-use periods. This measure, however, is subject to the provisions of a Forest Service section 4(e) condition and, as such, I have included provisions for annual Forest Service funding in the licenses for the Swift No. 1 and Swift No. 2 Projects.

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[20] *Id.* at 5-32 to 5-33.

[21] *Id.* at 5-33.

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6. Flood Management

38. Section 12 of the Agreement provides for flood protection in the Lewis River Basin by dedicating flood control storage in the project reservoirs, as well as providing funding and procedures for emergency notifications, a National Oceanographic and Atmospheric Administration (NOAA) weather radio transmitter, U.S. Geological Survey (USGS) flow information dissemination, and high runoff procedures. These measures would provide improved flood control and notification procedures and would likely reduce damage from floods in the basin.[22]

7. Cultural Resources

39. Section 13 of the Agreement provides for measures for the continued protection of cultural resources through finalization of the Historic Properties Management Plan (HPMP), by providing curation facilities for any artifacts recovered in the project area, by planning any changes to eligible properties in the Swift No. 1 and Ariel Historic Districts to be compatible with the districts' historic value, by providing the Tribes access to project lands for traditional cultural practices, by monitoring for and protecting cultural resources in the reservoir drawdown zones, by designating a cultural resources coordinator for PacifiCorp's projects, and by providing annual training for PacifiCorp employees whose activities may affect cultural resources in the project areas. These measures would be important for the protection of cultural resources in the project area and have been included in the licenses for the Swift No. 1, Merwin, and Yale Projects.[23]

8. Socioeconomic Measures

40. Socioeconomic measures provided for under section 13 of the Agreement include funding law enforcement, assisting the Forest Service in maintaining Forest Road 90, support for the Forest Service radio-telephone link between Swift dam and the Pine Creek Work Center, and supporting the construction of a visitor's center near the town of Cougar.

41. PacifiCorp proposes to fund law enforcement by funding three additional marine and land based full-time equivalent (FTE) law enforcement officers. Staff concluded in the EIS that, although increasing enforcement in the project area could help alleviate some recreational user conflicts that may arise as a result of increased recreational use, law enforcement is the responsibility of county and state agencies. Further, staff concluded that law enforcement also would not necessarily be directed at project-related

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[22] *Id.* at 5-33 to 5-34.

[23] *Id.* at 5-34.

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recreational use.[24] Therefore, I don't include this measure in any of the Lewis River Project licenses. PacifiCorp, however, is free to implement this measure outside the license.

42. In the EIS, staff also did not recommend funding to the Forest Service for maintenance of Forest Road 90. Staff indicated that Forest Road 90 is primarily a multi-purpose road with many more uses than to just access the project facilities. Because maintenance of FR 90 is subject to Forest Service section 4(e) conditions, I have included this provision in the Swift No. and Swift No. 2 Project licenses.

43. In the EIS, staff recommended that the applicants should provide a funding contribution to the Forest Service for the reconstruction of the Canal Bridge, which spans the Swift No. 2 power canal. The Canal Bridge has a direct nexus to the Swift No. 2 Project and is located within the project boundary for the Swift No. 2 Project. The bridge provides passage over the Swift No. 2 power canal, which would not be possible without the bridge.[25] Therefore, I have included this provision in the Swift No. 2 license.

44. The proposed visitor's center in Cougar would allow the applicants to provide general information on the projects to tourists and more specific information on recreational opportunities and safety and security.[26] Because of its proximity and the purposes it would serve, I require the visitor center to be part of the Yale Project license.

ENDANGERED SPECIES ACT CONSULTATION FOR THE LEWIS RIVER PROJECTS

45. Section 7(a)(2) of the Endangered Species Act of 1973,[27] requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat. The draft EIS evaluates effects of the four Lewis River Projects on listed species and served as our biological assessment (BA).

46. Protected salmonid evolutionarily significant units (ESUs) and distinct population segments (DPSs) that occur in the basin include lower Columbia River spring and fall Chinook salmon, lower Columbia River coho, lower Columbia River winter steelhead,

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[24] *Id.* at 5-34.

[25] *Id.* at 5-35.

[26] *Id.* at 5-35.

[27] 16 U.S.C. § 1536(a) (2000).

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Columbia River chum salmon, and Columbia River bull trout. These species are not present above the projects (except for bull trout); however, project facilities and operations have the potential to affect these listed salmonid species that are present downstream.

47. The FWS lists two wildlife species potentially occurring in vicinity of the Lewis River Projects that are federally designated as threatened.[28] These species include the bald eagle[29] and the northern spotted owl. There are no federally listed plant species in the project areas.

48. Based on the BA, staff concluded that relicensing the four Lewis River Projects with the fish and wildlife habitat protection and enhancement measures proposed in the Agreement would likely have a beneficial effect on lower Columbia River spring and fall Chinook salmon, lower Columbia River coho, lower Columbia River winter steelhead, Columbia River chum salmon, Columbia River bull trout, bald eagles, and the northern spotted owl. However, staff concluded that construction of new project facilities, such as fish passage facilities and recreation areas, and project-related recreation-based human disturbance could disturb bald eagles. Overall, staff concluded that the minor effects would be offset by the benefits from the reintroduction of salmonids, a decrease in dispersed recreation, and increased habitat protection and wildlife habitat management. Therefore, staff concluded issuance of new licenses for the Lewis River Projects would not likely adversely affect the bald eagle or northern spotted owl.

49. For the listed fish species, although staff concluded the proposed action would have an overall net benefit compared to current conditions, project operations under the proposed action are likely to adversely affect listed lower Columbia River Chinook, lower Columbia River coho, lower Columbia River steelhead, Columbia River chum salmon, and bull trout. Staff concluded these effects would be associated with handling in the proposed fish passage facilities, continued exposure to some level of entrainment mortality, and effects associated with flow fluctuations downstream of Merwin dam. However, staff noted the Lewis River Projects would not be likely to adversely affect designated bull trout critical habitat.

50. NMFS determined that relicensing the Swift No. 1 Project and the other three projects would not jeopardize the continued existence of lower Columbia River Chinook salmon, lower Columbia River coho salmon, lower Columbia River steelhead, and

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[28] Letter from Kenneth Berg, Manager, Western Washington Field Office, FWS, dated June 24, 2003.

[29] The bald eagle was delisted on August 8, 2007 and is no longer subject to the provisions of the ESA.

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Columbia River chum salmon or result in the adverse modification or destruction of any designated critical habitat for the above species. NMFS' BO, issued on August 27, 2007 for all four Lewis River Projects, includes an incidental take statement with reasonable and prudent measures to minimize take of listed salmon and steelhead along with terms and conditions to implement the measures, consistent with the Agreement.

51. The terms and conditions of the NMFS BO (Appendix F) would require PacifiCorp to implement the Agreement measures that relate to anadromous fish reintroduction outcome goals (section 3 of Agreement); fish passage measures (section 4 of Agreement); flow releases for fish and other aquatic species (section 6 of Agreement); aquatic habitat enhancement actions (section 7 of Agreement); hatchery and supplementation program (section 8 of Agreement); and aquatic monitoring and evaluation (section 9 of Agreement). The BO would also require PacifiCorp to implement measures to protect salmonids during construction activities on or near project waterways and minimize incidental take from general monitoring and evaluation activities.

52. We requested formal consultation with FWS on bull trout and requested concurrence with our findings that the bald eagle and spotted owl would not likely be adversely affected by relicensing the four projects. FWS did not concur with our findings for the eagle and owl and evaluated these species, along with bull trout, in its BO issued on September 15, 2006 for all four Lewis River Projects. FWS determined that relicensing the projects would not jeopardize the continued existence of the bald eagle, northern spotted owl, and bull trout. The FWS also concluded that the projects are not likely to adversely affect designated bull trout critical habitat. Because of the uncertainty in the location of the instream habitat enhancement projects, FWS was unable to conduct an analysis of effects to spotted owls from these projects. FWS notes that these projects may require endangered species consultation when site-specific conditions are known.

53. The FWS BO includes terms and conditions (Appendix G) relating to minimizing coho redd superimposition on bull trout; annual bull trout surveys; transport of fish to minimize predation; instream construction timing; and monitoring and handling of bull trout.

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II. THE SWIFT NO. 1 PROJECT LICENSE

BACKGROUND

54. The Federal Power Commission (FPC) issued the original license for the Swift No. 1 Project No. 2111 on October 29, 1956.[30] The license expired on April 30, 2006, and since that time PacifiCorp has operated the project under an annual license pending the disposition of its new license application.[31]

55. On December 9, 2004, the Commission issued a notice of the Agreement, and that the four applications and applicant-prepared environmental assessments were accepted for filing. The notice solicited motions to intervene, protests, comments, and final recommendations, terms and conditions, and prescriptions. Timely motions to intervene were filed by the Washington Fish and Wildlife; jointly by American Rivers, Trout Unlimited, and Native Fish Society; Interior; Forest Service; Washington Ecology; Cowlitz PUD; Cowlitz Tribe; NMFS; and Yakama Nation. Fish First filed a late motion to intervene, which was granted.[32] None of the intervenors oppose the project.

56. The motions to intervene, comments, and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

57. The Swift No. 1 Project consists of a 410-foot-high, 2,100-foot-long embankment structure (Swift dam) that forms an 11.5-mile-long Swift Creek reservoir. At full pool, Swift Creek reservoir has a 4,600-acre surface area at an elevation of 1,000 feet msl, as measured at the dam. A deep-water intake directs flow to a surge tank, through three penstocks with a total capacity of 9,120 cfs, to three turbines within a concrete powerhouse at the base of the dam. The generating capacity is 240 MW, which is transmitted by three 230-kV primary transmission lines to a substation about 1,000 feet to the north of the Swift No. 1 powerhouse. All flow from the Swift No. 1 Project powerhouse enters the Swift No. 2 Project canal (Project No. 2213), which terminates approximately 3 miles downstream at the Swift No. 2 powerhouse.

58. The project boundary includes all shoreline recreational sites (Swift Forest Camp, Eagle Cliff Park, and Drift Creek Cove dispersed sites); a narrow shoreline buffer around

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[30] 16 FPC 1117 (1956).

[31] *See* 16 U.S.C. § 808(a)(1) (2000).

[32] *See* unpublished notice dated May 30, 2007.

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the reservoir; all project works (dam, powerhouse, reservoir, and switchyard); and conservation easement lands totaling 36 acres in Swift Creek Cove.

59. The Swift No. 1 Project typically operates in a peaking mode, generating from 6:00 a.m. to 10:00 p.m., and not generating the remainder of the night. There is no minimum flow from the Swift No. 1 Project into the Swift No. 2 power canal or the Lewis River bypassed reach.[33] Swift Creek reservoir has a total storage capacity of 755,500 acre-feet and a useable storage capacity of 447,000 acre-feet at an elevation of 1,000 feet msl. Useable storage is regulated for power generation, recreation, and flood management. When inflow to the reservoir exceeds the capacity of the Swift No. 1 powerhouse, water flows over the Swift dam spillway directly into the Lewis River bypassed reach, an event that occurs for short periods (typically about three days). Spill events occur sporadically, but generally spill events of several thousand cfs or more occur every few years, usually occurring in the period of December through February during winter storm events. In addition, on an infrequent basis, outflow from the Swift No. 1 powerhouse exceeds Swift No. 2 capacity and flows over the Swift No. 2 canal spillway (about 1 mile downstream of the Swift No. 1 powerhouse) and into the Lewis River bypassed reach.

SECTION 4(e) CONDITIONS

60. The project is located partially within the Gifford Pinchot National Forest. Section 4(e) of the FPA,[34] provides that the Commission may issue a license for a project located within any reservation[35] only if it finds that the license will not interfere or be inconsistent with the purpose for which the reservation was created or acquired. I have reviewed the Organic Administration Act of 1897,[36] which established the purposes for forest reservations, and the presidential proclamations that created and expanded the Gifford Pinchot National Forest.[37] There is no evidence or allegation in this proceeding

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[33] Flows in the bypassed reach are currently provided by leakage and local inflow along with infrequent spill events.

[34] 16 U.S.C. § 797(e) (2000).

[35] Defined at FPA section 3(2), 16 U.S.C. § 794(2) (2000).

[36] 16 U.S.C. § 473 (2000) *et seq.*

[37] The Mount Rainier Forest Reserve was created on February 22, 1897 by presidential proclamation, 29 Stat. 896. On July 8, 1908, Executive Order 820 established the Columbia National Forest from portions of the Mount Rainer Forest Reserve. On June 15, 1949, the name was changed to honor Gifford Pinchot, the first Chief of the National Forest Service, Proc. 2845, 63 Stat 1277. At the time, the Organic

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to indicate that relicensing the Swift No.1 Project would interfere with the purposes of the Gifford Pinchot National Forest. Therefore, I find that this license will not interfere or be inconsistent with the purposes for which the Gifford Pinchot National Forest was created.

61. FPA section 4(e) further requires that Commission licenses for projects located within federal reservations must include all conditions that the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization of such reservation.

62. On February 4, 2005, the U.S. Department of Agriculture, Forest Service, filed preliminary terms and conditions under FPA section 4(e) for the national forest lands and waters. On November 22, 2005, the Forest Service filed its modified 4(e) conditions. The modified 4(e) conditions are set forth in Appendix B of this order and incorporated into this license by ordering paragraph (D) and summarized below.[38]

63. The Forest Service provided a reservation of authority to modify conditions plus the following sixteen conditions that require the licensee to: (1) comply with the Agreement, as set forth in conditions 2 through 16; (2) convene a terrestrial coordination committee and aquatic coordination committee; (3) acquire authorization for activities on Forest Service lands outside the project boundary; (4) implement the historic properties management plan (heritage resource protection); (5) implement aquatic monitoring and evaluation plans; (6) provide public information to protect bull trout; (7) implement the large woody debris management plan; (8) release live adult hatchery anadromous salmonids into the Swift Reservoir; (9) fund and implement an aquatics fund; (10) establish juvenile salmonid acclimation sites; (11) acquire interests in lands to protect wildlife habitat in the Swift No. 1 and Swift No. 2 Projects; (12) maintain the

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Administration Act of 1897, 16 U.S.C. § 475, stipulated that all national forest lands were established and administered only for watershed protection and timber production. These are the only purposes that are relevant for a Commission determination under section 4(e) as to whether a project will interfere or be inconsistent with the purpose for which the reservation (National Forest) was created or acquired. *See Rainsong Company v. FERC*, 106 F.3d 269 (9th Cir. 1997).

[38] The Forest Service also required as a general condition the inclusion of the license articles of the Commission's Standard Form L-1 (Terms and Conditions of License for Constructed Major Project Affecting Lands of the United States) issued by Order No. 540, dated October 31, 1975. The conditions of Standard Form L-1 are included by ordering paragraph (J), as this existing major project affects lands of the United States.

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Swift No. 1 shoreline use area; (13) fund dispersed shoreline camping management; (14) coordinate with Forest Service on recreation measures; (15) fund Forest Road 90 maintenance; and (16) provide support for the Pine Creek work center communications link.

64. In the EIS, staff did not recommend the funding for maintenance of dispersed camping, required by Forest Service condition 13, because many of these sites may not be well known or mapped in any way or have no direct nexus to the project. This condition requires PacifiCorp to provide $5,220 in 2004 dollars annually (adjusted for inflation) to the Forest Service to manage project-related dispersed camping on National Forest System lands unless already provided pursuant to project licenses for the Merwin or Yale Projects. Staff concluded in the EIS[39] that proposed campground improvements and provisions for construction of additional campgrounds, as needed, are sufficient to address camping during peak-use periods and that annual funding contributions to the Forest Service are not needed. However, I have included this measure as part of the license because it is a mandatory section 4(e) condition (Appendix B).

65. Staff also did not recommend the funding of maintenance of Forest Road 90, required by Forest Service condition 15, because of the lack of nexus with the project. As outlined in section 13.2.2 of the Agreement, PacifiCorp has agreed to make payments to the Forest Service for the maintenance of the section of Forest Road 90 between the Skamania-Cowlitz County line and milepost 16.2 near the Northwoods Community. PacifiCorp also proposes to meet with the Forest Service and pay appropriate use fees to the Forest Service on a case-by-case basis for its use of Forest Road 90 to haul heavy loads. Staff notes in the EIS[40] that Forest Road 90, although serving as an access road to project recreation sites along the Swift Creek reservoir and to other project facilities for O&M by PacifiCorp, is a multi-purpose road with many more uses than project access. Given that the road is primarily used for non-project purposes, staff concluded that this road is not considered a project facility, and therefore applicant funding for maintenance of the road is not appropriate. Although I do not include this road within the project boundary, because this is a mandatory section 4(e) condition, I include the measure as part of the license (Appendix B).

WATER QUALITY CERTIFICATION

66. Under section 401(a)(1) of the Clean Water Act (CWA),[41] the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency has issued water quality certification for the project or has waived certification by

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[39] *See* EIS at 3-171.

[40] *Id.* at 5-34 to 5-35.

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failing to act within a reasonable period of time, not to exceed 1 year. Section 401(d) of the CWA provides that state certification shall become a condition of any federal license that authorizes construction or operation of the project.[42]

67. On, February 3, 2005, PacifiCorp applied to Washington Ecology for water quality certification. PacifiCorp subsequently withdrew and refiled its application on December 2, 2005. Pursuant to Section 4.1(9) of the water quality certification,[43] Washington Ecology issued amendments on December 21, 2007 and January 17, 2008.[44]

68. The conditions of the certification include general requirements: (1) compliance with all state water quality standards approved by the EPA; (2) compliance with sediment quality standards; (3) prohibition of discharge of any solid or liquid waste to the waters of Washington; and (4) reservation of Washington Ecology's authority.

69. The certification also includes specific conditions: (1) release specified instream flows and provide habitat; (2) maintain specified total dissolved gas levels; (3) maintain specified temperature and dissolved oxygen levels; (4) implement measures to protect water quality during construction projects, miscellaneous discharges, and habitat modifications; (5) implement oil spill prevention and control measures; (6) implement measures to protect water quality during pesticide applications; and (7) implement monitoring and reporting measures.

70. The certification is consistent with the Agreement except Ecology will not allow the licensees, at their discretion, to stop releases through the Upper Release Point in the

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[41] 33 U.S.C. § 1341(a)(1) (2000).

[42] 33 U.S.C. § 1341(d) (2000).

[43] Ecology reserves the right to amend this certification if it determines that the provisions are no longer adequate to provide reasonable assurance of compliance with applicable water quality standards or other appropriate requirements of state law.

[44] Washington Ecology replaced four of the conditions of the certification dealing with oil spill prevention and control (conditions 4.6.3.e, 4.6.4.a, 4.6.4.e, and 4.6.5.a). The revisions require that the oil-water separator be sized to accommodate inflows up to the total volume of the largest transformer plus 15 percent and that the transformer containment area will contain spills from the volume of the largest transformer plus 15 percent. With regard to the sumps, the revision requires that the oil sensors be calibrated and maintained to detect oil at 15 parts per million or less. In addition, retrofitting the secondary containment area in the event of catastrophic oil loss was changed to address oil loss from the largest transformer plus 15 percent.

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vicinity of the Swift No. 1 powerhouse during the time that spills displace scheduled releases from the Upper Release Point into the Lewis River bypassed reach (section 6.1.5.a of Agreement).[45]

71. The water quality certification conditions are attached as Appendix C to this order. Ordering paragraph (E) incorporates the certification conditions of Appendix C as conditions of the license.

SECTION 18 FISHWAY PRESCRIPTION

72. Section 18 of the FPA[46] provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate.

73. Both Commerce and Interior filed modified fishway prescriptions (Commerce filed on February 17, 2006, and Interior filed on February 22, 2006). Both prescriptions involve passage of anadromous salmon and steelhead species, while FWS's prescriptions also involve bull trout. Both agencies state that these prescriptions are consistent with the Agreement.

74. The fishway prescriptions include structures for upstream and downstream passage past the project, project operations, performance standards, outcome goals, and other measures to ensure effective passage. PacifiCorp would construct and operate a downstream fish passage facility at Swift dam within 6 months of the fourth anniversary of the Swift license, to collect, sort, and transport downstream migrating Chinook, coho, steelhead, and sea-run cutthroat trout to a release pond below Merwin dam, before release into the lower Lewis River. Unless otherwise directed by FWS, bull trout collected in the Swift downstream collection facility would be transported to Yale Lake, except that bull trout with a smolt-like appearance would be transported below Merwin dam. All salmonids would be passed downstream using trap and transport methods, unless the FWS, NMFS, and the Aquatic Coordination Committee (ACC)[47] determine, after some period of operation and evaluation, that there may be greater benefits from downstream movement of migrating juvenile salmonids via a bypass facility such as a pipe or flume to the next downstream waterbody. By the 17th anniversary of the Swift licenses, PacifiCorp and Cowlitz PUD would construct and begin operating an adult trap and

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[45] *See* section 4.2(5) of the certification.

[46] 16 U.S.C. § 811 (2000).

[47] The ACC and Terrestrial Coordination Council (TCC) are made up of representatives from the Agreement signatories, as outlined above.

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transport facility at the single best site located at the upstream end of Yale Lake. The FWS' prescriptions also include measures for the collection and hauling of bull trout. PacifiCorp would implement the measures together with Cowlitz PUD, the licensee for the Swift No. 2 Project.

75. The Commerce section 18 prescription is attached as Appendix D to this order and the Interior prescription is attached as Appendix E. Ordering Paragraphs (F) and (G) incorporate the Commerce and Interior prescriptions, respectively, as conditions of the license.

76. Both agencies also reserve their rights under Section 18 of the FPA to modify the fishway prescriptions based upon significant new information and conclusions developed in connection with the fulfillment of other statutory consultation and review requirements. Consistent with Commission policy, Article 409 of this license reserves the Commission's authority to require fishways that may be prescribed by Interior or Commerce for the Swift No. 1 Project.

THREATENED AND ENDANGERED SPECIES

77. Section 7(a)(2) of the Endangered Species Act of 1973,[48] requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat. The draft EIS evaluated effects of the project on listed species and served as our biological assessment (BA). Staff's conclusions with regards to threatened and endangered species and the measures included in the Biological Opinions (BOs) issued by NMFS and FWS are outlined above in this Master Order.

78. On September 30, 2005, Staff requested formal consultation with NMFS on the listed salmon and steelhead species. NMFS issued a BO on August 27, 2007, which contains four incidental take terms and conditions that require the licensee to: (1) comply with the provisions of the Agreement that relate to anadromous fish (specifically, sections 3, 4, 5, 7, 8, and 9 of the Agreement); (2) for all construction activities, implement measures to control sediment and minimize other potential effects on salmonids; (3) implement monitoring and evaluation measures contained in the Agreement; and (4) report any dead or injured steelhead that are discovered. These terms and conditions are contained in Appendix F, and incorporated into this license by Ordering Paragraph (H), with the exception of section 6.1.5.a of the Agreement (flows through the upper release point during spill flows) prohibited by the mandatory WQC, as discussed above. The absence of this measure will not minimize the protection of listed species.

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[48] 16 U.S.C. § 1536(a) (2000).

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79. Staff requested consultation with FWS on September 30, 2005. FWS issued a BO for bull trout, bald eagle, and northern spotted owl on September 15, 2006. The BO contains five incidental take terms and conditions related to bull trout that require the licensee to: (1) minimize coho redd superimposition on bull trout; (2) conduct annual bull trout surveys; (3) implement procedures for transporting fish to minimize predation; (4) follow instream construction timing; and (5) implement measures for monitoring and handling bull trout. These terms and conditions are provided in Appendix G and incorporated by Ordering Paragraph (I).

ESSENTIAL FISH HABITAT

80. Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act[49] requires federal agencies to consult with the Secretary of Commerce regarding any action or proposed action authorized, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH) identified under the Act. Under section 305(b)(4)(A)[50] of the Magnuson-Stevens Act, NMFS is required to provide EFH Conservation Recommendations for actions that would adversely affect EFH. Under section 305(b)(4)(B) of the Act,[51] an agency must, within 30 days after receiving recommended conservation measures from NMFS or a Regional Fishery Management Council, describe the measures proposed by the agency for avoiding, mitigating, or offsetting the effects of the agency's activity on the EFH.[52]

81. The Pacific Fisheries Management Council has designated EFH for the following federally managed Pacific salmon: Chinook, coho, and Puget Sound pink salmon. Freshwater EFH for these Pacific salmon includes all streams, lakes, ponds, wetlands, and other water bodies currently or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable artificial (man-made) barriers, and longstanding naturally impassable barriers. The Lewis River Basin comprises EFH for Chinook and coho salmon.

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[49] 16 U.S.C. § 1855(b)(2) (2000).

[50] 16 U.S.C. § 1855(b)(4)(A) (2000).

[51] 16 U.S.C. § 1855(b)(4)(B) (2000).

[52] The measures recommended by the Secretary of Commerce are advisory, not prescriptive. However, if the federal agency does not agree with the recommendations of the Secretary of Commerce, the agency must explain its reasons for not following the recommendations.

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82. Staff concluded in the EIS that relicensing the projects as proposed by the applicants would continue to have an adverse effect on Chinook and coho EFH, but that elements of the proposed action, such as improvements to upstream and downstream passage, would reduce these effects over current conditions.

83. NMFS included an analysis of effects on EFH in its BO for the four projects provided in response to the Commission's September 30, 2005 request to initiate formal consultation under the ESA. In the BO, dated August 27, 2007, NMFS concluded that the proposed action would adversely affect designated EFH for Pacific coast salmon. NMFS adopted the terms and conditions of the BO's incidental take statement (discussed above) as conservation measures to minimize the effects on EFH. NMFS' conservation measures are included in this license in accordance with the terms and conditions of the NMFS BO (see Appendix F).

PACIFIC NORTHWEST ELECTRIC POWER PLANNING AND CONSERVATION ACT

84. In 1980, Congress enacted the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act).[53] This act created the Northwest Power Planning Council (now known as the Northwest Power and Conservation Council) and directed it to develop a Columbia River Basin Fish and Wildlife Program (Program). The Program is to protect, mitigate, and enhance fish and wildlife resources affected by the development and operation of hydroelectric projects on the Columbia River and its tributaries, while assuring the Pacific Northwest an adequate, efficient, economical and reliable power supply.[54] Section 4(h)(11)(A) of the Northwest Power Act[55] provides that federal agencies operating or regulating hydroelectric projects within the Columbia River Basin shall exercise their responsibilities to provide equitable treatment for fish and wildlife resources with other purposes for which the river system is utilized and shall take the Council's Program into account "at each relevant stage of decision-making processes to the fullest extent practicable."

85. To mitigate harm to fish and wildlife resources, the Council has adopted specific provisions to be considered in the licensing or relicensing of non-federal hydropower projects (Appendix B of the Program). The provisions of the Agreement required by this license, including anadromous fish reintroduction and passage measures (sections 3 and 4), flow releases (section 6), aquatic habitat enhancement (section 7), hatchery and

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[53] 16 U.S.C. §§ 839(b) (2000) *et seq*.

[54] 16 U.S.C. § 839b(h)(5) (2000).

[55] 16 U.S.C. § 839(h)(11)(A) (2000).

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supplementation program (section 8), and wildlife land acquisition and management (section 10) are consistent with applicable provisions of the Program, as discussed in more detail in the EIS.[56] As part of the Program, the Council has designated over 40,000 miles of river in the Pacific Northwest region as not being suitable for hydroelectric development ("protected area"). The Swift No. 1 Project is not located within a protected area designated under Appendix B of the Program. Further, Article 410 reserves to the Commission the authority to require future alterations in project structures and operations to take into account, to the fullest extent practicable, the applicable provisions of the program.

NATIONAL HISTORIC PRESERVATION ACT

86. Under section 106 of the National Historic Preservation Act (NHPA),[57] and its implementing regulations,[58] federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

87. To satisfy these responsibilities, the Commission executed a Programmatic Agreement (PA) with the Washington State Historic Preservation Officer and invited PacifiCorp, Forest Service, Cowlitz Tribe, and Yakama Nation to concur with the stipulations of the PA.[59] The PA requires PacifiCorp to implement the final Historic Properties Management Plan (HPMP), dated March 2004. Execution of the PA demonstrates the Commission's compliance with section 106 of the NHPA.

88. PacifiCorp will implement the HPMP, as described in Section 13.1.1 of the Agreement. The HPMP guides the licensee's treatment of known and yet to be discovered cultural and historic resources through the license term and identifies the consultation procedures the licensee shall undertake with the Cowlitz Tribe, Yakama

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[56] *See* EIS at 5-23 to 5-31.

[57] 16 U.S.C. § 470 (2000) *et seq*.

[58] 36 C.F.R. Part 800 (2007).

[59] No historic properties associated with the Swift No. 2 Project were identified. As a result, this PA did not include the Swift No 2 Project.

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Nation, and oversight agencies. Additionally, the licensee will implement the following specific measures for protection of cultural resources relevant to the Swift No. 1 Project:

(1) curate archeological artifacts recovered from the project area and associated documentation at the visitor information facility described in section 13.2.4 of the Agreement or at another project facility created by the licensee in one of its existing buildings that meets the applicable federal curation guidelines;

(2) provide access by the Cowlitz Tribe and Yakama Nation to project lands for traditional cultural practices except where unsafe conditions exist;

(3) undertake a program to monitor and protect cultural resources in the draw-down zones;

(4) designate a cultural resource coordinator for the licensee's Lewis River Projects; and

(5) undertake a program for annual training and education of the licensee's employees whose work may affect cultural resources in the project areas.

89. The existing HPMP approved by the PA includes the requirements stated above. Article 411 requires PacifiCorp to implement the PA and associated HPMP consistent with section 13.1.1 of the Agreement.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

A. Recommendations Pursuant to Section 10(j) of the FPA

90. Section 10(j)(1) of the FPA,[60] requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,[61] to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

91. In response to the Commission's notice that the projects were ready for environmental analysis (dated December 9, 2004), NMFS, Interior, and Washington Fish

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[60] 16 U.S.C. § 803(j)(1) (2000).

[61] 16 U.S.C. §§ 661 (2000) *et seq.*

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and Wildlife filed letters of comment that included section 10(j) recommendations.[62] These agencies are also parties to the Agreement.[63] In their letters containing their 10(j) recommendations, these agencies recommended that the Commission approve the Agreement and all the provisions thereof. Four recommendations were determined to be outside the scope of section 10(j) and are discussed in the next section. The remaining 10(j) recommendations that were provisions of the Agreement are consistent with the section 4(e) conditions, fishway prescriptions, water quality certification conditions, and BO terms and conditions and are therefore incorporated into the license. As a result, this license includes conditions consistent with the recommendations that are within the scope of section 10(j).

B. Recommendations Pursuant to Section 10(a)(1) of the FPA

92. The agencies made recommendations that are not specific measures to protect, mitigate damages to, or enhance fish and wildlife. Consequently, I do not consider these recommendations under section 10(j) of the FPA. Instead, I consider these recommendations under the broad public-interest standard of FPA section 10(a)(1).[64]

93. Staff did not recommend in the draft EIS four measures relevant to the Swift No. 1 Project that are outside the scope of section 10(j). These include: (1) adoption of a contingency monetary fund (In-lieu Fund) to implement mitigation measures for anadromous salmonids if it is determined that reintroduction of salmonids is not required; (2) certain measures to be funded by the Aquatics Fund; (3) funding for three additional marine and land based law enforcement officers; and (4) funding to the Forest Service for management of dispersed camping sites outside the project boundaries.

94. The In-lieu Fund is not within the scope of section 10(j), in that it is not a specific measure for fishery resources but rather a contingency fund. Under Section 7.6 of the Agreement, PacifiCorp would fund mitigation measures for anadromous salmonids in the event that an upstream fish passage is not implemented ($30 million for the Yale,

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[62] These letters were dated February 3, 4 and 7, 2005, respectively.

[63] The Agreement was filed with the Commission on December 3, 2004.

[64] 16 U.S.C. § 803(a)(1) (2000). Section10(a)(1) requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

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Merwin, and Swift No. 1 Projects). For the Swift No. 1 Project, PacifiCorp would provide $5 million in lieu of upstream adult fish passage facility in the vicinity of the Swift No. 1 and Swift No. 2 Projects. The process for making the decision to implement the fund is outlined in section 4.1.9 of the Agreement. As indicated above, because this is a fund for events that may or may not occur, staff was unable to determine what measures would be supported by this fund, or whether they would be directly linked to effects of the projects or their operations.[65] Furthermore, it was unclear to staff what circumstances would be the basis for the fund's implementation. Instead, staff recommended that the licensees prepare a report that presents the rationale for how the decision to forego fish passage was made and a plan that describes the procedures for determining which specific measures in lieu of fish passage would be implemented.

95. The intent of the In-lieu Fund--implementation of measures necessary to protect and enhance Lewis River salmonid population in lieu of fish passage—is consistent with the intent of the staff recommendation. Although I do not endorse establishing a $5 million fund for the Swift No. 1 Project because of the unknown nature of any needed measures, it is a condition required by NMFS's BO, and therefore I include in the Swift No. 1 Project license [Ordering paragraph (H) and Appendix F of this order]. In addition, I require that PacifiCorp file, for Commission approval, all plans and measures in lieu of fish passage that are proposed, before they are implemented, and that all proposed measures demonstrate a clear nexus to the objectives set forth in section 7.6.3 of the Agreement (Article 401).

96. The Aquatics Fund is not within the scope of section 10(j), in that the fishery measures lack specificity. The fund is proposed to benefit fish recovery throughout the North Fork Lewis River, with priority to federal ESA-listed species; to support the reintroduction of anadromous fish throughout the basin; and to enhance fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River. While benefits of the fund will most likely extend to the enhancement, protection, and restoration of aquatic habitat and other resources affected by the project, it is not certain that funds would be used solely for measures that provide a demonstrated benefit to resources affected by project structures and operations.[66] To ensure that the fund achieves the objectives listed under section 7.5 of the Agreement and has a project nexus, however, I will require that the strategic plan that will guide resource project development and the annual report describing proposed resource projects be filed with the Commission for approval (Article 401) after the plan is approved by the Aquatic Coordination Committee

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[65] *See* EIS, section 3.3.3.2.

[66] *Id.*, section 5.1.5.

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(ACC).[67] I include the Aquatics Fund because it would provide substantial benefits to resources affected by the project [Ordering paragraph (D) and Appendix B, condition 9).

97. Funding law enforcement and funding for management of non-project dispersed camping sites are not within the scope of section 10(j) in that they are not recommendations related to fish and wildlife resources. I do not include funding law enforcement because law enforcement is the responsibility of the county and state agencies and would not necessarily be directed at project-related recreational use; however, I include funds for management of dispersed recreation--even though staff found the funding unnecessary--because they are required by Forest Service condition 13, as discussed above.

OTHER ISSUES

A. Fisheries and Aquatic Resources

98. Many of the fisheries and aquatic resources plans required by the mandatory section 4(e) conditions and NMFS and FWS fishway prescriptions, or conditions of the NMFS BO do not require Commission approval. Article 401(a) requires that PacifiCorp file the following plans or designs for Commission approval before implementation: upstream transport plan, downstream transport plan, downstream transport facility at Swift No. 1 dam, design of stress release ponds, bull trout collection and transport program, habitat preparation plan, Aquatics Fund strategic plan, In-lieu Fund strategic plan, hatchery and supplementation plan and operating plan, and monitoring and evaluation plan.

99. Several of the water quality certification conditions, fishway prescriptions, and BO conditions contemplate changes to project operations or facilities over the course of the new license as a result of studies or changed circumstances. Because the comprehensive development standard of FPA section 10(a)(1) continues to govern regulation of a project throughout the term of its license,[68] it is the Commission's responsibility to give prior approval, through appropriate license amendments, for all material changes to the project and its maintenance and operation.[69] Article 401(b)

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[67] The ACC and Terrestrial Coordination Council (TCC) are made up of representatives from the Agreement signatories, as outlined above.

[68] *See, e.g., S.D. Warren Co.*, 68 FERC ¶ 61,213 at p. 62,022 (1994).

[69] The Commission's regulations, as well as the terms of the license and basic due process principles, govern what types of alterations require what sorts of submittals or public notice. A license article can not provide for automatic amendment of the license based on future occurrences. Rather, the licensee is free to file with the Commission for

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identifies these conditions and requires Commission approval of these changes before they may be implemented.

100. Section 5.5 of the Agreement directs PacifiCorp to perform a limiting factors analysis for bull trout in Swift Reservoir tributary streams, within 2 years of license issuance. The analysis would examine the location and characteristics of critical life stage habitat components for bull trout and determine if enhancement measures might be beneficial. Results of the limiting factors analysis would enable the identification of locations that may have the potential to provide long-term, sustainable habitat for critical life stages of bull trout. The limiting factor analysis is required by Article 402.

101. Section 6.1 of the Agreement requires PacifiCorp to provide minimum flows that would result in improved aquatic habitat in the bypassed reach for the listed bull trout and anadromous salmonid once they are reintroduced to the reach as part of previously discussed measures. The section 401 water quality certification requires a specific flow release regime for the bypassed reach that is more detailed than the approach in the Agreement, which requires an interim flow, and then development of a permanent flow regime in consultation with the ACC. The flow regime included in the section 401 water quality certification conditions, however, is within the bounds of the flows included in the Agreement, and also results in the same total volume of flow released on an annual basis.[70] Further, the certification allows the alteration of the flow schedule upon mutual agreement between Washington Ecology and the licensee based on the adaptive management process (section 6.1.4.c of the Agreement). I note that any changes to the flow regime would require prior Commission approval.

102. PacifiCorp also proposes to continue the following aquatic resources measures: (1) periodically monitor total dissolved gases in the project tailrace; (2) net bull trout from the Swift No. 2 tailrace, and haul to a location defined by FWS using NMFS and FWS facility and handling guidelines for anadromous fish and bull trout; (3) in conjunction with other Lewis River Projects, maintain current salmon and steelhead smolt production levels (3,125,000) to achieve a goal of 86,000 ocean recruits, or as determined by the ACC; (4) in conjunction with other Lewis River Projects, maintain current hatchery production levels for kokanee and rainbow trout; and (5) in conjunction with other Lewis River Projects, evaluate bull trout and kokanee populations annually. These measures would ensure the maintenance and restoration of anadromous fish species and the federally listed bull trout, and are required by Article 402, the water

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an amendment of its license, if future conditions warrant.

[70] *See* final EIS, section 5.1.5.

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quality certification (total dissolved gas monitoring), or conditions of the NMFS BO (production goals).

B. Wildlife Resources

103. PacifiCorp proposes to acquire interests in lands to protect wildlife habitat in the project area (Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund), as provided for in sections 10.2, 10.4, 10.5, 10.6.3, and 10.7 of the Agreement. The lands would be located within 5 miles (laterally and upstream but not downstream) of the project boundaries for the Swift No. 1 and Swift No. 2 Projects or within 5 miles of lands managed by PacifiCorp or Cowlitz PUD associated with the two projects, but outside the project boundaries. The Terrestrial Coordination Committee (TCC), required by Forest Service condition 2, would select the interests and approve the final terms of the acquisitions. Acquisition of lands in the vicinity of the Swift No. 1 and Swift No. 2 Projects would enhance wildlife habitat in the project area, including important deer wintering habitat, and benefit local wildlife populations.[71] This provision of the Agreement is required by Forest Service condition 11 (Appendix B).

104. PacifiCorp also proposes, in conjunction with the Yale Project, to acquire or enhance wildlife habitat anywhere in the Lewis River Basin in the vicinity of the projects (Lewis River Land Acquisition and Habitat Enhancement Fund) to meet the objectives of the Wildlife Habitat Management Plan (Habitat Plan), as provided for in sections 10.3, 10.3.1, 10.3.2, 10.3.3, 10.4, 10.5, 10.6.3, and 10.7 of the Agreement. Acquisition of additional lands in the Lewis River Basin would benefit deer, elk, and other wildlife species in the basin[72] and is required by Article 403. Article 403 also requires that any future land acquisitions purchased with the funds be included in the project boundary.

105. To ensure a nexus between the land acquisitions under both funds and project purposes, the annual plans required by Article 403 requires the licensee to describe how the funds are proposed to be used for land acquisition during the following year and explain the consistency with wildlife objectives outlined in the Agreement.

106. PacifiCorp proposes to develop, fund, and implement Habitat Plans on PacifiCorp-owned lands, as provided for in section 10.8 of the Agreement. The lands covered by the Habitat Plans (section 8.5 of the Agreement) for the Swift No. 1 Project include: (1) 156 acres of wildlife habitat on the south-facing slope of Swift reservoir, known as Swift Parcel 2; (2) PacifiCorp-owned lands adjacent to the project, except as provided for in Exhibit A of the Agreement; (3) future lands acquired under the Lewis River Fund

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[71] *Id.* at 3-119 and 5-30.

[72] *Id.* at 3-119 and 5-30.

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associated with the project; and (4) future lands acquired under the Swift River Fund. The general wildlife objectives are outlined in schedule 10.8, *Wildlife Objectives*, of the Agreement.

107. Implementation of the Habitat Plans would offset habitat impacts and associated wildlife losses resulting from continued operation of the project by enhancing the quality of wildlife habitat within and adjacent to the project boundary, benefiting many wildlife species. Article 403 requires PacifiCorp to file a Habitat Plan for Commission approval within 6 months from the date of issuance of this license and any future modifications to the Habitat Plan. Article 403 also requires the licensee to file annual plans outlining the proposed wildlife measures and costs and showing the benefits to resources affected by project structures or operations. The annual plans shall explain the consistency with wildlife objectives outlined in the Agreement. Article 203 requires that Swift Parcel 2 and all PacifiCorp-owned lands adjacent to the project boundary managed under the Habitat Plan be included in the project boundary.

108. PacifiCorp also proposes to continue the following wildlife and terrestrial measures: (1) buffer sensitive aquatic and terrestrial habitat from ground-disturbing activities (e.g., timber harvest, construction); (2) maintain existing road closures through sensitive habitat areas by installing and maintaining gates; (3) manage most lands within the project boundary for the benefit of wildlife; (4) manage project roads to maintain existing aquatic connectivity and control runoff and erosion; and (5) conduct annual raptor nest surveys on PacifiCorp lands. These measures would benefit wildlife resources in the project area and are required by Article 404.

C. Recreation Resources

109. The Recreation Resource Management Plan (Recreation Plan) filed with the Agreement on November 30, 2004, includes all recreation measures proposed in the Agreement, along with additional recreational measures and timelines. The recreation measures outlined in section 11.2.1 of the Agreement provide for PacifiCorp to construct new recreation facilities and continue to maintain all new and existing facilities at Swift Forest Campground, Eagle Cliff Park, and Swift reservoir, including the development of a trail connection between Eagle Cliff Park and the Forest Service boundary and a boat launch with associated day use areas at the reservoir. Currently, management of the projects' recreational resources is not guided by a recreation plan. Developing and maintaining new and existing facilities, as well as the trail connection, through a recreation plan would address recreational issues in the project area by improving the quality of existing recreational sites, addressing a backlog of maintenance needs, upgrading and modernizing recreational infrastructure, and expanding recreational

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opportunities.[73] Therefore, Article 405 requires PacifiCorp to implement the Recreation Plan, with the exception of law enforcement funding as discussed above. Article 406 requires PacifiCorp to file a Eagle Cliff Park Trail Plan for Commission approval and include the trail within the project boundary

110. As outlined in section 11.2.1.8 of the Agreement, if any settlement party obtains funding for and constructs a new boat launch to allow boat launches when the Swift Reservoir is at the lower range of its normal operating levels, PacifiCorp has agreed to maintain the boat launch, and associated parking and restrooms, for the remaining term of the license, provided that if such boat launch, parking lot, or restrooms are destroyed by vandalism or natural processes, PacifiCorp shall not be required to replace such facilities. Swift campground has a long boat ramp that already provides public access to the reservoir during winter drawdown, and would continue to do so even with the proposed changes in project operations. At this time, there is no need for another boat ramp.[74]

111. Section 11.2.1.3 of the agreement provides for PacifiCorp to either acquire ownership or negotiate a management agreement for the Swift Forest Campground with Washington Department of Natural Resources. The management agreement is required by Article 405.

112. As outlined in sections 11.2.14 of the Agreement, PacifiCorp proposes to conduct a feasibility study and file it with the Commission to identify the most feasible location for a barrier-free bank fishing access site. Once the needs are assessed, and a site is selected within the Swift 1, Merwin, or Yale Project boundaries, PacifiCorp must include the access site within the project boundary for that project. Constructing a barrier-free bank fishing site will substantially improve access to the project.[75] The feasibility study is required by Article 407.

113. As outlined in 11.2.3.5 of the Agreement, PacifiCorp, as part of the Recreation Plan, would evaluate accessibility for the disabled at existing Swift reservoir recreation facilities and subsequently would make accessibility improvements to those facilities based on this evaluation. The agreement, however, includes no mechanism for Commission review and approval of the actual upgrades or modification of project recreation facilities. Therefore, Article 408 of this order requires PacifiCorp, once the evaluation is complete, to file a report with the Commission that summarizes the results of the evaluation, and describes its plan for modifying existing project recreation

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[73] *Id.* at 3-150.

[74] *Id.* at 3-157.

[75] *Id.* at 3-157.

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facilities, including a timeline for construction. Improving access for the disabled at the project would be consistent with the Commission's policy on recreation facilities at licensed projects[76] under which licensees are expected to consider the needs of the disabled in the design and construction of such facilities. It would also help address growing recreational demand at this project.[77]

114. Under sections 11.2.6 through 11.2.13 of the Agreement, PacifiCorp would implement visitor management controls and monitor recreation use, including but not limited to providing appropriate signage and public notices, allowing public access to all existing and future project lands, and closing and or locking entrance gates to campgrounds and day use facilities, including boat launches, at night. These measures would help clarify the applicant's intended land uses and reflect the goals of natural resource protection while encouraging appropriate uses.[78] These measures are required by Article 405.

115. PacifiCorp also proposes to continue the following recreation measures in consultation with the Parks and Recreation Commission of the State of Washington, the National Park Service, and the Forest Service: (1) allow recreational access to project lands except where conditions are unsafe; (2) continue to operate existing recreational and river access sites; (3) upgrade the barrier-free facilities when developed recreational sites are improved. These measures are being implemented through the Recreation Plan as outlined in section 11.2 of the Agreement and are required by Article 405 of this license.

116. Section 11.2.5 of the Agreement provides for PacifiCorp to collaborate with the licensee for the Swift No. 2 Project to produce a single Interpretation and Education Program for all four Lewis River Projects. The Interpretation and Education Program will improve visitors' experience by providing information about the projects and project recreation, wildlife, aquatic, and cultural resources. These measures are included in the Recreation Plan and are required by Article 405.

D. Flood Management

117. The Lewis River Projects have provided important flood management for the local communities below Merwin dam. PacifiCorp is subject to an agreement with the Federal Emergency Management Agency (FEMA) dated August 18, 1983 under which

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[76] *See* 18 CFR section 2.7 (2007).

[77] *See* EIS at 3-157.

[78] *Id.* at 3-171.

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PacifiCorp is obligated to follow its existing Standard Operating Procedure manual in operating its projects. Article 302 requires that the licensee shall provide not less than 70,000 acre-feet of storage space in the Merwin, Yale, and Swift hydroelectric developments for flood control on the Lewis River, beginning withdrawal by September 20 and reaching not less than 70,000 acre-feet by November 1 of each year, and retaining such space through April 1 and permitting gradual filling by April 30 of the following year, according to an approved schedule.[79] In the Agreement, the parties agreed that PacifiCorp would request FEMA to shorten the Flood Management Season to begin refilling the project reservoir by March 15 instead of April 1 if forecasts predict below average spring runoffs. As required in Article 302, PacifiCorp would file a revised Standard Operating Procedure Manual with the Commission for review and comment if the Flood Management Season is modified. The Standard Operating Manual would provide details on how the project is to be operated to achieve the desired target elevations, during normal and flood conditions**.**

118. Article 302 also requires the licensee to notify the Commission by November 1 of each year how they will achieve the 70,000 acre-feet of flood storage.

119. Article 303 requires the licensee to reimburse the U.S. Geological Survey (USGS) for the monthly operating cost of maintaining the telephone line that provides gaging information necessary for operation of the project, as described in the Agreement.

120. Under sections 12.6 and 12.7 of the Agreement, PacifiCorp proposes to provide funding to Clark County and Cowlitz County for the acquisition, installation, and maintenance of a new emergency telephone notification system for those portions of those counties that are subject to inundation. PacifiCorp also proposes to reimburse NOAA for the installation and maintenance of a weather radio transmitter at Davis Peak that provides reservoir storage data, flow data, and flood warnings.

121. Funding of the county's emergency phone system and the NOAA weather transmitter would help improve communications coverage in this rural area. Article 304 requires that PacifiCorp be responsible for these measures. However, implementation of these measures may be accomplished through the funding of a third party.

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[79] The flood control requirements are the same as in the existing Swift No. 1 license. 48 FERC ¶ 62,106 (1989).

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ADMINISTRATIVE PROVISIONS

A. Annual Charges

122. The Commission collects annual charges from licensees for administration of the FPA and for the use, occupancy and enjoyment of federal lands. Article 201 provides for the collection of funds for administration of the FPA and for recompensing the United States for the use of its lands.

B. Exhibit F and G Drawings

123. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 requires the filing of project works drawings (Exhibit F).

124. PacifiCorp filed Exhibit G (project boundary) maps as part of its license application, and recently revised them based on the use of Light Detection and Ranging (LIDAR), a remote sensing system used to collect topographic data.[80] These maps differ from the currently approved project boundary maps under the existing license. PacifiCorp, however, provides no explanation for the differences in acreage of total lands and federal lands between the approved and proposed maps. This order does not approve the changes, and will instead require PacifiCorp to file revised maps resolving those differences. If this resolution results in removal of certain areas from the project, PacifiCorp may include an amendment of license application with its filing, containing support for its request.

125. I am including Article 203 in the license to require PacifiCorp to file revised Exhibit G drawings that enclose within the project boundary all project facilities and lands, including recreation and wildlife lands and federal lands occupied by the project, The revised drawings must also explain discrepancies in acreages of total lands within the project boundary, including federal land acreages, between currently approved and proposed drawings.

C. Amortization Reserve

126. The Commission requires that for new major licenses, licensees must set up and maintain an amortization reserve account upon license issuance. Article 204 requires the establishment of the amortization reserve account.

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[80] *See* June 7, 2007 filing of PacifiCorp.

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D. Headwater Benefits

127. Some projects directly benefit from headwater improvements that were constructed by other licensees, by the United States, or by permittees. Article 205 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

E. Modified Project Facilities

128. Article 301 requires the licensee to file revised Exhibit A, F, and G drawings, as applicable, upon the completion of all construction/removal activities authorized by this license, to describe and show those project facilities as built.

F. Use and Occupancy of Project Lands and Waters

129. Requiring a licensee to obtain prior Commission approval for every use or occupancy of the project would be unduly burdensome. Therefore, Article 412, the standard land use article, allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

STATE AND FEDERAL COMPREHENSIVE PLANS

130. Section 10(a)(2) of the FPA[81] requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.[82] Under section 10(a)(2)(A), federal and state agencies filed 73 comprehensive plans that address various resources in Washington. Of these, the staff identified and reviewed 11 comprehensive plans[83] that are relevant to this project. No conflicts were found.

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[81] 16 U.S.C. § 803(a)(2)(A) (2000).

[82] Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2007).

[83] The list of applicable plans can be found in Section 5.4 of the EIS at 5-40 to 5-41.

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APPLICANT'S PLANS AND CAPABILITIES FOR THE SWIFT NO. 1 PROJECT

131. In accordance with sections 10(a)(2)(c) and 15(a) of the FPA,[84] Commission staff evaluated PacifiCorp's record as a licensee with respect to the following: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission service; (G) cost effectiveness of plans; and (H) actions affecting the public. I agree with staff's findings in each of the following areas.

A. Conservation Efforts

132. PacifiCorp has devised a demand-side management program consisting of over 10 components. The program's goal is to increase energy efficiency. The principal components of the program are: (1) the Energy FinAnswer, a program that provides engineering and incentive packages for improved energy efficiency in new construction and retrofit projects for commercial, industrial, and irrigation customers; (2) lighting retrofit incentive for energy efficient lighting retrofits in commercial and industrial facilities; (3) the low income weatherization program; (4) a do-it-yourself home audit; and (5) an energy efficiency education program. Staff concludes that PacifiCorp is making a good faith effort to conserve electricity and promote energy conservation by its customers.

B. Compliance History and Ability to Comply with the New License

133. Commission staff reviewed PacifiCorp's compliance with the terms and conditions of the existing license. Staff finds that PacifiCorp's overall record of making timely filings and compliance with its license is satisfactory. Thus, PacifiCorp has or can acquire the resources and expertise necessary to carry out its plans and comply with all articles and terms and conditions of a new license.

C. Safe Management, Operation, and Maintenance of the Project

134. Commission staff reviewed PacifiCorp's management, operation, and maintenance of the Swift No. 1 Project pursuant to the requirements of 18 C.F.R. Part 12 (2007) and the Commission's Engineering Guidelines and periodic Independent Consultant's Safety Inspection Reports. Based on our review of the most recent operation inspection reports, independent consultant's safety inspection reports, and project files, we conclude that the Swift No. 1 Project works are in good condition and well maintained. No significant deficiencies were noted during the inspections and no maintenance items require

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[84] 16 U.S.C. §§ 803(a)(2)(C) and 808(a) (2000).

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immediate remedial action. There is no reason to deny issuance of the license based on the licensee's record of managing, operating, and maintaining these structures.

135. Staff determined that the dam and other project works are safe, and that there is no reason to believe that PacifiCorp cannot continue to safely manage, operate, and maintain these facilities under a new license.

D. Ability to Provide Efficient and Reliable Electric Service

136. Staff reviewed PacifiCorp's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Based on review of the information, staff believes that PacifiCorp will operate the project in an efficient manner within the constraints of the license and that the project will continue to provide efficient and reliable electric service in the future.

E. Need for Power

137. The Swift No. 1 Project is owned and operated by PacifiCorp, a utility supplying electricity to residential, wholesale, commercial, and industrial users. PacifiCorp is an integrated electric utility serving more than 1.6 million customers in a six-state service area. PacifiCorp operates as Pacific Power in Oregon, Washington, and California.[85] As of the end of 2007, PacifiCorp will wholly-own and operate about 9,263 MW of capacity over the six-state area, and more facilities are in planning or under construction. This includes 1,160 MW of conventional hydro facilities provided by its 50 hydroelectric facilities.

138. Under the terms of this license, the Swift No. 1 Project will generate an average of 653,640 megawatt hours (MWh) of electric energy per year which is available to serve the power needs of six western states. The project has a nameplate capacity of 240 MW, and a dependable capacity of 30.3 MW.

139. Residential customers account for 85 percent of PacifiCorp's customers, 11 percent are commercial business, and 4 percent industrial users. PacifiCorp anticipates that 3,171 MW of additional capacity will be needed by 2016 for PacifiCorp to meet its customer loads.[86] Future energy needs will need to be met using a variety of renewable and non-renewable fuel sources, including natural gas, geothermal, and wind facilities.

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[85] PacifiCorp operates as Rocky Mountain Power in Utah, Wyoming and Idaho.

[86] PacifiCorp's 2007 Integrated Resource Plan.

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140. The project is located in the Northwest Power Pool Area (NWPP) of the Western Electricity Coordinating Council (WECC) region of the North American Electric Reliability Council. The peak demand requirements for the NWPP area are projected to grow at an average annual compound rate of 1.5 percent.[87]

141. Based on the above projections, the power from the Swift No. 1 Project would continue to be useful in meeting local as well as part of the regional need for power. The project would continue to displace some of the fossil-fueled electric power generation the regional utilities now use, and thereby conserve nonrenewable resources and reduce the emission of noxious byproducts caused by the combustion of fossil fuels.

F. Transmission Services

142. The project's transmission facilities that are required to be licensed include the three 1,000-foot-long, 230-kV lines conveying power from the generator step-up transformers to the Swift No. 1 substation. PacifiCorp proposes no changes that would affect transmission facilities.

G. Cost Effectiveness of Plans

143. PacifiCorp has no plans for changing project facilities or operations for power development purposes, but is proposing a number of measures for the enhancement of natural resources and recreational opportunities. Staff concludes, based on the license applications, that PacifiCorp's plans for implementing these measures, as well as its continued operation of the project, will be achieved in a cost-effective manner.

H. Actions Affecting the Public

144. In its license application, PacifiCorp cited numerous examples of actions it has taken that affect the public, including: providing flood control benefits by using the Lewis River Projects [88] to provide flood control storage, offering energy education to schools, and developing demand-side management programs to assist the public in controlling electrical consumption. During the previous license period, PacifiCorp provided facilities to enhance the public use of project lands, and operated the project in a

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[87] 2007 Long-Term Reliability Assessment 2007-2016 to ensure the reliability of the bulk power system. North American Electric Reliability Corporation. Princeton, NJ. October 2007.

[88] On an annual basis PacifiCorp provides 70,000 acre-feet of flood control storage for the Lewis River with storage divided between the Merwin, Yale, and Swift No. 1 Projects.

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manner that protected downstream uses of the Lewis River. PacifiCorp uses the project to help meet local power needs and also pays taxes annually to local and state governments, and the project provides employment opportunities.

PROJECT ECONOMICS

145. In determining whether to issue a new license for an existing hydroelectric project, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,[89] the Commission uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

146. In applying this analysis to the Swift No. 1 Project, I considered two options: PacifiCorp's proposed action (the project as proposed by PacifiCorp in accordance with the Agreement) and PacifiCorp's proposed action with staff modifications and mandatory measures (the project as licensed herein). Under the proposed action, the levelized annual cost of operating the project is about $25,118,000 or $38.43/MWh. The Swift No. 1 Project would generate about 653,640 MWh of energy annually. When we multiply our estimate of average annual generation by the alternative power cost of $48.25/MWh,[90] we get a total value of the project's power of $31,540,000. To determine whether the project is currently economically beneficial, we subtract the project costs from the value of the project's power. Therefore, the project would cost $6,422,000 or $9.83/MWh less than the likely alternative cost of power.

147. As proposed by PacifiCorp and licensed herein with the Agreement, staff measures, and mandatory measures, the levelized annual cost of operating the project would be about $25,043,000, or about $38.51/MWh. Based on an estimated average generation of 653,640 MWh, the project would produce power valued at $31,540,000 when multiplied by the $48.25/MWh value of the project's power. Therefore, in the first year of operation the project power would cost $6,497,000 or $9.94/MWh less than the likely cost of alternative power.

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[89] 72 FERC ¶ 61,027 (1995).

[90] Power value estimates are based on PacifiCorp's December 1, 2006 filing for the Klamath Hydroelectric Project No. 2082.

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148. In analyzing public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary benefits). For projects with useable water storage, these benefits include their value as almost instantaneous load-following response to dampen voltage and frequency instability on the transmission system, system-power-factor-correction through condensing operations, and a source of power available to help in quickly putting fossil-fuel based generating stations back on line following a major utility system or regional blackout. The Swift No. 1 Project will continue to provide a broad range of ancillary service benefits to the region.

COMPREHENSIVE DEVELOPMENT

149. Sections 4(e) and 10(a)(1) of the FPA[91] require the Commission to give equal consideration to the power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

150. The EIS for the Swift No.1 Project contains the background information, analysis of effects, and support for related license requirements.

151. Based on our independent review and evaluation of the project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EIS, I have selected the proposed Swift No. 1 Project, and find that it is best adapted to a comprehensive plan for improving and developing the Lewis River.

152. I selected this alternative because: (1) issuance of a new license will serve to maintain a beneficial, dependable, and an inexpensive source of electric energy; (2) the required environmental measures will protect and enhance fish and wildlife resources, water quality, recreation resources, and historic properties; and (3) the 240 MW of electric energy generated from a renewable resource will continue to offset the use of fossil-fueled, steam-generating electric generating plants, thereby conserving nonrenewable energy resources and reducing atmospheric pollution.

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[91] 16 U.S.C. §§ 797(e) and 803(a)(1) (2000).

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LICENSE TERM

153. Section 15(e) of the FPA[92] provides that any new license shall be for a term that the Commission determines to be in the public interest, but not be less than 30 years nor more than 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures.

154. The license for the Swift No. 1 Project requires extensive long-term environmental measures including construction of an outlet below the Swift No. 1 powerhouse to continuously supply flow to the Lewis River bypassed reach, enhancement of the side channel in the Lewis River bypassed reach, installation of modular surface collectors for downstream passage of salmon and steelhead, installation of upstream and downstream passage facilities for bull trout in the event that the anadromous fish passage facilities are not constructed, habitat enhancement measures, upgrades to Lewis River hatcheries, a comprehensive aquatic monitoring program, acquisition of lands in the basin for wildlife habitat, and new recreational facilities and improvements to existing facilities. The annualized capital costs for environmental measures for the Swift No. 1 Project are in excess of $10 million. Therefore, a term of 50 years is appropriate.[93]

The Director orders:

(A) This license is issued to PacifiCorp (licensee) for a period of 50 years, effective the first day of the month in which this order is issued. The 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 consists of:

(1) All lands, to the extent of the licensee's interests in these lands, described in the project description and the project boundary discussion of this order.

(2) Project works consisting of: (a) a 410-foot-high, 2,100-foot-long embankment dam with a crest elevation of 1,012 feet mean sea level (msl); (b) a concrete spillway,

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[92] 16 U.S.C. ' 808(e) (2000).

[93] The parties agreed to support or not oppose the licensees' request that the Commission issue new licenses for 50 years. *See* section 1.6 of the Agreement.

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with a crest elevation of 950 feet msl, excavated in the south abutment equipped with two, 50-foot-wide-by-51-foot-high Taintor gates controlling flow to an 1,800-foot-long discharge channel; (c) Swift reservoir, with a surface area of 4,680 acres at maximum water surface elevation of 1,000 feet msl, with a gross storage capacity of 755,550 acre-feet and a useable storage of 477,000 acre-feet between elevations 878 feet and 1,000 feet msl; (d) a concrete-plugged, 3,000-foot-long, unlined 32-foot-diameter diversion; (e) an inlet portal with a 21.4-foot-by-30.8-foot gate that controls flow to a steel-lined 25-foot-diameter power tunnel, approximately 1,300 feet long; (f) a 55-foot-diameter steel surge chamber with a top elevation 1,035 feet msl; (g) a steel manifold conveying water to the penstocks; (h) three 13-foot-diameter steel penstocks conveying water to the turbines; (i) a 190-foot-long by 60-foot-wide powerhouse; (j) three, vertical-axis, Francis-type turbines each rated at 107,000 horsepower and connected to a 80-MW generator for a total nameplate capacity of 240 MW; (k) a switchyard containing three, 3-phase transformers; (l) three 1,000-foot-long, 230-kV transmission lines carrying power to Swift No. 1 substation; and (m) other appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of exhibits A and F shown below:

Exhibit A: The following parts of exhibit A filed on April 28, 2004:

Table A 3.0-1 entitled "Project Data" on pages 7 and 8, and section A3.2 entitled "Major Mechanical Systems."

Exhibit F: The following exhibit F drawings filed on April 28, 2004:

Exhibit F Drawing	FERC Drawing No. 2111-	Title
Sheet F-1	1001	General Arrangement
Sheet F-2	1002	Sections
Sheet F-3	1003	Powerhouse No. 1 Plans and Sections

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

(C) The Exhibits A and F described above are approved and made part of this license. The revised Exhibit G drawings filed on June 6, 2007 are inconsistent with regard to lands occupied by the project, including amount of federal lands, under the previous license and are not approved.

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(D) This license is subject to the conditions submitted by the U.S. Forest Service under section 4(e) of the FPA, as those conditions are set forth in Appendix B to this order.

(E) This license is subject to the conditions submitted by the Washington Department of Ecology under section 401(a)(1) of the Clean Water Act, as those conditions are set forth in Appendix C to this order.

(F) This license is subject to the conditions submitted by the Secretary of the U.S. Department of Commerce under section 18 of the FPA, as those conditions are set forth in Appendix D to this order.

(G) This license is subject to the conditions submitted by the Secretary of the U.S. Department of the Interior under section 18 of the FPA, as those conditions are set forth in Appendix E to this order.

(H) This license is subject to the incidental take terms and conditions of the Biological Opinion submitted by the National Marine Fisheries Service under section 7 of the Endangered Species Act, with the exception of section 6.1.5.a of the Agreement (flows through the upper release point during spill flows), as those conditions are set forth in Appendix F to this order.

(I) This license is subject to the incidental take terms and conditions of the Biological Opinion submitted by the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act, as those conditions are set forth in Appendix G to this order.

(J) This license is also subject to the articles set forth in Form L-1 (Oct. 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Lands of the United States" (*see* 54 FPC 1799 *et seq.*), and the following additional articles:

Article 201. *Annual Charges.* The licensee shall pay the United States annual charges, effective the first day of the month in which the license is issued, and as determined in accordance with provisions of the Commission's regulations in effect from time to time, for the purposes of:

(a) reimbursing the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 240,000 kilowatts.

(b) recompensing the United States for the use, occupancy, and enjoyment of lands the amount to be determined pursuant to article 203.

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Article 202. *Exhibit F Drawings*. Within 45 days of the date of issuance of this license, the licensee shall file the approved exhibit drawings in aperture card and electronic file formats.

(a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Drawing Number (e.g., P-2111-1001 through P-2111-1003) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (e.g., F-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections Portland Regional Office.

(b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections Portland Regional Office. The drawings must be identified as (CEII) material under 18 CFR § 388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension [e.g., P-2111-1001, F-1, Description, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY - black & white raster file
FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4
RESOLUTION – 300 dpi desired, (200 dpi min)
DRAWING SIZE FORMAT – 24” X 36” (min), 28” X 40” (max)
FILE SIZE – less than 1 MB desired

Article 203. *Exhibit G Drawings*. Within 90 days of the issuance date of the license, the licensee shall file, for Commission approval, revised Exhibit G drawings enclosing within the project boundary all principal project works necessary for operation and maintenance of the project, including the project’s transmission facilities and substations, and the following PacifiCorp-owned wildlife lands: (1) Swift Parcel 2; and (2) all PacifiCorp-owned lands adjacent to the project boundary, except as provided in Exhibit A of the Settlement Agreement filed on December 3, 2004. Differences between the currently approved and the revised Exhibit G drawings, including the federal land acreages, shall be indicated and explained. The Exhibit G drawings must comply with sections 4.39 and 4.41 of the Commission’s regulations, 18 C.F.R. §§ 4.39 and 4.41 (2007).

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Article 204. *Amortization Reserve*. Pursuant to section 10(d) of the Federal Power Act, 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. The licensee shall set aside in a project amortization reserve account at the end of each fiscal year one half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the licensee shall deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee shall set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee shall maintain the amounts established in the project amortization reserve account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly included in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios shall be the weighted average cost of long-term debt and preferred stock 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 205. *Headwater Benefits*. If the licensee's project was directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license. The benefits will be assessed in accordance with Part 11, Subpart B, of the Commission's regulations.

Article 301. *As-built Drawings*. Within 90 days of completion of all construction/removal activities authorized by this license, the licensee shall file for Commission approval, revised exhibits A, F, and G, as applicable, to describe and show those project facilities as built. A courtesy copy shall be filed with the Commission’s Division of Dam Safety and Inspections (D2SI)--Portland Regional Engineer, the Director, D2SI, and the Director, Division of Hydropower Administration and Compliance.

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Article 302. *Flood Management*. The licensee shall cooperate with the licensees for Merwin Hydroelectric Project No. 935, and Yale Hydroelectric Project No. 2071 to provide not less than 70,000 acre-feet of storage space for flood control on the Lewis River, beginning withdrawal by September 20 and reaching not less than 70,000 acre-feet by November 1 of each year, and retaining such space through April 1 and permitting gradual filling by April 30 of the following year, according to the following schedule:

Date	Minimum Storage Space (Acre-feet)
September 20	0
October 10	35,000
November 1-April 1	70,000
April 15	35,000
April 30	0

By November 1 of each year, the licensee shall provide a letter to the Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI) detailing how the 70,000 acre-feet of flood storage will be achieved.

The licensee shall also periodically review the Standard Operating Procedure Manual for the Lewis River Projects with the other dam owners on the Lewis River and Corps of Engineers, and revise the procedures when necessary. The licensee shall submit one copy of the manual for review and comment to the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI) within 60 days from the issuance date of the license, as well as whenever the procedures are revised.

Article 303. *Telephone Maintenance*. The licensee shall cooperate with the licensees for the Yale Project No. 2071 and Merwin Project No. 935 to reimburse the United States Geological Survey for the monthly operation cost of maintaining the telephone line that provides gaging information necessary for the operation of the Lewis River Projects, consistent with section 12.7 of the Settlement Agreement filed on December 3, 2004.

Article 304. *Emergency Communications*. Within 1 year of the effective date of this license, the licensee shall cooperate with the licensees for the Yale Project No. 2071 and Merwin Project No. 935 to implement the following emergency communication provisions consistent with section 12.4.1 and 12.6 of the Settlement Agreement filed on

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December 3, 2004:

(a) acquire, install, and maintain a new emergency telephone notification service for those portions of Clark County and Cowlitz County that are subject to inundation from the Lewis River Projects; and

(b) provide for a weather radio transmitter at Davis Peak.

Article 401. *Scheduling and Reporting Requirements and Amendment Applications.*

(a) Requirement to File Plans for Commission Approval and Requirement to Consult

Various conditions of this license required by Appendices B [Forest Service section 4(e) conditions], D (Department of Commerce section 18 fishway prescription), E [Department of the Interior fishway prescription), and F [National Marine Fisheries Service (NMFS) biological opinion (BO)] require the licensee to prepare plans for approval by some or all of the signatories of the Lewis River Settlement Agreement. Each such plan shall also be submitted to the Commission for approval and shall include an implementation schedule. These plans are listed below.

	Forest Service section condition	Commerce/ Interior section 18 condition	NMFS BO condition (Settlement Agreement section)	Plan name	Due date
1		7.1	1 (4.1.8.e)	Upstream transport plan	Within 18 months of license issuance
2		8.1	1 (4.1.8.e)	Downstream transport plan	Within 18 months of license issuance
3		9	1 (4.4.1)	Downstream transport facility design at Swift No. 1 dam	Within 18 months of license issuance
4		10	1 (4.4.3)	Design of stress release ponds	Within 1 year of license issuance
5		12	1 (4.9)	Bull trout collection and transport	Within 12 months of license issuance

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				program	
6	8		1 (7.4)	Habitat preparation plan	Within 6 months of license issuance
7	9		1 (7.5)	Aquatics fund strategic plan and annual report	Within 1 year of license issuance; report annually after license issuance
8			1 (7.6)	In-lieu fund strategic plan and annual report	Within 1 year of establishment of in-lieu fund; report annually after establishment of in-lieu fund
9			1 (8.2)	Hatchery and supplementation plan	Within 18 months of license issuance; updates every 5 years thereafter
10			1 (8.2.3)	Hatchery and supplementation operating plan	Annually, after approval of the hatchery and supplementation plan
11			1 (9.1)	Monitoring and evaluation plan	Within 2 years of license issuance

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. The licensee shall allow a minimum of 30 days for the consulted entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan submitted. The plan shall not be implemented until the licensee is notified by the Commission that the plan is approved. Upon Commission approval the plan becomes a requirement of the license, and the licensee shall implement the plan or changes in project operations or facilities, including any changes required by the Commission.

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(b) Requirement to File Amendment Applications

Certain conditions in the appendices contemplate unspecified long-term changes to project operations, requirements, or facilities for the purpose of protecting and enhancing environmental resources. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license (18 CFR 4.200). The conditions are listed below.

Condition	Modification
Section 18 no. 4.5 and BO no. 1	Adjustments or modifications to passage facilities to achieve performance standards
Section 18 no. 7 and BO no. 1	Implementation of alternative fish transport technologies, should they be deemed necessary
Section 18 no. 8 and BO no. 1	Implementation of an alternate method of downstream fish passage
Section 18 no. 9 and BO no. 1	Construction and operation of a downstream fish passage facility at Swift No. 1 dam, or a satellite passage facility
Section 18 no. 10 and BO no. 1	Construction of stress release ponds
Section 18 no. 11 and BO no. 1	Construction of upstream fish passage facility
Section 18 no. 14 and BO no. 1	Implementation of alternative bull trout collection methods
Section 18 no. 15 and BO no. 1	Construction, operation, or modification of an upstream bull trout facility
BO no. 1 and 401 water quality certification no. 4.2.3	Construction of upper release point
BO no. 1 and 401 water quality certification no. 4.2.4	Construction of constructed channel

Article 402. *Aquatic Resources Management Measures*. The licensee shall continue to implement the following aquatic resources management measures:

(a) net bull trout from the Swift No. 2 tailrace, and haul to a location defined by the U.S. Fish and Wildlife Service (FWS) using the National Marine Fisheries Service and FWS's facility and handling guidelines for anadromous fish and bull trout; and

(b) in conjunction with the licensees for the Yale Project No. 2071 and Merwin Project No. 935, evaluate bull trout and kokanee populations annually; and

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The licensee shall include evidence of compliance with these measures in the annual reports filed with the Commission under section 14.2.6 of the Settlement Agreement (Agreement) filed on December 3, 2004.

In addition, the licensee shall file with the Commission within 2 years of license issuance, a bull trout limiting factor analysis, as described in section 5.5 of the Agreement filed on December 3, 2004.

Article 403. *Wildlife Land Acquisition and Habitat Management.* The licensee shall acquire or enhance wildlife habitat as described in sections 10.3, 10.3.1, 10.3.2, 10.3.3, 10.4, 10.5, 10.6.3, and 10.7 of the Settlement Agreement (Agreement) filed on December 3, 2004 (Lewis River Land Acquisition and Habitat Enhancement Fund).

All lands acquired for wildlife habitat under the Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund and the Lewis River Land Acquisition and Habitat Enhancement Fund shall be included within the project boundary.

Within 6 months from the issuance of this license, the licensee shall file with the Commission for approval, a Wildlife Habitat Management Plan (Habitat Plan) as described in section 10.8 of the Agreement filed on December 3, 2004. The Habitat Plan shall be developed for lands that are associated with the Swift No. 1 Project (as shown in Exhibit A to the Agreement and designated in section 10.8.5.1 of the Agreement). The purpose of the Habitat Plan shall be to accomplish the wildlife objectives referenced in Schedule 10.8 of the Agreement.

The Habitat Plan shall be developed after consultation with the Terrestrial Coordination Committee (as defined in section 14 of the Agreement). The licensee shall include with the Habitat Plan an implementation schedule, documentation of consultation, copies of recommendations on the schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific reasons.

The Commission reserves the right to require changes to the plan. Implementation of the Habitat Plan shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval the licensee shall implement the plan, including any changes required by the Commission.

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The licensee shall file annual plans consistent with section 10.8.3 of the Agreement, for Commission approval. The annual plans shall include: (a) a description of lands proposed to be acquired under the Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund [Forest Service condition 11]; (b) a description of lands proposed to be acquired under the Lewis River Land Acquisition and Habitat Enhancement Fund associated with the Swift No. 1 Project (article 403); (c) a description of how the funds are proposed to be used for land acquisition during the following year and explain the consistency with wildlife objectives outlined in the Agreement; (d) a description of the proposed measures to be implemented under the Habitat Plan for the current year, including costs benefits to resources affected by project structures or operations. The annual plans shall explain the consistency with wildlife objectives outlined in the Agreement.

The licensee shall review the effectiveness of the Habitat Plan consistent with section 10.8.4 of the Settlement Agreement. The licensee shall file for Commission approval, within 18 years of issuance of the license, the results of the analysis, and any proposed changes to the Habitat Plan.

Article 404. *Wildlife and Terrestrial Resources Management Measures*. The licensee shall continue to implement the following measures to protect wildlife and terrestrial resources:

(a) buffer sensitive aquatic and terrestrial habitat from ground-disturbing activities (e.g., timber harvest, construction);

(b) maintain road closures through sensitive habitat areas by installing and maintaining gates, and identify additional areas for access control on licensee-owned lands;

(c) manage lands within the project boundary for the benefit of wildlife;

(d) manage project roads to maintain existing aquatic connectivity, and control runoff and erosion; and

(e) conduct annual raptor nest surveys on licensee-owned lands.

The licensee shall include evidence of compliance with these measures in the annual reports filed with the Commission under section 14.2.6 of the Settlement Agreement filed on December 3, 2004.

Article 405. *Recreation Resources Management Plan*. The licensee shall implement the Recreation Resources Management Plan (Recreation Plan) dated April 2004 as it relates to the relicensing of the Swift No. 1 Project, consistent with section

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11.2 of the Settlement Agreement (Agreement) filed on December 3, 2004, with the exception of measures required by sections 11.2.1.8 (Swift boat launch) and 13.2.1.1 (law enforcement funding) of the agreement. The following existing facilities shall be operated and maintained for the term of the license: Swift Forest Campground and Eagle Cliff Park.

Within 1 year of the license issuance, the licensee shall file with the Commission a copy of a management agreement for the Swift Forest Campground negotiated with the Washington Department of Natural Resources (Washington DNR) for the term of this license, as outlined in section 11.2.1.3 of the Agreement, or documentation that it acquired ownership of the Swift Forest Campground from Washington DNR.

Article 406. *Eagle Cliff Park Trail Plan*. Within 1 year of license issuance, the licensee shall file with the Commission for approval, an Eagle Cliff Park Trail Plan. The plan shall include, at minimum:

(a) a map identifying the location of the trail route between Eagle Cliff Park and the Forest Service boundary; and

(c) an implementation schedule.

Upon Commission approval, the licensee will be required to file revised Exhibit G drawings incorporating the trail within the Swift No. 1 Project boundary.

The plan shall be developed after consultation with Lewis River Advisory Committee (as defined in section 11.2.16 of the Settlement Agreement filed on December 3, 2004). The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific reasons.

The Commission reserves the right to require changes to the plan. Improvements shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval the licensee shall implement the plan, including any changes required by the Commission.

Article 407. *Barrier-free Bank Fishing Access Plan.* Within 8 years of license issuance, the licensee shall file with the Commission for approval, a plan to construct one barrier-free bank fishing access site within the Swift No. 1, Yale, or Merwin Project boundary, as outlined in section 11.2.14 of the Settlement Agreement (Agreement) filed

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on December 3, 2004. The plan shall include the results of a feasibility study to identify the most feasible location to construct the facility, detailed design drawings, and a schedule to construct the facility. The plan shall specify the specific project the site would become a part of, and the licensee that would administer the site. Upon Commission approval, the licensee will be required to file revised Exhibit G drawings incorporating the facility within the appropriate project boundary.

The access plan shall be developed after consultation with Lewis River Advisory Committee (as defined in section 11.2.16 of the Agreement). The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific reasons.

The Commission reserves the right to require changes to the plan. Construction of the facility shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval the licensee shall implement the plan, including any changes required by the Commission.

Article 408. *Recreation Renovation Plan.* Within 6 months of the completion of the accessibility evaluation proposed under section 11.2.3.5 of the Settlement Agreement (Agreement) filed on December 3, 2004, the licensee shall file with the Commission, for approval, a report that summarizes the findings of the evaluation and include the licensee's plan for modifying existing facilities based on the results of the evaluation. The plan shall include a narrative description of the proposed facility modifications, conceptual design drawings, and an implementation schedule.

The plan for modifying existing recreation facilities shall be developed after consultation with Lewis River Advisory Committee (as defined in section 11.2.16 of the Agreement). The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific reasons.

The Commission reserves the right to require changes to the plan. Improvements shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval the licensee shall implement the plan, including any changes

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required by the Commission.

Article 409. *Reservation of Authority to Prescribe Fishways*. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior or Commerce pursuant to section 18 of the Federal Power Act.

Article 410. *Columbia River Basin Fish and Wildlife Program.* The Commission reserves the authority to order, upon its own motion or upon the recommendation of federal and state fish and wildlife agencies, affected Indian Tribes, or the Northwest Power and Conservation Council, alterations of project structures and operations to take into account to the fullest extent practicable the regional fish and wildlife program developed and amended pursuant to the Pacific Northwest Electric Power Planning and Conservation Act.

Article 411. *Programmatic Agreement and Historic Properties Management Plan.* The licensee shall implement the Programmatic Agreement Among the Federal Energy Regulatory Commission and the Washington State Historic Preservation Officer for Managing Historic Properties that may be Affected by a License Issuing to PacifiCorp for the Continued Operation of the Swift No. 1, Yale, and Merwin Hydroelectric Projects in Clark, Cowlitz, and Skamania Counties, Washington (FERC Nos. 2111, 2071, and 935), executed on November 24, 2005, including but not limited to the Historic Properties Management Plan (HPMP) for the project. In the event that the Programmatic Agreement is terminated, the licensee shall continue to implement the provisions of its approved HPMP. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the Programmatic Agreement is terminated, the licensee shall obtain approvals from or make notifications to the Commission and the Washington State Historic Preservation Office where the HPMP calls upon the licensee to do so.

Article 412. *Use and Occupancy*. (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

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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 use or occupancy, that action includes, if necessary, canceling 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 waters 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; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. 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 or roads where 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.

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(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 water craft at a time and are located at least one-half mile (measured over project waters) 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 project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, 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 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, 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 paragraph (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 recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation,

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and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(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 drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a 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 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.

(K) 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.

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

J. Mark Robinson
Director
Office of Energy Projects

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Form L-1
(October, 1975)
FEDERAL ENERGY REGULATORY COMMISSION
TERMS AND CONDITIONS OF LICENSE
FOR CONSTRUCTED MAJOR PROJECT AFFECTING
LANDS OF THE UNITED STATES

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Article 4. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The

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Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a nonpower licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the

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Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 10. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission any direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 11. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other

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headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

Article 12. The operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Commission may prescribe for the purposes hereinbefore mentioned.

Article 13. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 14. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and

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devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

Article 15. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 16. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

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Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 20. The Licensee shall clear and keep clear to an adequate width 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 results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 21. Timber on lands of the United State cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: Provided, That timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

Article 22. The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned, to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

Article 23. The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural

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or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

Article 24. The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

Article 25. The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

Article 26. In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

Article 27. The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility constructed, operated, or maintained under the license, and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

Article 28. The Licensee shall make use of the Commission's guidelines and other recognized guidelines for treatment of transmission line rights-of-way, and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction

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of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

Article 29. The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 3l, 1947, 61 Stat. 681, as amended (30 U.S.C. sec. 601, et seq.), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: Provided, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: Provided further, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice ad opportunity for hearing.

Article 30. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 31. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 32. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

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APPENDICES

Appendix A -- The Settlement Agreement, filed on December 3, 2004 for the four Lewis River Projects (for information only), is attached for ease of reference

Appendix B -- U.S. Forest Service Section 4(e) Conditions

Appendix C – Washington Department of Ecology Section 401 Water Quality Certification

Appendix D – U.S. Department of Commerce Section 18 Fishway Prescription

Appendix E – U.S. Department of the Interior Section 18 Fishway Prescription

Appendix F -- National Marine Fisheries Service Biological Opinion Terms and Conditions

Appendix G – U.S. Fish and Wildlife Service Biological Opinion Terms and Conditions

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APPENDIX A

(NOTE: Appendices, Exhibits, and Schedules of the Agreement are not included in this order)

SETTLEMENT AGREEMENT

AMONG
PACIFICORP
PUBLIC UTILITY DISTRICT NO. 1 OF COWLITZ COUNTY, WASHINGTON
NATIONAL MARINE FISHERIES SERVICE
NATIONAL PARK SERVICE
UNITED STATES BUREAU OF LAND MANAGEMENT
UNITED STATES FISH AND WILDLIFE SERVICE
USDA FOREST SERVICE
CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION
WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
WASHINGTON INTERAGENCY COMMITTEE FOR OUTDOOR RECREATION
COWLITZ COUNTY
COWLITZ-SKAMANIA FIRE DISTRICT NO. 7
NORTH COUNTRY EMERGENCY MEDICAL SERVICE
CITY OF WOODLAND
WOODLAND CHAMBER OF COMMERCE
LEWIS RIVER COMMUNITY COUNCIL
LEWIS RIVER CITIZENS AT-LARGE
AMERICAN RIVERS
FISH FIRST
ROCKY MOUNTAIN ELK FOUNDATION, INC.
TROUT UNLIMITED
THE NATIVE FISH SOCIETY

DATED
NOVEMBER 30, 2004

CONCERNING THE RELICENSING OF THE
LEWIS RIVER HYDROELECTRIC PROJECTS
FERC PROJECT NOS. 935, 2071, 2111, 2213
COWLITZ, CLARK, AND SKAMANIA COUNTIES, WASHINGTON

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PARTIES TO THIS AGREEMENT

This Settlement Agreement ("Agreement") is entered into this 30th day of November, 2004 (the "Effective Date") pursuant to Federal Energy Regulatory Commission (the "Commission") Rule 602, 18 C.F.R. § 385.602, by and between PacifiCorp ("PacifiCorp") and Public Utility District No. 1 of Cowlitz County, Washington ("Cowlitz PUD") (each individually, the "Licensee" and collectively, the "Licensees"); National Marine Fisheries Service ("NOAA Fisheries"); National Park Service ("NPS"); United States Bureau of Land Management ("USBLM"); United States Fish and Wildlife Service ("USFWS"); USDA Forest Service ("USDA-FS"); Confederated Tribes and Bands of the Yakama Nation ("Yakama Nation"); Washington Department of Fish and Wildlife ("WDFW"); Washington Interagency Committee for Outdoor Recreation ("IAC"); Cowlitz County; Cowlitz-Skamania Fire District No. 7 ("FD#7"); North Country Emergency Medical Service ("NCEMS"); the City of Woodland; Woodland Chamber of Commerce; Lewis River Community Council; Lewis River Citizens At-Large; American Rivers; Fish First; Rocky Mountain Elk Foundation, Inc. ("RMEF"), Trout Unlimited, and The Native Fish Society, each of which, once having signed this Agreement, are referred to individually, as a "Party" and collectively, as the "Parties."

RECITALS

A. The Lewis River Hydroelectric Projects consist of the Merwin Project (Project No. 935), Yale Project (Project No. 2071), Swift No. 2 Project (Project No. 2213), and Swift No. 1 Project (Project No. 2111) (each individually referred to as a "Project" and collectively as the "Projects") and associated powerhouses, transmission facilities, recreational facilities, hatcheries, reservoirs, canals, and lands within the Projects' Boundaries and wildlife lands managed outside the Project Boundaries. PacifiCorp owns the Merwin Yale and Swift No. 1 Project, while Cowlitz PUD owns the Swift No. 2 Project (the combined Projects of Swift No. 1 and Swift No. 2 are referred to collectively as the "Swift Projects"). Construction of the Projects began with the Merwin Dam in 1929 and was completed with the construction of Swift No. 1 and Swift No. 2 ending in 1958. The Federal Power Commission issued the first license for Merwin on November 29, 1929, which expired on November 29, 1979. That license was renewed on October 6, 1983 and was originally due to expire on April 30, 2009 but was accelerated by a Commission Order and now expires on April 30, 2006. The original license for Yale was issued on April 24, 1951 and expired on April 30, 2001. The original license for Swift No. 1 was issued on May 1, 1956 and expires on April 30, 2006. The original license for Swift No. 2 was issued on November 29, 1956, effective May 1, 1956, and expires on April 30, 2006.

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B. In January 1999, PacifiCorp and Cowlitz PUD filed a request with the Commission for approval of the use of the Commission's Alternative Licensing Procedures and for the simultaneous and coordinated processing of the license applications for all four Projects. In April 1999, the Commission approved this request and issued an order accelerating the Merwin license expiration. An application to relicense the Yale Project was submitted to the Commission in 1999. The Commission granted PacifiCorp's request that processing of the Yale license application be deferred until the applications for Merwin, Swift No. 1, and Swift No. 2 were filed on or before April 30, 2004. The Parties anticipate concurrent environmental review of all four Projects. On April 29 and 30, 1999, PacifiCorp and Cowlitz PUD initiated the collaborative process with a public meeting. A Memorandum of Agreement and Communications Protocol among the Parties was developed for the collaborative process.

NOW, THEREFORE, in consideration of their mutual covenants in this Agreement, the Parties agree as follows:

DEFINITIONS

"401 Certification" is a certification issued by WDOE pursuant to section 401 of the Clean Water Act.

"ACC" is the Aquatics Coordination Committee described in Section 14.

"ADAAG" is defined in Section 11.2.1.4.

"Adjusted for Inflation" means that the stated dollar amount shall be adjusted according to the following formula:

AD = D x (NGDP/IGDP)

WHERE:

AD = Adjusted dollar amount as of April 30 of the year in which the adjustment is made.

D = Dollar amount prior to adjustment.

IGDP = GDP-IPD for the fourth quarter of the year prior to the previous April 30 adjustment date.

NGDP = GDP-IPD for the fourth quarter of the year prior to the current April 30 adjustment date.

"GDP-IPD" is the value published for the Gross Domestic Product Implicit Price Deflator by the U.S. Department of Commerce, Bureau of Economic Analysis (being on the basis of 2000 = 100), in the third month following the end of the applicable quarter. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted by the Parties. If the base year for GDP-IPD is changed or if publication of the index is discontinued, the Parties shall promptly make adjustments or, if necessary, select

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an appropriate alternative index to achieve the same economic effect. If a sum is stated in 2003 dollars, then the first adjustment shall be as of April 30, 2004. If a sum is stated in 2004 dollars, then the first adjustment shall be as of April 30, 2005.

"Adjustment Period" is defined in Section 6.1.4.a.

"Adult Trap Efficiency" or *"ATE"* is defined in Table 4.1.4.

"Agencies" means NOAA Fisheries, NPS, USBLM, USFWS, USDA-FS, WDFW, and IAC, and, if a Party, Washington State Department of Natural Resources.

"Agreement" means the entirety of this agreement and all attached exhibits, schedules, and appendices.

"Alternative Dispute Resolution" or *"ADR Procedures"* refers to the dispute resolution process set forth in Section 15.10 of this Agreement.

"American Rivers" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Americans with Disabilities Act" or *"ADA"* means the federal statute set forth at 42 U.S.C. §§ 12101-12213.

"Annual Release Quantity" is defined in Section 6.1.

"Annual Operating Plan" is defined in Section 8.2.3.

"Annual Plan" is defined in Section 10.8.3.

"Appeal" means a request for rehearing, or appeal or other formal agency adjudication during the designated period as provided under the applicable agency's statutes and regulations.

"Aquatics Fund" is defined in Section 7.5.

"Bypass Reach" is defined in Section 6.1.

"Canal Drain" is defined in Section 6.1.

"CIT" or *"Cowlitz Indian Tribe"* is listed as a potential additional Party to this Agreement in Section 17.3.

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"City of Woodland" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Clark County" is listed as a potential additional Party to this Agreement in Section 17.3.

"Clark Skamania Fishers" is listed as a potential additional Party to this Agreement in Section 17.3.

"Clean Water Act" means the federal statute set forth at 33 U.S.C. §§ 1251-1387.

"Collection Efficiency" or *"CE"* is defined in Table 4.1.4.

"Collection Survival" or *"CS"* is defined in Table 4.1.4.

"Combined Flow Schedule" is defined in Section 6.1.

"Commission" means the Federal Energy Regulatory Commission (defined herein), or any successor agency created during the terms of the New Licenses.

"Consensus" means that all Parties participating in a committee or other decision-making group consent to a decision. Consent does not necessarily imply that a Party agrees completely with a particular decision, just that the Party is willing to go along with the decision rather than block the action.

"Conservation Groups" means American Rivers, Fish First, RMEF, Trout Unlimited, and The Native Fish Society, and, if Parties, Clark Skamania Fishers and Federation of Fly Fishers.

"Constructed Channel" is defined in Section 6.1.3.a.

"Construction Costs" is defined in Section 6.1.3.b.

"Consultation" or *"Consult"* means that the Licensees shall obtain the views of and attempt to reach Consensus among the specified Parties whenever this Agreement requires the Licensees to Consult with one or more of the Parties. When Consultation is required under this Agreement, the Licensees shall allow a minimum of 30 days for the specified Parties to provide comments prior to filing written plans, reports, or other items with the Commission. If Consensus is not reached, the Licensees shall take action according to the schedule provided in this Agreement or the New Licenses and shall describe to the Commission how the Licensees' submission accommodates the comments and recommendations of the Parties. If the Licensees do not adopt a recommendation, the filing shall include the Licensees' reasons, based on Project-specific information. The Licensees shall provide the Commission with a copy of the Parties' comments. Any Party

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may seek to resolve such disagreements in accordance with the ADR Procedures provided under Section 15.10. The Parties may submit their own comments to the Commission.

"Cougar Creek Conservation Covenant" is defined in Section 10.6.2.

"Counties" means Cowlitz County and, if Parties, Clark County and Skamania County.

"Cowlitz County" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Cowlitz PUD" or *"Public Utility District No. 1 of Cowlitz County, Washington"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Descaling" is defined in Table 4.1.4.

"Devil's Backbone Conservation Covenant" is defined in Section 10.6.1.

"Downstream Transport Plan" is defined in Section 4.1.8.e.

"Effective Date" is defined in the first paragraph of this Agreement, entitled "Parties to this Agreement."

"Endangered Species Act" or *"ESA"* means the federal statute set forth at 16 U.S.C. §§ 1531-1544.

"Evaluation Methodology" is defined in Section 3.1.1.

"FCC" is the Flow Coordination Committee described in Section 6.2.5.

"FD#7" or *"Cowlitz-Skamania Fire District No. 7"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Feasibility Report" is defined in Section 6.1.3.a.

"Federal Power Act" or *"FPA"* means the federal statute set forth at 16 U.S.C. §§ 791a-828c.

"Federation of Fly Fishers" is listed as a potential additional Party to this Agreement in Section 17.3.

"Fee Agreement" is defined in Section 11.2.17.

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"FEMA" is the Federal Emergency Management Agency.

"FEMA Agreement" is defined in Section 12.2.

"Final Terms and Conditions" refers, individually and collectively, to the following terms, conditions, recommendations, and prescriptions filed with the Commission by certain of the Agencies in final or modified form as of the date of issuance of each of the New Licenses:
(1) final terms and conditions filed by USDA-FS under section 4(e) of the FPA; (2) fishway prescriptions filed by NOAA Fisheries or USFWS under section 18 of the FPA; (3) recommendations filed by NOAA Fisheries, USFWS, or WDFW under section 10(j) of the FPA; (4) terms of the 401 Certifications for the Projects given by WDOE; and (5) terms and conditions of the biological opinion(s) and incidental take statement(s) issued by USFWS and NOAA Fisheries under section 7 of the ESA.

"Fish First" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Flood Management Season" is defined in Section 12.8.a.

"Force Majeure" is defined in Section 16.3.

"Forecasted Flow" is defined in Section 12.8.d.

"Forest Road 90" is defined in Section 13.2.2.1.

"Habitat Preparation Plan" is defined in Section 7.4.

"Hatchery Facilities" is defined in Section 8.1.

"Hatcheries Capacity Limit" is defined in Section 8.1.

"Hatchery and Supplementation Plan" or *"H&S Plan"* is defined in Section 8.1.

"Hatchery and Supplementation Program" is defined in Section 8.1.

"Hatchery Ocean Recruits" means those Ocean Recruits that were spawned in a hatchery.

"Hatchery Target" is defined in Section 8.3.

"Hatchery Target Floor" is defined in Section 8.3.2.3.

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"HEP" is defined in Section 10.8.4.

"HGMPs" is defined in Section 8.2.

"HPA" means Hydraulic Project Approval, set forth in Washington State Law at RCW 77.55.100.

"HPMP" is defined in Section 13.1.1.

"HSI" is defined in Section 10.8.4.1.

"I&E Program" is defined in Section 11.2.5.

"IAC" or *"Washington Interagency Committee for Outdoor Recreation"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"In Lieu Fund" is defined in Section 7.6.

"Inconsistent" or *"Inconsistency"* means one or more of the Final Terms and Conditions, terms in the New Licenses (defined below), Permits, or other measures issued by courts or agencies materially, either individually or cumulatively, conflicts with, or adds to, omits portions of or prevents implementation of the PM&E Measures (defined below) and other commitments made in this Agreement.

"Injury" is defined in Table 4.1.4.

"Interests in Land" is defined in Section 10.1.

"Issuance" or *"Issued"* means that WDOE has issued its 401 Certification for the referenced New License(s), NOAA Fisheries and USFWS have issued their biological opinions and incidental take statements for the referenced New License(s), and the Commission has issued the referenced New License(s).

"Issuance of all New Licenses" means that WDOE has issued its 401 Certification for all four of the New Licenses, NOAA Fisheries and USFWS have issued their biological opinions and incidental take statements for all four of the New Licenses, and the Commission has issued the last of the four New Licenses.

"Juvenile Production" is defined in Section 8.4.

"Juvenile Production Targets" is defined in Section 8.4.1.

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"LCFRB" or *"The Lower Columbia Fish Recovery Board"* is listed as a potential additional Party to this Agreement in Section 17.3.

"Lewis River Citizens At-Large" refers to John Clapp of 9315 N.E. Etna Road, Woodland, Washington, and Noel Johnson of 6412 N.W. Amidon Road, Woodland, Washington, and is listed in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Lewis River Fund" is defined in Section 10.3.

"License" means the regulatory authorization for construction, maintenance, and operation of a hydroelectric project subject to the jurisdiction of the Commission pursuant to the FPA.

"Licensee" and "Licensees" are defined in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Lower Lewis River Access Sites" means the Cedar Creek River Access Site, Island River Access Site, Merwin Hatchery River Access Site, Johnson Creek River Access Site, and Lewis River Hatchery River Access Site.

"LRC" is the Lewis River Recreation Advisory Committee described in Section 11.2.16.

"Lewis River Community Council" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"LWD" means large woody debris.

"LWD Fund" is defined in Section 7.1.1.

"M&E Plan" is defined in Section 9.1.

"Manual" is defined in Section 12.2.

"Merwin Downstream Bull Trout Facility" is defined in Section 4.10.1.

"Merwin Downstream Facility" is defined in Section 4.6.

"Merwin Trap" is defined in Section 4.2.b.

"Merwin Trap Upgrades" is defined in Section 4.2.c.

"Merwin Upstream Transport Facility" is defined in Section 4.3.

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"National Environmental Policy Act" or *"NEPA"* means the federal statute set forth at 42 U.S.C. §§ 4321-4370f.

"Natural Ocean Recruits" means those Ocean Recruits that were produced on natural spawning grounds.

"Natural Production Threshold" is defined in Section 8.3.2.3.

"NCEMS" or *"North Country Emergency Medical Service"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"New Information" is defined in Section 4.1.9.c.

"New License" or *"New Licenses"* means the license for one or more Projects contained in an order or orders issuing new licenses and issued by the Commission under the FPA. 16 U.S.C. §808.

"NOAA" is the National Oceanic and Atmospheric Administration.

"NOAA Fisheries" or *"National Marine Fisheries Service"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"NPS" or *"National Park Service"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to this Agreement."

"Ocean Recruit Methodology" is defined in Section 8.3.2.2.

"Ocean Recruits" is defined in Section 8.1.

"Other Governmental Entities" means Cowlitz County and City of Woodland, and, if Parties,
Clark County, Skamania County, and LCFRB.

"Overall Downstream Survival" or *"ODS"* is defined in Table 4.1.4.

"PacifiCorp" is an Oregon corporation and is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Party" and *"Parties"* are defined in the first paragraph of this Agreement, entitled "Parties to This Agreement," and include additional entities that become Parties pursuant to Section 17.3.

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"Permit" and *"Permits"* are defined in Section 2.2.

"Phase I Status Check" is defined in Section 3.4.

"Phase II Status Check" is defined in Section 3.5.

"Phase One" is defined in Section 11.2.2.2.

"Phase Three" is defined in Section 11.2.2.4.

"Phase Two" is defined in Section 11.2.2.3.

"Plateau Change" is defined in Section 6.2.2.b.

"Plateau Step" is defined in Section 6.2.2.a.

"Pre-Releases" is defined in Section 12.8.b.

"Proceeding" is defined in Section 2.2. *"Project"* and *"Projects"* are defined in Recital A.

"Project Boundary" refers, for the Yale, Merwin, and Swift No. 1 Projects, to the boundary of each Project described in Exhibit G to each of PacifiCorp's Applications for New Licenses for the Yale, Merwin, and Swift No. 1 Projects (submitted in April 2004 for Merwin and Swift No. 1, and April 1999 for Yale), and for the Swift No. 2 Project, to the boundary of the Swift No. 2 Project described in Exhibits G-1 and G-6 (submitted to the Commission in April 2004).

"Protection, Mitigation, and Enhancement Measures" or *"PM&E Measures"* refers to the measures set forth in Sections 3 through 13 of this Agreement for the protection and enhancement of the environment of the Projects and for the mitigation of any adverse impacts of the Projects.

"Ramping" is defined in Section 6.2.1.

"RDSUP" is defined in Section 11.2.1.1.

"Recreation Resources Management Plan" or *"RRMP"* is defined in Section 11.1.

"Reintroduction Outcome Goal" is defined in Section 3.1.

"Release Points" is defined in Section 6.1.

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"Release Ponds" is defined in Section 4.4.3.

"Relicensing Proceeding" means the process of applying for and obtaining New Licenses for the Projects.

"Reservoir Survival" is defined in Section 7.5.3.

"Resource Projects" is defined in Section 7.5.

"RMEF" or *"Rocky Mountain Elk Foundation, Inc."* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"RRMP" is defined in Section 11.1.

"Section" includes the referenced section number as well as all subsections of and tables included in that particular section.

"Services" means NOAA Fisheries and USFWS.

"Skamania County" is listed as a potential additional Party to this Agreement in Section 17.3.

"Swift Downstream Facility" is defined in Section 4.4.1.

"Swift Fund" is defined in Section 10.2.

"Swift Projects" is defined in Recital A.

"Swift Upstream Bull Trout Facility" is defined in Section 4.10.2.

"Swift Upstream Facility" is defined in Section 4.8.

"TCC" means the Terrestrial Coordination Committee described in Section 14.

"The Native Fish Society" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Tracking Account" means a record maintained by a Licensee either electronically or on paper that functions like a checkbook register that is used to keep track of the amount of funding that such Licensee is obligated to provide under a particular provision of this Agreement. Tracking Accounts shall indicate the amounts disbursed, interest accrued, if any, and remaining balance available for expenditure for each fund. The Licensees shall maintain separate Tracking Accounts for each fund established under this Agreement. A

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Tracking Account does not represent an actual cash or bank account. Interest on funds is provided in the following Sections: 7.7, 10.5, and 10.8.2.3.

"Transported Anadromous Species" is defined in Section 4.1.7.

"Transported Species" is defined in Section 4.1.7.

"Trout Unlimited" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"Turbine Entrainment" is defined in Section 9.2.1.f.

"Turbine Survival" is defined in Section 9.2.1.g.

"Undeveloped Lands Agreement" is defined in Section 11.2.17

"Upper Release Point" is defined in Section 6.1.

"Upstream Passage Survival" or *"UPS"* is defined in Table 4.1.4.

"Upstream Transport Plan" is defined in Section 4.1.8.c.

"USBLM" or *"United States Bureau of Land Management"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"USDA-FS" or *"USDA Forest Service"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to this Agreement."

"USFWS" or *"United States Fish and Wildlife Service"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"USGS" means the United States Geological Survey. *"WDFW"* or *"Washington Department of Fish and Wildlife"* is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"WDNR" or *"Washington State Department of Natural Resources"* is listed as a potential additional Party to this Agreement in Section 17.3.

"WDOE" means the Washington Department of Ecology.

"Wildlife Habitat Management Plan" or *"WHMP"* is defined in Section 10.8.

"Woodland Chamber of Commerce" is listed as a Party in the first paragraph of this

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Agreement, entitled "Parties to This Agreement."

"*WSDOT*" means the Washington State Department of Transportation.

"*Yakama Nation*" or "*Confederated Tribes and Bands of the Yakama Nation*" is listed as a Party in the first paragraph of this Agreement, entitled "Parties to This Agreement."

"*Yale Downstream Bull Trout Facility*" is defined in Section 4.10.1.

"*Yale Downstream Facility*" is defined in Section 4.5.

"*Yale Fund*" is defined in Section 10.1.

"*Yale Upstream Bull Trout Facility*" is defined in Section 4.10.2.

"*Yale Upstream Facility*" is defined in Section 4.7.

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SECTION 1: PURPOSE AND EFFECT OF THIS AGREEMENT

1.1 Purpose of Agreement. The Parties have entered into this Agreement for the purpose of resolving all issues between the Licensees and the other Parties regarding relicensing of the Projects and for the purpose of obtaining a Commission order or orders issuing to PacifiCorp and to Cowlitz PUD New Licenses for their respective Projects, subject to the Protection, Mitigation, and Enhancement Measures set forth in this Agreement. For these purposes, the Parties agree that this Agreement is fair and reasonable and in the public interest within the meaning of Commission Rule 602 governing offers of settlement. 18 C.F.R. § 385.602. The Parties request that the Commission accept this Agreement in its license orders and incorporate, without material modification, all of PacifiCorp's obligations under this Agreement into each of its New Licenses and all of Cowlitz PUD's obligations under this Agreement into its New License. The Parties request that the Commission incorporate into each of the New Licenses for both PacifiCorp and Cowlitz PUD any obligations that both Licensees are obligated to perform under this Agreement. The Parties request that the Commission refrain from including in the New Licenses any conditions Inconsistent with this Agreement or any PM&E Measures or other commitments contained in this Agreement, except as may be necessary to enable the Commission to ascertain and monitor the Licensees' compliance with the New Licenses, and to comply with the FPA and its implementing regulations and other federal and state laws. Each of the Parties agrees that, except as specifically provided below, each Licensee's performance of its obligations under this Agreement and the Final Terms and Conditions will be consistent with and will fulfill the Licensee's existing statutory and regulatory obligations as to each Party relating to relicensing and operation of the Projects under the New Licenses. Subject to the terms of this Agreement, so long as the Licensees faithfully implement the terms of this Agreement and the New Licenses, the other Parties will not assert before the Commission or in other proceedings that the Licensees' operation of the Projects under the New Licenses is in breach of or inconsistent with the laws referenced in Section 1 of this Agreement. Subject to the terms of this Agreement, so long as the Licensees faithfully implement the terms of this Agreement and the New Licenses, the CIT and the Yakama Nation will not assert before the Commission or in other proceedings that the Licensees' operation of the Projects under the New Licenses is inconsistent with the rights of the CIT and the Yakama Nation referenced in Section 1.1.4 below. So long as a Licensee does not withdraw from this Agreement in the manner provided in Section 15 below, such Licensee's obligations under this Agreement and its New License(s) shall include any Inconsistent provisions incorporated into the New License(s) or any Permits. Without limiting the generality of the preceding sentences, the Parties agree that each Licensee's performance of its obligations in this Agreement and the Final Terms and Conditions are consistent with and will fulfill all obligations under the following laws:

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1.1.1 Section 18 of the FPA, 16 U.S.C. § 811. Section 18 of the FPA states that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as the Secretaries of the U.S. Departments of Commerce (through NOAA Fisheries) and of the Interior (through USFWS) may prescribe. NOAA Fisheries and USFWS intend that any Final Terms and Conditions under section 18 of the FPA will be consistent with the relevant provisions of this Agreement, and that any Inconsistency shall be resolved in accordance with Section 15 below.

1.1.2 Section 4(e) of the FPA, 16 U.S.C. § 797(e). Section 4(e) of the FPA states that the Commission may issue a license for a project on a reservation only if it finds that the license will not interfere or be inconsistent with the purpose for which the reservation was created or acquired. Such a reservation includes, without limitation, USDA-FS- and USBLM-administered land. Section 4(e) of the FPA requires that a Commission license for a project located on a reservation include the conditions that the Secretary of the department under whose supervision the reservation falls deems necessary for the adequate protection and utilization of such reservation. USDA-FS and USBLM intend that any Final Terms and Conditions under section 4(e) of the FPA will be consistent with the relevant provisions of this Agreement and that any Inconsistency shall be resolved in accordance with Section 15 below.

1.1.3 Section 10(j) of the FPA, 16 U.S.C. § 803(j). Section 10(j) of the FPA requires the Commission, when issuing a license, to consider and include conditions based on recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act to "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the Projects. NOAA Fisheries, USFWS, and WDFW intend that their Final Terms and Conditions under section 10(j) of the FPA will be consistent with the relevant provisions of this Agreement and that any Inconsistency shall be resolved in accordance with Section 15 below.

1.1.4 Federal Trust Responsibility and Treaty Rights. Nothing in this Agreement is intended to nor shall it in any way abridge, limit, create, expand, diminish, abrogate, adjudicate, acknowledge, or resolve any Tribal or Indian right reserved or protected in any treaty, executive order, statute, court decree, federal trust responsibility, or other federal law. Nothing in this Agreement shall establish or be used as evidence of the absence or presence of usual and accustomed places, grounds, stations, traditional use areas, aboriginal rights, or any other Tribal or Indian rights or claims under any treaty of the United States or federal law. The Projects are not located upon tribal reservation land.

1.1.5 Threatened and Endangered Species. Section 7 of the ESA requires a federal agency to ensure that its actions are not likely to jeopardize the continued existence of federally listed or proposed-for-listing threatened or endangered species or result in the

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destruction or adverse modification of designated or proposed-for-designation critical habitat. The Commission's relicensing of the Projects will be the basis for a section 7 consultation between the Commission and NOAA Fisheries and USFWS. It is anticipated that the Commission will use the provisions of this Agreement as the proposed federal action, and any ESA biological opinions and incidental take statements issued by NOAA Fisheries and USFWS relating to relicensing of the Projects will address and evaluate such provisions. The Commission has designated PacifiCorp and Cowlitz PUD as the nonfederal representatives for the purpose of preparing draft biological assessments for the proposed federal action (which is anticipated to be consistent with the provisions of this Agreement). NOAA Fisheries and USFWS anticipate that the measures in this Agreement will be adequate to avoid jeopardy to the continued existence of any federally listed threatened or endangered species, to avoid the destruction or adverse modification of any designated critical habitat, and to minimize any incidental take occurring as a result of the Projects' operations for listed threatened or endangered species. In addition, NOAA Fisheries anticipates that the measures in this Agreement will be adequate to avoid jeopardy to the continued existence of any species proposed for listing under the ESA as a threatened or endangered species. As of the Effective Date, there are no species proposed for listing by the USFWS that are affected by the Projects and there is no habitat proposed for designation as critical habitat by either USFWS or NOAA Fisheries. As of the Effective Date, consultation under section 7 of the ESA has not been completed on relicensing of the Projects consistent with the PM&E Measures and any other relevant commitments in this Agreement. Therefore, NOAA Fisheries and USFWS do not formally bind themselves to take any particular action with respect to ESA compliance or to issue any specific terms and conditions in the biological opinions and incidental take statements. NOAA Fisheries and USFWS are not prejudging the outcome of any consultation and expressly reserve the right, consistent with federal law, to make findings and take such future actions as necessary to meet their obligations under the ESA. The Services expressly contemplate that the Commission will take subsequent actions with respect to issuance of the New Licenses, and any subsequent modification, change, condition, or omission made with respect to the New Licenses, must fully satisfy the requirements of ESA section 7, including the terms and conditions contained in any biological opinions and incidental take statements issued by NOAA Fisheries and/or USFWS. The Parties acknowledge that the Commission may not issue the New Licenses until it has completed ESA section 7(a)(2) consultation with NOAA Fisheries and USFWS with respect to any threatened or endangered species that may be affected by the Projects. The Parties reserve the right to request rehearing and seek judicial review in the event that the Commission issues the New Licenses prior to completing consultation.

1.1.6 <u>401 Certification</u>. Except as provided expressly in Section 6.1.7 below, the non-utility Parties do not take a position on the adequacy of the PM&E Measures to meet water quality standards and uses. The Licensees shall include, without limitation and in addition to addressing all water quality standards, in their respective applications for 401

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Certification, methods to bring the Projects into compliance with numerical water quality standards, if necessary. PacifiCorp has developed a draft Water Quality Adaptive Management Plan and has distributed copies to the Parties. Cowlitz PUD has developed a draft Water Quality Assessment and Management Plan and has distributed copies to the Parties. While it is uncertain whether such plans will be accepted as adequate by WDOE, the Licensees acknowledge that inclusion in the 401 Certification of the measures contemplated by PacifiCorp's draft Water Quality Adaptive Management Plan and Cowlitz PUD's draft Water Quality Assessment and Management Plan submitted to WDOE would not be Inconsistent with this Agreement, provided that if WDOE requires additional material measures it may be considered an Inconsistency. Measures required, if any, by WDOE as part of its 401 Certification to resolve the water right at the Speelyai Power Canal Diversion shall not be considered Inconsistent with this Agreement.

1.1.7 NEPA Analysis. In connection with the issuance of the New Licenses, the Commission will complete an environmental analysis under NEPA. The Parties intend that the Commission will incorporate the PM&E Measures under this Agreement into the Commission's preferred alternative for the draft and final environmental analysis under NEPA. If the draft or final environmental analysis issued by the Commission indicates that the final license order may contain measures that are Inconsistent with this Agreement, the Parties will confer to determine how to preserve the benefits of this Agreement.

With respect to PM&E Measures to be implemented by the Licensees on National Forest System or USBLM lands, if the PM&E Measure is specified as to nature and location in the Commission's environmental analysis (such as changes to shoreline recreation sites under Section 11.2.1.1 below), and is consistent with this Agreement, then USDA-FS or USBLM, respectively, agree no further analysis is necessary from USDA-FS or USBLM, respectively, and USDA-FS or USBLM shall not unreasonably withhold written authorization for such activities. If any PM&E Measure is not specified as to its nature and location in the Commission's environmental analysis (such as Juvenile Acclimation Sites to be created under Section 8.8 below), then the Licensees shall conduct further environmental analysis as determined by the Commission and shall obtain written authorization of USDA-FS or USBLM prior to implementation of the measure. For any proposed measure on USDA-FS or USBLM lands outside existing Project Boundaries, the Licensees shall request a USDA-FS or USBLM special use authorization for the measure. The Licensees shall fund any USDA-FS or USBLM environmental analyses related to the issuance of the special use authorization. USDA-FS or USBLM does not intend that its written authorization of any project shall impose upon the Licensees conditions Inconsistent with this Agreement or impose any additional costs or charges beyond stipulations for fire protection, safety, or other standard special use authorization measures consistent with the requirements in effect at the time for implementation of similar actions on National Forest System or USBLM lands prior to their being undertaken by the Licensees or their contractors. This paragraph does not apply to

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projects implemented by third parties or Parties other than the Licensees, or projects funded from the Aquatics Fund, the In Lieu Fund, the Swift Fund, the Yale Fund, the LWD Fund, or the Lewis River Fund, for which such costs shall be paid from the funds or by project sponsors. The provisions of this paragraph are subject to changes in statutes or regulations governing USDA-FS or USBLM NEPA procedures.

1.2 Limitations. This Agreement establishes no principle or precedent with respect to projects or matters not covered by this Agreement, or with regard to any Party's participation in any other pending or future licensing proceeding. Further, no Party to this Agreement shall be deemed to have approved, accepted, agreed to, or otherwise consented to any operation, management, valuation, or other principle underlying any of the matters covered by this Agreement, except as expressly provided in this Agreement. Without affecting the enforceability of this Agreement, by entering into this Agreement, no Party shall be deemed to have made any admission or waived any contention of fact or law that it did make or could have made in the Relicensing Proceeding. This Agreement shall not be offered as evidence or cited as precedent except in a proceeding to establish the existence of or to enforce or implement this Agreement including filing this Agreement with the Commission under 18 C.F.R. § 385.602. This Section 1.2 shall survive any termination of this Agreement.

1.3 Representations Regarding Consistency and Compliance with Statutory Obligations. By entering into this Agreement, the Agencies represent that they believe their statutory and other legal obligations are, or can be, met through implementation of this Agreement and the Final Terms and Conditions. Nothing in this Agreement shall be construed to limit any government agency with jurisdiction directly related to the Projects from complying with its obligations under applicable laws and regulations or from considering and responding to public comments received in any required environmental review or regulatory process related to the Projects, in accordance with this Agreement. This Agreement shall not be interpreted to predetermine the outcome of any environmental review or appeal process.

1.4 License Terms. The Licensees will seek a 50-year term for each of the New Licenses and the Parties agree to support or not to oppose such request.

1.5 Commission Approval. The Parties recognize that implementation of the PM&E Measures contained in this Agreement, including development of plans, studies, and designs, may be subject to the approval of the Commission. The Licensees shall file plans, studies, and designs with the Commission for review and approval, as necessary. The Licensees shall notify the Aquatic Coordination Committee ("ACC") (Section 14) or the Terrestrial Coordination Committee ("TCC") (Section 14) as appropriate, of any changes required by the Commission.

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SECTION 2: ACTIONS UPON EXECUTION OF THIS AGREEMENT

2.1 Commission Filings. Following the Effective Date, on or about November 30, 2004, PacifiCorp and Cowlitz PUD shall jointly file with the Commission a fully executed copy of this Agreement in accordance with Commission regulations at 18 C.F.R. § 385.602.

2.2 Permits. In accordance with this Agreement, PacifiCorp and Cowlitz PUD shall apply for and use their best reasonable efforts to obtain in a timely manner and in final form all necessary federal, state, regional, and local permits, licenses (not including the New Licenses), authorizations, certifications, determinations, and other governmental approvals (each individually, a "Permit" and collectively, the "Permits") for purposes of implementing this Agreement and the New Licenses for their respective Projects. The Parties anticipate that the Permits will be issued in a timely manner. PacifiCorp and Cowlitz PUD shall also use their best reasonable efforts to obtain the New Licenses in a timely manner. Except as expressly provided in this Agreement, PacifiCorp and Cowlitz PUD shall not be required by this Agreement to implement any action under this Agreement or the Final Terms and Conditions until all applicable Permits required for that action are obtained and are final. For the purposes of this provision, "final" means that any and all applicable periods for a petition for administrative or judicial rehearing, review, or appeal or any similar proceeding (collectively, "Proceeding") relating to any Permit have expired without any such Proceeding having been commenced or, in the event any such Proceeding is commenced, any such Proceeding is terminated. In the event any Permit is not obtained and final in a timely manner, the Parties shall confer to evaluate the effect of such delay on implementation of this Agreement and seek to develop actions to respond to the delay. If prolonged delay in performance of one or more PM&E Measures due to delay in receiving required Permits materially reduces the benefit of this Agreement, a Party may initiate the ADR Procedures and, if unsuccessful in agreeing upon alternative actions or courses of performance, may withdraw from this Agreement. In addition, if delay in obtaining a Permit prevents performance of one or more PM&E Measures for a prolonged period, the Parties recognize that reinitiation of consultation under the ESA may be required.

2.3 Actions Required upon License Issuance. Where this Agreement requires an action to be implemented or completed at or upon issuance or Issuance of one or more of the New Licenses, such action shall not be required to be implemented or completed until the 10th day following the issuance or Issuance of the referenced New License or New Licenses.

SECTION 3: ANADROMOUS FISH REINTRODUCTION OUTCOME GOALS

3.1 Anadromous Fish Reintroduction Outcome Goals. The reintroduction outcome goal of the comprehensive aquatics program contained in Sections 4 through 9 of this Agreement is to achieve genetically viable, self-sustaining, naturally reproducing, harvestable populations above Merwin Dam greater than minimum viable populations

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("Reintroduction Outcome Goal"). For the purpose of this Section 3, "harvest" includes all forms of harvest including, without limitation, commercial, tribal, and recreational. Notwithstanding the previous sentences, the Licensees shall not be responsible for limiting factors that are not related to Project effects, e.g., harvest. The Licensees shall implement the relevant PM&E Measures in this Agreement, including the commitments in this Section 3, to achieve Reintroduction Outcome Goals for stocks of Chinook, steelhead, and coho that are being transported under this Agreement. These Reintroduction Outcome Goals are separate from and shall have no relationship to the targets listed under Section 8 below relating to numbers of returning hatchery fish.

3.1.1 Phase I Reintroduction Outcome Goals. Prior to the later of: (a) the 27th anniversary of Issuance of all New Licenses, or (b) the 12th year after reintroduction of anadromous fish above Swift No. 1 Dam together with the operation of both the Merwin Upstream Transport Facility (Section 4.3) and the Swift Downstream Facility (Section 4.4), the Services, after discussion with the ACC, shall determine how they will assess whether Reintroduction Outcome Goals have been met, e.g., metric, model, qualitative factors ("Evaluation Methodology"). The determination shall take into account the variability of the factors influencing the success of the comprehensive aquatics program over time such as cycles of ocean conditions and will include an appropriate temporal component in developing and applying the Evaluation Methodology. The Services will evaluate the program pursuant to Section 3.4 using the Evaluation Methodology to determine if Reintroduction Outcome Goals have been achieved.

3.1.2 Phase II Reintroduction Outcome Goals. Prior to the later of the following: (a) the 37th anniversary of Issuance of all New Licenses, or (b) the seventh year after the Phase I Status Check (Section 3.4), the Services, in Consultation with the ACC, shall determine whether changed circumstances make it appropriate to update the Reintroduction Outcome Goals applied in the Phase I Status Check and, if so, how to update such Reintroduction Outcome Goals.

3.2 Monitoring and Evaluation. The Licensees, in Consultation with the ACC and with the final approval of the Services, shall monitor progress for achieving Reintroduction Outcome Goals periodically as set forth in Section 9. The results of such monitoring shall be included in the reports on monitoring and evaluation to be provided by the Licensees under Section 9.1 below. The Licensees' monitoring shall rely on the work of regional recovery groups (e.g., the Technical Recovery Team and the LCFRB) relating to North Fork Lewis River populations to the extent possible, in combination with the data gathered by the Licensees under Section 9 below. The Licensees shall supplement such work if needed to determine whether the Reintroduction Outcome Goals have been achieved or whether they are on track to being achieved on a timely basis.

3.3 First Phase of Aquatics Program. Prior to the Phase I Status Check (Section 3.4),

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the Licensees shall implement Sections 4 through 9 below.

3.4 Phase I Status Check. On or after the later of: (a) the 27th anniversary of Issuance of all New Licenses, or (b) the 12th year after reintroduction of anadromous fish above Swift No. 1 Dam together with the operation of both the Merwin Upstream Transport Facility (Section 4.3) and the Swift Downstream Facility (Section 4.4), the Services, using the approach developed pursuant to Section 3.1.1 above, shall determine whether the Reintroduction Outcome Goal has been achieved for each North Fork Lewis River anadromous fish population that is being transported pursuant to this Agreement ("Phase I Status Check").

3.4.1 Reintroduction Outcome Goals Met. If the Phase I Status Check shows that all Reintroduction Outcome Goals have been met, the Licensees shall continue to implement the measures provided in Sections 4 through 9 for the remainder of each New License term, including adjusting and modifying fish passage facilities as needed to meet relevant performance standards as provided in Section 4.1.6.

3.4.2 Any Reintroduction Outcome Goal Not Met. If the Phase I Status Check shows that any of the Reintroduction Outcome Goals have not been met, PacifiCorp shall perform a limiting factors analysis, in Consultation with the ACC and subject to final approval and acceptance of the Services.

a. If the limiting factors analysis concludes, for all Reintroduction Outcome Goals that are not being met, that all significant limiting factors contributing to the failure to meet such goals are unrelated to Project effects, the Licensees shall continue implementation of the measures contained in Sections 4 through 9, including adjusting and modifying fish passage facilities as provided in Section 4.1.6, but shall not be obligated to implement any additional measures. Examples of factors unrelated to Project effects include, but are not limited to, harvest, upstream of Merwin off-Project habitat conditions (e.g., degradations in habitat due to forest management practices and natural catastrophic events), and ocean conditions.

b. If the limiting factors analysis concludes that a Project effect is a significant limiting factor in any Reintroduction Outcome Goal not being met, in addition to continuing implementation of the measures contained in Sections 4 through 9, including adjusting and modifying fish passage facilities as provided in Section 4.1.6, PacifiCorp shall implement those actions that the Services, informed by discussions with the ACC in a meeting that PacifiCorp shall convene, determine would provide biological benefits adequate to thoroughly offset the impact of the identified Project-related limiting factor(s) for North Fork Lewis populations (e.g., habitat enhancement projects, continuing juvenile supplementation, etc.) provided the Licensees shall not be required to

(1) make structural or operational changes with respect to their generating

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facilities or Project reservoirs to achieve standards, (2) replace any fish passage facility with another passage facility, or (3) install additional collection and transport facilities or alternative fish passage facilities.

3.5 Phase II Status Check. On or after the later of: (a) the 37th anniversary of Issuance of all New Licenses, or (b) the seventh year after the Phase I Status Check, the Services, using the approach developed pursuant to Section 3.1.1 above, shall determine whether the Reintroduction Outcome Goals have been achieved ("Phase II Status Check").

3.5.1 Reintroduction Outcome Goals Met. If the Phase II Status Check shows that the Reintroduction Outcome Goals have been met, the Licensees shall continue to implement the measures provided in Sections 4 through 9 for the remainder of each New License term, including adjusting and modifying fish passage facilities as needed to meet certain performance standards as provided in Section 4.1.6.

3.5.2 Any Reintroduction Outcome Goal Not Met. If the Phase II Status Check shows that any of the Reintroduction Outcome Goals have not been met, PacifiCorp shall perform a limiting factors analysis, in Consultation with the ACC and subject to the final approval and acceptance of the Services.

a. If the limiting factors analysis concludes, for all Reintroduction Outcome Goals not being met, that all significant limiting factors contributing to the failure to meet such goals are unrelated to Project effects, the Licensees shall continue implementation of the measures contained in Sections 4 through 9, including adjusting and modifying fish passage facilities as provided in Section 4.1.6, but shall not be obligated to implement any additional measures. Examples of factors unrelated to Project effects include, but are not limited to, harvest, upstream of Merwin off-Project habitat conditions (e.g., degradations in habitat due to forest management practices and natural catastrophic events), and ocean conditions.

b. If the limiting factors analysis concludes that a Project effect is a significant limiting factor in any Reintroduction Outcome Goal not being met, in addition to continuing implementation of the measures contained in Sections 4 through 9, including Facility Adjustment and Facility Modifications as provided in Section 4.1.6, the Licensees shall consult with the Services to determine what further actions by the Licensees would be necessary to meet Reintroduction Outcome Goals. Such actions may include, without limitation, consideration of structural or operational changes with respect to the generating facilities or Project reservoirs or construction of new or replacement passage facilities. In the event that the Services and the Licensees cannot reach agreement on implementing such further actions, the Services may exercise their applicable authorities to direct what actions should be implemented, subject to the approval of the Commission.

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SECTION 4: FISH PASSAGE MEASURES

4.1 Common Provisions Regarding Fish Collection and Transport Facilities. The provisions of this Section describe the design, construction, and operation of passage facilities at the Projects for upstream and downstream collection and transport of Chinook, coho, steelhead, bull trout, and sea-run cutthroat. For each of the passage facilities, at an early stage in the study and design process, the appropriate Licensee (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall develop an implementation schedule and timeline that identifies each significant step in the process, starting from study selection and extending through completion of the facility. Such implementation schedules and timelines shall be provided to the ACC.

4.1.1 Studies to Inform Design Decisions. PacifiCorp, in Consultation with the ACC and subject to the final approval of the Services, shall develop and implement studies to inform the design of upstream and downstream fish passage facilities described in Sections 4.3 to 4.8 and 4.10 (including the Merwin Upstream Transport Facility) with the goal of improving the likelihood that the passage facilities will be successful as initially constructed. Needed information may include the hydraulic characteristics of the Swift No. 1, Yale, and Merwin forebays and tailrace (e.g., a three-dimensional numerical flow-field analysis) and the movement of adult and juvenile salmonids. PacifiCorp shall complete these studies sufficiently in advance of the design decisions required in Section 4.1.2 so that PacifiCorp, the Services, and the ACC can take the resulting information into account when making final design decisions.

4.1.2 Design Review. The appropriate Licensee (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall design the fish passage facilities to be constructed pursuant to Sections 4.1.8, 4.3 through 4.8, and 4.10, subject to Section 4.1.9, to meet the performance standard targets set out in Section 4.1.4.b, as applicable. The Licensee shall use the best available technology for the type of passage facility being constructed, and design the passage facility to provide flexibility for subsequent expansion or Facility Adjustments, if needed, to meet performance standards. A fish passage facility may include duplication of some components (for example, multiple entrances) and still be considered a single passage facility. The Licensee shall coordinate with and shall provide 30% and 60% completed preliminary designs for review and comment to the Services and WDFW. The Licensee shall notify the ACC when design work has begun, and shall provide the 30% and 60% preliminary designs to any other Party at the Party's request. The Licensee shall provide the Services and WDFW 45 days to provide their comments. The Licensee shall submit the 90% preliminary designs with the relevant engineering, hydraulic, and biological work to the ACC at the times set forth in Sections 4.1.8,

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4.3 through 4.8, and 4.10. The Licensee shall provide the ACC 45 days to provide its comments on the 90% preliminary designs and shall finalize the designs in Consultation with the ACC and with the approval of the Services. The Licensee shall consider and address in writing those written comments provided by the members of the ACC when submitting final designs to the Services for approval.

4.1.3 Permits, Time for Construction. Upon approval of passage facility designs by the Commission, the Licensee responsible for constructing any such passage facility (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall diligently and expeditiously acquire all required Permits. The time by which each such passage facility shall be placed in operation is set forth in the Sections below, and shall follow receipt of all required Permits as set out in Section 2.2.

4.1.4 Performance Standards. The Licensees (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall provide for the safe, timely, and effective passage of salmonids being transported past the Projects pursuant to Section 4.1.7 below, as provided in this Section 4. The sole performance standard for kelts and downstream migration of adult sea-run cutthroat shall be safe, timely, and effective passage. Specific life stages described below (not including kelts or downstream migrating sea-run cutthroat) have quantitative standards. The Licensees shall construct and provide for the operation and maintenance of fish passage facilities that (1) collect all life stages of salmonids that are present at the specific facility, and (2) function during all flows and during all seasons; except (i) for a downstream facility at Swift No. 1 when it is infeasible to function during flood events that require spill that could not be reasonably accommodated by the passage facility, or (ii) for upstream passage facilities, to the extent it is infeasible due to flood events that require spill that could not be reasonably accommodated by the passage facility. Table 4.1.4 defines the terms used below.

Table 4.1.4 – Defined Terms for Performance Standards

Adult Trap Efficiency (“ATE”)	The percentage of adult Chinook, coho, steelhead, bull trout, and sea-run cutthroat that are actively migrating to a location above the trap and that are collected by the trap.
Collection Efficiency (“CE”)	The percentage of juvenile anadromous fish of each of the species designated in Section 4.1.7 that is available for collection and that is actually collected.

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Collection Survival ("CS")	The percentage of juvenile anadromous fish of each of the species designated in Section 4.1.7 collected that leave Release Ponds alive.
Injury	Visible trauma (including, but not limited to, hemorrhaging, open wounds without fungus growth, gill damage, bruising greater than 0.5 cm in diameter, etc.), loss of equilibrium, or greater than 20% descaling. "Descaling" is defined as the sum of the area on one side of the fish that shows recent scale loss. This does not include areas where scales have regenerated or fungus has grown.
Overall Downstream Survival ("ODS")	The percentage of juvenile anadromous fish of each of the species designated in Section 4.1.7 that enter the reservoirs from natal streams and that survive to enter the Lewis River below Merwin Dam by collection, transport, and release via the juvenile fish passage system, passage via turbines, or some combination thereof, calculated as provided in Schedule 4.1.4.
Upstream Passage Survival ("UPS")	Percentage of adult fish of each of the species designated in Section 4.1.7 that are collected that survive the upstream trapping-and-transport process. For sea-run cutthroat and bull trout, "adult" means fish greater than 13 inches in length.

a. Overall Performance Standards for Salmonids. For each species, the Licensees shall achieve the following overall performance standards for fish passage: ODS of greater than or equal to 80% until such time as the Yale Downstream Facility is built or the In Lieu Fund in lieu of the Yale Downstream Facility becomes available to the Services, after which time ODS shall be greater than or equal to 75%; UPS of greater than or equal to 99.5%; and ATE to be established after the Effective Date pursuant to Section 4.1.4.c below. The Parties acknowledge that ODS of 80% or 75% are aggressive standards and it is likely that they will take some time to achieve. If these performance standards are not achieved, the Licensees (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream

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Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall take the actions set forth in Section 4.1.6.

b. Passage Facility Design Performance Standards for Salmonids. PacifiCorp shall design and construct downstream fish passage facilities to achieve the following standards for each species (i) a CE of equal to or greater than 95% and (ii) a CS of equal to or greater than 99.5% for smolts and 98% for fry, and (iii) adult bull trout survival of equal to or greater than 99.5%. Design performance objectives for Injury are less than or equal to 2%. The Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall design and construct upstream fish passage facilities to achieve the UPS equal to or greater than 99.5% and the ATE to be established after the Effective Date pursuant to Section 4.1.4.c below.

c. Adult Trap Efficiency for Salmonids. As soon as practicable, the Licensees, together with the Services, WDFW, Yakama Nation, and the CIT, and in Consultation with the ACC, shall develop an ATE performance standard for the terms of each New License to ensure the safe, timely, and effective passage of adult salmonids. Until such time as the standard has been developed, the Licensees shall use NOAA Fisheries' fish passage guidelines [*Anadromous Salmonid Passage Facility Guidelines and Criteria*, NMFS (Jan. 31, 2004)]. The Parties shall consider without limitation entry rate, fall back, crowding at the entrance, delay, and abandonment of the trap area. When performance standards for ATE have been developed, the Licensees shall submit the standards to the Commission and such standards will be used to judge performance for the facilities (as provided in Section 4.1.6.d below).

4.1.5 Monitoring and Evaluation. Once any passage facility, upstream or downstream, is constructed and placed in operation, and after each Facility Adjustment or Facility Modification, the Licensees (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall evaluate, in Consultation with the ACC and with the approval of the Services, whether performance standards are being met for each of the species designated in Section 4.1.7. This monitoring and evaluation shall be conducted as described in Section 9.

4.1.6 Adjustments or Modifications to Passage Facilities. For purposes of this Agreement, a "Facility Adjustment" shall be a physical passage facility upgrade, improvement, or addition that was part of the original design of the passage facility, or an adjustment to the fish passage facility or its operations. A "Facility Modification" shall be a physical alteration or addition to a physical passage facility that requires a new design. When making Facility Modifications, the Licensees shall follow the design process set out in Section 4.1.2 above, including Consultation with the ACC. Whenever any Facility

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Adjustment or Facility Modification is completed, the operation of the relevant facility shall be tested for a reasonable time to determine the effectiveness of such adjustment or modification. Throughout the term of each New License, at the direction of the Services, and after Commission approval, if required, and obtaining all required Permits, the Licensee (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall make Facility Adjustments and Facility Modifications to each passage facility to achieve the relevant performance standards for each of the species designated in Section 4.1.7 as soon as practicable as follows:

a. If ODS is not being met, then PacifiCorp shall make Facility Adjustments or Facility Modifications to downstream passage facilities as follows:

(1) If the CE is less than 95% and greater than or equal to 75% or the CS for smolts is less than 99.5% and greater than or equal to 98%, or the CS for fry is less than 98% and greater than or equal to 96%, or Injuries to juvenile Transported Anadromous Species caused by downstream collection and transport are greater than 2% but less than 4%, PacifiCorp shall make Facility Adjustments directed by the Services to achieve the performance standard or standards that are not being met, but shall not be required to make Facility Modifications; or

(2) If the CE is less than 75%, or the CS for smolts is less than 98%, or the CS for fry is less than 96%, or Injuries to juvenile Transported Anadromous Species caused by downstream collection and transport are greater than or equal to 4%, PacifiCorp shall make the Facility Modifications directed by the Services to achieve the performance standard or standards that are not being met; provided that if the Services believe a Facility Adjustment will likely achieve the performance standard or standards that are not being met, then PacifiCorp shall first make Facility Adjustments as directed by the Services.

b. If the ODS is being met but the CE is less than 95%, the CS for smolts is less than 99.5%, the CS for fry is less than 98%, or Injury to juvenile Transported Anadromous Species caused by downstream collection and transport is greater than 2%, PacifiCorp shall make Facility Adjustments directed by the Services to downstream facilities but shall not be required to make Facility Modifications to achieve the performance standard or standards that are not being met.

c. For bull trout, PacifiCorp shall make Facility Adjustments or Facility Modifications to downstream passage facilities as follows:

(1) If the survival of bull trout is less than 99.5% and is greater than or equal to 98%, or Injuries caused by downstream collection and transport are greater than 2% but

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less than 4%, PacifiCorp shall make Facility Adjustments directed by the Services to achieve the performance standard or standards that are not being met, but shall not be required to make Facility Modifications; or

(2) If the survival of bull trout is less than 98%, or Injuries caused by downstream collection and transport are greater than or equal to 4%, PacifiCorp shall make the Facility Modifications directed by the Services to achieve the performance standard or standards that are not being met; provided that if the Services believe a Facility Adjustment will likely achieve the performance standard or standards that are not being met, then Licensees shall make Facility Adjustments as directed by the Services.

d. For Transported Species, if UPS and/or ATE are not being met, then the Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) will make Facility Adjustments or Facility Modifications to upstream passage facilities as directed by the Services.

e. Except as required in a proceeding initiated consistent with Section 15.3.2, or as provided in Section 3.5.2.b, the Licensees (PacifiCorp for the Merwin Upstream Transport Facility, Merwin Downstream Facility, Yale Upstream Facility, Yale Downstream Facility, and Swift Downstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall not be required to (1) make structural or operational changes with respect to their generating facilities or Project reservoirs to achieve standards, (2) replace any fish passage facility with another passage facility, or (3) install additional collection and transport facilities or alternative fish passage facilities beyond those required by this Agreement. This provision is not intended to negate or otherwise alter any PM&E Measure agreed to elsewhere in this Agreement, including, without limitation, Section 4.3 and operational constraints required under Sections 4.2, 4.9.1, and 6.2.

4.1.7 Species Transported. For purposes of fish passage, the Licensees shall only provide for the transport of spring Chinook, winter steelhead, coho, bull trout, and sea-run cutthroat. Notwithstanding the preceding sentence, the Licensees, after Consultation with the ACC, and if directed by the Services, shall also provide for the transport of fall Chinook or summer steelhead that enter the passage facilities. All species to be transported pursuant to this Section 4.1.7 shall be referred to as the "Transported Species." Anadromous species to be transported pursuant to this Section 4.1.7 (spring Chinook, winter steelhead, coho, sea-run cutthroat, and, if appropriate in accordance with this Section, fall Chinook and summer steelhead) shall be referred to as "Transported Anadromous Species."

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4.1.8 Mode of Transport and Transport Plans.

a. Upstream Transport Before Full Adult Fish Passage. Unless and until alternative technologies are implemented pursuant to paragraph (b), below, the Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility, and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall provide for the transport by truck of all Transported Species collected at an upstream transport facility. Once the Merwin Upstream Transport Facility is completed, and for so long as trucks are used, the Licensees shall provide for transport according to the Upstream Transport Plan described below.

b. Upstream Transport After Full Adult Fish Passage. On or before the 13th anniversary of the Issuance of all New Licenses, the Licensee responsible for each upstream transport facility (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall evaluate alternative adult fish transport technologies (such as fish trams, cable lifts, or other new technologies) at the facility that allow transportation of the fish with the least practicable amount of handling or other stress-inducing actions, considering the need for sorting fish. Such technologies shall be implemented provided that (1) such alternative technologies are determined, by engineers qualified in fish passage and designated respectively by WDFW, USFWS, NOAA Fisheries, PacifiCorp, and Cowlitz PUD, to be feasible and effective in transporting fish over dam facilities; (2) the Services determine that such technologies are suitable for meeting the Services' fish passage goals and the biological benefits are expected to be equal to or greater than the benefits of trap-and-transport by truck; and (3) the costs of the selected technology (considering both initial capital cost and ongoing operational and maintenance costs) do not significantly exceed the costs of transporting fish by truck. Any Party that disagrees with the engineers' determination under (1), above, may initiate ADR Procedures pursuant to Section 15.10. Implementation of such technologies shall begin after acquisition of all required Permits according to the schedule set forth in Section 4.7 for the Yale Upstream Facility and Section 4.8 for the Swift Upstream Facility, and for the Merwin Upstream Transport Facility after any required time for transition between truck and alternative transport facilities but no earlier than upon operation of both the Yale Upstream Facility and Swift Upstream Facility. The Licensees' selection of such technologies and selection of final designs shall be made with the approval of the Services after Consultation with the ACC, pursuant to Section 4.1.2. The costs for such alternate technologies shall be considered cumulatively for all of the Lewis River Projects, so that a cost savings from alternate technology at one Project could offset a cost increase for such technology at another Project, compared to trapping and transporting by truck. If costs are determined to significantly exceed the costs of transporting fish by truck, the Parties may make reasonable efforts to find more cost-effective facility designs that will achieve the same or greater biological benefit compared to trap-and-transport by truck. If (i) after due comparison of the costs of initial capital and ongoing operations and maintenance

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through the remaining term of the New Licenses of trapping and transporting by truck versus such costs of an alternative technology for upstream passage it appears that such alternate technologies would not be implemented because of increased costs; and (ii) any Party (other than the Licensees): (A) identifies alternate sources of funding, (B) provides a guarantee of payment acceptable to the Licensees of the difference in capital and ongoing operations and maintenance costs over the remaining term of the Licenses between trap-and-transport and such alternative technology, and (C) provides such funding without additional conditions unacceptable to the Licensees, express or implied; then the Licensee shall implement such technologies after acquisition of all required Permits according to the schedule set forth in Section 4.7 for the Yale Upstream Facility and Section 4.8 for the Swift Upstream Facility, and for the Merwin Upstream Transport Facility after any required time for transition between truck and alternative transport facilities but no earlier than upon operation of both the Yale Upstream Facility and Swift Upstream Facility. If alternative methods are not used at any facility because they do not meet the standards of this Section 4.1.8, then the Licenses shall continue to implement trap and transport by truck at such facility.

c. Upstream Transport Plan. The Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall develop, in Consultation with the ACC and with the approval of the Services, subject to Section 15.14, a plan that shall describe the frequency and procedures to achieve safe, timely, and effective upstream passage (the "Upstream Transport Plan"). The Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall provide for the transport of fish at a minimum frequency of once daily, or more if necessary, to achieve safe, timely, and effective passage. The Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall submit the Upstream Transport Plan to the Commission before completion of the Merwin Upstream Transport Facility. This version of the Upstream Transport Plan need only address transport from the Merwin Upstream Transport Facility. The Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall modify the Upstream Transport Plan in Consultation with the ACC and with the approval of the Services, subject to Section 15.14, to (i) identify the distribution of adults transported to Yale Lake and Swift Reservoir when the Yale Downstream Facility is completed and prior to completion of the Yale Upstream Facility and Swift Upstream Facility, and (ii) address transport from the Yale Upstream Facility if trucking is to be used for transport from that facility, and shall submit the modified Upstream Transport Plan to the Commission before completion of the Yale Upstream Facility. The Licensees (PacifiCorp for the Merwin Upstream Transport Facility and Yale Upstream Facility; and PacifiCorp and Cowlitz PUD for the Swift Upstream Facility) shall modify the Upstream Transport Plan in Consultation with the ACC and with the approval of the Services, subject to Section 15.14, to address

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transport from the Swift Upstream Facility if trucking is to be used for transport from that facility, and shall submit the modified Upstream Transport Plan to the Commission before completion of the Swift Upstream Facility.

d. Downstream Transport. PacifiCorp shall provide for the downstream transport of migrating Transported Species collected in the Swift Downstream Facility, Yale Downstream Facility, and Merwin Downstream Facility by truck. The Parties believe there may be benefits from downstream transport of migrating Transported Species via a bypass facility in lieu of trap and transport by truck.

(1) For the Yale Downstream Facility and Swift Downstream Facility, if:

(i) the Yale Downstream Facility and Swift Downstream Facility have been constructed;

(ii) a determination has been made pursuant to (2) or (3), below, that PacifiCorp shall construct and operate a bypass facility at the Merwin Downstream Facility;

(iii) the Services determine that a salmonid bypass passage system would provide equal or greater biological benefit; and

(iv) PacifiCorp does not determine that the capital, operation, and maintenance costs of such bypass would be significantly greater than the capital, operation, and maintenance costs of continued use of trap and transport by truck,

then PacifiCorp shall Consult with the ACC regarding a possible change in methods for downstream passage. Any Party may, but shall not be obligated to, develop additional information regarding methods for downstream passage and submit it to the Services. Studies to develop such information should be developed in coordination with the ACC and with the approval of the Services.

(2) For the Merwin Downstream Facility, if:

(i) PacifiCorp has not yet commenced construction of the Merwin Downstream Facility, and

(ii) the Services determine that a salmonid bypass passage system would provide equal or greater biological benefit, and would not have unacceptable impacts on fish between Merwin Dam and the Release Ponds,

then PacifiCorp shall construct and provide for the operation of such bypass facility in lieu of trapping and transporting by truck. Any Party may, but shall not

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be obligated to, develop additional information regarding methods for downstream passage and submit it to the Services. Studies to develop such information should be developed in coordination with the ACC and with the approval of the Services.

(3) For the Merwin Downstream Facility, if:

(i) PacifiCorp has commenced construction of the Merwin Downstream Facility;

(ii) the Services determine that a salmonid bypass passage system would provide equal or greater biological benefit and would not have unacceptable impacts on fish between Merwin Dam and the Release Ponds; and

(iii) PacifiCorp does not determine that the capital, operation, and maintenance costs of such bypass would be significantly greater than the capital, operation, and maintenance costs of continued use of trap and transport by truck,

then PacifiCorp shall Consult with the ACC regarding a possible change in methods for downstream passage. Any Party may, but shall not be obligated to, develop additional information regarding methods for downstream passage and submit it to the Services. Studies to develop such information should be developed in coordination with the ACC and with the approval of the Services.

e. Downstream Transport Plan. PacifiCorp shall develop, in Consultation with the ACC and with the approval of the Services, subject to Section 15.14, a plan that shall describe the frequency and procedures to achieve safe, timely, and effective downstream transport (the "Downstream Transport Plan"). PacifiCorp shall submit the Downstream Transport Plan to the Commission before completion of the Swift Downstream Facility. This version of the Downstream Transport Plan need only address transport from the Swift Downstream Facility. PacifiCorp shall modify the Downstream Transport Plan in Consultation with the ACC and with the approval of the Services, subject to Section 15.14, to address transport from the Yale Downstream Facility and the Merwin Downstream Facility, and shall submit the modified Downstream Transport Plan to the Commission before completion of the Yale Downstream Facility and the Merwin Downstream Facility, respectively.

4.1.9 Review of New Information Regarding Fish Transport into Lake Merwin and Yale Lake

a. The Licesnee shall contruct and provide for the operation and maintenance of both upstream and downstream fish collection and transport facilities at each of Merwin Dam, Yale Dam, and the Swift Projects as provided in the schedule in this Agreement

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unless otherwise directed by the Services pursuant to this Section. New Information (defined below) relevant to reintroduction and fish passage into Yale Lake or Lake Merwin may be available to the Services that may influence the implementation of fish passage into and out of these reservoirs, or that could result in the Services determining that reintroduction or fish passage for anadromous fish is inappropriate. If the Services conclude upon review of the New Information that one or more of the passage facilities should not be constructed, in lieu of designing, permitting, constructing, and operating the passage facility, PacifiCorp shall provide additional funds for projects in lieu of fish passage, as set forth in Section 7.6. In this event, the Licensees shall also implement the bull trout passage measures as set forth in Section 4.10. The adult upstream fish passage facility at Merwin and juvenile downstream collector at Swift No. 1 are not subject to this review.

b. Upon receipt and review of New Information relevant to reintroduction and fish passage from any party, the members of the ACC may provide written comments to the Services regarding such New Information. Such comments shall be provided to the Services no later than five years prior to the date that PacifiCorp and/or Cowlitz PUD is to begin operating the relevant passage facility. If any New Information and comments are submitted to the Services, then approximately four and a half years prior to the date that PacifiCorp and/or Cowlitz PUD is to begin operating the relevant passage facility, the Licensees shall convene a meeting of the ACC for the purpose of discussing the New Information and comments. At such meeting, the Licensees shall solicit and obtain the Services' response to the New Information and related comments, unless the Services have provided the results of their review to the ACC earlier. If the Services have concluded that one or more of the passage facilities should not be constructed, then within 60 days after the meeting of the ACC, the Services shall advise the ACC in writing of such conclusion.

c. For purposes of this section, "New Information" is defined as information relevant to anadromous fish reintroduction and fish passage, including that presented by any Party, and provided to the Services and the Licensees. The Licensees must provide copies of such New Information to all the members of the ACC. This information may include, but is not limited to:

(1) Experience with upstream fish collection and transport facilities at other sites, including Merwin Dam.

(2) Experience with downstream fish collection facilities at other sites, including Swift No. 1 Dam.

(3) Experience with the reintroduction efforts of spring Chinook, coho, and steelhead above Swift No. 1 Dam.

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(4) Consideration of broader contextual information beyond the Lewis River Basin, including regional anadromous fish recovery efforts.

d. The Licensees shall inform the Commission of any determination by the Services that one or more of the fish collection and transport facilities should not be constructed. In this event, PacifiCorp shall provide additional funds for projects in lieu of fish passage, as set forth in Section 7.6.

4.2 Merwin Trap.

a. Fyke Repair. As soon as practicable after the Effective Date, PacifiCorp shall repair the fyke portion of the Merwin Trap or install another fyke to decrease the risk of Injury to fish in the facility.

b. Merwin Trap Flow Restrictions. From and after the Effective Date, PacifiCorp shall, to the extent feasible, limit the discharge from the generation facilities at Merwin Dam for safety purposes to a maximum of 5,250 cubic feet per second ("cfs") or other flow level to be determined by PacifiCorp and WDFW (measured at the Ariel gage) when personnel are working in the existing fish trap (the "Merwin Trap") until such time as upgrades to the Merwin Trap are made pursuant to Section 4.2.3 and PacifiCorp determines, in Consultation with WDFW, that such upgrades are effective in providing a greater margin of safety for such personnel. PacifiCorp shall coordinate with WDFW on scheduling such flows and times when fish collection will occur.

c. Merwin Trap Upgrades. Within one year after the Effective Date, PacifiCorp shall determine what information is required to improve operating conditions for personnel working in the Merwin Trap by providing a greater margin of safety. PacifiCorp shall gather such information promptly to allow design of operating improvements. By the second anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall modify the Merwin Trap as needed to improve the human working environment such that flow restrictions under Section 4.2.2 are no longer necessary, without introducing additional risk to fish (the "Merwin Trap Upgrades"). PacifiCorp shall coordinate with and shall provide 30% and 60% completed preliminary designs for review and comment to the Services and WDFW. PacifiCorp shall provide the 90% preliminary designs for the Merwin Trap Upgrades to the ACC within 18 months after the Effective Date. PacifiCorp shall submit final designs to the Commission upon approval by the Services, subject to Section 15.14, but not later than 90 days after the Issuance of the New License for the Merwin Project or August 31, 2006, whichever is later. Once the Merwin Trap Upgrades are completed or beginning upon the second anniversary of the Issuance of the New License for the Merwin Project, whichever is later, PacifiCorp shall provide for fish to be sorted at the Lewis River Hatchery rather than at the Merwin Trap and shall provide up to two additional staffers, if necessary, to clear the Merwin Trap once daily for the benefit of the fish in the facility.

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d. Interim Merwin Trap Operations. Until construction of the Merwin Upstream Transport Facility, the upgraded Merwin Trap shall be operated solely for the following purposes: to collect hatchery fish returning from the ocean and to transport any bull trout collected to Yale Lake, and fish other than hatchery fish and bull trout will be returned to the river below Merwin Dam. Until the Merwin Upstream Transport Facility is completed, PacifiCorp, in coordination with WDFW, shall make reasonable efforts to operate the Merwin powerhouse to allow fish trapping operations at the Merwin Trap.

4.3 Merwin Upstream Collection and Transport Facility. By six months after the fourth anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall construct and provide for the operation of an adult trap and transport facility that shall collect, sort, and transport hatchery fish and upstream-migrating adult Transported Species (the "Merwin Upstream Transport Facility"). Initially, PacifiCorp shall provide for the transport of adult Transported Anadromous Species to above Swift No. 1 Dam. When the Yale Downstream Facility is built as provided in Section 4.5, PacifiCorp shall provide for the transport of Transported Anadromous Species collected at Merwin Dam to either Yale Lake or Swift Reservoir, as designated in the Upstream Transport Plan, until upstream adult collection and transport facilities are constructed at all of the Merwin, Yale, and Swift Projects. Once upstream adult collection and transport facilities are constructed at all of the Merwin, Yale, and Swift Projects, then PacifiCorp shall provide for the transport of adult Transported Anadromous Species collected at Merwin Dam to Lake Merwin. PacifiCorp shall provide for the transport of any bull trout collected below Merwin Dam to Yale Lake unless otherwise directed by USFWS. The Merwin Upstream Transport Facility shall be designed by PacifiCorp, to the extent feasible, to be compatible both with truck transport and with alternate modes of transport that may be selected pursuant to Section 4.1.8 above. When designing the Merwin Upstream Transport Facility, PacifiCorp shall consider a wide range of design options for the trap and transport facility, including, without limitation, (a) a complete new facility and (b) incorporation of the Merwin Trap (as upgraded) into the new design. PacifiCorp shall consider designs for the Merwin Upstream Transport Facility such that it would meet applicable performance standards regardless of the operational state of the hydroelectric generation facilities at Merwin Dam. PacifiCorp shall provide for the operation of the passage facility year-round for the remaining term of the New License for the Merwin Project. In Consultation with the Services, PacifiCorp shall provide for safe, timely, and effective handling of all species entering the Merwin Upstream Transport Facility. Species that will not be transported above Merwin Dam or destined for the Hatchery Facilities shall be returned to the Lewis River below Merwin Dam in a manner and frequency that adequately protects them (i.e., fall Chinook that are close to their spawning time may require different considerations than other species). PacifiCorp shall provide the 90% preliminary designs to the ACC by the first anniversary of the Issuance of the New License for the Merwin Project and shall follow the procedures set forth in Section 4.1.2. PacifiCorp shall submit final designs to the Commission upon approval by the Services, subject to Section 15.14, but not later than six months after the

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first anniversary of Issuance of the New License for the Merwin Project.

4.4 Downstream Transport at Swift No. 1 Dam.

4.4.1 Modular Surface Collector. By six months after the fourth anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, PacifiCorp shall construct and provide for the operation of a passage facility at the Swift No. 1 Dam, including a modular surface collector, to collect, sort, tag, and transport downstream-migrating Transported Species (the "Swift Downstream Facility"). PacifiCorp shall provide for the downstream transport of migrating Transported Anadromous Species to below Merwin Dam to a Release Pond (Section 4.4.3). Unless otherwise directed by USFWS, bull trout collected in the Swift Downstream Facility shall be transported to Yale Lake, except that bull trout with a smolt-like appearance, as determined by PacifiCorp (using methods devised in Consultation with the ACC), shall be transported to a location determined by USFWS below Merwin Dam. PacifiCorp shall Consult with the ACC concerning the precise location of the passage facility, which PacifiCorp shall incorporate into the design to be approved by the Services as provided in Section 4.1.2.

PacifiCorp shall provide for the tagging of a statistically valid sample of the fish transported as appropriate to accomplish the monitoring and evaluation objectives set forth in the M&E Plan (Section 9), the methodology of such tagging to be determined by the Licensees in Consultation with the ACC and approved by the Services. PacifiCorp shall provide for the operation of the passage facility for the remaining term of the New License for the Swift No. 1 Project.

PacifiCorp shall provide the 90% preliminary designs to the ACC by the first anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later. PacifiCorp shall submit final designs to the Commission upon approval by the Services, subject to Section 15.14, but not later than six months after the first anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later.

4.4.2 Spring Chinook Satellite Collection Facility. If NOAA Fisheries determines that the Swift Downstream Facility does not adequately collect juvenile spring Chinook, PacifiCorp, in Consultation with the ACC and with the approval of NOAA Fisheries, shall evaluate the behavior of the spring Chinook to determine why they are not being collected by the Swift Downstream Facility. If NOAA Fisheries concludes that the Swift Downstream Facility is not working because of fish behavior and that a different type of satellite passage facility has a reasonable likelihood of collecting spring Chinook, PacifiCorp, in Consultation with the ACC and with the final approval of the Services shall design and install the satellite passage facility. The design would be developed to minimize unacceptable incidental impacts to species other than spring Chinook.

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PacifiCorp, as part of the monitoring and evaluation plan to be developed pursuant to Section 9.2.1 below, shall develop and implement a plan to monitor the satellite facility effectiveness and its effects on species other than spring Chinook. Should NOAA Fisheries conclude, given the behavior of the spring Chinook, that another passage facility would not likely be successful, PacifiCorp shall continue to attempt to collect spring Chinook at the Swift Downstream Facility and shall make any further Facility Adjustments or Facility Modifications required by Section 4.1.6.

4.4.3 Release Ponds. By six months after the fourth anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, PacifiCorp, in Consultation with the ACC and with the final approval of NOAA Fisheries, subject to Section 15.14, shall design and construct stress release ponds below Merwin to be used for downstream migrating fish that are collected at the Swift Downstream Facility ("Release Ponds") (the same Release Ponds shall be used subsequently for fish collected at the Yale Downstream Facility or the Merwin Downstream Facility). To the extent practicable, the Release Ponds will be located downstream of Eagle Island to minimize interaction of the transported fish with wild fall Chinook. PacifiCorp shall Consult with the ACC concerning the precise locations of the Release Ponds, which shall become part of the design to be approved by NOAA Fisheries. PacifiCorp shall provide preliminary designs to the ACC by the first anniversary of the Issuance of the New License for the Swift No. 1 Project. PacifiCorp shall submit final designs to the Commission upon approval by NOAA Fisheries, subject to Section 15.14, but not later than six months after the first anniversary of the Issuance of the New License for the Swift No. 1 Project.

4.5 Downstream Passage at Yale Dam. Unless otherwise directed by the Services pursuant to Section 4.1.9, on or before the 13th anniversary of the Issuance of the New License for the Yale Project, PacifiCorp shall complete construction and provide for the operation of a passage facility or facilities at Yale Dam to collect, sort, tag, and transport downstream-migrating Transported Species (the "Yale Downstream Facility"). Specifically, PacifiCorp shall either construct a modular surface collector or, as directed by the Services, after discussion with the ACC, an alternate passage facility or set of facilities (which may include a scaled-down version of the modular surface collector), provided the detailed engineering estimate of the cost of such alternate facilities does not exceed the sum of the following: (1) the cost estimate for a modular surface collector based upon the detailed engineering designs of the Swift Downstream Facility modified to remove those features that are unique to the Swift facility due to its location, hydraulics, and topography (Adjusted for Inflation from the year on which the cost estimate is based), and (2) the cost estimate for features that are unique to the Yale or Merwin facilities, respectively, including, without limitation, location, hydraulics, and topography, based upon conceptual designs (Adjusted for Inflation from the year on which the cost estimate is based). PacifiCorp shall provide for the downstream transport of migrating Transported Species from Yale Lake to the Release Ponds below Merwin

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Dam.

Unless otherwise directed by the Services, after discussion with the ACC, PacifiCorp shall provide for the marking of all the juvenile anadromous salmonids collected by the Yale Downstream Facility until such time as the Yale Upstream Facility and the Swift Upstream Facility are completed, and shall provide for the tagging of a statistically valid sample of the fish transported as appropriate to accomplish the monitoring and evaluation objectives set forth in the M&E Plan (Section 9), the methodology of such tagging to be determined by the Licensee in Consultation with the ACC and approved by the Services. Bull trout collected in the Yale Downstream Facility shall be returned to Yale Lake unless otherwise directed by the USFWS, except that bull trout with a smolt-like appearance, as determined by PacifiCorp (using methods devised in Consultation with the ACC), shall be transported in the same manner as Transported Anadromous Species pursuant to Section 4.1.8 and shall be transported to a location determined by USFWS below Merwin Dam. PacifiCorp shall provide for the operation of the passage facility for the remaining term of the Yale New License unless at any time the Services, after discussion with the ACC, determine that operation of the Yale Downstream Facility should no longer be continued. If the Services make such determination after the passage facility has been operating, PacifiCorp shall notify the Commission of such decision. PacifiCorp shall provide 90% preliminary designs to the ACC on or before the ninth anniversary of the Issuance of the New License for the Yale Project. PacifiCorp shall submit final designs to the Commission upon approval by the Services, subject to Section 15.14, but not later than six months after providing preliminary designs to the ACC.

4.6 Downstream Passage at Merwin Dam. Unless otherwise directed by the Services pursuant to Section 4.1.9 above, on or before the 17th anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall construct and provide for the operation of a passage facility or facilities at Merwin Dam to collect, sort, tag, and transport downstream-migrating Transported Species (the “Merwin Downstream Facility”). Specifically, PacifiCorp shall construct either a modular surface collector or, as directed by the Services after discussion with the ACC, an alternate passage facility or set of facilities (which may include a scaled-down version of the modular surface collector), provided the detailed engineering estimate of the cost of such alternate facilities does not exceed the sum of the following: (1) the cost estimate for a modular surface collector based upon the detailed engineering designs of the Swift Downstream Facility modified to remove those features that are unique to the Swift facility due to its location, hydraulics, and topography (Adjusted for Inflation from the year on which the cost estimate is based), and (2) the cost estimate for features that are unique to the Yale or Merwin facilities, respectively, including, without limitation, location, hydraulics, and topography, based upon conceptual designs (Adjusted for Inflation from the year on which the cost estimate is based). PacifiCorp shall provide for the downstream transport of migrating anadromous juvenile and adult salmonids from Lake Merwin to the Release Ponds below Merwin Dam. Bull trout collected in the Merwin Downstream Facility shall

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be returned to Lake Merwin unless otherwise directed by USFWS; provided that bull trout with a smolt-like appearance, as determined by PacifiCorp (using methods derived in Consultation with the ACC), shall be transported in the same manner as Transported Anadromous Species pursuant to Section 4.1.8 and shall be transported to a location determined by USFWS below Merwin Dam. PacifiCorp shall provide for the tagging of a statistically valid sample of the fish transported as appropriate to accomplish the monitoring and evaluation objectives set forth in the M&E Plan (Section 9), the methodology of such tagging to be determined by the Licensees in Consultation with the ACC and approved by the Services. PacifiCorp shall provide for the operation of the passage facility for the remaining term of the Merwin New License unless the Services determine, after discussion with the ACC, that operation of the Merwin Downstream Facility should not continue. If the Services make such determination after the passage facility is operational, PacifiCorp shall notify the Commission of such decision. PacifiCorp shall provide 90% preliminary designs to the ACC on or before the 13th anniversary of the Issuance of the New License for the Merwin Project. PacifiCorp shall submit final designs to the Commission upon approval by the Services, subject to Section 15.14, but not later than six months after submission of preliminary designs to the ACC.

4.7 Upstream Passage at Yale Dam. Unless otherwise directed by the Services pursuant to Section 4.1.9 above, on or before the 17th anniversary of the Issuance of the New License for the Yale Project, PacifiCorp shall complete construction and provide for the operation of an adult trap and transport facility to collect, sort, and transport upstream-migrating adult Transported Species from Lake Merwin into Yale Lake the ("Yale Upstream Facility"), except that USFWS may direct that bull trout be transported to a different location. PacifiCorp shall provide for the operation of the passage facility for the remaining term of the Yale New License unless the Services later determine, after discussion with the ACC, that operation of the Yale Upstream Facility should not continue. If the Services make such determination after the passage facility is operational, PacifiCorp shall notify the Commission of such decision. PacifiCorp shall provide preliminary designs to the ACC on or before the 14th anniversary of the Issuance of the New License for the Yale Project. PacifiCorp shall submit final designs to the Commission upon approval by the Services, subject to Section 15.14, but not later than six months after providing preliminary designs to the ACC. The final design for the Yale Upstream Facility will address, if necessary based on the results of water quality monitoring pursuant to Section 9.4 below, temperature variations at the upper end of Lake Merwin arising from discontinuous operation of the Yale Project. If these facilities do not function as well to collect bull trout as the interim collection method based on effectiveness monitoring, as determined by USFWS, PacifiCorp shall continue the interim collection method established in Section 4.9.

4.8 Upstream Passage at the Swift Projects. Unless otherwise directed by the Services pursuant to Section 4.1.9 above, on or before the 17th anniversary of the Issuance of the

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New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, the Licensees shall complete construction and provide for the operation of an adult trap and transport facility at the single best site above Yale Lake, based on biological and hydrological factors, to collect, sort, and transport upstream-migrating adult Transported Species to above the Swift No. 1 Dam (the "Swift Upstream Facility"), except that USFWS may direct that bull trout be transported to a different location. The specific location of the Swift Upstream Facility shall be determined by PacifiCorp and Cowlitz PUD in Consultation with the ACC and with the approval of the Services, subject to Section 15.14, on or before the 12th anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later. The Licensees shall provide for the operation of the Swift Upstream Facility for the remaining terms of the New Licenses for the Swift No. 1 and Swift No. 2 Projects unless the Services determine, after discussion with the ACC, that operation of the Swift Upstream Facility should not continue. If the Services make such determination after the Swift Upstream Facility is operational, PacifiCorp and Cowlitz PUD shall notify the Commission of such decision. The Licensee that builds the Swift Upstream Facility shall provide 90% preliminary designs to the ACC on or before the 14th anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, including any engineering, hydraulic and biological information considered by the design team. The Licensee shall submit final designs to the Commission upon approval by the Services, subject to Section 15.14, but not later than six months after providing preliminary designs to the ACC. If these facilities do not function as well to collect bull trout as the interim collection method based on effectiveness monitoring, as determined by USFWS, PacifiCorp and Cowlitz PUD shall continue the interim collection method for collecting bull trout established in Section 4.9.

4.9 Interim Bull Trout Collection and Transport.

4.9.1 Collect-and-Haul Programs. Until the earlier of (a) operation of the Yale Upstream Facility and the Swift Upstream Facility or (b) alternative measures are implemented as provided under Section 4.9.2 below, and unless otherwise directed by USFWS, PacifiCorp shall implement the collect-and-haul programs at Yale tailrace and Cowlitz PUD and PacifiCorp shall implement the collect-and-haul program below Swift No. 2. A description of the collect-and-haul programs to be implemented below Swift No. 2 and at Yale tailrace is provided on attached Schedule 4.9.1. The operational practices at Yale included on Schedule 4.9.1 are not precluded by Section 4.1.6. PacifiCorp shall provide for the transport of bull trout collected at the Yale tailrace to Yale Lake. The Licensees shall provide for the transport of bull trout collected at Swift No. 2 to above Swift No. 1. Upon the request of and subject to approval by USFWS, the Licensees, in Consultation with the ACC, shall develop criteria, based on the latest research, to determine if, when, and where alternative release locations are needed. Any such alternative locations shall be accessible by transport truck or other mutually

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acceptable transportation system. At the direction of USFWS, the Licensees (PacifiCorp for the Yale tailrace, and PacifiCorp and Cowlitz PUD for below Swift No. 2) shall provide for the transport of bull trout to such alternative locations. Within 12 months from the Effective Date, and annually thereafter, the Licensees, in Consultation with the ACC and with the approval of USFWS, shall prepare a Bull Trout Collection and Transport Program outlining the manner of and schedule for bull trout collection and passage at Project facilities, incorporating as appropriate either (1) the collection method identified in this Section 4.9.1 and testing of alternative interim collection methods as provided in Section 4.9.2 below; or (2) an alternative collection method developed pursuant to Section 4.9.2. The Licensees may propose minor modifications to the program identified in Schedule 4.9.1 as part of the Bull Trout Collection and Transport Program. The Licensees shall not implement any modifications to the Bull Trout Collection and Transport Program until USFWS has approved those changes.

4.9.2 Investigation of Alternative Collection Methods. PacifiCorp and Cowlitz PUD with respect to the Swift No. 2 collect-and-haul program, and PacifiCorp with respect to the Yale collect-and-haul program, will investigate the use of alternative interim bull trout collection methods in Consultation with the ACC. Such methods may include, but are not limited to, fyke traps, Denil steep passes, seines, fish wheels, and other types of active and passive gear. Annual testing of alternative methods shall begin upon approval of the Bull Trout Collection and Transport Program described in Section 4.9.1, and shall continue until USFWS approves an alternate interim collection method or until operation of the Yale Upstream Facility and the Swift Upstream Facility. Within 90 days after each anniversary of the Effective Date, Licensees shall submit a draft report to the ACC evaluating alternative interim collection methods tested during the prior year. The Licensees shall provide the ACC 90 days to comment on the draft report. The Licensees shall finalize the report, responding to the comments of the ACC as required by Section 14.2.6. The Licensees shall submit a final report to the Commission within 180 days after sending out the report for comments.

If PacifiCorp (with respect to Yale) or PacifiCorp and Cowlitz PUD (with respect to Swift No. 2) identifies, as part of the annual reporting process, an alternative interim collection method that will more safely and effectively collect bull trout than the collection method in use at that time, and if USFWS concurs, then the collection method shall be modified. Cowlitz PUD and PacifiCorp shall, with respect to the Swift No. 2 collect-and-haul program, and PacifiCorp shall, with respect to the Yale collect-and-haul program, (1) within 180 days of submission of the report to the Commission, prepare a plan to implement such method in Consultation with the ACC and with the approval of USFWS, subject to Section 15.14, and the Commission; (2) implement such alternative method as soon as practicable after obtaining USFWS approval; and (3) continue to implement the alternative method until USFWS approves an alternate interim collection method or until operation of the Yale Upstream Facility and the Swift Upstream Facility.

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4.9.3 Yale and Merwin Bull Trout Entrainment Reduction. Immediately following the Effective Date, PacifiCorp shall design and implement a study to evaluate bull trout entrainment reduction methods for Yale and Merwin dams in Consultation with the ACC. Potential entrainment reduction methods include installation of exclusion devices, such as strobe lights, and installation of barrier nets with submersible cork lines and designed to accommodate a Merwin-type floating trap. Due to the small numbers of bull trout in Yale and Merwin, any evaluation of strobe lights will be performed in Swift Reservoir. Based upon its study, PacifiCorp shall prepare, in Consultation with the ACC, a draft entrainment reduction plan for the Yale Project. The plan would be developed to minimize unacceptable incidental impacts to bull trout or other species. PacifiCorp shall submit the draft plan to members of the ACC for comment within 16 months after completing the entrainment reduction study. PacifiCorp shall allow at least 45 days for members of the ACC to comment on the draft plan. PacifiCorp shall finalize the plan and obtain the approval of USFWS. PacifiCorp shall submit the final plan to the Commission upon approval by USFWS, subject to Section 15.14, but not later than the third anniversary of the Effective Date. PacifiCorp shall commence the approved entrainment reduction measures at Yale Dam within one year after the Issuance of the New License for the Yale Project, and shall maintain such measures until commencing operation of the Yale Downstream Facility. Upon the request of USFWS, PacifiCorp shall, in Consultation with the ACC and subject to the approval of USFWS, develop criteria to determine when similar entrainment reduction measures should be implemented at Merwin Dam. PacifiCorp shall submit the criteria to the Commission for approval after obtaining USFWS approval, subject to Section 15.14, within 12 months after the USFWS request for criteria. Once approved by the Commission, if and when such criteria are met PacifiCorp shall commence the same entrainment reduction measures approved for Yale at Merwin Dam, and shall maintain such measures until commencing operation of the Merwin Downstream Facility.

4.10 Bull Trout Passage in the Absence of Anadromous Fish Facilities.

4.10.1 Yale and Merwin Downstream Bull Trout Facilities. If, pursuant to Section 4.1.9, PacifiCorp does not build the Yale Downstream Facility described in Section 4.5, then PacifiCorp, on or before the 13th anniversary of the Issuance of the New License for the Yale Project, shall construct and provide for the operation of a downstream bull trout collection and transport facility in the Yale forebay (the "Yale Downstream Bull Trout Facility").

If, pursuant to Section 4.1.9, PacifiCorp does not build the Merwin Downstream Facility described in Section 4.6, then when USFWS determines that bull trout populations have increased sufficiently in Lake Merwin, but not sooner than the 17th anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall construct and provide for the operation of a passage facility similar to the Yale Downstream Bull Trout Facility at Merwin Dam (the "Merwin Downstream Bull Trout Facility").

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The Yale and Merwin Downstream Bull Trout Facilities shall be similar in magnitude and scale to modular floating Merwin-type collectors and are not intended to be passage facilities of the same magnitude and expense as the Yale Downstream Facility and the Merwin Downstream Facility described in Sections 4.5 and 4.6 (recognizing that monies shall be contributed to the In Lieu Fund described in Section 7 below in lieu of constructing those passage facilities). PacifiCorp shall provide for monitoring of performance as provided in Section 9, and make necessary and appropriate Facility Adjustments and Facility Modifications to the Yale and Merwin Downstream Bull Trout Facilities, in Consultation with the ACC and with approval of USFWS, to achieve relevant performance standards as provided in Section 4.1.4 above, provided that such modifications shall not require installation of a different type of passage facility. PacifiCorp shall provide preliminary (30%) designs to the ACC for the Yale and Merwin Downstream Bull Trout Facilities within 12 months after the Services' determination under Section 4.1.9. PacifiCorp shall follow the provisions in Sections 4.1.1 through 4.1.3 when developing designs for the facilities. Pursuant to Section 15.14, PacifiCorp shall submit final designs to the Commission upon approval by USFWS, subject to Section 15.14, but not later than 60 days after submission of the final design to USFWS.

4.10.2 Yale and Swift Upstream Bull Trout Facilities. If (1) pursuant to Section 4.1.9, the Licensees do not build the Swift Upstream Facility, and (2) USFWS determines on or before the 13th anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, that collect-and-haul methods established under Section 4.9.1 or 4.9.2 are not meeting bull trout performance standards provided in Section 4.1.4, then on or before the 17th anniversary of the Issuance of the New License for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, the Licensees shall complete construction of and provide for the operation of alternate passage facilities (the "Swift Upstream Bull Trout Facility").

If (1) pursuant to Section 4.1.9, PacifiCorp does not build the Yale Upstream Facility, and (2) USFWS determines on or before the 17th anniversary of the Issuance of the New License for the Yale Project that collect-and-haul methods established under Section 4.9.1 or 4.9.2 are not meeting bull trout performance standards provided in Section 4.1.4, then on or before the 17th anniversary of the Issuance of the New License for the Yale Project PacifiCorp shall complete construction of and provide for the operation of alternate passage facilities (the "Yale Upstream Bull Trout Facility").

The Yale and Swift Upstream Bull Trout Facilities are not intended to be passage facilities of the same magnitude and expense as the Yale Upstream Facility and the Swift Upstream Facility described in Sections 4.7 and 4.8 (recognizing that monies shall be contributed to the In Lieu Fund described in Section 7 below in lieu of constructing those passage facilities). PacifiCorp (for Yale) and the Licensees (for Swift No. 2) shall select an alternative passage facility design for the Yale and Swift Upstream Bull Trout

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Facilities, in Consultation with the ACC and with the approval of USFWS, and PacifiCorp (for Yale) and the Licensees (for Swift No. 2) shall construct and provide for the operation of such passage facilities for the remaining term of the respective New Licenses. The Licensees shall follow the provisions of Sections 4.1 through 4.1.3 as applicable when developing designs for the facilities.

PacifiCorp shall monitor performance of the Yale Upstream Bull Trout Facility as provided in Section 9, and make necessary and appropriate Facility Adjustments and Facility Modifications to the Yale Upstream Bull Trout Facility pursuant to Section 4.1.6. The Licensees shall monitor performance of the Swift Upstream Bull Trout Facility as provided in Section 9 and make Facility Adjustments and Facility Modifications pursuant to Section 4.1.6 to the Swift Upstream Bull Trout Facility.

SECTION 5: ADDITIONAL AQUATIC MEASURES

5.1 Yale Spillway Modifications. PacifiCorp shall design, permit, and construct improvements to the Yale spillway by six months after the fourth anniversary of the Issuance of the New License for the Yale Project to improve fish survival over the spillway during spill events. PacifiCorp shall design the improvements in Consultation with the ACC and shall provide preliminary designs to the ACC within six months after Issuance of the New License for the Yale Project. PacifiCorp shall provide the ACC with 60 days to review and comment on the preliminary design. Pursuant to Section 15.14, the Licensee shall submit final designs to the Commission upon approval by the Services, but not later than the first anniversary of the Issuance of the New License for the Yale Project.

5.2 Bull Trout Habitat Enhancement Measures. The Licensees have conservation covenants for the protection of bull trout habitat and shall manage such Interests In Land as provided in Section 10.6. PacifiCorp shall manage the Cougar Creek Conservation Covenant (defined in Section 10.6.2) to benefit bull trout conservation by conducting no management actions within the covenant area with the exception of actions taken pursuant to Section 10.6 to protect bull trout. Cowlitz PUD shall manage the Devil's Backbone Conservation Covenant (defined in Section 10.6.1) in perpetuity to benefit bull trout consistent with the Declaration of Conservation Covenant recorded in Skamania County on June 11, 2003 and filed with the Commission on June 16, 2003.

5.3 [RESERVED]

5.4 [RESERVED]

5.5 Bull Trout Limiting Factors Analysis. By the second anniversary of the Effective Date, PacifiCorp shall provide a limiting factors analysis for bull trout occurring in Lake Merwin tributary streams and Swift Reservoir tributary streams and finalize this evaluation in Consultation with the ACC. If the Licensees, in Consultation with the

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ACC and with the approval of USFWS, determines that one or more locations have the potential to provide long-term, sustainable habitat for critical life stages of bull trout, the ACC may implement enhancement measures through the use of the Aquatics Fund as described in Section 7.5 below.

5.6 Public Information Program to Protect Listed Anadromous Species. PacifiCorp shall consider requests from the Services to create signs and educational materials to inform the public of efforts to reintroduce and protect listed anadromous fish to the Lewis River above Merwin Dam. Such materials, if created, will be included in the I&E Program described under Section 11.2.5 below.

5.7 Public Information Program to Protect Bull Trout. The Licensees shall undertake the following public information actions for each Project within six months after Issuance of the New License for that Project to further public understanding of bull trout:

5.7.1 Signage. PacifiCorp shall, during the term of its New License for each Project, provide informational signs at established angler access areas on land that PacifiCorp owns or leases, describing bull trout and the need to protect this species. Cowlitz PUD shall provide one informational sign, during the term of the New License for the Swift No. 2 Project, at the Swift No. 2 power canal bank fishing facility described in Section 11.3.1 below, describing bull trout and the need to protect this species.

5.7.2 Flyers. PacifiCorp shall, during the terms of the New Licenses, provide flyers at each of PacifiCorp's park entrance booths describing bull trout and the need to protect the species. The Licensees shall provide such flyers to WDFW and USFWS enforcement personnel to be distributed during public contacts.

SECTION 6: FLOW RELEASES FOR FISH AND OTHER AQUATIC SPECIES

6.1 Flow Releases in the Bypass Reach; Constructed Channel. The Licensees shall provide flow releases to the reach of the Lewis River downstream of Swift No. 1 ending at Yale Lake, which parallels the Swift No. 2 canal (the "Bypass Reach"), for the duration of each New License subject to the terms and limitations in this Section 6.1. The Licensees shall not be required to schedule flow releases in any year that exceeds, in the aggregate for that year, 55,200 acre-feet (55,349 acre-feet in each leap year) (the "Annual Release Quantity"). These amounts are sufficient to supply the flows described in Section 6.1.3(g) below. The Licensees shall release the Annual Release Quantity at the following two release points (the "Release Points"):
(a) from and as measured at the outflow from a water delivery structure to be constructed at the upstream end of the Bypass Reach (such water delivery structure being referred to as the "Upper Release Point"); and (b) to a constructed channel described in Section 6.1.3 below (defined in Section 6.1.3(a) as the "Constructed Channel") from and as measured

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at the existing canal drain (the "Canal Drain") that is located approximately one-third the length of the canal downstream of the Swift No. 1 tailrace. The monthly schedule of flow releases from these two Release Points are together referred to as the "Combined Flow Schedule," which shall be determined as provided in Section 6.1.4 below.

6.1.1 Commencement of Flow Releases from the Canal Drain. The Licensees shall commence flow releases from the Canal Drain at the time that Swift No. 2 reconstruction is complete. Prior to completion of the Upper Release Point, the Licensees shall only be obligated to release the maximum discharge from the Canal Drain, without modification, estimated to be 47 cfs.

6.1.2 Construction of Upper Release Point. The Licensees shall determine the location to construct the Upper Release Point and shall design the necessary Project modifications to deliver water at the upstream end of the Bypass Reach by the first anniversary of the Effective Date. The Licensees shall commence construction of the Upper Release Point within six months after Issuance of the New Licenses for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, and all required Interests in Land and Permits have been obtained, and shall complete construction as soon as practicable.

6.1.3 Constructed Channel.

a. Swift Bypass Habitat Channel Reconnaissance Study. The Licensees, in Consultation with the Parties, have commissioned a study, conducted by Northwest Hydraulic Consultants, Inc., dated December 9, 2003, entitled "Swift Bypass Habitat Channel Reconnaissance Study" (the "Feasibility Report"), attached as Schedule 6.1.3, concerning the biological and technical feasibility of developing a constructed channel in the Bypass Reach downstream of the Swift No. 2 Canal Drain. The purpose of such a channel is to maximize the biological benefits of Canal Drain flows and to enhance connectivity with Yale Lake (the channel to be built and any measures undertaken in the lower Bypass Reach to connect that channel to Yale Lake shall be referred to collectively in this Agreement as the "Constructed Channel").

b. Funding for the Constructed Channel. The Licensees shall provide funds in a Tracking Account for the construction of the Constructed Channel, including the costs of design, Permitting, construction, and the acquisition of necessary Interests in Land (the "Construction Costs"), subject to the cost limitations provided below. Costs shall be shared by Licensees as follows: Cowlitz PUD shall fund or cause to be funded Construction Costs in an amount not to exceed $182,000; PacifiCorp shall fund Construction Costs in an amount not to exceed $818,000. In the event total Construction Costs are less than $1 million: (a) PacifiCorp shall make its portion of the remaining funds available (as Adjusted for Inflation until spent) for needed restoration or maintenance of the Constructed Channel beginning in year 19 after the Issuance of the

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New License for the Swift No. 1 Project; and (b) Cowlitz PUD shall make or cause to be made its portion of the remaining funds available (as Adjusted for Inflation until spent) for needed restoration or maintenance of the Constructed Channel beginning in year 21 after the Issuance of the New License for the Swift No. 2 Project. After PacifiCorp and Cowlitz PUD make such funds available, the funds shall be used for purposes of the Constructed Channel prior to the use of the other Aquatics Funds to support the Constructed Channel. The Licensees shall keep the ACC informed as to the progress of construction and shall notify the ACC within four working days after the Licensees determine that costs are likely to exceed $1 million. If before or after construction begins, the Licensees expect the Construction Costs to exceed $1 million, the Licensees shall inform the ACC and the ACC must decide whether to proceed, consistent with subsection (c) below, and draw the additional funds required from the Aquatics Fund or from other supplemental funds as may be available. If the ACC decides to proceed, all costs associated with the Constructed Channel in excess of $1 million, including, but not limited to, construction, operational, and maintenance costs, shall be funded through the use of the Aquatics Fund (Section 7.5). Should the Constructed Channel be built, in no event shall more than $20,000 per year on average be expended from the Aquatics Fund for maintenance of the Constructed Channel. The Parties other than the Licensees may pay such costs from third party funds that may be available to those Parties in lieu of using monies from the Aquatics Fund.

c. Channel Design and Cost Estimate. The Licensees, in Consultation with the ACC, shall complete a design for the construction and maintenance of the Constructed Channel, including the estimated cost of such construction and maintenance, consistent with the findings of the Feasibility Report as soon as practicable after the Effective Date. The design shall include any modifications to the lower Bypass Reach that are required to connect the channel to Yale Lake. The Licensees shall provide the ACC with a period of 90 days after receipt of the design from the Licensees to either approve the design or provide comments and suggestions for changes to the design. Following receipt of any comments and suggestions, the Licensees shall review and revise the design for the Constructed Channel and provide the revised design to the ACC for approval. Alternatively, the ACC (other than the Licensees), with the concurrence of the CIT and Yakama Nation, may determine at that time that the Constructed Channel should not be built. If the WDOE requires Licensees to build the Constructed Channel as a condition of the 401 Certifications for either or both of the Swift No. 1 and Swift No. 2 Projects, and if the ACC later decides, with the concurrence of the CIT and the Yakama Nation, that the Constructed Channel should not be built, then at the time of such decision by the ACC, any Party may object to such 401 Certification requirement as being Inconsistent with this Agreement and such Inconsistency shall be resolved in accordance with Section 15 below.

d. Permitting and Construction. The Licensees shall obtain necessary Permits as soon as practicable following design approval by the ACC. The Licensees shall Consult

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with the ACC concerning construction contracts and methods to build the Constructed Channel. The Licensees shall commence and complete construction of the Constructed Channel as soon as practicable after the construction of the Upper Release Point is complete and all required Interests in Land and Permits have been obtained.

e. Maintenance of the Constructed Channel. Licensees shall inspect the Constructed Channel at least once annually to determine whether maintenance may be required. After Consultation with the ACC, and using maintenance funds described in subsection b, above, the Licensees shall perform such maintenance as is determined to be necessary.

f. Flow Releases if Constructed Channel Is Not Constructed. If the Constructed Channel is not constructed pursuant to Section 6.1.3.c, the Licensees shall implement the Annual Release Quantity pursuant to the Combined Flow Schedule provided under Section 6.1.4 below; provided that the Licensees, upon the recommendation of the ACC, may allocate all of the Combined Flow Schedule to the upstream end of the Bypass Reach.

g. Flow Releases During Construction of Channel. During the construction of the Constructed Channel, the Licensees shall suspend discharges from the Canal Drain to facilitate construction activities. Licensees shall salvage fish during the dewatering of the channel, and any third-party cost associated with such efforts will be part of the cost of the Constructed Channel. During construction of the Constructed Channel, discharges from the Upper Release Point will conform to the following schedule, consistent with the conditions described in Section 6.1.5:

(i) July 1 through October 31, 60 cfs.
(ii) November 1 through January 31, 100 cfs.
(iii) February 1 through June 30, 75 cfs.

6.1.4 Interim Flow Schedule; Combined Flow Schedule.

a. On or before the date the Constructed Channel and the Upper Release Point are both operational, the Licensees shall, in Consultation with and with the approval of the ACC, design an Interim Combined Flow Schedule that shall (1) allocate the Annual Release Quantity by month for a complete twelve-month period; (2) allocate the monthly quantities between the Upper Release Point and the Canal Drain for a complete twelve-month period, and; (3) provide for flow releases that remain unchanged during any given month, but may vary from month to month subject to the conditions in Section 6.1.5. The Licensees shall implement the Interim Combined Flow Schedule when both the Constructed Channel and the Upper Release Point are operational, continuing until replaced by the Combined Flow Schedule. The Licensees shall, during the following twelve months (the “Adjustment Period”), in Consultation with and with the approval of

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the ACC, make periodic adjustments to the Interim Combined Flow Schedule based on observation of discharges in the Constructed Channel and related biological considerations. Any such changes will conform to the conditions described in Section 6.1.5 below.

b. During the final months of the Adjustment Period, the Licensees shall, in Consultation with and with the approval of the ACC, based on the experience and observations during the Adjustment Period, design a Combined Flow Schedule that shall

(1) allocate the Annual Release Quantity by month; (2) allocate the monthly quantities between the Upper Release Point and the Canal Drain for a complete twelve month period; and (3) provide for flow releases that remain unchanged during any given month, but may vary from month to month, all subject to the conditions in Section 6.1.5. The Licensees shall implement such Combined Flow Schedule on or before the first anniversary of the date that the Constructed Channel and the Upper Release Point are both operational or approval of the ACC, whichever is later. The Combined Flow Schedule shall remain fixed for the duration of each New License, unless altered as described in Section 6.1.4.c below.

c. The Combined Flow Schedule shall remain substantially unchanged during the New Licenses' terms; provided that, in response to significant physical changes in the channel (e.g., due to major spill events) or changes in biological priorities (e.g., species reintroduction or changes in species status), the Licensees, with the approval of the ACC, shall make changes to the Combined Flow Schedule based on clearly articulated biological or ecological justifications; provided further, however, that any such changes shall comply with the conditions in Section 6.1.5. The Licensees shall not be required to revise the Combined Flow Schedule pursuant to this subsection (c) more frequently than once every five years, except in response to a significant physical alteration of the Constructed Channel due to spill events. The Parties other than the Licensees may not require any change to the Combined Flow Schedule in a manner that necessitates physical modification to the Projects or related facilities, including, but not limited to, modification of the Upper Release Point or the Canal Drain, or require additional Permits. The Licensees shall implement the revised Combined Flow Schedule no later than twelve months after the written approval by the ACC of such change.

6.1.5 Conditions on Combined Flow Schedule.

a. The Annual Release Quantity as scheduled for a given calendar year shall not constrain the Licensees' ability to spill water at Swift No. 1 and at the Swift No. 2 Canal during high flow events, for operational reasons, or during emergency circumstances; however, water spilled during such events shall not be charged against the Annual Release Quantity; provided that such spill may be counted to the extent that it displaces scheduled releases from the Upper Release Point, but shall not be counted toward nor

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displace scheduled releases from the Canal Drain. During the time that spills displace scheduled releases from the Upper Release Point, the Licensees may in their discretion stop releases through the Upper Release Point;

b. No more than a total of 17,078 acre-feet of the Annual Release Quantity (equivalent to an average of 70 cfs for the four-month period) may be scheduled during the period July 1st through October 31st, inclusive, and the maximum Combined Flow Schedule for those months shall not exceed 80 cfs in any month during the period July 1st through October 31st;

c. During the period from November 1st through June 30th, the maximum Combined Flow Schedule in each month shall not exceed 100 cfs;

d. The maximum flow that may be scheduled for release from the Canal Drain to the Constructed Channel shall be the maximum discharge capacity of the Canal Drain, without modification, estimated to be 47 cfs; and

e. No portion of the Annual Release Quantity may be credited to a later year or otherwise carried over from year to year. All of the Annual Release Quantity shall be scheduled for release during each year.

6.1.6 Response to Flow Reductions or Interruptions. The Parties intend that the Combined Flow Schedule, once established, shall be implemented throughout the terms of the New Licenses, without interruption. Certain events may cause the flow to be reduced or interrupted at either the Canal Drain or the Upper Release Point. The Licensees shall deal with such reductions or interruptions in flow as follows:

a. If a non-emergency maintenance or replacement of release point facilities is required, and such activities could decrease or interrupt scheduled releases, the Licensees shall notify the Services, WDFW, and the ACC as far in advance as practicable. The Licensees shall utilize temporary replacement facilities (e.g., pumps, siphons) for the period of potential flow reduction or interruption to maintain release of scheduled amounts of water.

b. If emergency maintenance or replacement of release point facilities is required, or if any other event of Force Majeure occurs, and such activities or such event will decrease or interrupt scheduled releases, the Licensees shall notify the Services, WDFW, and the ACC as soon as practicable. The Licensees shall utilize temporary replacement facilities (e.g., pumps, siphons) for the period of potential flow reduction or interruption to maintain release of scheduled amounts of water to the extent practicable under such emergency or Force Majeure conditions. The Licensees shall take action to maintain or replace the release point facilities and to restore their normal operation as soon as is practicable.

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c. On or before the date that the Licensees begin delivering flows from the Upper Release Point under this Section 6.1, the Licensees shall prepare and deliver to the Services, WDFW, and the ACC plans for expeditious installation and operation of temporary replacement facilities for delivery of flows from the Canal Drain and Upper Release Point, respectively, to avoid or minimize reductions or interruptions in flow to the extent practicable under the circumstances described in paragraphs (a) and (b) above.

d. If under paragraphs (a) and (b) above, discharge is reduced or interrupted at either release point, the Licensees shall document the duration (in days or hours), rate (in cfs), and volume (in acre-feet) of flow reduction to the extent practicable, and shall provide such documentation to the Services, WDFW, and the ACC.

6.1.7 Clean Water Act Certification. WDFW shall support the Annual Release Quantity and Combined Flow Schedule described in this Section 6.1 (with or without the Constructed Channel) by filing supporting comments and recommendations with WDOE. WDFW further agrees that the Annual Release Quantity and Combined Flow Schedule are consistent with WDFW's biological and other objectives. The Licensees' applications for Clean Water Act certifications may or may not include reference to the Constructed Channel. A decision by the respective Licensees to not include the Constructed Channel in Licensee applications for 401 Certifications shall not discharge Licensee obligations to construct the Constructed Channel in accordance with Section 6.1.3, including the obligation to obtain necessary Permits. All Parties shall support or not oppose the Licensees' applications for Clean Water Act certifications, or the final certificates, relating to flows in the Bypass Reach that are consistent with this Section 6.1.

6.2 Flow Fluctuations Below Merwin Dam. Commencing upon Issuance of the New License for the Merwin Project, PacifiCorp shall implement the following operational regimes at Merwin Dam for the duration of the New License for the Merwin Project.

6.2.1 Ramping Rates Below Merwin Dam. All flow rates and Ramping rates described in this Section 6.2.1 shall be measured at the Ariel gage. "Ramping" means those Project-induced increases ("up-Ramping") and decreases ("down-Ramping") in river discharge and associated changes in river surface elevation over time below Merwin Dam caused by Project operations or for Project maintenance. Ramping rate is the rate of change in stage resulting in regulated discharges. Ramping rates in this Agreement are stated in inches or feet of change in the surface elevation of the river per hour. Restrictions on Ramping shall not apply to (a) changes in flows due to natural increases or decreases in tributary input or surface runoff occurring entirely in the reach between Merwin Dam and the Ariel gage (such as changes caused by snowmelt or rain events), (b) PacifiCorp's operations to comply with high runoff procedures, or (c) PacifiCorp's response to emergency conditions related to an imminent threat to life or property. PacifiCorp shall limit the up-Ramping rate to 1.5 feet per hour below Merwin Dam for all

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periods when flows below Merwin Dam are at or less than hydraulic capacity of the Merwin Project turbines. PacifiCorp shall limit the down-Ramping rate to 2 inches per hour below Merwin Dam for all periods when flows below Merwin Dam are at or less than 8,000 cfs; except that during the period from February 16 through June 15, no down-Ramping shall occur (1) commencing one hour before sunrise until one hour after sunrise and (2) commencing one hour before sunset until one hour after sunset. PacifiCorp shall perform down-Ramping as gradually as practicable and shall avoid up-Ramping fluctuations during down-Ramping periods, to the extent practicable.

6.2.2 Plateau Operations at Merwin Dam. PacifiCorp shall further restrict daily fluctuation in flows below Merwin during the period of February 16 through August 15 of each year by maintaining flow plateaus (periods of near-steady discharge) as provided in this Section 6.2.2. Once a flow plateau is established, PacifiCorp shall maintain the flow plateau for as long a duration as practicable, but flow plateaus may be altered to a new level as a result of changes in natural flow or operational demands on the Lewis River power system, subject to the limitations of this Section 6.2.2. If any Party questions the duration of flow plateaus, they may request a meeting with appropriate PacifiCorp staff to review the information PacifiCorp used in determining when Plateau Steps were required. PacifiCorp shall cooperate in providing necessary information about and explanation of the actions taken. PacifiCorp shall limit changes in flow plateaus during the period of February 16 through August 15 as provided in (a) and (b) below:

a. Plateau Steps. For the purposes of this Agreement, a “Plateau Step” shall be defined to be down-Ramping in flow below Merwin that would result in a change in river elevation of more than 0.2 (2/10) foot at the Ariel gage. A single Plateau Step event will begin when the elevation drops by more than 0.2 (2/10) foot and be deemed complete when (i) the elevation rises by more than 0.2 (2/10) foot or (ii) does not change by more than plus or minus 0.2 (2/10) foot for more than 6 hours. Down-Ramping that results in changes in river elevation of less than or equal to 0.2 (2/10) foot shall not be considered a Plateau Step and will not be included in the accumulated total of Plateau Steps, provided that down-Ramping that results in a change of more than 0.2 (2/10) foot in any six-hour period will be considered a Plateau Step. Plateau Steps shall be limited to no more than one change in any 24-hour period, no more than 4 in any seven-day period, and no more than six in any calendar month. If PacifiCorp is required to release flows from Merwin Dam pursuant to the high runoff procedure, then for each such release pursuant to the high runoff procedure, down-Ramping to return to a level maintained for more than 6 hours without decreasing river elevation by more than 0.2 (2/10) feet shall not be counted as a Plateau Step. During flood season, if there is less than 5 feet of storage capacity in addition to the required 17 feet of storage capacity under the high runoff procedure, then the first down-Ramping after each flow release to restore the storage capacity shall not count as a Plateau Step. If PacifiCorp uses more than a single release episode to reach or exceed 22 feet of storage capacity, only the down-Ramping after the first such release

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shall not count as a Plateau Step; the subsequent down-Rampings shall be counted as Plateau Steps. Finally, if PacifiCorp is asked to lower flows below Merwin Dam for public safety reasons or to facilitate aquatics studies, such changes in river level shall not be counted as Plateau Steps.

b. Plateau Changes. An accumulation of Plateau Steps will result in a "Plateau Change" as further defined in this Section. PacifiCorp shall limit Plateau Changes to no more than 20 during the period February 16 through August 15. When flows are greater than or equal to 3,500 cfs below Merwin Dam, a Plateau Change shall occur when any series of consecutive Plateau Steps totals 1 foot of down-Ramping between February 16 through August 15. Any periods of up-Ramping during such period shall be ignored in such calculations. When flows are less than 3,500 cfs below Merwin Dam, a Plateau Change shall mean a series of consecutive Plateau Steps, during the period February 16 through August 15, totaling 0.5 (5/10) foot. Any periods of up-Ramping during such period shall be ignored in such calculations. If a single Plateau Step in a series would cause the total to exceed one foot (when flows are greater than or equal to 3,500 cfs) or one-half foot (when flows are less than 3,500 cfs), the excess shall be counted toward the next Plateau Changes. If a Plateau Step begins when flows are greater than 3,500 cfs and ends when flows are less than 3,500 cfs, the Plateau Change will be determined by adding the fractions of a Plateau Change occurring before and after the river discharge below Merwin Dam passes 3,500 cfs. For example, if a Plateau Step begins when flows are at 5,000 cfs and has measured 6 inches when flows reach 3,500 cfs (one-half of a Plateau Change for flows above 3,500 cfs) and continues to decline an additional 3 inches ending at 3,000 cfs (one-half of a Plateau Change for flows below 3,500 cfs), it would count as one full Plateau Change.

6.2.3 Stranding Study and Habitat Evaluation. By the third anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall complete a stranding study and a habitat evaluation study below Merwin Dam to assess the potential effects of Project operations on steelhead, coho salmon, Chinook salmon, and chum salmon, and their habitats. The total cost to complete both the study and evaluation is estimated to be $300,000. PacifiCorp shall develop the stranding study objectives in Consultation with the ACC, with final approval by NOAA Fisheries and USFWS. The stranding study shall identify measurable factors affecting potential stranding, the relationship of such factors to each other, and the timeframe and season within which stranding may occur. The habitat evaluation study shall evaluate spawning and rearing habitat from Merwin Dam to the downstream end of Eagle Island across a range of minimum flow operational conditions. The design of the study and evaluations shall be limited to the objectives developed above, must be operationally implementable, and any operational changes implemented for the study and evaluation shall not be considered a breach of any other operational restrictions provided in this Agreement, e.g., shall not be considered a Plateau Change under Section 6.2.2. Based upon the results of the study and evaluation, the ACC may recommend to PacifiCorp, subject to the approval of NOAA

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Fisheries and USFWS, measures to minimize or mitigate stranding of salmonids below Merwin Dam. Such measures may include minor adjustments to instream flow levels, or minor adjustments to Merwin Project operations to address Project impacts below Merwin Dam. PacifiCorp shall consider any suggested adjustments to operations and flows of the Project, and shall make reasonable, good faith efforts to address such recommendations. In so doing, PacifiCorp should consider impacts on operational benefits of the Project, including, but not limited to, flood management, power generation, and recreational uses. If PacifiCorp determines not to implement the recommendations, because there would be significant impact on Project benefits, the ACC may elect to mitigate the impacts shown by the study and evaluation by development of habitat enhancement projects through the use of the Aquatics Fund.

6.2.4 Minimum Flows Below Merwin Dam. PacifiCorp shall provide the following minimum flows below Merwin Dam during the following time periods, subject to the limitations and requirements provided in Section 6.2.5: (1) July 31 through October 15, 1,200 cfs; (2) October 16 through October 31, 2,500 cfs; (3) November 1 through December 15, 4,200 cfs; (4) December 16 through March 1, 2,000 cfs; (5) March 2 through March 15, 2,200 cfs; (6) March 16 through March 30, 2,500 cfs; (7) March 31 through June 30, 2,700 cfs; (8) July 1 through July 10, 2,300 cfs; (9) July 11 through July 20, 1,900 cfs; and (10) July 21 through July 30, 1,500 cfs. The above flows and timing were designed for the purpose of the maintaining and enhancing species downstream of Merwin Dam, including native fall Chinook. The preceding sentence shall not modify or be used to modify the obligations stated in this Section 6.2.4.

6.2.5 Low Flow Procedures. During years when PacifiCorp projects that sufficient water will not be available to appropriately balance the respective needs of fishery resources, recreation, flood management, and power production, PacifiCorp shall convene a Flow Coordination Committee (the "FCC") consisting of representatives from PacifiCorp, NOAA Fisheries, USFWS, WDFW, the CIT, and the Yakama Nation. PacifiCorp shall provide the FCC with relevant information, and the FCC shall independently evaluate available data regarding water availability during the projected low flow period and decrease or maintain the minimum flows levels provided in Section 6.2.4 as it deems appropriate. PacifiCorp shall maintain minimum flow levels provided in Section 6.2.4 unless such levels are temporarily decreased by Consensus of the FCC members; provided that if there is an impasse, determinations shall be made by a majority of the agency members of the FCC. Changes requested by the FCC shall not require PacifiCorp to violate its agreement with FEMA concerning high runoff management, as described in Section 12. The FCC shall consider the following interests in modifying minimum flow levels (the order of listing is not intended to indicate priority): (1) the needs of fish species, with a priority on ESA-listed species, including, without limitation, consideration for keeping redds watered, providing rearing habitat for wild fall Chinook, and pulse flows to assist in migration of juvenile fish if such pulse flows are shown to be effective; (2) the need to provide flood management benefits for down river areas; and (3)

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the desire to refill all Project reservoirs to achieve a combined target of 5 feet of available reservoir storage capacity by July 1, and a target of 15 feet of reservoir storage by Labor Day (to provide reasonable recreation uses between Memorial Day and Labor Day). The Counties and cities that are signatories to this Agreement may designate a local government liaison to the FCC. The liaison's purpose is to encourage communication between the FCC and local governments. PacifiCorp shall notify the local governments' liaison (a) when the FCC will be convened and (b) the general content of the agenda. The liaison may provide written comments to the FCC for its consideration.

SECTION 7: AQUATIC HABITAT ENHANCEMENT ACTIONS

7.1 Large Woody Debris Program. From the Effective Date until superseded as set forth below, PacifiCorp shall continue its current large woody debris ("LWD") program pursuant to a Hydraulic Project Approval ("HPA") from the State of Washington, attached as Schedule 7.1.

Within 180 days after the Issuance of the New License for the Swift No. 1 Project, the provisions of the current HPA from the State of Washington that are related to LWD shall be superseded by the provisions of this Section 7.1 and PacifiCorp shall apply for a new HPA consistent with this Section 7.1. The provisions of this Section 7.1 shall constitute the LWD management plan during the term of the New License for the Swift No. 1 Project. After Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall, in Consultation with the ACC, place LWD as such LWD is collected from the Swift Reservoir by PacifiCorp as part of its normal operations, into a fenced and locked storage area within the Lewis River Basin. The ACC may advise PacifiCorp of the type and quantity of LWD that is to be stored, considering anticipated habitat improvement projects in the coming years and anticipated frequency of the salvage efforts that it desires for habitat improvement purposes. PacifiCorp shall maintain the secure storage area for the duration of the New License for the Swift No. 1 Project, and provide reasonable access on business days to members of the ACC. Entities authorized by PacifiCorp (including ACC members) may pick up, transport, and place LWD for the purpose of restoring aquatic habitat in the Lewis River Basin. LWD may not be placed in or near any Project reservoir, forebay, canal, or other facility without the Licensee's approval. This does not preclude placing LWD in the Constructed Channel or elsewhere in the Bypass Reach.

7.1.1 Funding. Within 180 days after Issuance of the New License for the Merwin Project and annually thereafter, PacifiCorp shall make available in a Tracking Account up to $2,000, which may be disbursed to qualified entities to defray the costs of LWD transportation and placement in the Lewis River Basin (the "LWD Fund"). The unspent balance of the LWD Fund in any year shall be carried forward and made available in subsequent years, in addition to the annual amount of $2,000. In addition, within 180 days after Issuance of the New License for the Merwin Project and annually thereafter,

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PacifiCorp shall contribute $10,000 to the Aquatics Fund (Section 7.5) that will be earmarked for LWD projects in the mainstem of the Lewis River below Merwin Dam that benefit anadromous fish. If there are not sufficient LWD projects, or if the LWD program is suspended as provided in Section 7.1.4 below, PacifiCorp, at the request of the ACC, shall use the funds for other Aquatics Fund projects that benefit anadromous fish in the mainstem of the Lewis River below Merwin Dam and then for other projects in the Lewis River Basin below Merwin Dam. For any LWD project below Merwin Dam, PacifiCorp shall provide for the transportation of LWD at its own expense to a staging area provided by the entity or individual carrying out the project.

7.1.2 LWD Study. PacifiCorp shall contract with a qualified consulting firm, selected in Consultation with the ACC, to develop and implement an LWD study to identify and assess the potential benefits of LWD projects below Merwin Dam. The general scope of the study is described on attached Schedule 7.1.2, and the total cost to complete the study is estimated to be $60,000. PacifiCorp shall cause the consultant to submit a draft study plan to the ACC for review within 180 days after Issuance of the New License for the Merwin Project. The ACC may comment on the draft study plan within 60 days after receipt. PacifiCorp shall direct the consultant to finalize the study plan within 90 days after submission of the draft to the ACC, to complete the study, and to deliver the completed study to the ACC. If at any point PacifiCorp provides comments to the consultant during preparation of the LWD study, PacifiCorp shall provide to the ACC copies of the consultant's original drafts and PacifiCorp's comments.

7.1.3 [RESERVED]

7.1.4 Liability for LWD Program; Partial Suspension of LWD Program. Entities picking up, transporting, and placing LWD shall bear all costs (except as otherwise provided in Sections 7.1, 7.1.1, and 7.5), risks, and responsibility for such LWD activities, and shall acquire all Permits necessary for such activities. PacifiCorp may require such entities to provide evidence of adequate liability insurance or self-insurance capability as a condition to providing access to the LWD. The Parties do not intend that PacifiCorp's funding of LWD activities result in PacifiCorp becoming liable for the placing entities' actions or the consequences thereof. In the event, however, that any third party makes a claim against PacifiCorp arising out of such actions and PacifiCorp suffers a loss or losses in the aggregate amount of $500,000, PacifiCorp shall suspend the placement of LWD until such time as PacifiCorp's liability concerns have been addressed in a way that is mutually acceptable to the Parties (e.g., legislative immunity, indemnification by the placing entities). During any suspension of the LWD program, PacifiCorp shall continue to contribute $10,000 annually to the Aquatics Fund as provided in Section 7.1.1; however, PacifiCorp shall be relieved of its annual obligation to defray transport and placement expenses up to the amount of $2,000. PacifiCorp shall not have any obligation to store additional LWD during the period of suspension of the

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LWD program.

7.1.5 Surplus LWD; Reporting. PacifiCorp may use or dispose of in its sole discretion any LWD collected by PacifiCorp that is not placed in the storage sites under this Section 7.1 or that PacifiCorp, in Consultation with the TCC, determines is not needed for terrestrial habitat improvement projects. PacifiCorp shall include in its annual report under Section 14.2.6 information regarding (a) the quantity of LWD provided to the storage sites, and (b) the quantity of LWD sold by PacifiCorp to offset the cost of the LWD program, both (a) and (b) being described in truckloads, board-feet, or tons.

7.2 Spawning Gravel Study and Gravel Monitoring and Augmentation Plan.

a. Contracting with Consultant. Within six months after the Effective Date, PacifiCorp shall contract with a qualified consulting firm, selected in Consultation with the ACC, to develop and implement a spawning gravel study and, on the basis of the study results, to develop a gravel monitoring and augmentation plan.

b. Draft Study Plan. The general scope of the study is described on attached Schedule 7.2. PacifiCorp shall cause the consultant to submit a draft study plan to the ACC for review upon Issuance of the New License for the Merwin Project. In addition to any review by the ACC, PacifiCorp may provide input to the consultant when it is developing the plan, as long as PacifiCorp provides the ACC, prior to the ACC's 60-day review period, with the consultant's original drafts and PacifiCorp's comments. The ACC may comment on the draft study plan within 60 days after receipt.

c. Finalizing and Completing the Study and Preparing Study Report. PacifiCorp shall direct the consultant to finalize the study plan within 90 days after submission of the draft to the ACC, to complete the study, and to deliver a draft study report to the ACC. Prior to the submission of the draft study report to the ACC, PacifiCorp may provide input to the consultant, so long as PacifiCorp provides the consultant's original drafts of the study report and PacifiCorp's comments to the ACC along with the draft study report. The ACC shall have 60 days to comment on the draft study report. PacifiCorp shall Consult with the ACC on the draft study report. PacifiCorp shall direct the consultant to finalize the study report within 120 days after submission of the draft study report to the ACC. The study report will include the results of the study and a gravel monitoring and augmentation plan that describes gravel monitoring, the mechanism to determine when gravel augmentation will occur, and how gravel augmentation shall occur if the monitoring shows augmentation is necessary, during the term of the New License for the Merwin Project.

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d. Implementation of Gravel Monitoring and Augmentation Plan. PacifiCorp shall implement the gravel monitoring and augmentation plan. The monitoring and augmentation plan shall not require any augmentation that would increase the gravel levels beyond those existing on the date of the consultant's study.

7.3 Predator Study. By the 10th anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall conduct a one-time study of whether predation in Lake Merwin is likely to be a limiting factor to the success of the anadromous salmonid reintroduction. PacifiCorp shall design the study in Consultation with the ACC, with final approval by the Services. PacifiCorp shall provide the final study report to the ACC. PacifiCorp shall consult with the ACC regarding the findings of the final study report, and if the study determines that predation is likely to be a limiting factor to successful reintroduction of anadromous salmonids, PacifiCorp may identify steps that could be undertaken to control predation.

7.4 Habitat Preparation Plan. Within six months after the Effective Date, PacifiCorp shall develop a plan (the "Habitat Preparation Plan") in Consultation with the ACC to release live adult hatchery anadromous salmonids into Swift Reservoir, Yale Lake, and Lake Merwin for the purpose of preparing the habitat in those locations for the reintroduction of anadromous salmonids. The objective of the Habitat Preparation Plan will be to make possible (1) nutrient enrichment in the waters through decay of the adult hatchery fish and, (2) tilling of the gravel by the released hatchery adults as they attempt to spawn. The number, sex, and species of hatchery adult salmonids shall be determined as part of the Habitat Preparation Plan. PacifiCorp's performance obligation under the Habitat Preparation Plan shall be limited to placing live adult hatchery anadromous salmonids for a period of five years in each of Swift Reservoir, Yale Lake, and Lake Merwin, commencing in each case five years prior to expected completion of the downstream fish passage facility from that reservoir. PacifiCorp shall implement the Habitat Preparation Plan at Swift Reservoir beginning as soon as practicable after the Habitat Preparation Plan is finalized and at the other reservoirs as provided in the Habitat Preparation Plan. PacifiCorp shall implement this program only to the extent there are excess hatchery fish available beyond those required for the Hatchery and Supplementation Plan described in Section 8. PacifiCorp shall not be required to pass or collect the progeny of hatchery adult anadromous salmonids introduced under the Habitat Preparation Plan unless and until collection and transport facilities for such progeny are constructed in accordance with Section 4. For the Merwin and Yale Projects, PacifiCorp's obligations under this Section 7.4 shall cease if the Yale Downstream Facility or Merwin Downstream Facility, respectively, will not be constructed pursuant to Section 4.1.9.

7.5 Aquatics Fund. PacifiCorp and Cowlitz PUD shall establish the Lewis River Aquatics Fund ("Aquatics Fund") to support resource protection measures ("Resource Projects"). Resource Projects may include, without limitation, projects that enhance and improve wetlands, riparian, and riverine habitats; projects that enhance and improve riparian and

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aquatic species connectivity that may be affected by the continued operation of the Projects; and projects that increase the probability for a successful reintroduction program. The Aquatics Fund shall be a Tracking Account maintained by the Licensees with all accrued interest being credited to the Aquatics Fund. PacifiCorp shall provide $5.2 million, in addition to those funds set forth in Section 7.1.1, to enhance, protect, and restore aquatic habitat in the Lewis River Basin as provided below. Cowlitz PUD shall provide or cause to be provided $520,000 to enhance, protect, and restore aquatic habitat in the Lewis River Basin as provided below; provided that Cowlitz PUD's funds may only be used for Resource Projects upstream of Swift No. 2, including without limitation the Bypass Reach. The Licensees shall provide such funds according to the schedules set forth below.

7.5.1 PacifiCorp's Contributions.

a. PacifiCorp shall make funds available as follows: on each April 30 commencing in 2005, $300,000 per year until 2009 (a total of $1.5 million).

b. For each of the Merwin, Yale, and Swift No. 1 Projects, PacifiCorp shall make one-third of the following funds available as follows after the Issuance of the New License for that Project: on each April 30 commencing in 2010, $300,000 per year through 2014 (a total of $1.5 million); on each April 30 commencing in 2015, $100,000 per year through 2018 (a total of $400,000); and on each April 30 commencing in 2019, $200,000 per year through 2027 (a total of $1.8 million); provided that, for any New License that has not been Issued by April 30, 2009, the funding obligation for that Project shall be contributed annually in the same amounts but commencing on April 30 following the first anniversary of Issuance of the New License for that Project.

c. PacifiCorp shall contribute $10,000 annually to the Aquatics Fund as set forth in Section 7.1.1.

7.5.2 Cowlitz PUD's Contributions. Cowlitz PUD shall make or cause to be made funds available as follows: $25,000 per year on each April 30 following the first anniversary of the Issuance of the New License for the Swift No. 2 Project through the April 30 following the 20th anniversary of the Issuance of the New License for the Swift No. 2 Project (a total of $500,000); and a single amount of $20,000 on the April 30 following the 21st anniversary of the Issuance of the New License for the Swift No. 2 Project.

7.5.3 Use of Funds. Decisions on how to spend the Aquatics Fund, including any accrued interest, shall be made as provided in Section 7.5.3.2 below; provided that (1) at least $600,000 of such monies shall be designated for projects designed to benefit bull trout according to the following schedule: as of April 30, 2005, $150,000; as of April 30,

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2006, $100,000; as of April 30, 2007, $150,000; as of April 30, 2008, $100,000; and on or before the April 30 following the fifth anniversary of the Issuance of all New Licenses, $100,000; and such projects shall be consistent with bull trout recovery objectives as determined by USFWS; (2) fund expenditures for the maintenance of the Constructed Channel (Section 4.1.3) shall not exceed $20,000 per year on average; (3) if studies indicate that inadequate "Reservoir Survival," defined as the percentage of actively migrating juvenile anadromous fish of each of the species designated in Section 4.1.7 that survive in the reservoir (from reservoir entry points, including tributary mouths to collection points) and are available to be collected, is hindering attainment of the Overall Downstream Survival standard as set forth in Section 3, then at least $400,000 of such monies shall be used for Resource Projects specifically designed to address reservoir mortality; and (4) $10,000 annually shall be used for lower river projects as set forth in Section
7.1.1. Projects shall be designed to further the objectives and according to the priorities set forth below in Section 7.5.3.1.

7.5.3.1 Guidance for Resource Project Approval and Aquatics Fund Expenditures.

a. Resource Projects must be consistent with applicable Federal, State, and local laws and, to the extent feasible, shall be consistent with policies and comprehensive plans in effect at the time the project is proposed. These may include, but are not limited to, Washington's Wild Salmonid Policy, the Lower Columbia River Bull Trout Recovery Plan, and the Lower Columbia River Anadromous Fish Recovery Plan.

b. The Aquatics Fund shall not be used to fund Resource Projects that any entity is otherwise required by law to perform (not including obligations under this Agreement or the New Licenses for use of the Aquatics Fund), unless by agreement of the ACC.

c. The Licensee shall evaluate resource Projects using the following objectives:

(1) benefit fish recovery throughout the North Fork Lewis River, with priority to federal ESA-listed species

(2) support the reintroduction of anadromous fish throughout the Basin; and

(3) enhance fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River.

For the purposes of this Section 7.5, the North Fork Lewis River refers to the portion of the Lewis River from its confluence with the Columbia River upstream to the headwaters, including tributaries except the East Fork of the Lewis River.

The Licensees shall also consider the following factors to reflect the feasibility of

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projects and give priority to Resource Projects that are more practical to implement:

(i) Whether the activity may be planned and initiated within one year,

(ii) Whether the activity will provide long-term benefits,

(iii) Whether the activity will be cost-shared with other funding sources,

(iv) Probability of success, and

(v) Anticipated benefits relative to cost.

7.5.3.2 Resource Project Proposal, Review, and Selection.

(1) By the first anniversary of the Effective Date, the Licensees shall develop, in Consultation with the ACC, (a) a strategic plan consistent with the guidance in Section 7.5.3.1 above to guide Resource Project development, solicitation, and review; and (b) administrative procedures to guide implementation of the Aquatics Fund. Both may be modified periodically with the approval of the ACC.

(2) Any person or entity, including the Licensees, may propose a Resource Project. In addition, the Licensees may solicit Resource Projects proposals from any person or entity.

(3) The Licensees shall review all Resource Project proposals, applying the guidance set forth in Section 7.5.3.1. The Licensees shall provide an annual report describing proposed Resource Project recommendations to the ACC. The date for submitting such report shall be determined in the strategic plan defined in subsection 7.5.3.2(1) above. The report will include a description of all proposed Resource Projects, an evaluation of each Resource Project, and the basis for recommending or not recommending a project for funding.

(4) The Licensees shall convene a meeting of the ACC on an annual basis, no sooner than 30 days and no later than 60 days after distribution of the report set forth in Section 7.5.3.2(2), for Consultation regarding Resource Projects described in the report.

(5) Licensees shall modify the report on proposed Resource Projects, based on the above Consultation, and submit the final report to the ACC within 45 days after the above Consultation. Any ACC member may, within 30 days after receiving the final report, initiate the ADR Procedures to resolve disputes relating to Resource Projects. If the ADR Procedures are commenced, the Licensees shall

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defer submission of the final report on Resource Projects to the Commission, if necessary, until after the ADR Procedures are completed. If the ADR Procedures fail to resolve all disputes, the Licensees shall provide the comments of the ACC to the Commission. If no ACC member initiates the ADR Procedures, the Licensees shall submit the final report to the Commission, if necessary, within 45 days after submission of the final report to the ACC.

7.6 In Lieu Fund. If NOAA Fisheries and USFWS determine, pursuant to Section 4.1.9, that reintroduction of anadromous salmonids into Yale Lake or Lake Merwin is not required, and if as a result of such determination one or more of the Merwin Downstream Facility, Swift Upstream Facility, and the Yale Upstream and Downstream Facilities are not designed, permitted, constructed, and operated, then PacifiCorp shall establish the "In Lieu Fund" to support mitigation measures for anadromous salmonids in lieu of passage. The In Lieu Fund shall be a Tracking Account maintained by the Licensees, with all accrued interest being credited to the In Lieu Fund. PacifiCorp shall provide funds according to the schedule set forth below.

7.6.1 PacifiCorp's Contributions.

a. PacifiCorp shall provide the following sums to the In Lieu Fund: $10 million in lieu of a juvenile surface collector at Yale Dam; $10 million in lieu of a juvenile surface collector at Merwin Dam; $5 million in lieu of an upstream adult fish passage facility at Yale; and $5 million in lieu of an upstream adult fish passage facility in the vicinity of the Swift Projects.

b. PacifiCorp shall allocate funds in lieu of the Yale Downstream Facility as follows: $3 million on each of the 11th and 12th anniversaries of the Issuance of the New License for the Yale Project, and $4 million on the 13th anniversary of the Issuance of the New License for the Yale Project. PacifiCorp shall allocate funds in lieu of the Merwin Downstream Facility as follows: $2.5 million on each of the 14th through the 17th anniversaries of the Issuance of the New License for the Merwin Project. PacifiCorp shall allocate funds in lieu of the Swift Upstream Facility as follows: $1.25 million on each of the 14th through the 17th anniversaries of the Issuance of the New License for the Swift No. 1 Project. PacifiCorp shall allocate funds in lieu of the Yale Upstream Facility as follows: $1.25 million on each of the 14th through the 17th anniversaries of the Issuance of the New License for the Yale Project. Funds shall be available for expenditure as soon as the decisions not to build the respective facilities are final and not subject to further review; provided that if any review delays the expenditure of In Lieu Fund monies for an extended period, the ACC will consult to discuss the delay and whether to

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propose an alternate course of action. PacifiCorp shall not be obligated to both spend In Lieu Funds and build the respective facilities.

7.6.2 Mitigation Measure Proposal, Review, and Selection.

(1) By the first anniversary of establishment of the In Lieu Fund, PacifiCorp shall develop, in Consultation with the ACC and with the approval of the Services, (a) a strategic plan consistent with the guidance in Section 7.6.3 below to guide mitigation measure development, solicitation, and review; and (b) administrative procedures to guide implementation of the In Lieu Fund. Both may be modified periodically with the approval of the Services.

(2) Any person or entity, including PacifiCorp, may propose a mitigation measure. In addition, PacifiCorp may solicit mitigation measure proposals from any person or entity. A preliminary list of potential mitigation measures is attached as Schedule 7.6.2.

(3) PacifiCorp shall review all mitigation measure proposals, applying the guidance set forth in Section 7.6.3. PacifiCorp shall provide an annual report describing proposed mitigation measure recommendations to the ACC. The date for submitting such report shall be determined in the strategic plan defined in this Section 7.6.2. The report will include a description of all proposed mitigation measures, an evaluation of each mitigation measure, and the basis for recommending or not recommending a measure for funding.

(4) PacifiCorp shall convene a meeting of the ACC on an annual basis, no sooner than 30 days and no later than 60 days after distribution of the report described in Section 7.6.2(3), for Consultation regarding mitigation measures described in the report. The recommended measures shall be consistent with the guidance set forth in Section 7.6.3, as identified by the Services. If the Services identify one or more proposed measures that are not consistent with such guidance, PacifiCorp shall include a description of such measures in the final report with a notation that they are not consistent with the guidance and shall not be implemented using In Lieu Fund monies. At the conclusion of the Consultation, the Services may submit to PacifiCorp a list identifying the Services' prioritization of proposed mitigation measures (excluding those inconsistent with the guidance set forth in Section 7.6.3).

(5) PacifiCorp shall modify the report on proposed mitigation measures, based on the above Consultation and any Service mitigation measure priority list, and submit the final report to the ACC within 45 days after the above Consultation. Any ACC member may, within 30 days after receiving the final report, initiate the ADR Procedures to resolve disputes relating to mitigation

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measures. If the ADR Procedures are commenced, then PacifiCorp shall defer submission of the final report on mitigation measures to the Commission, if necessary, until after the ADR Procedures are completed. If the ADR Procedures fail to resolve all disputes, then PacifiCorp shall provide the comments of the ACC to the Commission. If no ACC member initiates the ADR Procedures, then PacifiCorp shall submit the final report to the Commission, if necessary, within 45 days after submission of the final report to the ACC.

7.6.3 Guidance and Criteria for Mitigation Measure Approval and In Lieu Fund Expenditures. In Lieu Fund monies will be spent on mitigation measures that collectively contribute to meeting the objective of achieving benefits to anadromous fish populations equivalent to or greater than benefits that would have occurred if passage through Yale and/or Merwin reservoirs had been provided, as determined by the Services based on the best information available at such time. The Services may provide further guidance to PacifiCorp and the ACC from time to time, to guide the spending of In Lieu Fund monies consistent with the previous sentence. If measures to further benefit specifically the North Fork Lewis River populations have been exhausted, then any remaining funds will be used to benefit other anadromous fish populations in the applicable evolutionarily significant units.

The list of projects in Schedule 7.6.2 is provided to illustrate, without limitation as to scope or type, some projects that qualify as mitigation measures under the In Lieu Fund based on current conditions. These specific projects may or may not be undertaken with the In Lieu Fund. Some measures identified may already have been completed by the time the In Lieu Fund becomes applicable.

7.7 Management of Aquatics Fund and In Lieu Fund. PacifiCorp and Cowlitz PUD shall each hold or cause to be held in a Tracking Account monies that it provides to the Aquatics Fund, and PacifiCorp shall hold monies provided to the In Lieu Fund, until expenditures for Resource Projects or mitigation measures are made. Each Licensee's contributions shall be made in 2004 dollars, Adjusted for Inflation. Each Licensee shall credit interest on its respective Fund monies from the date the monies are due to be placed into the Fund until expended. Interest will be calculated monthly at the prime interest rate, as published on the last day of the month in the *Wall Street Journal*, based on the average monthly balance. If such rate ceases to be published in the *Wall Street Journal*, the Parties shall agree upon an alternate source for the prime interest rate. The Licensees shall notify and Consult with the ACC with respect to the Aquatics Fund if it appears that a given project's costs will be significantly higher than expected, and PacifiCorp shall do the same with respect to the In Lieu Fund. Based on Consultation with the ACC, the Licensees (or PacifiCorp with respect to the In Lieu Fund) may determine not to proceed with or to modify that project. Funds not expended in any given year shall be carried over to the subsequent year.

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7.7.1 Review. The Licensees shall provide an annual report regarding Aquatics Fund activities and expenditures under Section 7.5, and PacifiCorp shall provide such annual reports regarding In Lieu Fund activities and expenditures under Section 7.6, both including any monitoring information collected regarding Resource Projects or mitigation measures implemented through the Aquatics and In Lieu Funds. Such annual report may be included as part of the detailed annual reports of the ACC activities required by Section 14.2.6. Each Licensee shall make or cause to be made available its underlying records relating to the Aquatics Fund, and PacifiCorp shall make available its underlying records relating to the In Lieu Fund, for review by the Parties.

7.7.2 Administrative, Overhead, and Legal Costs. Each Licensee shall bear its costs for all administrative, legal, and overhead costs associated with the management of the Aquatics and In Lieu Funds as provided in Sections 7.5 through 7.7, including, without limitation, calculation of interest and reports to the ACC and Consultation with the ACC, and shall not assess any such costs against the Aquatics and In Lieu Funds; provided that all costs incurred to implement approved Resource Projects and mitigation measures shall be paid for out of the Aquatics and In Lieu Funds, respectively.

7.7.3 Escalation of Costs. Unless otherwise indicated, all costs or payment amounts specified in dollars in Sections 3, 4, 5, 6, 7, 8 and 9 shall be deemed to be stated as of the year 2004, and shall be Adjusted for Inflation as of April 30 of each year (beginning in April 2005).

7.8 Execution of Projects and Mitigation Measures. The Licensee(s) shall implement or provide funds through a grant or other means to another entity to implement Resource Projects developed under Section 7.5.3.2, in accordance with the approved plan and schedules for such Resource Projects. PacifiCorp shall do the same with respect to mitigation measures under Section 7.6.2.

SECTION 8: HATCHERY AND SUPPLEMENTATION PROGRAM

8.1 Hatchery and Supplementation Program. The Licensees shall undertake a hatchery and supplementation program. The goals of the program are to support (i) self-sustaining, naturally producing, harvestable native anadromous salmonid species throughout their historical range in the North Fork Lewis River Basin, and (ii) the continued harvest of resident and native anadromous fish species (the "Hatchery and Supplementation Program"). The Hatchery and Supplementation Program shall be consistent with the priority objective of recovery of wild stocks in the basin to healthy and harvestable levels. The intention of the foregoing sentence is not necessarily to eliminate the hatchery program but it recognizes the importance of recovering wild stocks and a potential that hatchery production may adversely affect recovery. The Hatchery and Supplementation Program shall be consistent with the ESA, applicable state and federal fisheries policies, and regional recovery plans, and should be consistent

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with recommendations of the Hatchery Science Review Group and the Northwest Power Planning Council's Hatchery Review (Artificial Production Review & Evaluation) to the extent practicable. The supplementation portion of the program shall be a part of the reintroduction program (in addition to fish passage) and shall be limited to spring Chinook, steelhead and coho as provided in this Section 8.

To ensure that the Hatchery and Supplementation Program is meeting its goals, the Licensees, in Consultation with the ACC and with the approval of the Services, shall develop and implement a hatchery and supplementation plan to adaptively manage the program and guide its management as set out in Section 8.2 below ("Hatchery and Supplementation Plan" or "H&S Plan"). The Licensees shall incorporate best methodologies and practices into the Hatchery and Supplementation Plan. The Hatchery and Supplementation Plan shall be designed to achieve the numeric Hatchery Targets provided for in Section 8.3 below, and those targets shall be calculated in terms of ocean recruits of hatchery origin, taking into account harvest and escapement. For purposes of this Agreement, "Ocean Recruits" shall mean total escapement (fish that naturally spawned above Merwin and hatchery fish) plus harvest (including ocean, Columbia River, and Lewis River harvest). Subject to the ESA, applicable federal and state fisheries policies, regional recovery plans, other applicable laws and policies, and the terms of this Agreement, the Licensees shall provide for the implementation of the Hatchery and Supplementation Program for the terms of the New Licenses.

As of the Effective Date, WDFW owns the existing Lewis River Hatchery facility. Use and operation of the Lewis River Hatchery is subject to agreements between PacifiCorp and WDFW. The Licensees shall ensure the existing Lewis River, Merwin, and Speelyai hatchery facilities (the "Hatchery Facilities") are modified pursuant to Section 8.7 below to meet their obligations under this Section 8. The Licensees shall ensure the Hatchery Facilities, including the relevant or necessary support facilities (e.g., employee housing, shops, hatcheries, and related infrastructure), as modified, are maintained as necessary to consistently deliver a high-quality hatchery product that will meet their obligations. The Licensees' hatchery production obligations as set forth in Section 8.4 below, including both anadromous and resident fish, shall be limited by the combined production capacity of the Hatchery Facilities ("Hatcheries Capacity Limit") as established after implementation of upgrades as set forth in Section 8.7. The Licensees may, after Consultation with the ACC, use different hatcheries than those described above; provided that such different hatcheries (a) have equal or greater capacity than the Hatchery Facilities if that capacity is still required to meet the Licensees' obligations under this Section 8, (b) are of quality equal to or greater than that of the Hatchery Facilities, and (c) comply with transfer and disease protocols and other requirements of the H&S Plan.

8.2 Hatchery and Supplementation Plan. The Licensees, in Consultation with the ACC and subject to the approval of the Services, shall develop a Hatchery and Supplementation Plan to address hatchery operations, supplementation, and facilities as

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provided in Section 8.2.1 below. Until implementation of the Hatchery and Supplementation Plan, PacifiCorp shall continue to implement the hatchery program set forth in Articles 50 and 51 of the 1983 Merwin license, as amended.

The Hatchery and Supplementation Plan will address both anadromous and resident fish. The Licensees shall incorporate best methodologies and practices into all components of the H&S Plan, including, but not limited to, the Hatchery Facilities and supplementation facilities. When developing the H&S Plan, the Licensees and the ACC shall be guided, at a minimum, by the Fish Planning and Hatchery Review Documents (submitted as AQU-18 with the Licensees' applications for the Merwin, Swift No. 1, and Swift No. 2 Projects in April 2004), and shall take into consideration the results of ongoing relevant hatchery reviews and the experience of other supplementation programs in the region, such as the Yakama Nation's Cle Elum facility. The Licensees shall transition from the hatchery program set forth in Articles 50 and 51 of the 1983 Merwin license, as amended, to implementing the Hatchery and Supplementation Plan as soon as practicable after Issuance of the New License(s) for the Merwin Project or the Swift Projects, whichever occurs earlier, provided that supplementation will commence as provided in Section 8.5. When finalized, the Licensees shall submit the Hatchery and Supplementation Plan to WDFW and NOAA Fisheries for consideration in their development of applicable hatchery genetic management plans ("HGMPs").

8.2.1 Development of Plan/Timing. The Licensees, in Consultation with the ACC, shall produce and distribute a draft Hatchery and Supplementation Plan to the ACC by the first anniversary of the Effective Date. The Yakama Nation may chair a subgroup of interested members of the ACC for purposes of coordinating the ACC's input regarding the supplementation elements of the draft H&S Plan. The members of the ACC shall have 60 days to comment on the draft H&S Plan. The Licensees shall provide a 60-day period for the public to provide written comments. The Licensees shall consider and address in writing the written comments provided by the members of the ACC, including the rationale behind the Licensees' decision to not address a comment in the final H&S Plan. The Licensees shall consider comments and submit a revised H&S Plan to the Services for approval within 120 days of the first anniversary of the Effective Date.

8.2.2 Hatchery and Supplementation Plan Contents. The H&S Plan shall address the means by which the Licensees shall use the Hatchery Facilities to accomplish the goals and requirements of the Hatchery and Supplementation Program, including, without limitation, the Hatchery Targets. It shall also be consistent with the objective of restoring and recovering wild stocks in the basin to healthy and harvestable levels. The H&S Plan shall address, at a minimum, the following topics:

8.2.2.1 A description of the Hatchery Facilities, including the upgrades identified in Schedule 8.7;

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8.2.2.2 Identification of species and broodstock sources to be used for the Hatchery and Supplementation Program;

8.2.2.3 The quantity and size of fish to be produced;

8.2.2.4 The allocation of smolts and adults between the hatchery and supplementation programs and a description of how the two programs are to be implemented at the same facility without causing unacceptable adverse impacts on each other;

8.2.2.5 Rearing and release strategies for each stock including, but not limited to, timing, planned distribution, locations for release, procedures to transport smolts to acclimation sites for supplementation purposes, and upward and downward production adjustments to accommodate natural returns;

8.2.2.6 The Ocean Recruits Methodology referenced in Section 8.3.2.2 below;

8.2.2.7 Plans and protocol for supplementation stocks;

8.2.2.8 Broodstock collection and breeding protocols;

8.2.2.9 Policies in effect regarding in-basin and out-of-basin stock transfers;

8.2.2.10 Measures to minimize potential negative impacts of the Hatchery and Supplementation Program on ESA-listed species;

8.2.2.11 Measures to protect production processes from predators, e.g., netting, consideration of evolving hatchery practices to condition fish to avoid predators;

8.2.2.12 A description of how the Hatchery and Supplementation Program monitoring and evaluation requirements will be implemented, including, but not limited to, marking strategies;

8.2.2.13 A description of the methods to prevent unacceptable adverse impacts, if any, of (1) the hatchery program on the reintroduction program, and (2) the supplementation program on native resident species; and

8.2.2.14 Fish health protocols.

8.2.3 Annual Operating Plan. The Licensees shall provide for the implementation of the Hatchery and Supplementation Plan through an annual plan ("Annual Operating

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Plan"). The Annual Operating Plan shall be consistent with the Hatchery and Supplementation Plan. The Licensees, in Consultation with the hatchery managers and with the approval of the Services, shall develop the initial Annual Operating Plan as part of the Hatchery and Supplementation Plan. The Licensees shall develop subsequent Annual Operating Plans in Consultation with the hatchery managers and subject to the approval of the Services. The Annual Operating Plan may be included as part of the detailed annual reports of the ACC activities required by Section 14.2.6.

The Annual Operating Plan shall, at a minimum, contain: (1) a production plan, which shall specify the species and broodstock sources; (2) the current Hatchery Target and Juvenile Production Target for each species to be produced at the Hatchery Facilities; (3) a release plan which shall identify by species the rearing schedule and planned distribution of fish and the schedules and locations for releases; (4) a list of facility upgrades to be undertaken that year; and (5) a description of relevant monitoring and evaluation to be undertaken that year.

8.2.4 Reporting Requirements. On an annual basis, the Licensees shall provide to the ACC for review and comment a report compiling all information gathered pursuant to implementation of the Hatchery and Supplementation Plan. The report also will include recommendations for ongoing management of the Hatchery and Supplementation Program. The ACC shall have 60 days to comment on the annual report. Within 60 days of the close of the comment period, the Licensees shall finalize the report after consideration of all comments. The Licensees shall also provide the comprehensive periodic review undertaken pursuant to Section 8.2.6 below to the ACC. The Licensees shall provide final annual reports and the comprehensive periodic review to the Services during the development of any required ESA permit or authorization for hatchery operations, including NOAA Fisheries' HGMP process. The report may be included as part of the detailed annual reports of the ACC activities required by Section 14.2.6.

8.2.5 Plan Modifications. The Licensees shall update the Hatchery and Supplementation Plan every five years or earlier if required by the HGMP, in Consultation with the ACC and with the approval of the Services, using the process set out in Section 8.2 above in order to adaptively manage the Hatchery and Supplementation Program. The Licensees shall consider recommendations from members of the ACC and the comprehensive review set forth below, and identify those recommendations that have not been incorporated into the H&S Plan with a brief statement as to why the changes were not made.

8.2.6 Comprehensive Periodic Review. The Licensees shall undertake a comprehensive periodic review within 5 years after reintroduction above Swift No. 1 Dam, within 5 years after reintroduction into Yale Lake, and within 5 years after reintroduction into Lake Merwin, and then every 10 years after that. This schedule is to

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be followed even in the event that reintroduction into either Yale Lake or Lake Merwin does not occur. The Licensees, in Consultation with the ACC, shall hire an independent consultant to review the Hatchery and Supplementation Program to assess (i) the Program's impact on the reintroduction program and on listed species, (ii) the Program's effectiveness in achieving the goals set out in Section 8.1 above, and (iii) efficiency of hatchery operations. Factors to be considered in the review include current federal and state policies and plans, relevant best practices, and existing information regarding recent scientific advances. The reviewer will provide recommendations regarding ongoing management of the Hatchery and Supplementation Program and, if needed, recommend amendments to the Hatchery and Supplementation Plan. The Licensees shall incorporate recommendations for ongoing management of the Hatchery and Supplementation Program set forth in the review into the Hatchery and Supplementation Plan pursuant to Section 8.2.5 or explain why the recommendation is not being adopted.

8.3 Anadromous Fish Hatchery Adult Ocean Recruit Target by Species. The Licensees shall develop and implement the Hatchery and Supplementation Plan to achieve hatchery adult Chinook, steelhead, and coho ocean recruit targets ("Hatchery Targets") as described below.

8.3.1 Hatchery Targets. The following Hatchery Targets shall be in effect at the commencement of the Hatchery and Supplementation Program:

Table 8.3.1 – Hatchery Targets

	Spring Chinook	Steelhead	Coho	Total
Hatchery Targets (adult Hatchery Ocean Recruits)	12,800	13,200	60,000	86,000

8.3.2 Modifications to Hatchery Targets.

8.3.2.1 Hatchery Targets. The Licensees shall not increase any of the Hatchery Targets above the Hatchery Targets in Table 8.3.1 above during the terms of the New Licenses without the unanimous approval of the ACC.

8.3.2.2 Methods to Document Ocean Recruits. The Licensees, in Consultation with the ACC, shall determine the methods to document the number of Ocean Recruits and to separately identify Hatchery Ocean Recruits and Ocean Recruits from natural spawning in the Hatchery and Supplementation Plan ("Ocean Recruits Methodology"). The Ocean Recruits Methodology shall identify the appropriate assessment time frame over which to measure Hatchery Ocean Recruits and Natural Ocean Recruits.

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8.3.2.3 Reductions in Hatchery Targets. When the Licensees determine, in Consultation with the ACC, through application of the Ocean Recruits Methodology that the number of Ocean Recruits from natural spawning grounds of any species exceeds the relevant natural production threshold(s) for that species identified in Table 8.3.2 ("Natural Production Threshold"), the Licensees shall decrease the appropriate Hatchery Target(s) identified in Table 8.3.1 on a fish-for-fish (1:1) basis. The Licensees shall not apply the amount of excess numbers of one species against another species' Hatchery Target. The Licensees shall not decrease the Hatchery Targets below the hatchery target floor ("Hatchery Target Floor") specified in Table 8.3.2.

8.3.2.4 Unacceptable Adverse Impacts on Reintroduction Program or Fisheries Management Objectives. If the Services determine that there are unacceptable impacts from hatchery production on the reintroduction program or fishery management objectives including, but not limited to, the recovery of wild stocks in the basin, then the Licensees, in Consultation with the ACC, shall identify and consider options to mitigate or avoid such unacceptable impacts. In Consultation with the ACC and at the direction of the Services, the Licensees shall implement options necessary to address such unacceptable adverse impacts, including, without limitation, modifying hatchery practices, reducing Hatchery Targets, or implementing other options that are identified pursuant to this Section 8.3.2.4.

8.3.2.5 Increases in Previously Reduced Hatchery Targets. If the Licensees reduce Hatchery Targets based on the number of Natural Ocean Recruits as determined by the Ocean Recruits Methodology, but the number of Ocean Recruits subsequently declines under such methodology, the Licensees, in Consultation with the ACC and at the direction of the Services, shall increase the Hatchery Targets on a fish-for-fish (1:1) basis, provided that the increased Hatchery Targets shall not exceed the initial Hatchery Targets in Table 8.3.1, and available data demonstrates that the hatchery fish are not the cause of decline or a significant limiting factor to self-sustaining, naturally producing, harvestable native anadromous salmonid species.

Table 8.3.2 – Numbers Governing Modifications to Hatchery Targets

	Spring Chinook	Steelhead	Coho	Total
Natural Production Threshold for Hatchery Reduction	2,977	3,070	13,953	20,000
Hatchery Target Floor	2,679	2,763	12,558	18,000

8.4 Anadromous Fish Hatchery Juvenile Production. Each year, the Licensees shall provide for the production of spring Chinook salmon smolts, steelhead smolts, and coho salmon smolts at levels specified below ("Juvenile Production"). The Licensees shall use

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the Juvenile Production to provide (1) juveniles for the supplementation program under Section 8.5, and (2) juveniles for harvest opportunities. To the extent that there are not sufficient juveniles for the Hatchery and Supplementation Program and to ensure that enough adults will return to ensure adequate broodstock for the Hatchery and Supplementation Program in future years, the Licensees shall, in Consultation with the ACC and subject to the approval of the Services, determine how best to allocate juveniles.

8.4.1 Juvenile Production Targets. The Licensees shall provide for the implementation of the following Juvenile Production targets ("Juvenile Production Targets") when the Hatchery and Supplementation Program commences. The following Juvenile Production Targets shall be used unless and until modified by the Licensees pursuant to Section 8.4.2 as part of the Hatchery and Supplementation Plan in accordance with Section 8.2.5:

Table 8.4 – Juvenile Production Targets

Smolt Production	Spring Chinook	Steelhead	Coho
H&S Plan Years 1 – 3	1.35 million	275,000	1.8 million
H&S Plan Years 4 – 5	1.35 million	275,000	1.9 million
H&S Plan Years 6 – 50	1.35 million	275,000	2.0 million

8.4.2 Adjustment of Juvenile Production. The Licensees, in Consultation with the ACC, shall adjust the Juvenile Production as needed to achieve the Hatchery Targets subject to the Hatcheries Capacity Limit, e.g., at some point in the future a smaller number of juveniles may be needed to get the same number of returning adults. When determining whether adjustments should be made, the Licensees, in Consultation with the ACC, shall consider the hatchery practices component of the Hatchery and Supplementation Plan (e.g., density, best management practices), data from the Monitoring and Evaluation Plan identified in Section 9 (including, but not limited to, fish quality and adult return requirements), the periodic comprehensive review described in Section 8.2.6 above, and the terms of Section 8.1.

8.4.3 Stock Selection. The Licensees shall select stocks for the production of juveniles that are the most appropriate for the basin. The stock selected and the rationale shall be set forth in the Hatchery and Supplementation Plan. The following stocks shall be used unless and until modified by the Licensees as part of the Hatchery and Supplementation Plan in accordance with Section 8.2.5:

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Table 8.4.3 – Broodstock

	Spring Chinook	Steelhead	Coho
Juveniles for Supplementation (release above Merwin)	Lewis River hatchery stock with Cowlitz River hatchery stock as contingency	Lewis River wild winter stock with Kalama hatchery stock as contingency	Lewis River hatchery early (type S) stock
Juveniles for Harvest (release below Merwin)	Same as for supplementation	Same as for supplementation **and** existing Lewis River hatchery summer and winter stock	Same as for supplementation **and** Lewis River hatchery late (type N) stock

8.5 Supplementation Program.

8.5.1 Juvenile Salmonids Above Swift No. 1 Dam. The Licensees shall, for the purpose of supplementation, provide for the transport of juvenile anadromous salmonids to acclimation sites selected pursuant to Section 8.8.1, for the following periods of time:

(1) Spring Chinook and Steelhead. The Licensees shall provide the means to supplement juvenile spring Chinook and steelhead for a period of 15 years commencing upon completion of the Swift Downstream Facility pursuant to Section 4.4.1; and

(2) Coho. The Licensees shall provide the means to supplement juvenile coho salmon for a period of 9 years commencing upon completion of the Swift Downstream Facility.

At the end of these time periods, the Licensees shall assess on a year-by-year basis whether to extend the supplementation of juvenile salmonids. Upon ACC agreement and subject to the Services' approval, the Licensees shall continue to supplement juvenile salmonids. In evaluating whether to extend the supplementation of juveniles, the ACC shall consider, among other things, the impact of continuing supplementation on the overall reintroduction program and on ESA-listed species.

8.5.2 Juvenile Salmonids to Yale Lake and Lake Merwin. PacifiCorp shall, for the purposes of supplementation, provide for the transport of juvenile anadromous salmonids to appropriate release sites in Yale Lake and Lake Merwin, as described in Section 8.8.2 below, for the following periods of time:

(1) Spring Chinook and Steelhead. PacifiCorp shall provide the means to supplement juvenile spring Chinook and steelhead for a period of 15 years to Yale

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Lake commencing upon completion of the Yale Downstream Facility as provided in Section 4.5; and for a period of 15 years to Lake Merwin commencing upon completion of the Merwin Downstream Facility as provided in Section 4.6; and

(2) Coho. PacifiCorp shall provide the means to supplement juvenile coho salmon into Yale Lake for a period of 9 years commencing upon completion of the Yale Downstream Facility and into Lake Merwin for a period of 6 years commencing upon completion of the Merwin Downstream Facility.

At the end of these time periods, PacifiCorp shall assess on a year-by-year basis whether to extend the supplementation of juvenile salmonids. Upon ACC agreement and subject to the Services' approval, the Licensees shall continue to supplement juvenile salmonids. In evaluating whether to extend the supplementation of juveniles, the ACC shall consider, among other things, the impact of continuing supplementation on the overall reintroduction program and on ESA-listed species.

8.5.3 Adult Salmonids. The Licensees shall begin providing for the supplementation of adult fish one year prior to completion of the Swift Downstream Facility. Throughout the terms of the New Licenses, the Licensees shall provide for the transport and release of supplementation stocks of adult spring Chinook, coho, and steelhead above Swift No. 1 as directed by the ACC. Throughout the terms of the New Licenses, PacifiCorp shall provide for the transport and release of supplementation stocks of adult spring Chinook, coho, and steelhead into Yale Lake and Lake Merwin as directed by the ACC. The ACC shall determine the timing for initiating supplementation into Yale Lake and Lake Merwin. The ACC, subject to the approval of the Services, may recommend discontinuing or recommencing the supplementation of such supplementation stocks, provided that any such recommendations are biologically based and not contrary to the goals of the ESA.

8.5.4 Supplemental Juveniles. The Licensees shall not mark supplementation juveniles in the same manner as hatchery fish are marked for harvest.

8.6 Resident Fish Production.

8.6.1 Rainbow Trout Production. Each year, for the terms of the New Licenses, subject to Section 8.6.3, the Licensees shall provide for the production of 20,000 pounds of resident rainbow trout. When the New License is Issued for either the Merwin Project or the Swift Projects, whichever is earlier, the Licensees shall fulfill their obligation by providing for the production of 800,000 juveniles with an estimated weight of 40 juvenile fish per pound, or an equivalent number, in pounds, of resident rainbow trout of a different life stage as directed by WDFW, following Consultation with the ACC. The Licensees shall provide for the stocking of such rainbow trout in Swift Reservoir. Resident rainbow trout will be managed separately from steelhead and shall not

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significantly interfere with the recovery of self-sustaining, naturally producing, harvestable populations of native steelhead.

8.6.2 Resident Kokanee Production. Each year, for the terms of the New Licenses, subject to Section 8.6.3, PacifiCorp shall provide for the production of 12,500 pounds of resident kokanee. When the New License is Issued for either the Merwin Project or the Swift Projects, whichever is earlier, PacifiCorp shall fulfill its obligation by providing for the production of 93,000 juveniles of various sizes which have an estimated weight of 12,500 pounds or an equivalent number, in pounds, of resident kokanee of a different life stage as directed by WDFW, following Consultation with the ACC. Unless otherwise determined by the ACC through the Hatchery and Supplementation Plan, PacifiCorp shall provide for the annual stocking of such resident kokanee in Lake Merwin.

8.6.3 Modifications in Resident Rainbow Trout and Kokanee Production. The Licensees shall modify resident rainbow trout and kokanee production numbers as part of the Hatchery and Supplementation Plan, in Consultation with the ACC and subject to the approval of the Services and WDFW, to address other management goals, including, without limitation, harvest considerations and impacts of the resident fish hatchery program on the reintroduction program; provided that the Licensees shall not increase (i) resident rainbow trout production above a cap of 20,000 pounds and, (ii) resident kokanee production above a cap of 12,500 pounds.

8.7 Hatchery and Supplementation Facilities, Upgrades, and Maintenance. The Licensees shall, in collaboration with the hatchery managers and hatchery engineers and in Consultation with the ACC, undertake or fund facility additions, upgrades, and maintenance actions as provided in Schedule 8.7, consistent with best methodologies and practices. The Licensees, in collaboration with the hatchery managers and hatchery engineers, and in Consultation with the ACC, shall design these facilities, upgrades, and maintenance actions to include elements that ensure usefulness of the facilities for supplementation and production fish culturing practices and to accommodate the facility additions, upgrades, and maintenance actions identified in Schedule 8.7. The Licensees shall complete the upgrades or actions by the deadlines identified in Schedule 8.7, provided that the Licensees shall schedule the updates or actions consistent with (i) the required hatchery production or (ii) the reintroduction program. The Licensees shall not be required to construct new hatchery facilities or to expand the existing Hatchery Facilities except as provided pursuant to this Section 8.7. WDFW retains the right and authority to operate its hatchery and conduct other or additional fish production activities that do not impact the goals set forth in Section 8.1 at the state-owned Lewis River Hatchery at no additional cost to the Licensees.

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8.8 Juvenile Acclimation Sites.

8.8.1 Above Swift No. 1 Dam. Beginning upon completion of the Swift Downstream Facility, the Licensees shall place juvenile salmonid acclimation sites in areas reasonably accessible to fish hauling trucks and in practical areas in the upper watershed above Swift No. 1 Dam, as determined by the Licensees in Consultation with the Yakama Nation and the ACC. The acclimation sites shall consist of fish containment areas that allow juvenile fish to acclimate in natural or semi-natural waterways and allow necessary pre-release juvenile fish management; such sites will not consist of or include concrete-lined ponds or waterways, but may include other concrete structures necessary for facility functionality and structural integrity during the supplementation program.

8.8.2 In Yale Lake and Lake Merwin. Beginning upon completion of the Yale Downstream Facility and the Merwin Downstream Facility, respectively, PacifiCorp shall provide in-stream enclosures to confine juvenile salmonids in tributaries to Yale Lake and Lake Merwin after they are transported from rearing facilities for the purpose of allowing juveniles to adjust to the natural environment for a short period of time, to be determined by the Licensees, in Consultation with the ACC and with the approval of the Services, prior to being exposed to natural mortality factors such as predators. These enclosures are intended to provide an opportunity for the juveniles to acclimate to the natural environment prior to being exposed to predators. While it is assumed that there will be sufficient food in the natural stream, if evidence suggests, prior to placing juveniles in the enclosures, that this is not the case, the Licensees will Consult with the ACC to determine if feeding of juveniles in the enclosures should occur. Prior to completion of the Yale Downstream Facility and the Merwin Downstream Facility, respectively, the Licensees shall, in Consultation with the ACC, evaluate whether Hatchery and Supplementation Program goals will be cost-effectively served by establishing and operating acclimation sites for any of the targeted stocks in Yale Lake, Lake Merwin, or their tributaries. In the event that funding becomes available for acclimation facility establishment and operation in Yale Lake, Lake Merwin or their tributaries from Parties other than the Licensees or from third parties, the Licensees shall amend the H&S Plan, subject to the approval of the Services, to provide for placing of juvenile anadromous salmonids in such acclimation facilities for so long as the funding continues to be available and placement does not negatively impact the supplementation program or otherwise alter the obligations of the Licensees.

SECTION 9: AQUATIC MONITORING AND EVALUATION

9.1 Monitoring and Evaluation Plan. By the second anniversary of the Issuance of the first of the New Licenses, the Licensees shall complete a master monitoring and evaluation plan (the “M&E Plan”) in Consultation with the ACC to implement the terms of this Section 9 to monitor and evaluate the effectiveness of aquatic PM&E Measures

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and to assess achievement of the Reintroduction Outcome Goals. The M&E Plan shall address the tasks, and the methods, frequency, and duration of those tasks, necessary to accomplish the monitoring and evaluation items described below. The Licensees shall provide a draft M&E Plan to the ACC by the first anniversary of the Issuance of the first New License. The Licensees shall allow the ACC a period of 90 days to provide comments on the draft M&E Plan as part of such Consultation. The Services shall have final approval authority over elements of the M&E Plan relating to fish passage or species listed under the ESA, subject to Section 15.14 below. The Licensees shall finalize the M&E Plan and submit it to the Commission for approval within 90 days after the close of the ACC comment period. The Licensees shall implement the M&E Plan upon approval by the Commission. For the purposes of this Section 9, Cowlitz PUD shall prepare elements of the M&E Plan to be performed within the boundaries of Swift No. 2 and shall implement such elements. PacifiCorp shall prepare and implement all other elements of the M&E Plan. PacifiCorp and Cowlitz PUD shall cooperate to prepare a single M&E Plan and a single annual report to the Commission, but if that is not successful, each shall submit its own plan and annual report as required under this Section 9.

The Licensees shall provide to the ACC the results of the monitoring and evaluations under the M&E Plan as part of the Licensees' annual report required in Section 14.2.6. The Licensees shall also include in such annual report a description of the monitoring and evaluation tasks to be completed during the following year. The Licensees shall Consult with the ACC as necessary, but no less often than every five years, to determine if modifications to the M&E Plan are warranted. As a result of such Consultation, the Licensees shall propose changes to the M&E Plan to improve the effectiveness of monitoring and evaluation. The Services shall have final approval of changes to the M&E Plan with respect to fish passage or species listed under the ESA. The Licensees shall implement any changes to the M&E Plan as soon as they have been approved by the Commission.

The Licensees shall amend the M&E Plan in Consultation with the ACC, to incorporate newly constructed facilities and other aquatic PM&E Measures to be implemented during the terms of the New Licenses. The Licensees shall provide a draft revised M&E Plan relating to facilities to be constructed in the future, and other aquatic PM&E Measures to be implemented in the future, to the ACC not less than two years before completing construction of such facilities or implementation of such measures. The Licensees shall allow the ACC a period of 90 days to provide comments on the draft revised M&E Plan as part of such Consultation. The Services shall have final approval authority over elements of the revised M&E Plan relating to fish passage or species listed under the ESA, subject to Section 15.14 below. Licensees shall finalize the revised M&E Plan and submit it to the Commission for approval within 90 days after the close of the ACC comment period. The Licensees shall implement any amendments to the M&E Plan as soon as they have been approved by the Commission.

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Sections 9.2 through 9.8 below provide guidance regarding elements to be included in the original M&E Plan, and in subsequent amendments to the M&E Plan, relating to specific passage facilities and other PM&E Measures. The monitoring and evaluation tasks described in Sections 9.2 through 9.8 shall be incorporated into and made part of the M&E Plan. The Licensees may revise and adapt the monitoring and evaluation tasks described in Sections 9.2 through 9.8 below, in Consultation with the ACC and with the approval of the Services. The Licensees shall allow the ACC a period of 90 days to provide comments on revisions to the draft M&E Plan as part of such Consultation. The Services shall have final approval authority for the revisions to the M&E Plan relating to fish passage or species listed under the ESA, subject to Section 15.14 below. The Licensees shall finalize any revisions to the M&E Plan and submit them to the Commission for approval within 90 days after the close of the ACC comment period. The Licensees shall implement the revised M&E Plan upon approval by the Commission.

The Licensees shall include in the M&E Plan elements to determine whether the Reintroduction Outcome Goals have been achieved, provided that for such purposes the Licensees shall be required to monitor and evaluate only elements that are under the control of the Licensees (such as the functioning of fish passage facilities) and that are affected by the Projects. Except as expressly agreed in writing, the Licensees shall not be required to conduct monitoring that is the obligation of a third party under applicable law or permits (including, but not limited to, marine harvest).

9.2 Monitoring and Evaluation Related to Fish Passage.

9.2.1 Monitoring and Evaluation of Upstream and Downstream Passage Facilities. PacifiCorp, with respect to Merwin, Yale, and Swift No. 1, and PacifiCorp and Cowlitz PUD, with respect to Swift No. 2, shall include in the M&E Plan the following monitoring and evaluation elements with respect to each downstream and upstream fish passage facility, for Chinook, steelhead, coho, bull trout, and sea-run cutthroat:

a. Juvenile migration timing and the estimated number of juveniles entering Swift Reservoir, Yale Lake, and Lake Merwin;

b. Reservoir Survival of juvenile fish migrating through Swift Reservoir, Yale Lake, and Lake Merwin, determined by monitoring a statistically valid sample of fish entering each reservoir;

c. Collection Efficiency and Collection Survival for each downstream fish passage facility;

d. Injury to and mortality of juvenile fish collected at each downstream facility, and mortality measured at Release Ponds;

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e. Survival of, Injury to, and mortality of kelts, bull trout, and adult sea-run cutthroat collected at each downstream facility;

f. Turbine Entrainment, i.e., the percentage of juvenile anadromous fish of each of the species designated in Section 4.1.7 that are available for collection and that (i) are not collected by the downstream passage facility, and (ii) enter the turbines;

g. Turbine Survival, i.e., the percentage of juvenile anadromous fish of each of the species designated in Section 4.1.7 that are entrained in turbines and that survive through the turbines; provided that such monitoring shall only be performed if and when fish passing through Project turbines may contribute materially to ODS; provided further that prior to performing Turbine Survival studies, the Licensees shall assume Turbine Survival equals zero;

h. UPS;

i. The ATE at each upstream fish transport facility;

j. The number, by species, of juvenile and adult fish being collected at the Projects; and

k. Hydraulic performance, such as attraction flows and water velocities, to verify that each facility is operating according to its approved design.

9.2.2 Adult Migration/Spawning Assessment. The Licensees shall identify the spawning timing, distribution, and abundance for Transported Anadromous Species passed upstream by monitoring a statistically valid sample of each stock. The primary purpose is to identify preferred spawning areas in order to (i) inform revisions to the Hatchery and Supplementation Plan and the Upstream Transport Plan and (ii) inform the decisions of the ACC in determining how to expend funds from the Aquatics Fund, but such identification shall not otherwise create or increase obligations of the Licensees except as expressly set forth in this Agreement.

9.2.3 Tagging Program. PacifiCorp shall provide for tagging of a subsample of anadromous fish collected and transported from each downstream passage facility, to assist in the determination of Ocean Recruits under Section 8.1, which in turn assists in evaluation of adult return survival. This tagging program shall continue for the term of each New License.

9.2.4 Response to Fish Passage Monitoring Results. To the extent not set forth specifically in this Section 9.2, the Licensees' obligations based on the results of monitoring related to fish passage facilities are set forth in Section 4 above.

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9.2.5 Adjustment in Monitoring Frequency. Once any fish passage standard has been achieved, as set forth in Section 4.1.4 and as determined in Section 4.1.5 above, future monitoring of that standard would be limited to periodic checks to determine continued compliance with the standard.

9.3 Wild Fall Chinook and Chum. PacifiCorp shall include in the M&E Plan monitoring of the wild fall Chinook spawner population and distribution, including juvenile tagging, below Merwin Dam as described generally in Schedule 9.3. PacifiCorp shall also monitor chum spawner population and distribution in a similar manner below Merwin Dam, provided that juvenile tagging shall not be required for chum until technological improvements make such tagging practicable. This information may be used by the ACC to monitor the effects of PM&E Measures on these populations and to prioritize expenditures from the Aquatics Fund, but shall not otherwise create obligations for the Licensees except as expressly set forth in this Agreement.

9.4 Water Quality Monitoring. The Licensees shall include in the M&E Plan elements to assess compliance with water quality and quantity standards as required by their respective 401 Certifications. In addition, the Licensees shall fund water quality monitoring necessary to comply with the National Pollution Discharge Elimination System Permits at the Hatchery Facilities.

9.5 Monitoring of Hatchery and Supplementation Program. The Licensees shall include in the M&E Plan all elements required to monitor the effectiveness of the Hatchery and Supplementation Plan in meeting the goals set out in Section 8.1 above, including, without limitation, the items listed in this Section 9.5. The Licensees shall periodically assess the effectiveness of the anadromous hatchery program by comparing numbers of hatchery releases to numbers of hatchery Ocean Recruits. The Licensees shall also conduct pre-release screening of fish health in the Hatchery Facilities. The Licensees shall determine the contribution of hatchery production and natural production to Ocean Recruits. The Licensees shall monitor the effects of hatchery fish on reintroduced anadromous salmonids.

9.6 Bull Trout Monitoring. Until the M&E Plan is implemented, the Licensees shall monitor and evaluate Cougar Creek and Swift Reservoir bull trout populations following the Threatened and Endangered Species Annual Plan (May 2004) filed with the Commission as of the Effective Date. The M&E Plan shall include monitoring and evaluation measures for bull trout as described in this Section 9.6. Licensees may adaptively modify or supplement the monitoring and evaluation elements listed in this Section 9.6 with the approval of USFWS. The Licensees will conduct the bull trout monitoring elements of the M&E Plan for the duration of the New Licenses. In the event that bull trout are delisted in the Lewis River Basin under the ESA, or in the event bull trout populations are found by USFWS through a recovery plan to no longer warrant protection under the ESA, then the Licensees and USFWS will reevaluate the need to

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continue the bull trout monitoring program at the same level and the ACC will be informed of the results of the reevaluation. USFWS shall have final approval of all elements of the M&E Plan relating to bull trout, subject to Section 15.14. The information obtained through bull trout monitoring may be used by the ACC to prioritize expenditures from the Aquatics Fund, but shall not otherwise create obligations for the Licensees except as expressly set forth in this Agreement.

9.6.1 Monitoring of Interim Bull Trout Collection. The Licensees shall include monitoring and evaluation elements in the M&E Plan for the interim bull trout collection and testing of alternate passage facilities conducted by PacifiCorp and Cowlitz PUD under Section 4.9, and in connection with bull trout passage in the absence of anadromous fish facilities as provided in Section 4.10. The monitoring and evaluation elements shall include (1) survival of adult bull trout collected and transported to an upstream or downstream release site; and (2) effectiveness of bull trout collection methods.

9.6.2 Monitoring of Other Bull Trout PM&E Measures. The Licensees shall include in the M&E Plan elements to monitor and evaluate PM&E Measures relating to bull trout, including specific methods and measures to be used in monitoring bull trout populations, including, but not limited to, tagging and snorkel surveys.

9.7 Resident Fish Assessment. PacifiCorp shall include in the M&E Plan elements to monitor the following with respect to resident fish: (1) the interaction between reintroduced anadromous salmonids and resident fish species; and (2) kokanee spawner population size in Yale Lake in the fall of each year. The results of such monitoring may inform adaptive management of the operation of the passage facilities but shall not require any physical changes to fish passage facilities or Project operations.

9.8 Monitoring of Flows. PacifiCorp shall include in the M&E Plan elements to monitor flows and Ramping rates below Merwin Dam using the Ariel gage. PacifiCorp shall pay the cost of operation, maintenance, and replacement of the Ariel gage for the terms of the New Licenses. PacifiCorp shall also include in the M&E Plan a requirement for PacifiCorp to keep records of flow contributions (in cfs) to the Bypass Reach, based on calibrated flow settings at the Upper Release Point and the Canal Drain. Such records, including records of any Force Majeure or scheduled maintenance event that interrupts flows, shall be included in the Licensees' annual report under Section 14.2.6. PacifiCorp shall periodically confirm the accuracy of calibration of the Upper Release Point and the Canal Drain and shall include the results of calibrations in the annual report. PacifiCorp shall send a notice by electronic mail to the ACC members within 48 hours after each adjustment or change to the flows in the Bypass Reach, unless the Parties agree upon an alternate method of notification. PacifiCorp shall notify the ACC of the occurrence, duration, and magnitude of any spill within 10 business days after a spill from Swift No.

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1 or the Swift No. 2 canal.

SECTION 10: TERRESTRIAL

10.1 Yale Land Acquisition and Habitat Protection Fund. PacifiCorp shall establish and maintain a fund in a Tracking Account for acquisition of interests in land to protect wildlife habitat (which may include, without limitation, fee interests and conservation easements) ("Interests in Land") in the vicinity of the Yale Project (the "Yale Fund"). The TCC described in Section 14.2 will select Interests in Land for acquisition and approve the final terms of proposed acquisitions to be made with the Yale Fund. Once Interests in Land are selected for acquisition, PacifiCorp shall execute approved transactions and the Interests in Land acquired will be owned by PacifiCorp, unless otherwise agreed by PacifiCorp and the TCC. PacifiCorp shall contribute a total of $2.5 million to the Yale Fund. The following goals serve as guidelines for the selection of Interests in Land to be acquired with the Yale Fund:

a. Provide movement corridors for elk through the Yale Project area between high-and low-elevation winter range;

b. Protect approximately 660 acres of low-elevation winter range in the vicinity of the Yale Project nearby or adjacent to PacifiCorp-owned lands;

c. Provide approximately 100 acres of land on which forage for elk may be maintained or cultivated in the vicinity of the Yale Project.

10.1.1 Funding Amount, Timing, and Schedule of Funding. PacifiCorp shall provide $1.5 million to the Yale Fund by the first day of PacifiCorp's first fiscal year following the Effective Date of this Agreement. PacifiCorp shall contribute an additional $1 million to the Yale Fund on the first day of PacifiCorp's second fiscal year following the Effective Date of this Agreement. PacifiCorp's contributions shall be made in 2003 dollars, Adjusted for Inflation. PacifiCorp's current fiscal year begins on April 1.

10.1.2 Matching Funds. The TCC may elect, in its discretion, to direct the use of all or part of the Yale Fund to match the cash contributions made by local, state, and federal agencies, and other persons or organizations, for acquisition of Interests in Land in the vicinity of the Yale Project. Any Party may propose a source of matching funds under this subsection.

10.1.3 Use of Funds Beyond the Vicinity of Yale. If suitable Interests in Land are not available or are only available at unreasonable prices in the vicinity of the Yale Project within ten years after the Effective Date, the TCC may direct that such funds be used to accomplish similar goals in other areas of the Lewis River Basin.

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10.2 Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund. The Licensees shall establish and maintain a fund in a Tracking Account for the purpose of acquiring Interests in Land to protect wildlife habitat, in order to meet the objectives of the Wildlife Habitat Management Plan as described in Section 10.8 below, on lands within five miles of the Swift No. 1 and Swift No. 2 Project Boundaries (laterally and upstream, but not downstream) or lands managed by the Licensees associated with Swift No. 1 and Swift No. 2 (laterally and upstream, but not downstream) (the "Swift Fund"). The TCC will select Interests in Land for acquisition and will approve the final terms of proposed acquisitions to be made using the Swift Fund. The Licensees have agreed that PacifiCorp shall make all cash contributions to the Swift Fund, shall execute transactions made with such funds, and shall own the Interests in Lands so acquired. However, for the purpose of credit for wildlife habitat protection during the terms of the New Licenses for the Swift No. 1 and Swift No. 2 Projects, Cowlitz PUD shall be credited with the resource benefits accruing from Interests in Land purchased with the Swift Fund as if it had contributed $1.82 million toward such purchases.

10.2.1 Funding Amount, Timing, and Schedule. PacifiCorp shall contribute a total of $7.5 million to the Swift Fund according to the following payment schedule: make available $3.22 million within 9 months after Issuance of the New License for the Swift No. 1 Project; make available $780,000 within 18 months after Issuance of the New License for the Swift No. 1 Project; and make available $500,000 six months after each of the 3rd, 4th, 5th, 6th, 7th, 8th, and 9th anniversaries of the Issuance of the New License for the Swift No. 1 Project. PacifiCorp's contributions shall be made in 2003 dollars, Adjusted for Inflation.

10.2.2 Matching Funds. The TCC may elect, in its discretion, to use all or part of the Swift Fund to match the cash contributions made by local, state, and federal agencies, and other persons or organizations, for acquisition of Interests in Land in the vicinity of the Swift Projects. Any Party may propose a source of matching funds under this subsection.

10.3 Lewis River Land Acquisition and Habitat Enhancement Fund. PacifiCorp shall establish and maintain a fund in a Tracking Account to acquire or enhance wildlife habitat anywhere in the Lewis River Basin in the vicinity of the Projects (the "Lewis River Fund") in order to meet the objectives of its Wildlife Habitat Management Plan as described in Section 10.8 below. Enhancement projects may be carried out on lands owned by third parties. The TCC will select Interests in Land for acquisition or enhancement and approve final restoration or enhancement measures implemented with the Lewis River Fund. PacifiCorp shall execute approved transactions and implement approved measures. Interests in Land acquired will be owned by PacifiCorp, unless otherwise agreed by PacifiCorp. PacifiCorp shall contribute a total of $2.2 million to the Lewis River Fund.

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10.3.1 Funding Amount, Timing, and Schedule. PacifiCorp shall initially contribute $550,000 to the Lewis River Fund by six months after the fourth anniversary of the Issuance of the New License for the Yale Project, and $550,000 to the Lewis River Fund by six months after the fourth anniversary of the Issuance of the New License for the Swift No. 1 Project. PacifiCorp shall contribute an additional $550,000 to the Lewis River Fund by six months after the sixth anniversary of the Issuance of the New License for the Yale Project, and $550,000 to the Lewis River Fund by six months after the sixth anniversary of the Issuance of the New License for the Swift No. 1 Project. PacifiCorp's contributions shall be made in 2003 dollars, Adjusted for Inflation.

10.3.2 Matching Funds. The TCC may elect, in its discretion, to use all or part of the Lewis River Fund to match the cash contributions made by local, state, and federal agencies, and other persons or organizations, for acquisitions of Interests in Land or for implementation of habitat enhancement measures in the Lewis River Basin. Any Party may propose a source of matching funds under this subsection.

10.3.3 Contribution of Additional Matching Funds. In addition to the contributions made under Section 10.3.1, beginning 18 months after Issuance of the New License for the Yale Project or Swift No. 1 Project, whichever is earlier, PacifiCorp shall match the contributions of local, state, and federal agencies, and other persons or organizations, made for the purposes of this Section 10.3, in an amount not to exceed $100,000 per year, and not to exceed $500,000 in any ten consecutive years. Any Party may propose a source of matching funds under this subsection. If and only if a commitment of funds is made by a party other than PacifiCorp, for acquisitions of Interests in Land or for implementation of habitat enhancement projects approved by the TCC, PacifiCorp shall provide matching funds within the limits set forth above at closing of the real estate transaction; no fund will be created. The TCC will identify Interests in Land for acquisitions or identify habitat enhancement projects to be funded with matching funds, and PacifiCorp shall execute approved acquisitions and implement approved enhancement measures.

10.4 Transaction Costs. The Parties agree that certain transaction costs associated with acquisitions of Interests in Land under Sections 10.1, 10.2, and 10.3 above and habitat enhancement measures under Section 10.3 will be covered by the funds established in those Sections. Covered transaction costs include, but are not limited to, the costs associated with land acquisition, such as completion of appropriate site assessments for hazardous materials; land surveys, including timber cruise if needed; appraisals; habitat surveys; filing fees; excise taxes; title searches, reports, fees, and insurance; closing costs; preparation of land acquisition agreements; and any required governmental approvals. Transaction costs that are not covered by the funds established under Sections 10.1 through 10.3 include internal personnel and administrative costs of the parties associated with land acquisitions, such as staff salaries and benefits; attorney fees and other legal expenses incurred by PacifiCorp or any other party; and fees paid by

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PacifiCorp to third parties for administrative costs associated with a third party's' acquisition of Interests in Land on behalf of PacifiCorp. During the execution of any transaction, PacifiCorp shall notify the TCC if it appears that transaction costs will be significantly higher than expected, and the TCC may determine not to proceed with that transaction.

10.5 Management of Funds. Funds provided by PacifiCorp, as described in Sections 10.1, 10.2, and 10.3 above, shall be held by PacifiCorp in a Tracking Account until acquisitions of Interests in Land are executed or habitat enhancement measures under Section 10.3 are implemented. PacifiCorp shall accrue interest on Fund monies held by PacifiCorp from the date the monies are due to be placed into the Fund at the prime interest rate printed in the *Wall Street Journal* for the weekday nearest to April 1 of each year. If such rate ceases to be published in the *Wall Street Journal*, the Parties shall meet and agree upon an alternate source for the prime interest rate. Interest shall be computed, compounded, and added to the Fund once annually as of that date. PacifiCorp shall use monies in the Funds to pay the purchase price for Interests in Land and for covered transaction and implementation costs as they are incurred. Funds not expended in any given year shall be carried over to a subsequent year. PacifiCorp shall provide annual reports to the TCC regarding Fund expenditures under Sections 10.1, 10.2 and 10.3 above. Such annual reports may be included as part of the detailed annual reports of the TCC activities required by Section 14.2.6.

10.6 Completed Implementation; Advance Purchases.

10.6.1 Cowlitz PUD. In 2001, Cowlitz PUD purchased, for $950,000, 283.7 acres of wildlife habitat on the north side of Swift Reservoir, known as the Devil's Backbone. Cowlitz PUD has since managed those lands for the long-term benefit of a broad range of fish, wildlife, and native plants and shall manage such lands under its Wildlife Habitat Management Plan as described in Section 10.8 below. Those lands include an 87.6-acre conservation covenant which Cowlitz PUD shall manage in perpetuity for the protection of bull trout rearing areas in the Swift Creek Arm of Swift Reservoir, which was dedicated for mitigation of ongoing operations under the existing licenses for the Projects ("Devil's Backbone Conservation Covenant"). The Parties agree and acknowledge that the costs and resource benefits associated with the purchase of Cowlitz PUD's Devil's Backbone property, as well as Cowlitz PUD's commitment to maintain such lands under this Agreement, are included in this Settlement Agreement as partial fulfillment of Cowlitz PUD's mitigation obligations, but the cost of purchasing such lands shall not be credited toward the funding commitments in Section 10.2 above.

10.6.2 PacifiCorp. In 2000, PacifiCorp purchased, for $450,000, 156 acres of wildlife habitat on the south-facing slope of Swift Reservoir, known as Swift Parcel 2. In 2000, PacifiCorp purchased, for $1.85 million, 770 acres of wildlife habitat near Cougar

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and Panamaker Creeks. Those lands include a 213-acre conservation covenant in perpetuity for the protection of bull trout (the "Cougar Creek Conservation Covenant"). In addition, a 34-acre conservation covenant in perpetuity is provided on PacifiCorp land on the Devil's Backbone of Swift Reservoir. Both conservation covenants were dedicated for mitigation of ongoing operations under the existing licenses for the Projects. PacifiCorp has since managed those lands for the long-term benefit of a broad range of fish, wildlife, and native plants and shall manage such lands under its Wildlife Habitat Management Plan as described in Section 10.8 below. The Parties agree and acknowledge that the costs and resource benefits associated with the purchase of such lands, as well as PacifiCorp's commitment to maintain such lands under this Agreement, are included in this Settlement Agreement as partial fulfillment of PacifiCorp's mitigation obligations, but the cost of purchasing such lands shall not be credited toward the funding commitments in Sections 10.1 through 10.3 above.

10.6.3 Advance Purchases. From time to time after the Effective Date, one or more of the Parties may become aware of a short-term opportunity to purchase Interests in Land that may serve the purposes of the Funds created under Sections 10.1 through 10.3 at a favorable price and may communicate that opportunity to PacifiCorp. PacifiCorp may, at its sole risk and expense, but shall not be obligated to, purchase such Interests in Land believing that the TCC may desire the same. Within 30 days of acquiring such Interests in Land, PacifiCorp shall offer such Interests in Land to the TCC to serve the purposes of Sections 10.1 through 10.3 above. The TCC shall have 45 days after receiving such offer in which to determine whether to accept such Interests in Land under one of those Sections at the purchase price paid by PacifiCorp. If accepted, the monies expended by PacifiCorp to acquire such Interests in Land shall be credited toward the next contributions due from PacifiCorp and such lands shall be managed under PacifiCorp's Wildlife Habitat Management Plan. If the Interests in Land are not accepted by the TCC within such 45-day period, PacifiCorp shall be free to use or dispose of such Interests in Land as it sees fit and PacifiCorp shall not be required to manage such Interests in Land under its Wildlife Habitat Management Plan.

10.7 Conservation Easements. The Parties recognize the value of pursuing conservation easements, since it is possible that more acres of land may be protected for wildlife habitat through conservation easements as compared to the fee-simple acquisition of lands. The Parties do not intend to be limited to statutory conservation easements but may pursue other similar Interests in Land. The following are guidelines for the selection and acquisition of conservation easements to be purchased with the Funds described in Sections 10.1 through 10.3:

a. Easement areas should be selected that will protect wildlife habitat from further development;

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b. Easement areas should be selected that will allow the CIT and Yakama Nation reasonable access for cultural activities on lands acquired under this Section 10.7;

c. Easement areas should be selected that will allow reasonable public access for recreation, including hunting on lands acquired under this Section 10.7; and

d. When feasible, easements should be selected in areas where the property owner is agreeable to easement terms providing for the management of the lands encumbered by the easement to provide for enhanced habitat management, such as modified timber harvest practices, that will result in greater protection of habitat areas.

The TCC may select easements that satisfy fewer than all of the above guidelines.

10.8 Wildlife Habitat Management Plans. Beginning on the Effective Date and prior to the Issuance of the New Licenses, PacifiCorp and Cowlitz PUD, in Consultation with the TCC, shall develop Wildlife Habitat Management Plans ("WHMPs") for their respective lands designated in Section 10.8.5 below in order to accomplish the wildlife objectives referenced in the attached Schedule 10.8. The purpose of the WHMPs shall be to benefit a broad range of fish, wildlife, and native plant species, including, but not limited to, large and small game, amphibians, bats, forest raptors, neo-tropical birds, and culturally significant native plants. PacifiCorp and Cowlitz PUD may collaborate to produce a single WHMP.

10.8.1 Development of WHMPs. Beginning on the Effective Date, the Licensees, in Consultation with the TCC, shall develop specific standards and guidelines based upon on the objectives identified in Schedule 10.8. PacifiCorp and Cowlitz PUD shall then prepare their respective draft WHMPs that achieve the objectives and the specific standards and guidelines. The WHMPs shall provide for monitoring of the WHMPs' effectiveness and progress toward meeting their objectives. Each WHMP shall identify those WHMP-managed lands for which wildlife habitat is a secondary use, and shall describe how such lands will be managed under the WHMP. After PacifiCorp and Cowlitz PUD have prepared the draft WHMPs, they will submit them to the TCC for review, comment, and approval. After the TCC has approved the WHMPs, PacifiCorp and Cowlitz PUD shall finalize the WHMPs and submit them to the Commission. Any disputes regarding provisions of the final WHMPs shall be resolved under Section 15.10 below. Within six months after Issuance of each New License, the Licensees shall implement their respective WHMPs for lands associated with that Project (as shown in Exhibit A for PacifiCorp and Exhibit B for Cowlitz PUD) up to the limits of the funding provided in Section 10.8.2, except as expressly provided in Section 10.8.3 below. From the Effective Date until six months after Issuance of the New License for the Merwin Project, PacifiCorp shall continue to manage lands associated with the Merwin Project

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pursuant to Article 48 of the existing Merwin license.

10.8.2 Funding. PacifiCorp and Cowlitz PUD shall provide annual funding for the implementation of the WHMPs on their respective lands identified in Section 10.8.5 as follows:

10.8.2.1 PacifiCorp. PacifiCorp's level of funding will be tied to the Interests in Land that PacifiCorp owns or controls, as follows: (i) PacifiCorp shall fund $27 (in 2003 dollars, Adjusted for Inflation) per acre for lands it owns in fee simple that are managed under its WHMP as of that date; and (ii) PacifiCorp shall fund $13.50 (in 2003 dollars, Adjusted for Inflation) per acre for other Interests in Land, including, without limitation, conservation easements and similar Interests in Land that are managed under its WHMP as of that date.

10.8.2.2 Cowlitz PUD. Cowlitz PUD shall fund $27 per acre (in 2003 dollars, Adjusted for Inflation) for lands it owns in fee simple that are managed under its WHMP as of that date.

10.8.2.3 Management of Funds. Funds provided by Licensees under this Section 10.8.2 shall be made available for lands associated with each Project (as shown in Exhibit A for PacifiCorp and Exhibit B for Cowlitz PUD) six months after the relevant Project's New License is Issued and annually thereafter. Such funds shall be held in a Tracking Account and shall be expended by the Licensees on their respective lands as their WHMPs are implemented under Section 10.8. The Licensees shall accrue interest on Fund monies held by the Licensees from the date the monies are due to be placed into the Fund, at the prime interest rate printed in the *Wall Street Journal* for the weekday nearest to April 1 of each year. If such rate ceases to be published in the *Wall Street Journal*, the Parties shall meet and agree upon an alternate source for the prime interest rate. Interest shall be computed, compounded, and added to the Fund once annually as of that date. PacifiCorp's total funding (but not the amount per acre) will increase as additional acres of Interests in Land are acquired to be managed under its WHMP. However, except as provided in Section 10.8.5 below, the funding provided in this Section 10.8.2 shall completely fulfill and satisfy the Licensees' respective obligations to fund implementation, modification, and monitoring of the Interests in Land subject to their respective WHMPs. No provision of the WHMPs, nor any action of the Parties under this Agreement, shall increase the monetary obligations of the Licensees with respect to their WHMPs without the express written consent of the affected Licensee. Funds that are not spent in a given year will be carried over to be used for future implementation of the respective WHMP. Any funds derived from management of lands subject to the WHMPs, including compensation for timber removed pursuant to the WHMPs, shall be retained by the Licensees for their respective properties.

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10.8.3 Management of Plan. Subject to the oversight of the TCC, PacifiCorp and Cowlitz PUD shall implement their respective WHMPs. The Licensees shall submit to the TCC annually a written plan (the "Annual Plan") to use the funds available to implement the WHMPs on their respective lands. The Annual Plan may be included as part of the detailed annual reports of the TCC activities required by Section 14.2.6. Once the TCC has approved such Annual Plans, they shall be implemented by the Licensees using the funds made available for that purpose under Section 10.8.2. The funds shall be used to reimburse Licensees for use of their employees and contractors to manage, implement, and monitor actions taken under the WHMPs as provided in the Annual Plan. Further, the WHMPs shall not prevent either of the Licensees from carrying out any other legal requirement with respect to or upon its respective lands in any lawful manner, including, without limitation, in compliance with the conditions of the New Licenses, subject to Section 10.8.5.5 below. If the TCC believes that another party can implement the WHMPs more cost effectively, the respective Licensee shall, at the request of the TCC, seek bids from third party contractors to implement their respective WHMP for some period during the term of the applicable New License(s). If the bidding process identifies third party contractors who can do the work more cost effectively, the respective Licensee shall engage such contractors, provided that they are acceptable to the Licensee, in its reasonable discretion, considering policies, contracting requirements, and procedures and qualifications normally applied by the Licensees when engaging other contractors to work on their respective properties, and subject to dismissal if any contractor's performance violates such policies and requirements. If contractors are retained at the recommendation of the TCC, such contractors shall have full responsibility, during the period of their engagement, for implementation of the respective WHMPs as provided under this Section 10.8, including preparation of Annual Plans and any required reporting to the TCC. During the period such third party is retained, the Licensees' obligations for implementation of their respective WHMPs shall be fulfilled in their entirety by providing the funds as required under Section 10.8.2. In no event shall Licensees be required to fund implementation of their respective WHMPs in excess of the amounts provided for in Section 10.8.2.

10.8.4 Habitat Evaluation Procedures. The Licensees shall update and repeat the Habitat Evaluation Procedure (Final Lewis River Technical Report – TER 2 (Cowlitz PUD and PacifiCorp 2004) (the "HEP") as provided in this Section 10.8.4, and the costs of such actions shall be in addition to the funding provided under Section 10.8.2.

10.8.4.1 Updating Existing Information. As PacifiCorp expends Fund assets to acquire lands that will be managed under its WHMP, PacifiCorp shall update the existing HEP data. This will require mapping and cover-typing the newly acquired lands, but assumes that Habitat Suitability Index ("HSI") values from the current HEP are applicable. If new or different habitat types are encountered, new HSI values will be determined.

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10.8.4.2 Review of Effectiveness of WHMPs. At year 17 after Issuance of all New Licenses, PacifiCorp shall repeat the HEP for all WHMP lands that it manages, and Cowlitz PUD shall repeat the HEP for all WHMP lands that it manages, using essentially the same sample density that was used to develop the existing HEP, with a focus on measuring any changes in habitat value of these lands compared with the baseline HEP data, and determining whether the original HEP projections regarding habitat values (based on the objectives in the WHMPs) have been met. If the original HEP projections have not been met, each Licensee shall modify its respective WHMP to achieve its WHMP objectives, subject to the review and approval of the TCC, but shall not be obligated to increase in any way its funding obligations under Section 10.8.2. The Licensees shall base any modifications on the results of the HEP, although the Licensees may include species model updates and new management priorities as appropriate. The TCC must approve modifications before they are filed with the Commission and implemented by PacifiCorp and Cowlitz PUD.

10.8.5 WHMP Lands. The following lands shall be managed under the respective WHMPs. The maps and tables attached as Exhibit A for PacifiCorp and Exhibit B for Cowlitz PUD more fully describe lands that shall be managed under the respective WHMPs, as well as those lands that will not be managed under the WHMPs, and identifies which lands are associated with which Projects. Exhibits A and B shall be updated by PacifiCorp and Cowlitz PUD, respectively, as new lands are acquired as provided below.

10.8.5.1 Lands Owned or Controlled by PacifiCorp as of the Effective Date.

10.8.5.1.1 156 acres on the south-facing slope of Swift Reservoir, known as the Swift Parcel 2, purchased by PacifiCorp in 2000;

10.8.5.1.2 770 acres near Cougar and Panamaker Creeks purchased by PacifiCorp in 2000;

10.8.5.1.3 The 129 acres associated with the Yale Project that were acquired by PacifiCorp in 2002;

10.8.5.1.4 The 5,600 acres that are currently managed as part of the existing Merwin Wildlife Habitat Management Plan;

10.8.5.1.5 The lands proposed to be managed under the Yale application filed with the Commission in 1999; and

10.8.5.1.6 All other PacifiCorp-owned lands adjacent to the

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Projects as of the Effective Date, except as provided in attached Exhibit A.

10.8.5.2 Lands Owned or Controlled by Cowlitz PUD as of the Effective Date.

10.8.5.2.1 283 acres on the south-facing slope of Swift Reservoir, known as the Devil's Backbone, purchased by Cowlitz PUD in 2001; and

10.8.5.2.2 All other Cowlitz PUD-owned lands within the Swift No. 2 Project Boundary and related to the operation of the Swift No. 2 Project as of the Effective Date, except as provided in attached Exhibit B.

10.8.5.3 Interests in Land Acquired with the Yale Fund and the Lewis River Fund. PacifiCorp shall manage Interests in Land acquired by the Yale Fund and the Lewis River Fund under its WHMP, subject to Section 10.8.3, provided that such Interests in Land are within five miles of the Project reservoirs or other lands managed by PacifiCorp under its WHMP. PacifiCorp shall not develop or use lands acquired beyond such five-mile radius in a manner inconsistent with the objectives of its WHMP, and such lands shall not be subject to active management under its WHMP.

10.8.5.4 Interests in Land Acquired with the Swift Fund. PacifiCorp shall manage Interests in Land acquired with the Swift Fund that it owns under its WHMP, subject to Section 10.8.3.

10.8.5.5 Mitigation for Impacts on Wildlife Habitat. If PacifiCorp proposes to take action on its Interests in Land that are managed under its WHMP, other than those actions specifically prescribed under this Agreement, and that action makes those lands no longer available for wildlife habitat, PacifiCorp shall consult with the TCC to determine if any mitigation is necessary. If Cowlitz PUD proposes to take action on its Interests in Land managed under its WHMP, other than those actions specifically prescribed under this Agreement, and that action makes those lands no longer available for wildlife habitat, Cowlitz PUD shall consult with the TCC to determine if any mitigation is necessary. If the TCC determines that mitigation is necessary, then whichever Licensee is responsible in the specific case shall implement that mitigation. Mitigation shall not be required for land parcels specifically identified in the WHMPs as having wildlife habitat as the secondary use.

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SECTION 11: RECREATION

11.1 Recreation Resource Management Plan. PacifiCorp has submitted a draft Recreation Resource Management Plan ("RRMP") to the Commission in its Final Application for New License Volume III of III. The RRMP includes the measures set forth in Section 11.2. PacifiCorp shall finalize the RRMP as directed by the Commission.

11.2 PacifiCorp Recreation Measures. PacifiCorp shall implement the recreation measures set forth in Sections 11.2.1 through 11.2.17. Where the provisions below state that a recreation measure is to begin upon or after Issuance of a New License, PacifiCorp shall implement the measure after all administrative and judicial rehearings, reviews. and appeals relating to that New License have been finally adjudicated or dismissed. Where the provisions below state that a recreation measure is to begin or be completed a stated number of years after Issuance of a New License, PacifiCorp shall implement or complete, as appropriate, the measure the stated number of years after all administrative and judicial rehearings, reviews, and appeals relating to that New License have been finally adjudicated or dismissed. If there is any conflict between the provisions of Sections 11.2.1 through 11.2.17 and the RRMP, the provisions of Sections 11.2.1 through 11.2.17 shall control.

11.2.1 Swift Reservoir.

11.2.1.1 Swift Dispersed Shoreline Use Sites. PacifiCorp shall maintain shoreline camping and day use sites on lands owned by PacifiCorp and on National Forest System lands within the Swift No. 1 Project Boundary in a manner consistent with the Recreation Dispersed Shoreline Use Program ("RDSUP") that is incorporated into the RRMP. For lands other than National Forest System lands and PacifiCorp lands, with the landowner's consent, PacifiCorp shall maintain, at its expense, shoreline sites on such lands in a manner consistent with the RDSUP that is incorporated into the RRMP, provided that PacifiCorp has entered into a maintenance agreement with such landowners containing terms acceptable to PacifiCorp. During the first year of the New License for the Swift No. 1 Project, PacifiCorp shall reassess all existing dispersed shoreline sites to determine suitability for hardened camp sites, day use sites, or closure. During the 2nd and 3rd years of the New License for the Swift No. 1 Project, PacifiCorp shall: (1) conduct a human waste disposal management program assessment as described in the RDSUP; (2) harden, as appropriate, suitable shoreline sites for camping; (3) sign as closed inappropriate sites; and (4) sign appropriate hardened camping and day use sites. Upon completion of the waste disposal management program assessment, PacifiCorp shall either implement an appropriate method identified through the assessment or continue assessing alternative methods for addressing waste disposal management until an appropriate method is identified and

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implemented.

11.2.1.2 Eagle Cliff Trail. Subject to obtaining acceptable minimal cost easements, PacifiCorp shall develop a trail connection between Eagle Cliff Park and the USDA-FS boundary. Trail facilities shall include the engineered trail, signage, and resource protection as appropriate. PacifiCorp shall conduct a detailed trail routing study in the first year of the New License for the Swift No. 1 Project. Criteria to be used in this study include locating a safe, economical, and buildable trail route and avoiding potential impacts on bull trout, to the extent practicable, by locating the trail away from sensitive habitat areas. PacifiCorp shall coordinate with and obtain the approval of USFWS on the final designs and location of the trail to ensure that impacts on bull trout are acceptable. PacifiCorp shall engineer, design, and permit the trail as soon as practicable following completion of the trail routing study. Subject to obtaining necessary easements, Permits, and USFWS approval, construction will commence on the 4th anniversary of Issuance of the New License for the Swift No. 1 Project. If necessary easements and Permits are not obtained by the 4th anniversary of Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall make reasonable efforts to obtain such easements and Permits, and shall commence construction after obtaining such easements and Permits.

11.2.1.3 Control of Swift Forest Campground. By the first anniversary of the Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall use best reasonable efforts to either (1) negotiate a management agreement for the Swift Forest Campground with WDNR for the term of the New License for the Swift No. 1 Project, or (2) acquire ownership of the Swift Forest Campground from WDNR. PacifiCorp's obligations under this Agreement with respect to the Swift Forest Campground are contingent on PacifiCorp's either (a) entering into a management agreement with WDNR for the term of the New License for the Swift No. 1 Project, or (b) acquiring ownership of the Swift Forest Campground from WDNR, in either case on terms acceptable to both PacifiCorp and WDNR.

11.2.1.4 Swift ADA Accessibility Improvements. Upon Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall conduct an evaluation of Americans with Disabilities Act ("ADA") accessibility needs at Swift Reservoir using the Americans with Disabilities Act Accessibility Guidelines, as amended ("ADAAG"). PacifiCorp shall renovate existing facilities not otherwise planned for renovation at Swift Reservoir, between the first and seventh anniversaries of the Issuance of the New License for the Swift No. 1 Project, to comply with the ADA and ADAAG.

11.2.1.5 Swift Day Use Facilities.

11.2.1.5.1 Picnic Shelter. By the fifth anniversary of Issuance of the New

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License for the Swift No. 1 Project, PacifiCorp shall provide a new day-use group picnic shelter in the day use area of the Swift Forest Campground. PacifiCorp shall make this shelter available for reservations.

11.2.1.5.2 Double Vault Toilet. By the eleventh anniversary of Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall:

(1) install a double vault toilet at Eagle Cliff Park;

(2) create a small picnic area at the north (upstream) end of the Eagle Cliff Park parking area; and

(3) abandon and remove facilities in the old Eagle Cliff day-use area south of the roadway.

11.2.1.6 Swift Forest Campground and Group Camp Expansion. After Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall expand camping facility capacity at the Swift Forest Campground, when needed, based on monitoring trigger thresholds described in Exhibit E of the RRMP. PacifiCorp shall, to the extent practicable, expand the facilities to provide either: (1) 27 new RV/tent campsites and 2 group campsites; or (2) 40 new RV/tent campsites. Water faucets, gray water sumps, and restrooms will be shared between campsites. Redesign and relocation of the boat launch parking and access may be necessary. PacifiCorp shall provide an adequate buffer distance between facilities.

11.2.1.7 Swift Operations and Maintenance.

11.2.1.7.1 Swift Annual Recreation Facility O&M. Beginning upon Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall maintain its existing recreation facilities within the Swift No. 1 Project Boundary (e.g., Eagle Cliff Park and Swift Forest Campground, boat launch, and day use area) and all new recreation facilities created at Swift Reservoir, as required by this Agreement, pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

11.2.1.7.2 Swift Campground Schedules. PacifiCorp shall continue the current management practice of keeping Swift Forest Campground open through mid-November for hunter camping.

11.2.1.7.3 Swift Shoreline Use Sites O&M. Beginning upon Issuance of the New License for the Swift No. 1 Project, PacifiCorp shall maintain

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shoreline use sites within the Swift No. 1 Project Boundary pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

11.2.1.8 Swift Boat Launch. If during the term of the New License for the Swift No. 1 Project, any Party obtains funding for and constructs a new boat launch to allow boat launches when the Swift Reservoir is at the lower range of its normal operating levels, and associated parking lot and restrooms, then PacifiCorp shall maintain such boat launch and associated parking lot and restrooms after they are constructed for the remaining term of the New License for the Swift No. 1 Project, provided that if such boat launch, parking lot, or restrooms are destroyed by vandalism or natural processes, PacifiCorp shall not be required to replace such facilities. The Party that constructs the new boat launch shall consult with PacifiCorp regarding the site selection and design of the boat launch.

11.2.2 Yale Lake.

11.2.2.1 Yale Dispersed Shoreline Use Sites. PacifiCorp shall maintain shoreline camping and day use sites on lands owned by PacifiCorp in a manner consistent with the RDSUP. With the landowner's consent, PacifiCorp shall maintain, at its expense, shoreline sites on lands owned by others in a manner consistent with the RDSUP, provided that PacifiCorp has entered into a maintenance agreement with such landowners containing terms acceptable to PacifiCorp. During the first year of the New License for the Yale Project, PacifiCorp shall reassess all existing dispersed shoreline sites to determine suitability for hardened camp sites, day use sites, or closure. During the 2nd and 3rd years of the New License for the Yale Project, PacifiCorp shall: (1) conduct a human-waste disposal management program assessment as described in the RDSUP; (2) harden, as appropriate, suitable shoreline sites for camping; (3) sign as closed inappropriate sites; and (4) sign appropriate hardened camping and day use sites. Upon completion of the waste disposal management program assessment, PacifiCorp shall either implement an appropriate method identified through the assessment or continue assessing alternative methods for addressing waste disposal management until an appropriate method is identified and implemented.

11.2.2.2 Yale/IP Road Phase One. PacifiCorp shall use best reasonable efforts after Issuance of the New License for the Yale Project to secure, at the lowest cost possible, non-motorized multi-use recreational access on the existing Yale/IP Road from the bridge over the Lewis River at the eastern terminus to Healy Road to the west. If a continuous trail is not achievable in the near term, PacifiCorp shall pursue an out-and -back trail. PacifiCorp shall secure access, complete bridge safety evaluations, rock-fall hazard assessments, design for bridge safety retrofit, engineering, and permitting by the fourth anniversary of Issuance of the New License for the Yale Project, at a cost not to exceed $500,000. If efforts to secure access are not achieved by the fourth anniversary of

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Issuance of the New License for the Yale Project, PacifiCorp shall make reasonable efforts to secure such access. Should these efforts cost less than $500,000, PacifiCorp shall add the remaining funds to the budget required under Section 11.2.2.3. The measures required by this Section 11.2.2.2 comprise "Phase One" of the Yale/IP Road measures.

11.2.2.3 Yale/IP Road Phase Two. When Phase One described in Section 11.2.2.2 is complete and all necessary access has been secured, PacifiCorp shall: (1) clean the trail surface and repair potholes; (2) establish 1 trailhead if only an out-and-back trail is possible, or 2 trailheads if the complete trail is possible (each to include 15-20 parking stalls, 1 vault toilet and 2 picnic tables); (3) if the complete trail is possible, develop a mid-point trailhead (to include a single-hole vault toilet and 2 picnic tables); and (4) provide appropriate reservoir access, trail and other signage, necessary gates, and bridge safety railing retrofits ("Phase Two"). PacifiCorp shall provide up to $596,000 toward the cost of these actions.

11.2.2.4 Yale/IP Road Phase Three. PacifiCorp shall resurface 12 miles of 10-foot-wide, 2-inch-thick asphalt paving along the Yale/IP Road trail corridor ("Phase Three"). PacifiCorp shall implement this requirement at the later of the two following dates: between the fifteenth and sixteenth anniversaries of the Issuance of New License for the Yale Project, or when Yale/IP Road Phases One and Two are complete.

11.2.2.5 Yale Trails. By the fifth anniversary of Issuance of the New License for the Yale Project, PacifiCorp shall complete the following capital improvements at Yale Lake:

a. PacifiCorp shall promote existing and new non-motorized, multi-use trails in the Yale Project area with signs and brochures.

b. PacifiCorp shall develop a non-motorized, multi-use, natural-surface trail between Saddle Dam Park parking lot and the existing Saddle Dam Trail at the northern end of Saddle Dam.

c. PacifiCorp shall improve parking outside of the gate at Saddle Dam Park to accommodate 5 to 10 vehicles with horse trailers and to provide one horse tie-up rail.

d. PacifiCorp and WDFW shall work cooperatively to develop a mutually agreeable strategy to evaluate the potential impacts of equestrian use on elk during the elk wintering season at Saddle Dam Farm and to minimize any impacts through signage and education, vegetation buffers, or relocating trails. If these methods are not feasible or successful and if equestrian use warrants, PacifiCorp shall, at the direction of WDFW, seasonally close the trail(s) via appropriate signage and gates.

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e. PacifiCorp shall provide a new non-motorized, multi-use, natural-surface trail between Cougar Campground and Beaver Bay Campground, approximately 2 miles long.

f. PacifiCorp shall provide a 0.5-mile, non-motorized, multi-use, gravel surface trail loop from the public restroom at the town of Cougar to a reservoir overlook area and back.

11.2.2.6 Yale ADA Accessibility Improvements. Upon Issuance of the New License for the Yale Project, PacifiCorp shall conduct an evaluation of ADA accessibility needs using the ADAAG. PacifiCorp shall renovate existing facilities not otherwise planned for renovation at Yale Lake, between the first and seventh anniversaries of Issuance of the New License for the Yale Project, to comply with the ADA and ADAAG.

11.2.2.7 Yale Park Boat Launch. By the fourth anniversary of Issuance of the New License for the Yale Project, PacifiCorp shall complete the following at Yale Park: (1) extend one concrete boat ramp lane approximately 10 to 20 feet horizontally and 1.5 to 3 feet vertically, depending on topography; and (2) replace the existing floating boat docks.

11.2.2.8 Beaver Bay Boat Launch. By the fourth anniversary of Issuance of the New License for the Yale Project, PacifiCorp shall complete the following at Beaver Bay boat launch: (1) replace the floating dock; and (2) repair the eroded side banks next to the boat ramp.

11.2.2.9 Beaver Bay Day Use Parking. By the fourth anniversary of Issuance of the New License for the Yale Project, PacifiCorp shall improve the separation between the boat launch parking area and the adjacent wetland at Beaver Bay boat launch by providing a new earth berm, drainage ditch, and fence. PacifiCorp shall acquire all necessary Permits to implement these actions. The new earth berm shall be located 10 to 15 feet from the existing berm on the reservoir side or other location acceptable to both WDFW and PacifiCorp.

11.2.2.10 Yale Lake Day Use Facilities. By the seventh anniversary of Issuance of the New License for the Yale Project, PacifiCorp shall complete the following at Yale Park: (1) better define and expand the parking lot; and (2) provide a new day use group picnic shelter in the day use picnic area at Yale Park, Cougar Park, or Beaver Bay. The shelter must be placed where users can access the shoreline to beach boats. Upon completion, PacifiCorp shall make the new group picnic shelter available on a reservation system.

11.2.2.11 Cougar Day Use Restroom. By the sixth anniversary of the Issuance of the New License for the Yale Project, PacifiCorp shall replace or renovate the day-use restroom at Cougar Day-Use Park to meet ADAAG standards.

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11.2.2.12 Beaver Bay Campground and Group Camps. By the thirteenth anniversary of Issuance of the New License for the Yale Project, PacifiCorp shall redesign the Beaver Bay Campground, including access routes, to: (1) provide for a total of approximately 43 renovated RV/tent campsites or 4 group camps (providing approximately 60 campsites), depending on demand; (2) provide for 1 renovated group camp accommodating approximately 15 RVs; (3) remove approximately 20 campsites and the roadway adjacent to the wetland complex; and (4) replace the two older, existing restrooms.

11.2.2.13 Cougar Campground. By the fourteenth anniversary of Issuance of the New License for the Yale Project, PacifiCorp shall renovate the existing tent-only campground sites at Cougar Campground and relocate the shoreline sites farther back from the shoreline while retaining approximately 45 campsites.

11.2.2.14 Cougar Campground and Group Camp Expansion. After Issuance of the New License for the Yale Project, when needed based on monitoring trigger thresholds described in Exhibit E of the RRMP, PacifiCorp shall expand camping capacity at Cougar Campground by developing either approximately 78 new RV/tent campsites and a new group site, or 90 new RV/tent campsites, based on demand. The new sites shall be located in an undeveloped area between Cougar Campground and Lewis River Road, and potentially in the existing Cougar Campground boat launch area, which may be closed to allow increased campground capacity. PacifiCorp shall provide adequate buffer distance between Cougar Creek and Lewis River Road and the new campground expansion area. PacifiCorp shall coordinate site expansion with USFWS to ensure protection of the Cougar Creek Conservation Covenant.

11.2.2.15 Yale Operations and Maintenance.

11.2.2.15.1 Yale Annual Recreation Facility O&M. Beginning upon Issuance of the New License for the Yale Project, PacifiCorp shall maintain its existing recreation facilities within the Yale Project Boundary, and all new recreation facilities created at Yale Lake, as required by this Agreement, pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

11.2.2.15.2 Yale Shoreline Use Sites O&M. Beginning upon Issuance of the New License for the Yale Project, PacifiCorp shall maintain its shoreline use sites pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

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11.2.3 Lake Merwin.

11.2.3.1 Merwin Dispersed Shoreline Use Sites. PacifiCorp shall maintain shoreline day use sites on lands owned by PacifiCorp in a manner consistent with the RDSUP. With the landowner's consent, PacifiCorp shall maintain, at its expense, shoreline sites on lands owned by others in a manner consistent with the RDSUP, provided that PacifiCorp has entered into a maintenance agreement with such landowners containing terms acceptable to PacifiCorp. By the first anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall inventory existing campsites and day-use sites and identify appropriate sites for continued day-use recreation. By the fourth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall post these sites that are on PacifiCorp-owned land to indicate that "pack it in/pack it out" refuse removal is required by site users and that "camping is not allowed."

11.2.3.2 Merwin Trails. By the fifth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall promote existing and new non-motorized, multi-use trails in the Merwin Project area with signs and brochures at Merwin Park and Cresap Bay Campground.

11.2.3.3 Marble Creek Trail. By the fourth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall: (1) improve the existing half-mile Marble Creek non-motorized, multi-use trail to ADAAG standards; (2) remove the existing viewing platform; (3) evaluate the need for safety fencing at the trail terminus; (4) provide a bench or picnic table at the trail end; and (5) provide information about Marble Creek and the falls at the trail end.

11.2.3.4 South Shore Merwin Trail Access. After Issuance of the New License for the Merwin Project, PacifiCorp and Clark County shall evaluate the feasibility of establishing an easement over PacifiCorp's lands to connect a proposed Clark County regional park on the south side of Lake Merwin and the reservoir shoreline, terminating at a naturally appearing, low development shoreline site. The purpose of this easement is to allow pedestrian access to the shoreline, supported by Clark County parking and other facilities farther up the hill on Boncombe Hollow Road on land not owned by PacifiCorp. Under the terms of this Agreement, PacifiCorp would provide the easement and Clark County would develop and operate the site.

11.2.3.5 Merwin ADA Accessibility Improvements. Upon Issuance of the New License for the Merwin Project, PacifiCorp shall conduct an evaluation of ADA accessibility needs using the ADAAG. PacifiCorp shall renovate existing facilities not otherwise planned for renovation at Lake Merwin, between the first and seventh anniversaries of Issuance of the New License for the Merwin Project to comply with the ADA and ADAAG.

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11.2.3.6 Boat Launches. By November 30, 2004, PacifiCorp shall extend the boat launch ramp at Speelyai Bay Park by extending the existing concrete ramp approximately 6 feet vertical and 45 feet horizontal, and shall replace the boarding floats.

11.2.3.7 Yale Bridge (Merwin) Non-Motorized Boating Access. By the sixth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall: (1) provide an improved river access site at the Yale Bridge area for small, non-motorized watercraft launching and take-out; (2) install new steps and railings along the hillside slope from the gravel parking area next to the bridge to the reservoir shoreline; and (3) provide appropriate signage. PacifiCorp shall not be responsible for litter control in this area, which will be designated "pack it in/pack it out."

11.2.3.8 Merwin Park Day Use Facilities. By the fourth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall provide 2 new volleyball courts, 1 new children's play structure, and four new horseshoe pits at Merwin Park. The children's play structure shall cost no more than $150,000.

11.2.3.9 Merwin Park Picnic Shelters. By the fourth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall: (1) provide 2 new day use group picnic shelters at Merwin Park; and (2) remove the existing fixed picnic tables on the hillside at Merwin Park and replace them in the level grass area with a suitable number of portable tables.

11.2.3.10 Speelyai Bay Park Restroom. By the sixth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall upgrade the existing restroom building at Speelyai Bay Park to meet ADAAG standards within the existing building envelope. If this is not possible because of building size limitations and use needs, PacifiCorp shall replace it with a new building that meets ADAAG standards.

11.2.3.11 Day Use Parking. By the twelfth anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall improve parking in the quarry area at Speelyai Bay Park by providing gravel and marking parking spaces and shall evaluate the feasibility of providing additional parking under the nearby Project transmission lines with trail access to the boat launch.

11.2.3.12 Merwin Operations and Maintenance.

> 11.2.3.12.1 Annual Recreation Facility O&M. Beginning upon Issuance of the New License for the Merwin Project, PacifiCorp shall maintain its existing recreation facilities within the Merwin Project Boundary and all new recreation facilities created at Lake Merwin, as required by this Agreement, pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

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11.2.3.12.2 Cresap Bay Campground Schedule. Beginning upon Issuance of the New License for the Merwin Project, PacifiCorp shall keep Cresap Bay Campground and Day Use Area open through the month of September, and shall close such areas from October 1 at least through May 1.

11.2.3.12.3 Merwin Shoreline Use Sites O&M. Beginning upon Issuance of the New License for the Merwin Project, PacifiCorp shall maintain shoreline day use sites at Lake Merwin pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

11.2.4 Lower Lewis River (Below Merwin Dam).

11.2.4.1 Lower Lewis River Vault Toilets. By the first anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall provide new, ADA-accessible, concrete double vault toilets similar to the type at the Cowlitz River Barrier Dam facility at (1) the Cedar Creek River Access Site; and (2) the Lewis River Hatchery River Access Site. By the same date, PacifiCorp shall provide vault toilets (CXT brand or its equivalent) as follows: (a) one single-vault toilet at the Merwin Hatchery River Access Site; and (b) one single-vault toilet at the Johnson Creek River Access Site.

11.2.4.1.1 Island River Access Toilet. By April 30, 2007, PacifiCorp shall provide one new, ADA-accessible, concrete double-vault toilet similar to the type at the Cowlitz River Barrier Dam facility at the Island River Access Site.

11.2.4.2 Lower Lewis River Day Use Improvements. By the eleventh anniversary of Issuance of the New License for the Merwin Project, PacifiCorp shall provide 2 to 3 picnic tables at each of the Lower Lewis River Access Sites as space and site conditions allow.

11.2.4.3 Lower Lewis River Operations and Maintenance.

11.2.4.3.1 Annual PacifiCorp Recreation Facility O&M. Beginning upon Issuance of the New License for the Merwin Project, PacifiCorp shall maintain its existing developed recreation facilities at the Merwin Hatchery River Access and Johnson Creek River Access sites, and at the new facilities provided for under Sections 11.2.4.1 and 11.2.4.2, pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

11.2.4.3.2 Annual WDFW Recreation Facility O&M. Beginning upon the Issuance of the New License for the Merwin Project, PacifiCorp shall

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maintain the Island River Access, Cedar Creek River Access, and Lewis River Hatchery River Access sites, which are owned by WDFW, pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP; provided that PacifiCorp and WDFW reach maintenance agreements acceptable to both parties and WDFW does not terminate any of the maintenance agreements prior to expiration of the New License for the Merwin Project. PacifiCorp shall replace such facilities at the end of their useful life or when destroyed or substantially damaged by vandalism or natural processes such as flood or fire, but shall not be required to replace any such facility more frequently than once every 10 years.

11.2.5 Interpretation and Education Program. To the extent feasible, PacifiCorp shall collaborate with Cowlitz PUD to produce a single Interpretation and Education Program ("I&E Program"). PacifiCorp shall develop, in consultation with Cowlitz PUD, a balanced and focused I&E Program for recreation opportunities on the lands within the Project Boundaries of its three Projects and the Lower Lewis River Access Sites by the first anniversary of the Issuance of the first of the New Licenses for its three Projects. In developing the I&E Program, PacifiCorp shall request comments from the Parties. PacifiCorp shall be required to spend no more than $90,000 on I&E Program development. The I&E Program shall include a watchable wildlife component and may include educational efforts publicizing the locations of good fishing sites and what kinds of fish can be found at them. The I&E Program shall: (1) include sufficient details, specifications, and artwork for follow-on printing, production, constructing, and installation of I&E Program-identified materials (signs, kiosks, etc.) during the implementation phase; (2) focus on recreation resources, hydro power generation, natural resources, and cultural resources; and (3) provide for the continuation and expansion of the weekend campfire programs to roughly double the effort as of the Effective Date to make campfire programs available at all PacifiCorp campgrounds at least one weekend night per week during July and August. Once the I&E Program is developed, PacifiCorp shall implement the I&E Program over a four-year period, starting for each Project on the first anniversary after Issuance of the New License for that Project. PacifiCorp shall not be required to spend more than $20,000 per year to implement the I&E Program. Thereafter PacifiCorp shall maintain and upgrade signs, brochures, and other media, but shall not be required to spend more than $7,500 per year on such maintenance and upgrades.

11.2.6 Visitor Management Control. For each Project, beginning upon Issuance of the New License for that Project, PacifiCorp shall implement additional visitor management controls, such as signs, barriers, and enforcement, to provide a high quality recreation experience and to enhance public safety.

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11.2.7 Communications on Recreation Facility Availability. For each Project, beginning upon Issuance of the New License for that Project, PacifiCorp shall provide notice to the public when day use facilities and campsites are full or approaching capacity. Such notice shall be provided at the Woodland Visitors Center and, with appropriate approvals from Washington State Department of Transportation ("WSDOT") and USDA-FS, through signage placed in strategic locations on access roads to the facilities. PacifiCorp shall address this issue in the I&E Program when fully developed and implemented.

11.2.8 Recreational Access to Project Lands. For each Project, beginning upon Issuance of the New License for that Project, PacifiCorp shall allow appropriate non-motorized, public day use access to all existing and future PacifiCorp-owned lands and, when possible, conservation easements, for wildlife viewing, angling, hunting, and other recreational purposes, subject to capacity restrictions, third party property rights, and PacifiCorp's right to charge fees; provided that such access will be consistent with Commission requirements and will be allowed except where unsafe conditions exist, Project security needs require exclusion of the public, or public access may harm protected environmental or cultural resources. PacifiCorp shall address these public access provisions in the I&E Program. Such public access shall not require PacifiCorp to construct or maintain facilities or to provide personnel for supervision of such access, except to the extent expressly provided for in this Agreement. Nothing in this Section 11.2.8 is intended to modify PacifiCorp's commitments under the agreements described in Section 11.2.17.

11.2.9 Land Ownership Retention for Recreation Purposes (Switchback Property). Beginning upon Issuance of the New License for the Merwin Project, PacifiCorp shall maintain ownership of lands along the south shoreline of the Lewis River below Merwin Dam that are owned by PacifiCorp as of the Effective Date. PacifiCorp shall develop this site in a manner similar to the Johnson Creek River Access Site when use at the Lower Lewis River Access Sites managed by PacifiCorp on the Lewis River are at capacity during their peak use seasons (spring and fall).

11.2.10 Overnight Parking and Dispersed Shoreline Use at Yale Lake and Swift Reservoir. For each of the Yale and Swift No. 1 Projects, beginning upon Issuance of the New License for that Project, PacifiCorp shall permit overnight parking at the Project boat launch parking areas at Yale Lake and Swift Reservoir for visitors who are using the shoreline for dispersed camping.

11.2.11 Campground Gate Access and Scheduling. For each Project, beginning upon Issuance of the New License for that Project, PacifiCorp shall close but not lock gates to the entrance of campgrounds at night, but shall continue to lock gates at Project day use sites and boat launches at night.

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11.2.12 Dispersed Camping Management Funding to USDA-FS. Beginning upon the Issuance of first of the New Licenses for its three Projects, PacifiCorp shall provide $5,220 in 2004 dollars annually (Adjusted for Inflation) to USDA-FS to manage Project-related dispersed camping on National Forest System lands.

11.2.13 Vehicular Access and Use Control. For each Project, beginning upon Issuance of the New License for that Project, PacifiCorp shall: (1) discourage dispersed upland (non-shoreline) camping and motorized use, by keeping Project roads gated and maintained as necessary; and (2) continue to work with adjacent private landowners and agency resource managers to restrict access from their non-Project lands onto PacifiCorp-owned lands where undesirable motorized access is gained, such as to the Yale/IP Road corridor.

11.2.14 ADA-Accessible Fishing Sites. Beginning upon the seventh anniversary of Issuance of the first of the New Licenses for its three Projects, PacifiCorp shall conduct a feasibility study to identify the most feasible location for one ADA-accessible bank fishing access site in the following areas: the Lewis River between Merwin Dam and the Island River Access, Swift Reservoir, Yale Lake, and Lake Merwin. By the tenth anniversary of Issuance of the first of the New Licenses for its three Projects, PacifiCorp shall construct an ADA-accessible bank fishing facility at that site, but shall not be required to spend more than $250,000 for design, permitting, and construction.

11.2.15 Public Use of Project RV Dump Stations. For each Project, beginning upon Issuance of the New License for that Project, subject to existing capacity, PacifiCorp shall allow the public to use existing RV sanitation dump stations within PacifiCorp-owned campgrounds at Swift Forest Campground, Beaver Bay Campground, Cougar Campground, and Cresap Bay Campground for a fee established and updated annually by PacifiCorp. PacifiCorp shall coordinate with USDA-FS (on FR 90) and WSDOT (on SR 503 and SR 503 Spur) to place signs indicating the universal symbol for an RV holding tank dump station on the advance direction signs leading to PacifiCorp-managed campgrounds.

11.2.16 Communication with the Parties. Upon Issuance of the first of the New Licenses for its three Projects, PacifiCorp shall create a Lewis River Recreation Advisory Committee ("LRC") to provide information to interested Parties from time to time, but at least once per year, concerning implementation of the recreation measures on the lands within the Project Boundaries of PacifiCorp's Projects. The members of the LRC may provide comments to PacifiCorp concerning implementation of the recreation measures; however, the LRC shall not have the authority to alter implementation plans without PacifiCorp's written agreement.

11.2.17 Day Use Facilities and Undeveloped Lands. The matter of fees at PacifiCorp's Lewis River Day Use recreation facilities that existed as of August 1, 2002

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will be governed by the "Agreement Concerning the Charging of Fees at PacifiCorp's Lewis River Recreation Facilities" between PacifiCorp, John Clapp, Noel Johnson, Lewis River Community Council, City of Woodland, Woodland Chamber of Commerce, Emergency Medical Services and Fire Districts (Represented by Cowlitz-Skamania Fire District #7), Cowlitz County, Clark County, Skamania County, and WDFW executed as of November 22, 2004 ("Fee Agreement"). The Fee Agreement is not intended to be incorporated in this Agreement or enforceable pursuant to this Agreement. During the term of the Fee Agreement, PacifiCorp shall not be obligated under this Agreement to take actions inconsistent with the terms of the Fee Agreement.

The matter of fees at PacifiCorp's undeveloped lands associated with the Projects as of November 2, 2004 will be governed by the "Letter Agreement Concerning Charging of Fees at PacifiCorp's Undeveloped Lands Associated with the Merwin, Yale and Swift No. 1 Projects" between PacifiCorp, John Clapp, Noel Johnson, Lewis River Community Council, City of Woodland, Woodland Chamber of Commerce, Emergency Medical Services and Fire Districts (Represented by Cowlitz-Skamania Fire District #7), Cowlitz County, Clark County, Skamania County, WDFW and IAC executed as of November 22, 2004 ("Undeveloped Lands Agreement"). The Undeveloped Lands Agreement is not intended to be incorporated in this Agreement or enforceable pursuant to this Agreement. During the term of the Undeveloped Lands Agreement, PacifiCorp shall not be obligated under this Agreement to take actions inconsistent with the terms of the Undeveloped Lands Agreement.

11.3 Cowlitz PUD Recreation Measures. Cowlitz PUD shall implement the Cowlitz PUD-related measures in Sections 11.3.1 through 11.3.5. Where the provisions below state that a recreation measure is to begin upon or after Issuance of the New License for the Swift No. 2 Project, Cowlitz PUD shall implement the measure after all administrative and judicial rehearings, reviews, and appeals relating to that New License have been finally adjudicated or dismissed.

11.3.1 Swift No. 2 Power Canal Bank Fishing Facility. By September 30, 2005, Cowlitz PUD shall provide an ADA-compliant bank fishing facility at the Swift No. 2 canal bridge, which shall include a parking area to accommodate approximately 13 vehicles and at least one and possibly two (depending on available space and use) portable toilets or their equivalent on the last weekend of April (opening weekend of fishing) and between Memorial Day and Labor Day.

11.3.2 Operations and Maintenance. Commencing upon September 30, 2005, Cowlitz PUD shall be responsible for operations, maintenance, and replacement, as needed, of the facilities discussed in Section 11.3.1.

11.3.3 Interpretation and Education Program. To the extent feasible, Cowlitz PUD shall collaborate with PacifiCorp to produce a single I&E Program. Commencing after

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Issuance of the New License for the Swift No. 2 Project, Cowlitz PUD shall develop and implement or cause to be developed and implemented, in consultation with PacifiCorp, an I&E Program for recreation opportunities (including, at a minimum, a watchable wildlife component) on the lands within the Swift No. 2 Project Boundary. In developing the I&E Program, Cowlitz PUD shall request comments from the Parties.

11.3.4 Recreational Access to Project Lands. Beginning upon Issuance of the New License for the Swift No. 2 Project, Cowlitz PUD shall allow non-motorized public access to lands within the Swift No. 2 Project Boundary for wildlife viewing, angling, hunting, and other recreational purposes, subject to capacity restrictions, restrictions for security of its Project, restrictions to protect environmental and cultural resources, Cowlitz PUD's right to charge fees (provided that Cowlitz PUD shall not charge fees for use of the Swift No. 2 Power Canal Bank Fishing Facility), and restrictions for public safety, as determined by Cowlitz PUD in its reasonable discretion, subject to third party property rights, and consistent with Commission requirements. Such public access shall not require Cowlitz PUD to construct or maintain facilities or to provide personnel for supervision of such access, except to the extent expressly provided for in this Agreement. Boating, swimming, any other in-water activity, and overnight camping shall not be permitted within the Swift No. 2 Project Boundary.

11.3.5 Dispersed Camping Management Funding to USDA-FS. Beginning upon Issuance of the New License for the Swift No. 2 Project, Cowlitz PUD shall provide, or cause to be provided, $780 in 2004 dollars annually (Adjusted for Inflation) to the USDA-FS to manage Project-related dispersed camping on National Forest System lands.

SECTION 12: FLOOD MANAGEMENT

12.1 Purpose. The Parties acknowledge that the Projects provide important flood management for the local communities below Merwin Dam. The intent of the parties is to alter PacifiCorp's High Runoff Procedure to improve the level of protection during the time period in which high-flow events are likely to occur, while continuing to provide necessary operating flexibility to PacifiCorp. The Parties also intend to provide assistance to the Agencies that are charged with providing emergency notification of high-flow events on the Lewis River.

12.2. The FEMA Agreement. The Parties recognize that PacifiCorp is subject to an agreement with the Federal Emergency Management Agency ("FEMA") dated August 18, 1983 (the "FEMA Agreement") under which PacifiCorp covenants to follow its existing Standard Operating Procedure Manual (Lewis River Projects – High Runoff Operation) ("Manual") in operating PacifiCorp's Projects, and to include such procedures in any New License application. To the extent that the provisions of this Section 12

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conflict with any provisions of the FEMA Agreement, PacifiCorp shall consult with FEMA and seek appropriate amendments to the FEMA Agreement, and shall make corresponding changes to PacifiCorp's existing Manual to reflect the forecast-based high runoff procedures described in this Section 12. If the FEMA Agreement, so amended, remains inconsistent with this Section 12, PacifiCorp shall advise the Parties and such inconsistency shall be resolved in accordance with Section 15.10.

12.3 Future Development of the Lewis River Flood Plain. The Parties do not desire that FEMA make changes in its Flood Insurance Rate Map to reduce the existing base flood elevations. The Parties do not desire that any governmental organization rely on the flood management provided by PacifiCorp as a basis to allow any additional development in the Lewis River's floodplains. The Agencies and the Other Governmental Entities shall not, to the extent of their control over such issues, alter projected flood potential in the Lewis River Basin based on the additional flood management procedures provided for under this Agreement. PacifiCorp shall convey to FEMA the intent of the Parties in this regard.

12.4 Emergency Notification.

12.4.1 Funding. PacifiCorp shall provide the following funding to Clark County and Cowlitz County for the acquisition, installation, and maintenance of a new emergency telephone notification service for those portions of Clark County and Cowlitz County that are subject to inundation from the Lewis River: at the discretion of Clark and Cowlitz counties, either (a) a one-time payment not to exceed $25,000, plus half of the annual service maintenance cost (not including additional charges such as per-event usage fees) up to $4,600 annually beginning after the first year of operation and continuing for the terms of the New Licenses, or (b) $7,500 annually for the terms of the New Licenses. Clark County and Cowlitz County will be responsible for providing or obtaining any additional funding required in support of such a system. PacifiCorp shall be required to submit its contributions only after (1) Clark County and Cowlitz County have contracted for acquisition of such notification service; (2) any required funding for its installation, maintenance, and operation to serve the areas described on Schedule 12.4.1 has been secured; and (3) Clark County and Cowlitz County have agreed among themselves on whether PacifiCorp shall provide funding under (a) or (b) above, and as to the division of payment from PacifiCorp. PacifiCorp, Clark County, and Cowlitz County shall work out a mutually agreeable payment schedule after the service has been acquired and installed. PacifiCorp, Clark County, and Cowlitz County intend that identification and acquisition of this emergency telephone notification system or service shall proceed promptly after the Effective Date and that PacifiCorp shall make the above reimbursement whether or not the New Licenses have been Issued.

12.4.2 Purpose. Clark County and Cowlitz County recognize that the goal of the notification system is to reach residents of those areas subject to inundation; however,

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due to current technological limitations, a wider group of residents may be contacted. The Parties have identified areas that will be contacted by portions of the existing telephone system as described more fully on attached Schedule 12.4.1. If feasible, Clark County and Cowlitz County shall use such system or service to automatically notify citizens with potential inundation affecting their property or ingress and egress to their property when flow levels exceed 15,000 cfs below Merwin.

12.4.3 Responsibilities. Notwithstanding the contributions made under this Agreement, the acquisition, operation, and maintenance of such an emergency telephone notification system shall be and remain the sole responsibility of Clark County and Cowlitz County.

12.5 No Assumption of Liability. PacifiCorp does not intend to assume or incur and, by execution of this Agreement, PacifiCorp does not assume or incur any liability to any Party, or any third party, for flood damages except to the extent that PacifiCorp is liable under the FEMA Agreement. Cowlitz PUD has no obligations for flood management under this Agreement. Cowlitz PUD does not intend to assume or incur and, by execution of this Agreement, Cowlitz PUD does not assume or incur any liability to any Party, or any third party, for flood damage.

12.6 NOAA Communications Transmitter. PacifiCorp has entered into an agreement (effective August 23, 2003) with the National Oceanic and Atmospheric Administration ("NOAA") to reimburse NOAA for the installation and maintenance of a weather radio transmitter at Davis Peak. Annual expenses to be reimbursed by PacifiCorp are not to exceed $9,500 per year without PacifiCorp's express consent. PacifiCorp has received written confirmation from NOAA that, between October and May of each year, NOAA will broadcast the total vacant storage (to the nearest foot) available in the reservoirs at reasonable intervals, the river flow from the Ariel gage, and a tone alert flood warnings whenever the combined outflow from the power plant and the spillway at the Merwin Project exceeds 60,000 cfs, measured according to the procedures in the Manual, and in the event of a dam break. If NOAA elects to discontinue broadcasting such notices, PacifiCorp may, after consultation with Clark Regional Emergency Services Agency and Cowlitz County Department of Emergency Management, terminate the funding agreement with NOAA for mechanical operation and maintenance of the transmitter. The Parties acknowledge that residents of the Lewis River basin will be responsible for purchasing their own radios capable of receiving the NOAA signal.

12.7 USGS Flow Information and Funding. PacifiCorp has paid for installation of a conduit and phone line to facilitate transmissions from a United States Geological Survey ("USGS") voice-synthesizer modem intended to speak flow numbers in cfs and the river level or stage when called, to provide real-time flow information from the existing Ariel gage. PacifiCorp shall transfer ownership of the phone line to USGS if it has not done so before the Effective Date. PacifiCorp shall not have responsibility for

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successful operation of the phone line, the voice modem, or the Ariel gage. PacifiCorp shall, upon request by USGS, reimburse USGS for the monthly operating cost of the phone line during the terms of the New Licenses.

12.8 High Runoff Procedure. By the first anniversary of the Issuance of the New License for the Merwin Project, PacifiCorp shall seek amendment of the FEMA Agreement and the Manual to implement a revised high runoff procedure as follows:

a. The "Flood Management Season" during which time PacifiCorp is required to maintain 17 feet of hole, as defined in the Manual, at the Projects for high runoff management shall be redefined from the current period (November 1 through April 1) to shorten the period by two weeks in years with a below average March runoff forecast, as defined in the Manual, so that the Flood Management Season shall be November 1 through March 15 during those years. PacifiCorp may, in its sole discretion, waive this requirement to shorten the Flood Management Season by two weeks.

b. The term "Pre-Releases" shall mean water discharged at Merwin in excess of turbine capacity and in anticipation of high runoff when the existing "hole" for high runoff management exceeds 17 feet, as defined in the Manual. In no event shall the total discharge from Merwin during Pre-Releases greater than 25,000 cfs exceed the lesser of the natural inflow or 40,000 cfs.

c. PacifiCorp shall obtain 3-day river flow forecasts from a reputable third party forecasting organization (which may include the National Weather Service's River Forecasting Center) for the Lewis River Watershed. This 3-day river flow forecast shall be used by PacifiCorp in its forecast-based high runoff procedure as described below. PacifiCorp shall periodically evaluate the forecasts being used against other commonly available forecasts, with the goal of improving forecasting accuracy for flood management through the use of evolving technology, to the extent practicable.

d. During the Flood Management Season, PacifiCorp shall calculate the "Forecasted Flow" for the Lewis River from the 3-day forecast by determining the forecasted flow that has an 85% probability of occurring. In the event that it appears that the Forecasted Flow will result in inflows significant enough to utilize a portion of the 17 feet of hole, as defined in the Manual, reserved for flood management purposes, PacifiCorp shall make a Pre-Release to provide additional capacity to store inflows into the reservoirs during the high-runoff event. Once the total hole is reduced to 17 feet, PacifiCorp shall continue to follow the flow release procedures contained in the Manual as of the Effective Date.

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e. If and when FEMA has approved the changes described in Section 12.8.a through d, and six months after Issuance of the New License for Merwin, then PacifiCorp shall modify its Manual to reflect the forecast-based high runoff procedure and begin implementing the procedure upon Commission approval. Nothing in this Agreement shall prevent PacifiCorp from updating or refining the forecast-based high runoff procedure in the future, subject to the FEMA Agreement. PacifiCorp shall propose any substantive update to the Parties. If there is no objection and if FEMA agrees to the update, PacifiCorp shall implement the update. If a Party objects to a substantive update, PacifiCorp and interested Parties will meet to discuss any concerns and attempt to reach agreement. If the Parties cannot reach agreement, the issue will be resolved pursuant to Section 15.10.

12.9 Coordination Among the Parties. PacifiCorp shall convene an annual coordination meeting involving the emergency management officials from the cities and agencies within Clark and Cowlitz counties, including police agencies, fire officials, emergency medical services, and any other parties entitled to notice in connection with the high runoff procedure pursuant to the Manual. PacifiCorp shall provide at least thirty days' advance notice of such meetings. The purpose of the meeting will be to review results of the high runoff procedure for the preceding Flood Management Season, discuss the results of dam safety inspections, coordinate emergency action plans, and public outreach regarding flood management and safety issues. Following the meeting of the above agencies, the participants will schedule a subsequent public workshop in September or October of each year to discuss the same issues as appropriate, subject to homeland security rules or other legal requirements. PacifiCorp shall provide at least thirty days' advance public notice of such workshops.

PacifiCorp shall identify one of PacifiCorp's employees to work with Clark and Cowlitz counties both during emergencies and on an ongoing basis and will provide mail, telephone, fax, and e-mail contact information for such employee. In addition, PacifiCorp shall provide Clark and Cowlitz counties with a telephone number that will be manned 24 hours per day, seven days per week, that can be used in an emergency for Clark and Cowlitz counties to contact a designated employee who will have responsibility for coordinating with Clark and Cowlitz counties during an emergency. Clark and Cowlitz counties shall maintain up-to-date information on their respective contacts, who shall be on duty during emergencies and on an ongoing basis. PacifiCorp shall provide any updated versions of the Manual to Clark County, Cowlitz County, and the City of Woodland.

12.10 Disclaimer. By execution or performance of this Agreement, no Party assumes or incurs any liability to any Party, nor intends to create any liability to any third party, for flood damage.

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SECTION 13: CULTURAL RESOURCES AND SOCIO-ECONOMICS

13.1 Cultural Resources.

13.1.1 PacifiCorp Obligations as to Cultural Resources. PacifiCorp shall finalize the Historic Properties Management Plan ("HPMP") based on the Draft Historic Properties Management Plan submitted to the Commission in PacifiCorp's Final Application for New License for Major Project, Volume III of III, April 2004. Upon approval by the Commission, PacifiCorp shall implement the HPMP for each of the Merwin, Yale, and Swift No. 1 Projects as the New License for each Project is Issued. The HPMP will guide the treatment of known and yet to be discovered cultural and historic resources through the New License terms and will outline the consultation requirements with the CIT, Yakama Nation, and oversight agencies. Additionally, PacifiCorp has agreed to the following specific protections of cultural resources:

(1) Archeological artifacts recovered from the Project area and associated documentation will be curated at the visitor information facility described in Section 13.2.4 or at another Project facility created by PacifiCorp in one of its existing buildings that meets the applicable federal curation guidelines;

(2) Changes contemplated to National Register of Historic Places-eligible facilities within the Swift No. 1 Historic District or the Ariel (Merwin) Historic District will be planned in a manner that is compatible with preservation of the districts' historic value;

(3) Access by the CIT and Yakama Nation to Project lands for traditional cultural practices will be provided by PacifiCorp except where unsafe conditions exist;

(4) A program of monitoring and protection of cultural resources in the drawdown zones;

(5) Designation of a cultural resource coordinator for PacifiCorp's Lewis River Projects; and

(6) A program for annual training and education of PacifiCorp employees whose work may affect cultural resources in the Project areas.

13.1.2 Cowlitz PUD Obligations as to Cultural Resources.

13.1.2.1 Unanticipated Discovery Plan. Investigations for Swift No. 2 revealed that no historic properties were present within the Project Boundary and

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no HPMP was needed for relicensing. The Licensee shall follow the Cultural Resources Unanticipated Discovery Plan filed with the Commission as Volume 2 Appendix 3 in the Application for New License for Swift No. 2 in April 2004. During the term of the New License, the Licensee shall evaluate the potential for development actions to affect previously undiscovered archeological sites or traditional cultural properties that could be eligible for listing in the National Register of Historic Places. The Licensee shall consult with the State Historic Preservation Officer, the CIT, and the Yakama Nation about development actions, land acquisitions, or emergency response activities that would disturb soils in areas exceeding 0.1 acre. If cultural resources are identified, the Licensee shall evaluate their eligibility for National Register listing and will file a plan for mitigation and management of such resources with the Commission, after consultation with the Office of Archeology and Historic Preservation, CIT, and Yakama Nation. The Licensee shall evaluate the National Register eligibility of buildings and structures that could be affected by Project operation and development actions at the time such structures attain 50 years of age.

13.1.2.2 Access. Cowlitz PUD shall allow tribal access to land within the Swift No. 2 Project Boundary for traditional cultural practices except where unsafe conditions exist.

13.2 Socio-Economics.

13.2.1 Law Enforcement.

13.2.1.1 Funding. Within 6 months after the Issuance of the first of the New Licenses for the Merwin, Yale, and Swift No. 1 Projects, PacifiCorp shall provide funding for the direct cost of two full-time-equivalent law enforcement officers, including a reasonable cost for vehicle and equipment related to their duties under the contract. This funding will be allocated between the Clark, Cowlitz and Skamania counties at their discretion. PacifiCorp shall also provide funding for the direct cost of one full-timeequivalent law enforcement officer, including a reasonable cost for vehicle and equipment related to his or her duties under the contract, to WDFW. WDFW and the Clark, Cowlitz and Skamania counties will coordinate their activities to provide the most effective law enforcement possible with the available resources.

13.2.1.2 Contracts. Within 6 months after the Issuance of the first of the New Licenses for the Merwin, Yale, and Swift No. 1 Projects, PacifiCorp shall enter into a contract or contracts with the appropriate law enforcement agencies to allocate the funding described in Section 13.2.1.1. Such contracts will be to augment land- and marine-based traditional law enforcement activities and patrols in the North Fork Lewis River Basin, provided by state and local

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government, as part of their responsibilities to protect public health, safety, welfare, and natural resources. Such enforcement activities will be limited to the Project vicinity in the North Fork, provided that some WDFW patrols may be necessary to protect reintroduced species during their migration in the mainstem of the Lewis River. The contracts will be modeled after the contract included in Exhibit C and may be renewed every three years, as necessary. Upon renewal, allocation of funding among the Clark, Cowlitz and Skamania counties for the two full-time-equivalent law enforcement officers (and reasonable costs as discussed in Section 13.2.1.1) may be altered at the discretion of the Clark, Cowlitz and Skamania counties.

13.2.1.3 Need for Additional Coverage. PacifiCorp shall, in consultation with local and state law enforcement as part of the contracting process, consider the need for additional law enforcement coverage related to land- and water-based recreation activities reasonably related to PacifiCorp Projects.

13.2.1.4 Annual Coordination Meeting. PacifiCorp shall convene an annual coordination meeting involving the Counties' law enforcement agencies and WDFW to discuss ongoing issues related to the subject of law enforcement within the North Fork Lewis River Basin.

13.2.2 Forest Road 90.

13.2.2.1 Maintenance. The Licensees agree to make the following payments to USDA-FS for the maintenance of the section of road between the Skamania-Cowlitz County line and milepost 16.2 near the Northwoods Community ("Forest Road 90"). These payments will terminate at the earlier of the following circumstances: (1) another party accepts ownership and/or maintenance responsibility for Forest Road 90 or (2) the New Licenses and any annual licenses for Swift No.1 and Swift No. 2 expire. Payment will be accomplished through the use of collection agreements or other appropriate means which will clearly restrict the use of funds to Forest Road 90 maintenance and repair activities. Information on the annual expenditures of these funds will be available for review by the Parties at the USDA-FS Gifford Pinchot National Forest Headquarters.

a. PacifiCorp shall pay $7,474, and Cowlitz PUD shall pay or cause to be paid $2,626, to USDA-FS within 120 days of the Effective Date, for a portion of the estimated repair costs of the Canal Bridge on Forest Road 90.

b. PacifiCorp shall pay $19,980 per year beginning in April 2005 to USDA-FS specifically for the maintenance of Forest Road 90. Cowlitz PUD shall pay or cause to be paid $7,020 to USDA-FS specifically for the maintenance of Forest Road 90 beginning in April 2005. These amounts are

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in 2003 dollars Adjusted for Inflation according to the Engineering News Record Construction Cost Index.

c. Each Licensee shall pay appropriate use fees to USDA-FS on a case-by-case basis for its respective use of Forest Road 90 to haul heavy loads.

The payments included in (a) through (c) above are intended to cover the Licensees' share of all costs associated with maintaining Forest Road 90, including annual maintenance, periodic maintenance, and unforeseen/catastrophic damage. Annual maintenance includes, but is not limited to, roadway surface maintenance; controlling brush along the road's shoulders; keeping drainage systems free of debris; maintaining traffic signs, striping, and control (investigating and surveying accidents); and maintaining such structures as guardrails and bridges. Periodic maintenance includes, but is not limited to, such items as inspecting, repairing, and painting bridges; paving the road; and replacing major culverts. Unforeseen/catastrophic damages are the result of an act of God or force of nature that makes the road impassable. Heavy hauling consists of occasional hauling of heavy loads, such as logs, heavy equipment, and power plant components by commercial haulers.

13.2.2.2 Access. USDA-FS will make all reasonable efforts to provide access to PacifiCorp and Cowlitz PUD facilities over Forest Road 90 but cannot guarantee access in the event of unforeseen circumstances such as catastrophic damage or weather-related closures, including blockage by snow.

13.2.2.3 Annual Meeting. The Licensees and USDA-FS shall meet at least once annually to review the past year's maintenance activities and identify planned activities for the coming year. By mutual agreement of USDA-FS, PacifiCorp, and Cowlitz PUD, these meetings may be held less frequently, on an as-needed basis. At any such time that PacifiCorp or Cowlitz PUD determines that USDA-FS is not making all reasonable efforts to provide access to the Licensee's facilities over Forest Road 90, or if the New Licenses have not been Issued by the end of calendar year 2006, then USDA-FS, PacifiCorp, and Cowlitz PUD shall meet immediately to discuss a course of action.

13.2.3 Pine Creek Work Center Communication Link. PacifiCorp shall provide the existing level of support for the USDA-FS radio-telephone link between Swift Dam and the Pine Creek Work Center for the terms of the New Licenses, unless USDA-FS notifies PacifiCorp in writing that it no longer needs the Pine Creek Work Center or the system. This support includes the following:

a. PacifiCorp shall continue to provide, at no charge, use of the older concrete block communication building at Swift Dam for the housing of USDA-FS-owned and -maintained radio and telephone interface

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equipment. USDA-FS will continue to provide for the security of the building.

b. PacifiCorp shall continue to provide a wood pole adjacent to the building for the installation of the USDA-FS-owned and -maintained radio antenna.

c. PacifiCorp shall continue to provide unmetered (without charge) power for the USDA-FS equipment in the building, and continued backup power to the communications equipment from the Swift spill-gate emergency generator.

d. PacifiCorp shall continue to provide twisted-pair, audio-grade copper connectivity to the telephone company point of presence near the old Swift Village site.

e. PacifiCorp shall provide keys to the lock on the access road gate allowing access to the site by USDA-FS communication technicians. USDA-FS will call the Hydro Control Center at the Merwin Headquarters to gain clearance before entering the gate at the Swift No. 1 Project.

f. USDA-FS will continue to maintain the concrete block building. In the event of loss of the building, PacifiCorp is not obligated to replace the structure but will continue to make the site available to USDA-FS for reconstruction at USDA-FS expense.

13.2.4 Visitor Information Facility.

13.2.4.1 Construction. PacifiCorp shall allow the non-Licensee Parties or their agents to construct a 1,000- to 1,200-square-foot visitor information facility on its property in Cougar, Washington, subject to the approval of the current lessee, the Port of Woodland, and if the non-Licensee Parties can demonstrate that sufficient partnerships are available for staffing, daily maintenance, providing and maintaining displays, and payment for water and electricity of the visitor information facility. The construction location would be outside of PacifiCorp's Project Boundaries. Construction of the visitor information facility is dependent on the non-Licensee Parties' securing construction funds and commitments from the non-Licensee Parties or other partners for adequate and stable staffing and maintenance of the visitor information facility. The design and use of the structure must be flexible in term of its services and exhibits. The visitor information facility would not include a restroom, instead relying on the adjacent existing facilities. The facility and components must be designed and constructed with a minimum life cycle of forty years.

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13.2.4.2 Purpose. The purpose of the visitor information facility, if constructed, will be to provide visitor information with a small component of interpretation and education on basin resources and history. A secondary purpose of the building may be to meet the Projects' curation requirements for prehistoric artifacts and provide periodic displays highlighting the culture of local tribes.

13.2.4.3 Licensee Contribution. The Licensees shall provide one of the following two options to respond to the uncertain availability of construction funds or participation of partners in the maintenance of the visitor information facility:

a. A one-time contribution of $75,000 (not Adjusted for Inflation) as matching funds for potential grants to design and construct a visitor information facility in Cougar, Washington. PacifiCorp's portion of such contribution would be $65,250, and Cowlitz PUD's portion would be $9,750. The non-Licensee Parties may use these matching funds to seek grants and partnerships, and the Licensees shall make this funding available or cause this funding to be available after Issuance of all New Licenses and only at such time as the required grants, partnerships, and management/maintenance responsibilities are secured; or

b. Periodic maintenance (painting, exterior window washing, power washing, building repair, etc.) of the 1,000- to 1,200-square-foot visitor information facility for the terms of the New Licenses. The value of the maintenance commitment may be used by non-Licensee Parties as the match for potential grants for design and construction of the visitor information facility. If, during scoping and design, the purpose, size, or use of the building expands, the Licensees and non-Licensee Parties will each be responsible for a share of the maintenance costs of the building corresponding to their respective percentage of the size, purpose, or use. For example, if the building increases in size, purpose, or use by 30%, the Licensees would be responsible for 70% of the maintenance costs and the non-Licensee Parties would be responsible for 30% of the maintenance costs. The mechanism for sharing maintenance costs, if necessary, will be determined at such time as the changes in size, use, or purpose become known. If this option (b) is selected, Cowlitz PUD shall pay or cause to be paid 13% and PacifiCorp shall pay 87% of the Licensees' share of the cost of such maintenance.

13.2.4.4 Ownership. PacifiCorp shall own the visitor information facility structure upon its completion.

13.2.4.5 Facility Use. PacifiCorp shall allow reasonable public use of the visitor information facility throughout the terms of its New Licenses. The Parties anticipate that the visitor information facility, if constructed, will be staffed approximately five months of the year (from late spring through early fall).

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13.2.4.6 Initial Meeting. USDA-FS will convene and facilitate an initial meeting of all interested stakeholders to solicit ideas about the purpose, design, and use of the visitor information facility, and what kinds of displays and rotating exhibits could be featured. One of the objectives for this meeting will be to identify potential partnerships for the construction, operation, and maintenance of the visitor information facility.

SECTION 14: COORDINATION AND DECISION MAKING

14.1 Coordination and Decision Making. The provisions of this Section 14 describe the processes for coordination and decision making among the Parties for the implementation of the terrestrial and aquatic PM&E Measures provided for in this Agreement. As provided for in Section 14.2 below, the Licensees shall convene a Terrestrial Coordination Committee ("TCC") to coordinate implementation of the terrestrial PM&E Measures described in Section 10 (including any exhibits, schedules, and appendices related to Section 10), and shall accomplish the purposes set forth in Section 14.1.1 below. The Licensees shall convene an Aquatics Coordination Committee ("ACC") to coordinate implementation of the aquatics PM&E Measures described in Sections 3 through 9 (including any exhibits, schedules, and appendices related to those Sections), referred to below as terrestrial and aquatic PM&E Measures.

14.1.1 Purposes of the TCC. The TCC is intended to accomplish the purposes set forth below:

a. Provide a forum for coordination between the Licensees and the other Parties on terrestrial resources PM&E Measure implementation.

b. Oversee the development by the Licensees of an objective-oriented WHMP prior to the Issuance of the New Licenses.

c. Monitor implementation of that WHMP.

d. Oversee the HEP study in the 17th year after Issuance of the New Licenses, and modify the WHMP if necessary based on the HEP's results.

e. Oversee and make decisions regarding the: (1) Yale Fund; (2) the Swift Fund; and (3) the Lewis River Fund.

f. Oversee the annual budget for the WHMP.

14.2 Coordination Committees. Within 60 days after the Effective Date, PacifiCorp and Cowlitz PUD shall convene the TCC and the ACC.

14.2.1 Committee Coordinators. Within 30 days after the Effective Date,

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PacifiCorp and Cowlitz PUD each shall designate one Committee Coordinator for the TCC and one Committee Coordinator for the ACC. PacifiCorp and Cowlitz PUD shall make their designations by notice to the Parties in accordance with the notice provisions in Section 16.6. The PacifiCorp Committee Coordinator(s) shall be employed or retained by PacifiCorp and may represent PacifiCorp on the TCC and the ACC. The Cowlitz Committee Coordinator(s) shall be employed or retained by Cowlitz PUD and may represent Cowlitz PUD on the TCC and the ACC. The PacifiCorp Committee Coordinator(s) shall, as their primary responsibilities, oversee the coordination and implementation of the terrestrial and aquatics PM&E Measures that are the responsibility of PacifiCorp as provided in this Agreement. The Cowlitz PUD Committee Coordinator(s) shall oversee the coordination and implementation of the terrestrial and aquatics PM&E Measures that are the responsibility of Cowlitz PUD as provided in this Agreement.

PacifiCorp and Cowlitz PUD Committee Coordinators together shall oversee the coordination and implementation of terrestrial and aquatics PM&E Measures for which PacifiCorp and Cowlitz PUD have joint responsibility as provided in this Agreement.

14.2.2 TCC and ACC Membership. Within 30 days after the Effective Date, or at any time thereafter with 30 days' notice to the Licensees, each Party, at its own discretion and cost, may designate one representative for membership on the TCC and may designate one representative for membership on the ACC and may designate one or more alternates. The Party shall make its designation(s) by notice to the Parties in accordance with Section 16.6. A Party not participating on the TCC, the ACC, or both may request, by notice to the Parties in accordance with Section 16.6, to be placed on a contact list to receive notices of committee meetings and releases of information, including annual reports and other interim reports, that the TCC or the ACC may issue.

14.2.3 TCC and ACC Functions. The TCC and the ACC will:

a. Coordinate and Consult on development of plans by the Licensees as provided in this Agreement;

b. Review information and oversee, guide, and make comments and recommendations on implementation and monitoring of the terrestrial and aquatic PM&E Measures, including plans;

c. Consult with the Licensees on their respective reports prepared under this Agreement regarding implementation of the terrestrial and aquatic PM&E Measures as referred to in Section 14.2.6 below;

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d. Make decisions, grant approvals, and undertake any additional duties and responsibilities expressly given to the TCC or the ACC with respect to the terrestrial and aquatic PM&E Measures;

e. Establish, among other things, (i) procedures and protocols for conducting committee meetings and deliberations to ensure efficient participation and decision making; (ii) rules for quorum and decision making in the absence of any member; (iii) alternative meeting formats as desired, including phone or teleconference; and (iv) the methods and procedures for updating committee members on interim progress of development and implementation of the terrestrial and aquatic PM&E Measures;

f. As deemed necessary and appropriate by the TCC or the ACC, establish subcommittees to carry out specified committee functions and responsibilities described in this Section 14.2.3, and establish the size of, membership of, and procedures for any such subcommittees; and

g. Discuss the protocols and the content of public information releases; provided that each Party retains the right to release information to the public at any time without such discussion.

14.2.4 TCC and ACC Decision-Making Process and Limitations. The TCC and the ACC shall make comments, recommendations, and decisions in a timely manner as provided below:

a. Each Party represented on the TCC and the ACC will have the authority to participate in all committee discussions relating to, and to provide input and advice on, decisions regarding implementation of the terrestrial or aquatics PM&E Measures;

b. The TCC and the ACC shall strive to operate by Consensus. Whether or not the TCC or the ACC has final authority over decisions on terrestrial and aquatic PM&E Measures, the Licensees and other Parties may proceed with actions necessary to implement the New Licenses or this Agreement, even though Consensus is not achieved; provided that in such cases the responsible Licensee or Licensees shall notify the Commission of the comments of the ACC or TCC members and the areas of disagreement. If the TCC or ACC does not reach Consensus, then any member of the TCC or ACC, respectively, may initiate the ADR Procedures as provided in Section 15 below.

c. Where one or more Parties have approval authority under this Agreement, Licensees shall notify the Commission of any approvals that were not obtained, include the relevant comments of the Parties with approval authority, describe the

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impact of the lack of approval on the schedule for implementation of PM&E Measures, and describe proposed steps to be taken to gain the approval, including dispute resolution.

d. In no event shall the TCC or the ACC increase or decrease the monetary, resource, or other commitments made by PacifiCorp and Cowlitz PUD in this Agreement; override any other limitations set forth in this Agreement; or otherwise require PacifiCorp to modify its three Projects' facilities without PacifiCorp's prior written consent or require Cowlitz PUD to modify its Project's facilities without Cowlitz PUD's prior written consent, which consent may be withheld in the applicable Licensee's discretion.

e. At any juncture where discussion or other contact with the ACC or TCC is required by this Agreement, when requested by the Services or as required by the Agreement, the ACC or TCC Committee Coordinator, respectively, shall schedule an opportunity to discuss the relevant issue with the ACC or TCC. This event shall consist of either a conference call, in-person meeting, or other appropriate forum to enable full consideration of the issue.

14.2.5 TCC and ACC Meetings. Commencing in the first year after the Effective Date and each year thereafter for the terms of the New Licenses, the TCC and ACC Committee Coordinators shall arrange and provide an agenda for an annual meeting of their respective committees. The TCC and ACC Committee Coordinators also shall arrange and provide an agenda for any additional meetings deemed necessary by either coordinator for a committee or at the request of any two Parties on that committee, which request shall be sent simultaneously to all members of that committee. Members of the TCC and the ACC shall be given a minimum of 30 days' notice prior to any meeting, unless otherwise agreed to by the members of the applicable committee.

14.2.6 TCC and ACC Reports. The Committee Coordinators for the TCC and the Committee Coordinators for the ACC shall prepare and file with the Commission detailed annual reports on the TCC and ACC activities, monitoring and evaluations under the M&E Plan, and implementation of the terrestrial and aquatics PM&E Measures occurring during the prior year, as well as plans for the coming year as required in this Agreement. The annual reports may also include plans and reports required pursuant to Sections 4.9.1, 7.7.1, 8.2.3, 8.2.4, 10.5, and 10.8.3. Copies of such reports will be made available to each Party. The annual reports shall be prepared in Consultation with the TCC and ACC committee members and shall be submitted to the committees for review each year, commencing after the Effective Date. Committee members shall have a minimum of 30 days to review and provide comment on a draft report before a final report is prepared and filed with the Commission. The Licensees shall submit the final report to the Commission not later than 30 days after the close of the ACC and TCC comment periods. To the extent that comments are not incorporated into the final report, an explanation will

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be provided in writing, and such explanation shall be included in the report.

SECTION 15: IMPLEMENTATION OF THIS AGREEMENT

15.1 Parties Bound. The Parties shall be bound by this Agreement, unless this Agreement is terminated as provided in Section 15.12, except that if a Party withdraws as allowed by Section15.11, that Party shall not be bound following such withdrawal, nor shall any other Party be bound by its covenants with respect to the withdrawing Party. Section 1.2 shall survive any such termination or withdrawal. Except as provided in Section15.3.2, if any Party proposes Inconsistent terms, conditions, or articles to the New Licenses or seeks to have Inconsistent terms and conditions imposed on the Licensees with respect to the Projects in any other governmental or judicial forum, then any other Party may initiate the ADR Procedures under Section 15.10. If dispute resolution is unsuccessful, the Party opposed to such Inconsistent terms, conditions, or articles may withdraw from this Agreement.

15.2 Resolution of Disputes Before New License Issuance. If, following the Effective Date and prior to the Commission's issuance of a New License, any 401 Certification, final ESA biological opinion and incidental take statement, or other Permit is denied or is issued with terms or conditions Inconsistent with this Agreement, then any Party may initiate the ADR Procedures under Section 15.10. If dispute resolution is unsuccessful, the Party opposed to such Inconsistent terms, conditions, or articles may withdraw from this Agreement.

If no Party initiates ADR Procedures within 30 days after it has actual knowledge of the final, non-appealable denial or issuance of an Inconsistent 401 Certification, final ESA biological opinion and incidental take statement, or other Permit, this Agreement shall be deemed modified to include such terms and conditions.

15.3 Resolution of Disputes After New Licenses Issue.

15.3.1 New Licenses Inconsistent with This Agreement. If a New License, either as initially issued by the Commission or following conclusion of any Appeal, is Inconsistent with the measures set forth in this Agreement, this Agreement shall be deemed modified to conform to the Inconsistency, unless a Party provides notice to the other Parties that it objects to the Inconsistency and initiates the ADR Procedures within 30 days after the date of Commission issuance of the New License or the conclusion of all Appeals, as appropriate. The disputing Party or Parties may, in addition, initiate the rehearing procedure described in Section 15.3.5, and such Party's rehearing request shall constitute notice to the other Parties of the dispute. If the New License, as initially approved by the Commission and after any Appeals or after the Parties abandon or withdraw further Appeals, remains Inconsistent with this Agreement, then a Party who objected to the Inconsistency may withdraw from this

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Agreement.

15.3.2 Reopeners and Modification. During the terms of the New Licenses, except as provided in the Final Terms and Conditions and this Agreement (including, without limitation, Section 3.5.2.b), the Parties may not seek to modify or add to the PM&E Measures, the commitments under this Agreement, or other obligations of PacifiCorp or Cowlitz PUD, or seek to amend the New Licenses pursuant to standard Commission reopener provisions, except: (a) as provided pursuant to Sections 1.1.5 and 1.1.6; (b) as required by statutes enacted or amended after Issuance of the New Licenses; or (c) if significant new information not reasonably known or understood as of the Effective Date reasonably demonstrates that the Agreement does not continue to satisfy PacifiCorp's and Cowlitz PUD's obligations under the laws addressed in Section 1, or any subsequently enacted or amended statute. If a Party seeks to modify, amend, or add to the New Licenses or any other Permit pursuant to this Section 15.3.2, the acting Party shall provide PacifiCorp and Cowlitz PUD with at least 90 days' notice to consider the Party's position. An Agency shall not be required to comply with this 90-day-notice provision if it reasonably believes an emergency situation exists, or if providing such notice would prevent it from meeting its responsibilities under statutes or regulations enacted or amended after the Issuance of the New Licenses. If a Party modifies or adds to the PM&E Measures or other obligations or commitments under this Agreement, or other obligations of PacifiCorp or Cowlitz PUD, or succeeds in amending the New Licenses in a manner Inconsistent with this Agreement, the other Parties may object and respond in accordance with Section 15.3.3.

15.3.3 Changes in Measures Caused by Non-Parties After New Licenses Issue. If, after the Commission issues New Licenses, any non-Party action, including action by the Commission, another agency, or a court, results in the imposition of any measure that any Party believes is Inconsistent with this Agreement, then that Party may give notice and may initiate the ADR Procedures and, if applicable, may seek Appeal of such action as provided in Section
15.3.5. If, after conclusion of the ADR Procedures and after completion or abandonment of any Appeal, the measure complained of remains imposed, or as modified remains Inconsistent with this Agreement, and the Parties cannot reach agreement on a resolution to the Inconsistency, the Party providing notice may withdraw from this Agreement.

15.3.4 Review of Commission Actions. Any Party may initiate an Appeal of any Commission act or omission, on or after the Issuance of the New Licenses, that is Inconsistent with this Agreement. The ADR Procedures do not preclude any Party from timely filing for and pursuing rehearing under 18 C.F.R. § 385.713, or judicial review, of the Inconsistent action. However, the Parties shall follow the ADR Procedures to the extent reasonably practicable while such Appeal of an Inconsistency is pursued. If a Party initiates an Appeal of any Inconsistent action and the Parties participating in the Appeal withdraw the Appeal, then this Agreement shall be deemed modified to conform to the

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Inconsistent action or omission.

15.3.5 Review of Other Agency Actions. To the extent provided by applicable law, any Party may pursue an Appeal of any action by any agency that is Inconsistent with this Agreement. The ADR Procedures do not preclude any Party from timely filing and pursuing an Appeal under the respective agencies' applicable statutes and rules, or from seeking judicial review, of any such action that is Inconsistent with this Agreement. However, the Parties shall follow ADR Procedures to the extent reasonably practicable while any such Appeal of an Inconsistency is pursued. If a Party has initiated an Appeal of any Inconsistent action and the Parties participating in the Appeal withdraw the Appeal, then this Agreement shall be deemed modified to conform to the Inconsistent action or omission.

15.3.6 PacifiCorp or Cowlitz PUD Fails to Perform License Terms. If PacifiCorp fails to perform any of the provisions of this Agreement relating to its three Projects and included in the New Licenses for its Projects and is not otherwise excused from such performance as provided in Section 16.3, or if Cowlitz PUD fails to perform any of the provisions of this Agreement relating to its Project, and included in the New License for its Project and is not otherwise excused from such performance as provided in Section 16.3, a Party may give the Party that failed to perform notice and an opportunity to cure within 90 days of such notice. If the Party that failed to perform fails to cure the problem within that period, or if such failure is not curable within 90 days and the Party that failed to perform has not commenced a cure within that period and diligently completed such cure, any Party who objects to such failure to perform may (a) give notice to the other Parties and commence the ADR Procedures and, (b) whether or not the ADR Procedures are commenced, may petition the Commission to enforce such provision and, if unsuccessful, initiate an Appeal or, if and as appropriate, seek the remedies of mandamus or specific performance. The Parties reserve any remedies under applicable law to enforce the PM&E Measures contained in this Agreement but not enforced by the Commission. If, after all Appeals regarding Commission action or after the Parties have abandoned or withdrawn such Appeals, the Commission does not enforce the provision and PacifiCorp or Cowlitz PUD fails to perform the provision, the Party that sought performance may withdraw from this Agreement. A failure to perform by one Licensee shall not give the other Licensee the right to withdraw from this Agreement.

15.3.7 PacifiCorp or Cowlitz PUD Fails to Perform Obligations in This Agreement Not Included in the New Licenses. If PacifiCorp fails to perform any of its obligations under this Agreement relating to its three Projects that are not included in the New Licenses for its Projects and is not otherwise excused under Section 16.3 from such performance, or if Cowlitz PUD fails to perform any of its obligations under this Agreement relating to its Project that is not included in the New License for its Project and is not otherwise excused under Section 16.3 from such performance, any Party may give the Party that failed to perform notice of the failure and an opportunity to cure

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within 90 days of such notice. If the Party that failed to perform fails to cure the problem within that period, or if such failure is not curable within 90 days and the Party that failed to perform has not commenced a cure within that period and diligently completed such cure, the Party seeking performance may (a) give notice to the other Parties and commence the ADR Procedures and, (b) whether or not the ADR Procedures are commenced, may seek specific performance of this Agreement. If PacifiCorp's or Cowlitz PUD's performance of the obligation is not obtained and if PacifiCorp's or Cowlitz PUD's failure is Inconsistent with the terms of this Agreement, the Party that provided notice may withdraw from this Agreement. The Parties reserve any remedies under applicable law to enforce the PM&E Measures and any other commitments contained in this Agreement. A failure to perform by one Licensee shall not give the other Licensee the right to withdraw from this Agreement.

15.3.8 New ESA Listings or Critical Habitat Designations. If any species or critical habitat that may be affected by operation of the Projects under the New Licenses is listed or designated during the terms of the New Licenses, and if consultation under ESA section 7 is required and results in the imposition of measures which are Inconsistent with the terms of this Agreement, any Party that objects to such Inconsistent measures may (a) initiate the ADR Procedures and, (b) whether or not the ADR Procedures are initiated, may initiate an Appeal or judicial review of the Inconsistent measures. If the Parties complete the ADR Procedures and complete, abandon, or withdraw any Appeal, and one or more of the additional measures remains Inconsistent with this Agreement, the Party or Parties that objected to the imposition of the Inconsistent measures may, within 60 days after completion of the ADR Procedures and completion, abandonment, or withdrawal of any Appeal, withdraw from this Agreement.

15.4 Cooperation Among Parties. The Parties shall cooperate in the performance of this Agreement. Among other things, the Parties shall cooperate in implementing the PM&E Measures and any other commitments contained in this Agreement, and in conducting all other activities related to the implementation of this Agreement.

15.5 Responsibility for Costs. Except as may be required by section 10(e) of the FPA, by this Agreement, or by agreements between PacifiCorp and Cowlitz PUD, PacifiCorp and Cowlitz PUD shall have no obligation to reimburse or otherwise pay any other Party for its assistance, participation, or cooperation in any activities pursuant to this Agreement.

15.6 Responsibility for Operation of Projects. By entering into this Agreement, none of the Parties, except for PacifiCorp and Cowlitz PUD, has accepted any legal liability or responsibility for operating the Projects.

15.7 Responsibility for PM&E Measures and Other Commitments. PacifiCorp is not responsible for implementing or funding PM&E Measures or other commitments under

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this Agreement that Cowlitz PUD is required to fund and to implement under its New License or this Agreement, and Cowlitz PUD is not responsible for implementing or funding PM&E Measures or other commitments under this Agreement that PacifiCorp is required to fund and to implement under its New Licenses or this Agreement. Where this Agreement provides that the Licensees promise to complete a PM&E Measure, the other Parties may enforce such provision against either Licensee or both Licensees. This Section 15.7 is not intended to supersede the "Settlement Cost Memorandum of Understanding Between PacifiCorp and Public Utility District No. 1 of Cowlitz County, Washington for Allocating Settlement Costs for Merwin, Yale, Swift No. 1 and Swift No. 2 Hydroelectric Projects on the Lewis River" between Cowlitz PUD and PacifiCorp effective August 25, 2004.

15.8 Availability of Funds. Implementation of this Agreement by a Party that is a federal agency is subject to the requirements of the Anti-Deficiency Act, 31 U.S.C. §§ 1341-1519, and the availability of appropriated funds. Nothing in this Agreement is intended or shall be construed to require the obligation, appropriation, or expenditure of any money from the U.S. Treasury. The Parties acknowledge that the Agencies that are federal agencies shall not be required under this Agreement to expend any federal agency's appropriated funds unless and until an authorized official of each such agency affirmatively acts to commit such expenditures, as evidenced in writing.

Implementation of this Agreement by Agencies that are state agencies is subject to the availability of appropriated funds. Nothing in this Agreement is intended or shall be construed to require the obligation, appropriation, or expenditure of any money from the Treasury of the State of Washington. The Parties acknowledge that the Agencies that are state agencies shall not be required under this Agreement to expend any appropriated funds unless and until an authorized official of each such agency affirmatively acts to commit such expenditures, as evidenced in writing.

15.9 Amendment of Agreement. This Agreement may be amended at any time with the agreement of all Parties still in existence. Any amendment of this Agreement shall be in writing and executed by all Parties still in existence, or their successors and assigns, if applicable. As appropriate, the Parties will submit the amendment, together with a statement in support of the amendment, to the Commission. The statement in support of the amendment shall include a record of efforts made to contact all Parties. In connection with proposed amendments to this Agreement, the Licensees shall provide written notice to the other Parties, by certified mail, return receipt requested, describing the proposed amendment and setting a date, not less than 90 days after the date of the notice, for a meeting of the Parties to discuss the proposed amendment. If the return receipt indicates that any Party did not receive the mailed notice, the Licensees shall attempt to deliver notice by telephone, facsimile, or electronic mail. If any Party other than the Agencies, CIT, Yakama Nation, or Licensees fails to (a) attend the meeting, (b) provide a written notice objecting to the amendment, or (c) give a proxy to another Party

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that does attend the meeting, the Agreement may be amended by written agreement among all of the remaining Parties.

15.10 Alternative Dispute Resolution.

15.10.1 General. The Parties intend that disputes under this Agreement be resolved as expeditiously and informally as possible, and that issues within the scope of the TCC and the ACC be discussed in those committees before being referred to the ADR Procedures. All remaining disputes among the Parties regarding the obligations of the Parties under this Agreement shall, at the request of any Party, be the subject of nonbinding ADR Procedures among the disputing Parties. Each Party shall cooperate in good faith promptly to schedule, attend, and participate in the ADR Procedures. The Parties agree to devote such time, resources, and attention to the ADR Procedures as are needed to attempt to resolve the dispute at the earliest time possible. Each Party shall implement promptly all final agreements reached through the ADR Procedures, consistent with the Party's applicable statutory and regulatory responsibilities. Nothing in Sections 15.10.1 through 15.10.2 is intended or shall be construed to affect or limit the authority of the Commission, the Agencies, or any other agency with jurisdiction over the Projects to resolve a dispute brought before it in accordance with its own authorities and procedures, or to alter the statute of limitations or other requirements for Appeal of any action.

15.10.2 ADR Procedures. A Party claiming a dispute shall give notice of the dispute within 60 days of the Party's actual knowledge of a dispute, event, or omission that gives rise to the dispute, unless this Agreement provides otherwise. If a Party communicates with another Party informally and believes that the dispute is being resolved, the time for notice will not commence until it has been determined that such informal efforts have failed to resolve the dispute. Notification under Section 16.6 shall constitute actual knowledge. At a minimum, in any dispute subject to the ADR Procedures, the Parties shall hold two informal meetings within 30 days after notice, to attempt to resolve the disputed issue or issues. If, within 15 days after the second meeting or any meeting thereafter, a Party notifies the other Parties that such informal meetings failed to resolve the dispute, the Parties may agree to attempt to resolve the dispute using a neutral mediator. The agreement to use a neutral mediator will address allocation of costs and the scope of the dispute. The neutral mediator will be selected by the Parties participating in the mediation. Upon selection, the mediator will mediate the dispute for 60 days. Any of these time periods may be reasonably extended or shortened by agreement of the Parties, or as necessary to conform to the procedure of an agency or court with jurisdiction over the dispute. Unless otherwise agreed among the Parties, each Party shall bear its costs for its own participation in the ADR Procedures. Pending resolution of any dispute under the ADR procedures, and subject to the authority of the Commission or other agency with jurisdiction to order otherwise, PacifiCorp and Cowlitz PUD may continue operating their respective Projects in the manner of their operation

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prior to the point at which the dispute arose.

15.10.3 Enforcement of Agreement After ADR Procedures. Any Party may seek specific performance of this Agreement by any other Party at the Commission or in a court of competent jurisdiction after compliance with the ADR Procedures, where required, and, to the extent allowed by applicable law, may seek to recover its costs and fees associated with bringing such action. No Party shall be liable in damages for any breach of this Agreement, except that a Party may seek monetary penalties under applicable law. Nothing in Sections 15.10.1 through 15.10.3 is intended or shall be construed to affect or limit the jurisdiction of any agency or court as established under applicable law.

15.11 Withdrawal from Agreement.

15.11.1 Withdrawal of a Party from Agreement. A Party may withdraw from this Agreement only as expressly provided in this Agreement and after providing 60 days' advance notice to all other Parties. In addition, when a Party ceases to exist and has no successors or assigns, it will be deemed to have withdrawn from this Agreement, but such withdrawal shall not give any other Party the right to withdraw.

15.11.2 Continuity After Withdrawal. The withdrawal of a Party other than PacifiCorp, Cowlitz PUD, or one of the Agencies having authority under FPA sections 4(e), 10(j), or 18 does not terminate this Agreement for the remaining Parties or give any other Party the right to withdraw. If either PacifiCorp or Cowlitz PUD withdraws, this Agreement will continue as to the remaining Licensee and its obligations for PM&E Measures relating to its own Project(s). However, if any Agency having authority under FPA sections 4(e), 10(j), or 18 withdraws from this Agreement, any other Party may elect to withdraw without further ADR Procedures, after providing notice within 60 days of the withdrawal of the Agency. If a Party withdraws from this Agreement, the withdrawing Party shall not be bound by any term contained in this Agreement except as provided in Section 1.2, and shall no longer be a member of the ACC or the TCC.

15.12 Termination of Agreement. This Agreement may be terminated by unanimous written agreement of the Parties, or by withdrawal of all Parties as set forth in Section 15.11. In addition, the withdrawal of both PacifiCorp and Cowlitz PUD pursuant to Section 15.11 will terminate this Agreement. Upon termination of this Agreement, the TCC and ACC shall cease to exist.

15.13 Consultation After Withdrawal or Termination. The Licensees shall not have an obligation to Consult with Parties that have withdrawn from this Agreement, or with any Party if this Agreement is terminated, provided that where this Agreement requires the Licensees to Consult with the Services, WDFW, or the ACC with respect to performance of an aquatic PM&E Measure, the Licensees shall consult with Parties having authority

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under FPA sections 4(e), 10(j), or 18 with respect to such performance; and provided further that where this Agreement requires the Licensees to Consult with USFWS, WDFW, or the TCC with respect to performance of a terrestrial PM&E Measure, the Licensees shall consult with Parties having authority under FPA sections 4(e) or 10(j) with respect to such performance. Any Party that has withdrawn from this Agreement, or any Party after termination of this Agreement, may petition the Commission for an order requiring that the Licensees consult with such Party on one or more issues.

15.14 Submissions to the Commission. Any provision of this Agreement which requires a Licensee to obtain the approval of a Service or the Services by a date certain and prior to submitting information to the Commission shall be interpreted to mean that the appropriate Licensee(s) and Service(s) shall make all reasonable efforts to achieve such approval prior to making the required submission to the Commission. However, if the appropriate Licensee(s) and Service(s) are unable to achieve such approval prior to the date when the Licensee is required to make a submission to the Commission, the Licensee shall proceed with submitting information to the Commission as required, along with an explanation as to why approval was not achieved. In such instance, the Service whose approval was required may submit its own explanation as to why approval was not achieved, along with any other appropriate information. Once the matter has been submitted to the Commission, the Commission shall resolve such matter unless the appropriate Licensee(s) and Service(s) mutually agree otherwise and such agreement is accepted by the Commission.

15.15 Reservation of Authority. The Services may reserve their authority pursuant to section 18 of the FPA. In the event that a Service includes a reservation of authority under section 18 of the FPA in its modified or final conditions and prescriptions that it submits to the Commission, and the reservation of authority is included as a condition of a New License or New Licenses, the inclusion of such reservation shall not be considered Inconsistent with this Agreement; provided that a Service shall not exercise such reserved section 18 authority while a Party to this Agreement, except as allowed by Section 15.3.2.

To the extent that any other governmental Party has the right to reserve authority, and the reservation of authority is included as a condition of a New License or New Licenses, the inclusion of such reservation shall not be considered Inconsistent with this Agreement; provided that the Party shall not exercise such reserved authority except as allowed by Section 15.3.2.

15.16 Requests for Stay or Extension of Implementation. The Parties support this Agreement and acknowledge that the operations of the Projects as provided for in this Agreement are important to the Licensees' ability to fund the implementation of the PM&E Measures to ensure the resource benefits provided for in this Agreement. The Parties recognize there may be challenges to the New Licenses. As a result of such challenge, either Licensee may at its discretion request from the Commission or a court a

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stay or extension of implementation of any measure, action, or activity for so long as any New License is subject to administrative or judicial review. The other Parties will endeavor to support the Licensees' request to the Commission for a stay or extension. If a Party cannot support the request for a stay or extension, that Party may oppose the request for a stay or extension only if:

(1) The challenge, if successful, (a) would not result in an Inconsistency between this Agreement and the conditions of any New License with respect to any material provision of such New License or; (b) would not add material requirements to any New License; or

(2) The scope of the request for stay or extension is not reasonably justified by the nature of the challenge. The scope of the request would be deemed reasonably justified if the magnitude of the request for stay or extension were comparable to the magnitude of the risk posed by the challenge, and either (a) the stay or extension relates to the challenge or to measures physically or biologically linked to the challenge, or (b) the requested stay or extension of time relates to measures that would result in material capital cost to the Licensees or that would materially affect Project generation, operations, or economics; or

(3) The stay or extension is inconsistent with that Party's responsibility under law or regulation.

If either Licensee intends to seek a stay or extension, that Licensee shall contact the other Parties and make reasonable efforts to meet with the other Parties to explain and discuss the scope and extent of any such request for stay or extension. If any Party opposes a request for a stay or extension, that Party shall contact the other Parties and make reasonable efforts to meet with the other Parties to explain and discuss the scope and extent of any opposition. The Parties agree to discuss ways to preserve this Agreement with one another in good faith, and to make reasonable efforts to have such discussions prior to any stay or extension being requested or opposed.

SECTION 16: GENERAL PROVISIONS

16.1 No Third Party Beneficiaries. Without limiting the applicability of rights granted to the public pursuant to applicable law, this Agreement shall not create any right or interest in the public, or any member of the public, as a third-party beneficiary of this Agreement and shall not authorize any non-Party to maintain a suit at law or in equity pursuant to this Agreement. The duties, obligations, and responsibilities of the Parties with respect to third parties shall remain as imposed under applicable law.

16.2 Successors and Assigns. This Agreement shall apply to and be binding on the Parties and their successors and assigns. Upon completion of a succession or assignment, the

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initial Party shall no longer be a Party to this Agreement, but shall remain bound by the terms of this Agreement and be secondarily liable for the performance of its successor or assignee. No change in ownership of the Projects or transfer of the existing or New Licenses by PacifiCorp or Cowlitz PUD shall in any way modify or otherwise affect any other Party's interests, rights, responsibilities, or obligations under this Agreement. Unless prohibited by applicable law, PacifiCorp or Cowlitz PUD (as the case may be) shall provide, in any transaction for a change in ownership of a Project or transfer of an existing or New License, that such new owner or owners shall be bound by and shall assume the rights and obligations of this Agreement upon completion of the change of ownership and approval by the Commission of the transfer or transfers. Upon completion of the transfer, PacifiCorp or Cowlitz (as the case may be) will be released from this Agreement only upon written agreement of all of the Parties then in existence. A transferring or assigning Party shall provide notice to the other Parties at least 60 days prior to completing such transfer or assignment. Signatories other than the Licensees, the Agencies, the Other Governmental Entities, the Conservation Groups, CIT, and Yakama Nation shall not have the right to assign, delegate, or otherwise transfer their rights of participation to any other person or entity.

16.3 Failure to Perform Due to Force Majeure. No Party shall be liable to any other Party for breach of this Agreement as a result of a failure to perform or for a delay in performance of any provision of this Agreement if such performance is prevented or delayed by Force Majeure. The term "Force Majeure" means any cause reasonably beyond the affected Party's control, whether unforeseen, foreseen, foreseeable, or unforeseeable, and without the fault or negligence of the affected Party. Increased cost for the performance of any PM&E Measure or a change in market conditions for the sale of electricity shall not be deemed to constitute Force Majeure. The Party whose performance is affected by Force Majeure shall notify the other Parties in writing within seven days after becoming aware of any event that such affected Party contends constitutes Force Majeure. Such notice will identify the event causing the delay or anticipated delay, estimate the anticipated length of delay, state the actions taken or to be taken to minimize the delay, and estimate the timetable for implementation of the actions. The affected Party shall make best reasonable efforts to resume performance of this Agreement promptly and, when able, to resume performance of its obligations and give the other Parties written notice to that effect. If an event of Force Majeure prevents performance of one or more PM&E Measures for a prolonged period, the Parties recognize that reinitiation of consultation under the ESA may be required. In addition, if such delay in performance of one or more PM&E Measures materially reduces the benefit of this Agreement, a Party may initiate the ADR Procedures and, if unsuccessful in agreeing upon alternative actions or courses of performance, then such Party may withdraw from this Agreement.

16.4 Elected Officials Not to Benefit. No member of or delegate to Congress shall be entitled to any share or part of this Agreement or to any benefit that may arise from it.

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16.5 No Partnership. Except as otherwise expressly set forth herein, this Agreement does not, and shall not be deemed to, make any Party the agent for or partner of any other Party.

16.6 Notice. Except as otherwise provided in this Section 16.6, any notice required by this Agreement shall be written. It shall be sent by first-class mail or comparable method of distribution to all Parties still in existence and shall be filed with the Commission. For the purposes of this Agreement, a notice shall be effective seven days after the date on which it is mailed or otherwise distributed. When this Agreement requires notice in less than seven days, notice shall be provided by telephone, facsimile, or electronic mail to all Parties and shall be effective when provided, so long as such alternative notice is followed within 7 days by written notice sent by first-class mail or comparable distribution. For the purpose of notice, the list of authorized representatives of the Parties as of the Effective Date and their respective contact information is attached as Appendix A. The Parties shall provide notice of any change in the authorized representatives designated in Appendix A, including changes in contact information, and the Licensees shall maintain the current distribution list of and contact information for such representatives.

16.7 Paragraph Titles for Convenience Only. The titles for the paragraphs of this Agreement are used only for convenience of reference and organization, and shall not be used to modify, explain, or interpret any of the provisions of this Agreement or the intentions of the Parties.

16.8 Entire Agreement. Subject to Section 1.1.4 above, this Agreement sets forth the entire agreement of the Parties relating to the relicensing of the Projects, with the exception of agreements between the Licensees. To the extent that prior agreements that either Licensee or both Licensees have entered into with any other Party relating to the Projects, whether written or oral, are inconsistent with this Agreement, this Agreement shall control.

SECTION 17: EXECUTION OF THIS AGREEMENT

17.1 Signatory Authority. Each signatory to this Agreement certifies that he or she is authorized to execute this Agreement and to legally bind the Party he or she represents, and that such Party shall be fully bound by the terms hereof upon such signature without any further act, approval, or authorization by such Party.

17.2 Signing in Counterparts. This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument as if all the signatory Parties to all of the counterparts had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures, and

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may be attached to another counterpart of this Agreement identical in form having attached to it one or more signature pages.

17.3 Additional Parties. One or more of the following entities may become signatories to this Agreement and be considered Parties as of the Effective Date, provided (a) any such entity has executed a signature page on or before December 31, 2004, and (b) such entity has not taken any action Inconsistent with this Agreement between the Effective Date and the date of execution:

Clark County	The Lower Columbia River Fish Recovery Board
Clark Skamania Fishers	Skamania County
Cowlitz Indian Tribe	Washington State Department of Natural Resources
Federation of Fly Fishers	

If CIT has not executed this Agreement on or before December 31, 2004, then all references to CIT shall be of no effect and shall be stricken from the offer of settlement presented to the Commission.

The Parties agree that the Licensees may prepare and submit a version of this Agreement to the Commission after December 31, 2004, restated to show the final inclusion or exclusion of various provisions as provided in this Section 17.3, with a copy to all Parties.

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APPENDIX B

Modified Terms and Conditions filed by the Forest Service under Section 4(e) of the Federal Power Act for the Swift No. 1 Hydroelectric Project No. 2111

November 21, 2005

LICENSE CONDITIONS NECESSARY FOR PROTECTION AND UTILIZATION OF THE GIFFORD PINCHOT NATIONAL FOREST IN CONNECTION WITH THE APPLICATION FOR LICENSE AND SETTLEMENT AGREEMENT FOR PROJECT NO. 2111, SWIFT NO. 1 HYDROELECTRIC PROJECT.

I. GENERAL

License articles contained in the Federal Energy Regulatory Commission's (Commission) Standard Form L-1 issued by Order No. 540, dated October 31, 1975, cover those general requirements that the Secretary of Agriculture, acting by and through the USDA Forest Service, considers necessary for adequate protection and utilization of the land and related resources of the Gifford Pinchot National Forest. Under authority of section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), the following terms and conditions are deemed necessary for adequate protection and utilization of National Forest System lands and resources. These terms and conditions are based on those resources enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wilderness Act or Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved Land and Resources Management Plans prepared in accordance with the National Forest Management Act. Therefore, pursuant to section 4(e) of the Federal Power Act (FPA), the following conditions covering specific requirements for protection and utilization of National Forest System lands shall also be included in any license issued for the Swift No. 1 Hydroelectric Project (Project).

II. USDA FOREST SERVICE CONDITIONS

Reservation of Authority

The USDA-FS reserves the authority, as provided in Section 15.15 of the Settlement Agreement, to add to, delete from, or modify the modified terms and conditions contained herein in the event that the Licensee or the USDA-FS withdraws from the

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Settlement Agreement under the procedures identified in Section 15.11 of the Settlement Agreement prior to the Commission's issuance of a new license for the Project.

Condition No.1 – Compliance with the Settlement Agreement

The Licensee shall completely and fully comply with all provisions of the November 30, 2004 Settlement Agreement Concerning the Relicensing of the Lewis River Hydroelectric Projects – FERC Project Nos. 935, 2071, 2111, 2213, Cowlitz, Clark and Skamania Counties, Washington (Settlement Agreement) relating to the Swift No. 1 Project (Project No. 2111) as follows:

All protection, mitigation and enhancement measures and other obligations of the Licensee identified in the Settlement Agreement, including the Appendices, Exhibits and Schedules thereto, which may be or will be implemented on or affecting National Forest System (NFS) lands and resources, set out in Conditions 2 through 16.

All commitments of the Licensee in each and every plan referenced in the Settlement Agreement, including the Appendices, Exhibits and Schedules thereto, which may implement activities on or affecting NFS lands and resources as set forth in Conditions 2 through 16.

In the event that the Commission does not accept and incorporate, without material modification, the provisions of the Settlement Agreement, including the Appendices, Exhibits and Schedules thereto, that pertain to the Licensee, into the New License as defined in the Settlement Agreement; or the Licensee does not completely implement its obligations in accordance with the schedule set forth in the Settlement Agreement, the USDA-FS reserves its Federal Power Act § 4(e) authority, as provided in Section 15.15 of the Settlement Agreement, to supplement or modify its terms and conditions at a later time.

Condition No. 2 – Terrestrial Coordination Committee and Aquatic Coordination Committee

The Licensee, together with the licensee for the Swift No. 2 Project (Project No.2213), shall convene a Terrestrial Coordination Committee ("TCC") to coordinate implementation of the terrestrial PM&E Measures, and an Aquatics Coordination Committee ("ACC") to coordinate implementation of the aquatics PM&E Measures, as described in Section 14 of the Settlement Agreement. The Licensee's obligation to convene the TCC and the ACC shall be subject to Section 15.12 of the Settlement Agreement. Where Consultation as defined in the Settlement Agreement is required, the Licensee shall not have an obligation to Consult with Parties that have withdrawn from the Settlement Agreement, or with any Party if the Settlement Agreement is terminated,

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except as described in Section 15.13 of the Settlement Agreement.

Condition No. 3 - Implementation of Activities on NFS Lands

If any protection, mitigation or enhancement measure is to be implemented by the Licensee on National Forest System (NFS) lands of the USDA-FS and is not specified as to its nature and location in the Commission's environmental analysis, then the Licensee shall conduct further environmental analysis as determined by the Commission and shall obtain written authorization of the USDA-FS prior to the implementation of the measure.

For any proposed protection, mitigation or enhancement measure to be implemented by the Licensee on NFS lands outside existing project boundaries (such as the Juvenile Acclimation sites to be created by Condition 11 under Section 8.8 of the Settlement Agreement), the Licensee shall request a USDA-FS special use authorization for the measure. The Licensee shall fund any USDA-FS environmental analysis related to the issuance of the special use authorization. As part of the request for the special use authorization, the Licensee may provide environmental analysis of the proposed action that meets USDA-FS requirements for implementing the National Environmental Policy Act (NEPA) in existence at the time the request is made, including changes in statutes or regulations governing USDA-FS NEPA procedures. The Licensee may also refer to or rely on any previous NEPA analysis for the proposed measure to the extent the analysis is currently applicable, as determined by USDA-FS. The special use authorization, subject to Section 1.1.7 of the Settlement Agreement, may contain stipulations for fire protection, safety or other standard special use authorization measures consistent with the requirements in effect at the time for implementation of similar actions on NFS lands.

Condition No. 4 - Heritage Resource Protection

Upon approval by the Commission of the Historic Properties Management Plan ("HPMP"), the Licensee shall implement the HPMP as it relates to the Swift No. 1 Project (Project No. 2111). The HPMP will guide the Licensee's treatment of known and yet to be discovered cultural and historic resources through the New License terms and shall identify the consultation procedures the licensee shall undertake with the Cowlitz Indian Tribe, Yakama Nation, and oversight agencies. Additionally, the Licensee shall implement the following specific measures as they relate to the Swift No. 1 Project (Project No. 2111) for protection of cultural resources:

(1) Archeological artifacts recovered from the Project area and associated documentation will be curated at the visitor information facility described in Section 13.2.4 of the Settlement Agreement or at another Project facility created by the Licensee in one of its existing buildings that meets the applicable federal curation guidelines;

(2) Changes contemplated to National Register of Historic Places-eligible facilities within

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the Swift No. 1 Historic District will be planned in a manner that is compatible with preservation of the districts' historic value;

(3) A program of monitoring and protection of cultural resources in the draw-down zones;

(5) Designation of a cultural resource coordinator for the Licensee's Lewis River Projects; and

(6) A program for annual training and education of the Licensee's employees whose work may affect cultural resources in the Project areas.

to be a consultation and coordination process that involves the USDA-FS.

Condition No. 5 - Monitoring and Evaluation Plan

The Licensee, together with the Licensee for the Swift No. 2 Project, shall include those elements of Section 9.6 of the Settlement Agreement that are conducted on or which affect NFS lands, in the M&E Plan that is required under Section 9 of the Settlement Agreement, and shall implement those monitoring and evaluation elements.

Condition No. 6 – Bull Trout

The Licensee shall provide informational signs at established angler access areas to further public understanding of bull trout and provide flyers describing bull trout and the need to protect bull trout as provided for in Section 5.7 of the Settlement Agreement.

Condition No. 7 – Large Woody Debris Program

The Licensee shall implement the Large Woody Debris ("LWD") management plan described in Section 7.1 and 7.1.5 of the Settlement Agreement for the purpose of restoring aquatic habitat in the Lewis River, except as provided in Section 7.1.4 of the Settlement Agreement.

Condition No. 8 – Habitat Preparation Plan

The Licensee shall release live adult hatchery anadromous salmonids into Swift Reservoir for the purpose of preparing the habitat in that location for the reintroduction of anadromous salmonids as described in Section 7.4 of the Settlement Agreement.

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Condition No. 9 – Aquatics Fund

The Licensee shall fund and implement, or provide funds through a grant or other means to another entity to implement, resource protection measures ("Resource Projects") to enhance, protect, and restore aquatic habitat in the Lewis River Basin as described in Sections 7.5, 7.7 and 7.8 of the Settlement Agreement.

Condition No. 10 – Juvenile Acclimation Sites

The Licensee, together with the licensee for the Swift No. 2 project, shall place juvenile salmonid acclimation sites consisting of fish containment areas described in Section 8.8.1 of the Settlement Agreement in areas selected pursuant to Section 8.8.1 of the Settlement Agreement.

Condition No. 11 – Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund

The Licensee shall fund the acquisition of interests in land to protect wildlife habitat as described in Sections 10.2, 10.4, 10.5, 10.6.3 and 10.7 of the Settlement Agreement. In addition, the Licensee shall provide annual expenditure reports as described in Section 10.5 of the Settlement Agreement.

Condition No. 12 – Swift Dispersed Shoreline Use Sites

The Licensee shall maintain shoreline camping and day use sites on lands owned by the Licensee and on National Forest System lands within the Swift No. 1 Project Boundary in a manner consistent with the Recreation Dispersed Shoreline Use Program ("RDSUP") that is incorporated into the Recreation Resource Management Plan (RRMP). During the first year of the New License for the Swift No. 1 Project, the Licensee shall reassess all existing dispersed shoreline sites to determine suitability for hardened camp sites, day use sites, or closure. During the 2nd and 3rd years of the New License for the Swift No. 1 Project, the Licensee shall: (1) conduct a human waste disposal management program assessment as described in the RDSUP; (2) harden, as appropriate, suitable shoreline sites for camping; (3) sign as closed inappropriate sites; and (4) sign appropriate hardened camping and day use sites. Upon completion of the waste disposal management program assessment, the Licensee shall either implement an appropriate method identified through the assessment or continue assessing alternative methods for addressing waste disposal management until an appropriate method is identified and implemented.

Swift Shoreline Use Sites O&M. Beginning upon Issuance of the New License for the Swift No. 1 Project, the Licensee shall maintain shoreline use sites within the Swift No. 1 Project Boundary pursuant to maintenance standards and frequencies set forth in Exhibit J – Recreation Facility and Site Maintenance Standards/Frequency in the RRMP.

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Condition No. 13 – Dispersed Camping Management Funding

The Licensee shall provide $5,220 in 2004 dollars annually (Adjusted for Inflation) to the USDA-FS to manage Project-related dispersed camping on National Forest System lands. These payments shall be made as set forth in Section 11.2.12 of the Settlement Agreement.

Condition No. 14 – Coordination For Recreation Measures

The Licensee shall provide information to USDA-FS at least once per year concerning implementation of the recreation measures on NFS lands within the Project Boundary and provide an opportunity for the USDA-FS to comment on such measures, which may be accomplished through creation of an LRC as provided in Section 11.2.16 of the Settlement Agreement. The Licensee shall request comments from the USDA Forest Service on the development of the Interpretation and Education Program as provided in Section 11.2.5 of the Settlement Agreement and shall coordinate with the USDA Forest Service on the placement of signs on Forest Road 90 for indicating the presence of RV holding tank dump stations as provided in Section 11.2.15 of the Settlement Agreement.

Condition No. 15 – Forest Road 90 Maintenance Funding

The Licensee shall make payments to USDA-FS for the maintenance of the Section of Forest Road 90 between the Skamania-Cowlitz County line and milepost 16.2 near the Northwoods Community and meet with USDA-FS as described in Section 13.2.2 of the Settlement Agreement.

The Licensee shall pay appropriate use fees to the USDA-FS on a case-by-case basis for its use of Forest Road 90 to haul heavy loads.

Condition No. 16 – Pine Creek Work Center Communications Link

The Licensee shall provide support for the USDA-FS radio-telephone link between Swift Dam and the Pine Creek Work Center as provided in Section 13.2.3 of the Settlement Agreement.

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APPENDIX C

State of Washington, Department of Ecology Water Quality Certification under Section 401 of the Clean Water Act for the Swift No. 1 Project No. 2111

October 26, 2006
Amended December 21, 2007 and January 17, 2008

4.0 Conditions

Through issuance of this Certification-Order, Ecology certifies that it has reasonable assurance that the operation of the Swift No. 1 Project and activities associated with its continued operation as conditioned will be conducted in a manner that will not violate applicable water quality standards and other appropriate requirements of state law. In view of the foregoing and in accordance with 33 USC 1341, RCW 90.48.120 , RCW 90.48.260, and Chapter 173-201A WAC, this water quality Certification-Order is granted to PacifCorp for the Swift No.1 Hydroelectric Project (FERC No. 2213) subject to the conditions within this Certification-Order.

Certification of this project does not authorize the Licensee to exceed applicable state water quality standards (Chapter 173-201A WAC). Furthermore, nothing in this Certification-Order shall absolve the Licensee from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments occurring as a result of activities associated with Project operations and FERC license conditions.

4.1 GENERAL REQUIREMENTS

1) The Project shall comply with all water quality standards approved by the Environmental Protection Agency (currently codified in Ch. 173-201A WAC), ground water quality standards (currently codified in Ch. 173-200 WAC), and sediment quality standards (currently codified in Ch. 173-204 WAC) and other appropriate requirements of state law. The conditions below set forth adaptive management processes and measures to achieve full compliance with standards and constitute a water quality attainment plan under the 2003 WAC 173-201A-510(5) for TDG and temperature.

2) In the event of changes or amendments to the state water quality, ground water quality, or sediment standards, or changes in or amendments to the state Water Pollution Control Act (RCW 90.48), or changes in or amendments to the Clean Water Act, such provisions, standards, criteria, or requirements shall apply to this project and any attendant agreements, orders or permits. Ecology will notify the

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Licensee through an Administrative Order of any such changes or amendments applicable to its project.

3) Discharge of any solid or liquid waste to the waters of the state of Washington without approval from Ecology is prohibited.

4) The Licensee shall obtain Ecology review and approval before undertaking any change to the Project or Project operations that might significantly and adversely affect the water quality or compliance with any applicable water quality standard (including designated uses) or other appropriate requirement of state law.

5) This Certification-Order does not exempt compliance with other statutes and codes administered by federal, state, and local agencies.

6) A Hydraulic Project Approval (HPA) (under ch. 77.55 RCW) shall be acquired from the Washington State Department of Fish and Wildlife (WDFW) prior to any work in waters of the State.

7) Ecology retains the right, by further Order, to modify schedules or deadlines provided under this Certification-Order or provisions it incorporates.

8) Ecology retains the right by Administrative Order to require additional monitoring or studies or measures if it determines there is likelihood that violations of water quality standards or other appropriate requirements of state law have occurred or may occur, or insufficient information exists to make such determination.

9) Ecology reserves the right to amend this Certification-Order if it determines that the provisions hereof are no longer adequate to provide reasonable assurance of compliance with applicable water quality standards or other appropriate requirements of state law. Any such amended Certification-Order shall take effect immediately upon issuance, unless otherwise provided in the amended Certification-Order, and may be appealed to the Pollution Control Hearings Board (PCHB) under Ch. 43.21B RCW.

10) Ecology reserves the right to issue administrative orders, assess or seek penalties, and to initiate legal actions in any court or forum of competent jurisdiction for the purposes of enforcing the requirements of this Certification-Order.

11) The conditions of this Certification-Order shall not be construed to prevent or prohibit the Licensee from either voluntarily or in response to legal requirements imposed by a court, the FERC, or any other body with competent jurisdiction, taking actions which will provide a greater level of protection, mitigation, or enhancement of water quality or of existing or designated uses.

12) If five (5) or more years elapse between the date this Certification-Order is issued and issuance of the new FERC license for the Project, this Certification-Order shall be deemed to be expired and denied without prejudice at such time and the Licensee shall send Ecology an updated application for a Clean Water Act Section 401 Certification that reflects then current conditions, regulations and

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technologies. This provision shall not be construed to otherwise limit the reserved authority of Ecology to withdraw, amend, or correct the Certification-Order before or after the issuance of a FERC license.

13) This Certification-Order may be modified or withdrawn by Ecology prior to the issuance of the license based upon significant new information or changes to water quality standards or appropriate requirements of state law.

14) Copies of this Certification-Order and associated permits, licenses, approvals and other documents shall be kept on site and made readily available for reference by the Licensee, its contractors and consultants, and by Ecology.

15) The Licensee shall allow Ecology access to inspect the Project and Project records required by this Certification-Order for the purpose of monitoring compliance with its conditions. Access will occur after reasonable notice, except in emergency circumstances.

16) The Licensee shall, upon request by Ecology, fully respond to all reasonable requests for materials to assist Ecology in making determinations under this Certification-Order and any resulting rulemaking or other process.

17) Any work that is out of compliance with the provisions of this Certification-Order, or conditions that result in distressed, dying or dead fish, any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, or turbidity greater than 5 NTU over background conditions in Swift Creek Reservoir or Yale Lake; or greater than 5 NTU over background conditions or greater than 10% in the bypass reach or canal if background conditions are greater than 50 NTU is prohibited. If these occur, the Licensee shall immediately take the following actions:

a) Cease operations at the location of the violation to the extent such operations may reasonably be causing or contributing to the problem.

b) Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.

c) Notify Ecology of the failure to comply. Oil or chemical spill events shall be reported immediately to Ecology's 24-Hour Spill Response Team at 800 258-5990 within 24 hours. Other non-compliance events shall be reported to Ecology's Federal Permit Manager at 800 424-8802.

d) Submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

e) Observed violations at the Project shall be highlighted in the annual monitoring report.

Compliance with these requirements does not relieve the Licensee from responsibility to maintain continuous compliance with the terms and conditions of

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this Certification-Order or the resulting liability from failure to comply.

18) The Project shall meet the Class A narrative standards in the bypass reach and Canal, and the Lake Class standards in Swift Creek Reservoir and Yale Lake.

19) A Water Quality Management Plan (WQMP) is required. All water quality-related plans described below shall be included as separate sections of the WQMP.

4.2 INSTREAM FLOWS AND HABITAT FLOWS

Flows

1) In order to meet the Class A standards listed in WAC 173-201A-030(2), the Project shall comply with the instream flow obligations identified in the Lewis River Settlement Agreement signed November 30, 2004. Details not found in the Settlement Agreement are defined in the following conditions. The flow conditions in the Settlement Agreement are provided herein as Exhibit A.

2) The Licensee, together with the Licensee for the Swift No. 2 Project shall construct two channels in the Lewis River Bypass Reach for releasing water from the Swift No.2 canal to the bypass reach at the following locations:

   a) At the "Upper Release Point" at the upstream end of the Bypass Reach. The constructed channel shall include washed, appropriately sized gravel for spawning fish, and

   b) At the exit of the "Canal Drain" approximately one mile downstream of the Upper Release Point. The constructed channel shall include washed, appropriately sized gravel for spawning fish.

3) Within 6-months after issuance of the new license for the Swift No. 2 project or the Swift No. 1 project, whichever is later, and all required Interests in Land and Permits have been obtained, the Licensee, together with the Licensee for the Swift No. 2 project, shall begin construction of the Upper Release Point described in Section 6.1.2 of the Settlement Agreement and a channel at the upstream end of the Bypass Reach between the Swift No. 1 tailrace and the plunge pool below the Swift No. 1 spillway (the Upper Release Channel) and shall complete construction as soon as practicable. Such channel shall be designed to provide fish habitat utilizing the water delivered by the Upper Release Point. The design of the channel shall be approved by Ecology.

4) As soon as practicable after the construction of the Upper Release Point is complete, the Licensee, together with the Licensee for the Swift No. 2 project, shall complete construction of the Constructed Channel as described in the Settlement Agreement Section 6.1.3 to provide fish habitat in the channel at the exit of the "Canal Drain" approximately one mile downstream of the Upper Release Point (the Canal Drain Constructed Channel). The design of the channel

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shall be approved by Ecology.

5) The Licensee, together with the Licensee for the Swift No. 2 Project, shall provide combined flow releases from these two release points not to exceed 55,200 acre-feet in each year (55,349 acre-feet in each leap year). The following instream flows do not conflict with Section 6.1.5 Conditions on Combined Flow Schedule of the Settlement Agreement except Ecology will not allow the Licensee, at their discretion to stop instream flow releases through the Upper Release Point as described in 6.1.5.a in the Agreement.

6) Ecology requires the following instream flow schedule which may be altered in the future by mutual agreement of Ecology and the Aquatic Coordination Committee (ACC) following the adaptive management process described in the Settlement Agreement in 6.1.4.c.

For the "Upper Release Point" the instream flow release will commence on the date specified in the Settlement Agreement and be:

November 1 to November 15	76 cfs
November 16 to November 30	56 cfs
December 1 to January 31	51 cfs
February 1 to February 28 (29 on leap years)	75 cfs (74 cfs only for 1st week in leap year)
March 1 to May 31	76 cfs
June 1 to September 23	54 cfs
September 24 to September 30	55 cfs
October 1 to October 31	61cfs

a) For the "Canal Drain" release the instream flow will commence on the date specified in the Settlement Agreement and shall be 14 cfs.

b) Adjustments to these flows will occur if monitoring indicates fish habitat would be improved using alternate flow regimes of up to 55,200 acre-feet in each year (55,349 acre-feet in each leap year). The ACC will recommend for Ecology's approval any adjustments to these flows.

7) The Licensee shall monitor stream flow at different locations described in condition 4.8.3 of this Certification-Order under Monitoring and Reporting and Section 9.8 of the Settlement Agreement. Streamflow will be measured or calculated entering each of the constructed channels and reported as daily averages. Any time instream flows are less than listed above, Ecology will be notified within 24 hours with an explanation. Spill from Swift No. 1 into the bypass will be calculated and reported for every change in gate opening.

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8) Spill from the forebay of Swift No. 1 into the bypass reach will be calculated and reported for every change in gate opening in accordance with condition 4.8.3 of this Certification-Order under Monitoring and Reporting.

Habitat

9) The Licensee, together with the Licensee for the Swift No. 2 project, shall augment gravel in the bypass reach using the following five phases:

Phase 1. Within 1 year after the issuance of the license for the Swift No. 2 Project or the license for the Swift No. 1 project, which ever is later, during the first in-water work window after all applicable Permits have been obtained, place approximately 160 tons of gravel spread between locations selected by Ecology in the Lewis River bypass reach. The gravel will be obtained from existing gravel benches along the bypass reach unless Ecology determines that washed gravel is necessary because the existing source gravel is not suitable for this purpose.

Phase 2. During the spring following the first occurrence of spill of 5,000 cfs or greater at Swift No. 1 after gravel has been placed in the bypass reach as described in Phase 1, survey the bypass reach to determine sites where the gravel placed in Phase 1 naturally deposited and where fish spawning is most likely to occur. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

Phase 3a. If the gravel survey described in Phase 2 shows that during Swift No. 1 spill of 5,000 cfs or greater, the gravel placed in the bypass reach in Phase 1 remained in the channel where it was deposited and it provides suitable fish spawning habitat, Ecology will decide if and where additional gravel augmentation is necessary.

Phase 3b. If the gravel survey described in Phase 2 shows that during Swift No. 1 spill of 5,000 cfsor greater, the gravel placed in the bypass reach during Phase 1 provides suitable fish spawning habitat, and more gravel in these areas would provide additional fish spawning habitat, then, during the first in-water work window following the gravel survey described in Phase 2, and after all applicable Permits have been obtained, distribute up to 160 tons of gravel among the sites identified in Phase 2. If Ecology determined in Phase 1 that existing gravel on the benches of the bypass reach may be used for augmentation, such gravel will be used in this Phase 3b, otherwise Ecology may require washed gravel.

Phase 3c. If the gravel survey described in Phase 2 shows that during Swift No. 1 spill of 5,000 cfs or greater, the gravel placed in the bypass reach during Phase 1 was transported out of the reach or to the benches outside the bypass flow channel, Ecology may decide that no further gravel augmentation is necessary.

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Phase 4. During the spring following the first occurrence of spill of 5,000 cfs or greater at Swift No. 1 after the gravel augmentation described in Phase 3b, survey the bypass reach to determine the location of the augmented gravel. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

Phase 5a. If the gravel survey described in Phase 4 shows that the gravel remained where it was placed during Phase 3b, Ecology may decide that no further gravel augmentation is necessary.

Phase 5b. If the gravel survey described in Phase 4 shows that the gravel is no longer where it was placed in Phase 3b and the gravel is not providing suitable fish spawning habitat, then, during the first in-water work window following the gravel survey described in Phase 4, and after all applicable Permits have been obtained, distribute up to 160 tons of gravel among the sites identified in Phase 2. If Ecology determined in Phase 1 that existing gravel on the benches of the bypass reach may be used for augmentation, such gravel will be used in this Phase 5b, otherwise Ecology may require washed gravel. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

To augment and maintain gravel patches at the specific sites where natural gravel deposition would likely occur and fish spawning is likely, Phases 4 and 5b may be repeated up to two times for a total five gravel augmentation events during the term of the Swift No. 2 and Swift No. 1 licenses (Phase 1, Phase 3b, Phase 4+5b, Phase 4+5b, and Phase 4+5b).

10) The Licensee, together with the Licensee for the Swift No. 2 project shall perform instream monitoring to determine the success of fish salmonid rearing and spawning in the mainstem Lewis River Swift bypass reach and constructed channels, and passage to both constructed channels. A monitoring program as described in condition 4.8.3 of this Certification-Order under Monitoring and Reporting shall include the following:

Conduct surveys of juvenile and adult fish populations (including fish size, species, and location) in the Upper Release Point Constructed Channel, the Canal Drain Constructed Channel and the mainstem Lewis River bypass reach according to the following schedule during the term of the Swift No. 2 and Swift No. 1 licenses:

a) Quarterly for one year beginning in the year after the first full year of operation of both the Upper Release Point and Canal Drain constructed channels (year 2 of operation). Waiting one full year after both release points and channels are operational will allow the aquatic ecosystem to become established. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

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b) Quarterly for one year in the fourth year after the first full year of operation of both the Upper Release Point and Canal Drain constructed channels (year 5 of operation). Surveying in the fourth year will determine fish response to the combined flow schedule described above in condition 4.2.6 under Flows. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

c) Quarterly for one full year beginning one year after each change in the combined flow schedule, in the event that Ecology, together with the ACC, implements a change in the combined flow schedule as described in condition 4.2.6 under Flows above and in Section 6 of the Settlement Agreement. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

d) Quarterly for one year after reintroduction of anadromous fish into Yale Lake in Year 13 of the Yale License unless the Services determine reintroduction of anadromous fish into Yale Lake is inappropriate (pursuant to Section 4.1.9 of the Settlement Agreement) or a survey in the same year is being conducted under ”c” above. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

e) Quarterly for one year commencing one year after construction of upstream fish passage at the Swift Projects unless a survey in the same year is being conducted under ”c” above. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

11) During the years listed above in 4.1(10)(a-e), redd surveys will be conducted once every two weeks from September 15th to November 15th and February 1st to May 31st in accordance with condition 4.8.3 of this Certification-Order under Monitoring and Reporting.

4.3 TOTAL DISSOLVED GAS (TDG)

1) The Project shall not cause any exceedance of the TDG water quality criteria as specified in WAC 173-201A 030 (2)(c)(iii) in the bypass reach or Canal, WAC 173-201A 030 (5)(c)(iii) in Yale Lake, and 173-201A-060 (4)(a) in any waters of the Project.

2) The Licensee shall operate Swift No. 1 Dam to maintain the TDG associated with air-injected to turbine flows to 110% or less TDG.

   a) The Licensee shall perform water quality monitoring in turbine water in the forebay and below Swift No. 1 Dam for turbine air injection generated TDG in accordance with Section 4.8.3 of this Certification-Order under Monitoring and Reporting.

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b) If, over the term of the license, turbines are replaced or modified, design such turbines to minimize TDG production.

3) The Licensee shall manage spill to limit TDG production to 110% or less saturation.

a) The Licensee shall monitor spill water beginning during the first spill event after this Certification-Order is issued and as specified in the monitoring plan in Exhibit B and conditions 4.2.8 under Flows and 4.8.3 under Monitoring and Reporting of this Certification-Order.

b) Within six (6) months of the discovery of any exceedance of the 110% TDG criterion caused by spill, the Licensee shall submit a TDG Water Quality Attainment Plan (TDG WQAP) to Ecology for review and approval. The TDG WQAP plan shall include:

i. A description of standard Project operations with regard to minimizing TDG associated with spills;

ii. A description of how the Project will minimize all spills that produce TDG exceedances at the Project;

iii. An evaluation of all potential and preferred structural and operational improvements to minimize TDG production;

iv. A timeline showing when operational adjustments will occur;

v. A schedule for construction; and

vi. Monitoring plans to further evaluate TDG production and to test effectiveness of gas abatement controls.

c) The Project shall operate according to the approved TDG WQAP with the objective of eliminating TDG exceedances.

d) Upon approval of the TDG WQAP, the Licensee shall immediately begin the necessary steps identified in the TDG WQAP to eliminate TDG criteria exceedances.

e) If monitoring to test the effectiveness of gas abatement controls implemented through the TDG WQAP shows the TDG abatement measures identified in the Plan and subsequently employed are not successful in meeting the water quality criterion within the first ten (10) years of discovery of TDG criterion exceedances caused by spill, Ecology will require further activities to meet water the quality criterion. Significant structural or operational revisions that may impose potentially unreasonable costs or create potentially unreasonable societal effects may be evaluated as part of a formal Use Attainability Analysis consistent with the federal and state water quality regulations after the ten year compliance period has ended.

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4) Provided that all reasonable operational efforts are made to minimize TDG exceedances and Ecology is notified within 24 hours after the onset of the spill, compliance with the 110% TDG criteria does not apply when:

   a) Actual or forecasted flows in the Lewis River exceed the rate equivalent to the seven-day, ten-year flood frequency (7Q10), as defined in WAC 173-201A-060(4)(a). At the writing of this Certification-Order, the 7Q10 flow for the Lewis River at Swift No. 1 Dam is 21,322 cfs. Either the Licensee or Ecology may request to reassess and modify the established 7Q10 flow. Modification and application of the 7Q10 flow requires Ecology's approval.

      Because the Project exerts some control over the timing and amplitude of storm flows, a qualifying 7Q10 event for the purposes of the TDG criteria exemption includes flows accompanied by an actual or forecasted large storm event that provides an equivalent amount of water to the drainage basin, regardless of flows at Swift No. 1 Dam. Calculations of such qualifying events shall follow language contained in the Settlement Agreement pertaining to High Runoff Procedures (SA 12.8) which states:

      "PacifiCorp shall obtain 3-day river flow forecasts from a reputable third party forecasting organization (which may include the National Weather Service's River Forecasting Center) for the Lewis River Watershed. This 3-day river flow forecast shall be used by PacifiCorp in its forecast-based high runoff procedure as described below. PacifiCorp shall periodically evaluate the forecasts being used against other commonly available forecasts, with the goal of improving forecasting accuracy for flood management through the use of evolving technology, to the extent practicable."

      "During the Flood Management Season, PacifiCorp shall calculate the "Forecasted Flow" for the Lewis River from the 3-day forecast by determining the forecasted flow that has an 85% probability of occurring. In the event that it appears that the Forecasted Flow will result in inflows significant enough to utilize a portion of the 17 feet of hole, as defined in the Manual, reserved for flood management purposes, PacifiCorp shall make a Pre-Release to provide additional capacity to store inflows into the reservoirs during the high-runoff event. Once the total hole is reduced to 17 feet, PacifiCorp shall continue to follow the flow release procedures contained in the Manual as of the Effective Date."

   b) Short term spills are necessary to protect public safety and respond to volcanic activity.

5) During high flows, greater than the 7Q10, the Licensee shall manage spill levels to minimize TDG production

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4.4 TEMPERATURE

1) Swift No. 1 Dam, Swift No 1. Tailrace and Bypassed Natural River Reach.
The project shall not cause any violation of the temperature water quality criteria as specified for Class 'A' waters, WAC 173-201A-030(2)(c)(iv), in the Swift No. 1 tailrace, the canal or the bypass reach. The Licensee shall not cause these waters to exceed 18°C. If the presence or operation of the Dam causes violation of these criteria, the Licensee shall modify its operation to the extent necessary to ensure that the project does not cause such exceedance.

2) Swift Creek Reservoir and Yale Lake.
The project shall not cause any violation of the temperature water quality criteria as specified for Lake Class waters in WAC 173-201A-030(5)(c)(iv) in Yale Lake or Swift Creek Reservoir. If the presence or operation of the dam causes violation of these criteria, the Licensee shall modify its operation to the extent necessary to ensure that the Project does not cause such exceedance. The Lake Class temperature criterion that applies to the Swift Creek Reservoir and Yale Lake mandates no measurable change from natural conditions.

3) If the presence or operation of the Dam causes water temperature in the canal or bypass reach to violate the criteria, the Licensee shall modify its operation to the extent necessary to ensure that the project does not cause such violation:

   a) The Licensee shall develop a Temperature Water Quality Attainment Plan (TWQAP) that provides a detailed strategy for maintaining the highest attainable water quality condition to best protect the biota with respect to temperature that is feasible to achieve. The TWQAP shall identify and evaluate potential reasonable operational and structural changes to improve temperature. Any changes that would conflict with other conditions of this Certification-Order require prior approval by Ecology. The plan shall also identify the temperature regime that is feasibly achievable, such that the temperature is protected to the highest degree feasible. A Responsiveness Summary shall be incorporated into the TWQAP that evaluates the effectiveness of the modifications (if any) and identifies follow-up studies and actions that can be performed to further improve temperature based on the initial findings.

   b) A draft of the TWQAP shall be submitted to Ecology within one (1) year of obtaining information that water quality criteria for temperature have been exceeded. The TWQAP must include a reasonable schedule for carrying out an adaptive process for evaluating feasible technical and operational changes that will improve water quality protection within ten (10) years of license renewal. This process may include modeling and physical testing of operational

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changes, and modeling changes in structural revisions and testing those structural revisions that can reasonably be implemented within the ten year period. Significant structural or operational revisions that may impose potentially unreasonable costs or create potentially unreasonable societal effects may be evaluated as part of a formal Use Attainability Analysis consistent with the federal and state water quality regulations after the ten year compliance period has ended.

4) The Licensee shall monitor for temperature in accordance with Section 4.8.3 of this Certification-Order under Monitoring and Reporting.

4.5 CONSTRUCTION PROJECTS, MISCELLANEOUS DISCHARGES, AND HABITAT MODIFICATIONS

The following applies to all in-water or over-water work related to the Project that can impact surface- or ground-water quality. This includes, but is not limited to, construction, operation, and maintenance of fish collection structures, generation turbines, penstocks, hatcheries, transportation facilities, portable toilets, boat ramps, transmission corridors, structures, and staging areas. This also includes emergencies for all activities related to project operation.

1) If water quality exceedances are predicted as being unavoidable during construction or maintenance of a project, a short-term modification must be applied for in writing to Ecology at least three (3) months prior to project initiation. If any project has a long-term impact on a regulated water quality parameter, characterization monitoring must be performed for the impacted parameter(s), and a series of protection plans (described below) must be included in the Water Quality Protection Plan discussed below. This may require additional management practices to minimize impacts over the license period.

2) A Water Quality Protection Plan (WQPP) shall be prepared, and followed, for all project-related work that is in- or near-water that has the potential to impact surface- and/or groundwater quality. The WQPP shall include control measures to prevent contaminants from entering surface water and groundwaters, and shall include, but not be limited to, the following elements:

   a) <u>A Stormwater Pollution Prevention Plan (SWPPP)</u> shall specify the Best Management Practices (BMPs) and other control measures to prevent contaminants entering the Project's surface water and groundwaters. The SWPPP shall address the pollution control measures for the Licensee's activities that could lead to the discharge of stormwater or other contaminated water from upland areas. The SWPPP must also specify the management of chemicals, hazardous materials and petroleum (spill prevention and containment procedures), including refueling procedures, the measures to take in the event of a spill, and reporting and training requirements.

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b) In-Water-Work Protection Plan (IWWPP). The In-Water-Work Protection Plan shall be consistent with the SWPPP and shall specifically address the BMPs and other control measures for activities that require work within surface waters. Turbidity and dissolved oxygen shall be monitored upstream of the location where in-water construction is taking place and at the point of compliance (as defined in WAC 173 201A-110(3)(a-d)) during construction. Samples shall be taken at a minimum of once each day during construction in or adjacent to any water bodies within the project area that may be affected by the construction. The IWWPP shall include all water quality protection measures consistent with a Hydraulic Project Approval (HPA) for the project.

c) The WQPP shall include procedures for monitoring water quality, actions to implement should a water quality exceedance occur, and procedures for reporting any water quality violations to Ecology. The WQPP shall include all water quality protection measures consistent with a HPA for the project. The WQPP shall be submitted to Ecology for review and approval at least three (3) months prior to project initiation, and a copy of the WQPP shall be in the possession of the on-site construction manager and available for review by Ecology staff whenever construction work is under way.

d) When a construction project meets the coverage requirements of the National Pollution Elimination System, (NPDES) permit and State Waste Discharge General Permit for Stormwater Discharges associated with construction activity, the Licensee shall either, at Ecology's discretion, apply for this permit and comply with the terms and conditions of the permit or apply for and comply with the terms of an individual NPDES permit.

3) Best Management Practices

a) Work in or near the reservoir, water within the dam, the river, or any wetlands shall include all reasonable measures to minimize the impacts of construction activity on waters of the state. Water quality constituents of particular concern are turbidity, suspended sediment, settleable solids, oil and grease, and pH. These measures include use of Best Management Practices (BMPs)to control erosion and sedimentation, proper use of chemicals, oil and chemical spill prevention and control, and clean-up of surplus construction supplies and other solid wastes.

b) During construction, all necessary measures shall be taken to minimize the disturbance of existing riparian, wetland or upland vegetation.

c) All construction debris shall be properly disposed of on land so that the debris cannot enter a waterway or cause water quality degradation to state waters. Retention areas or swales shall be used to prevent discharging of water from construction placement areas.

d) The Licensee shall ensure that any fill materials that are placed for the

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proposed habitat improvements in any waters of the state do not contain toxic materials in toxic amounts.

4) Maintain Turbidity Standards

a) Certification of this project does not authorize the Licensee to exceed the turbidity standard beyond the mixing zone described below. Turbidity in Class A waters of the bypass reach and canal shall not exceed 5 NTU over background turbidity when turbidity is 50 NTU or less, or have more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU. Turbidity in Lake Class waters of Swift Creek Reservoir and Yale Lake shall not exceed 5 NTU of background turbidity.

b) For Class A waters, a mixing zone is established within which the turbidity standard is waived, consistent with WAC 173-201A-100(7) and –110(3). The mixing zone is established to allow only temporary exceedances of the turbidity criteria during and immediately after in-water work. The temporary turbidity mixing zone shall be as follows:

i. For waters up to 10 cfs flow at the time of construction, the point of compliance shall be 100 feet downstream from activity causing the turbidity exceedance.

ii. For waters above 10 cfs up to 100 cfs flow at the time of construction, the point of compliance shall be 200 feet downstream from activity causing the turbidity exceedance.

iii. For waters above 100 cfs flow at the time of construction, the point of compliance shall be 300 feet downstream from activity causing the turbidity exceedance.

c) For Lake Class waters, certification of this Project does not authorize the Licensee to exceed the turbidity standard beyond the mixing zone described in (d) and (e) below.

d) Step 1. Mixing zones shall not be allowed unless it can be demonstrated to the satisfaction of Ecology that:

i. Other siting, technological, and managerial options that would avoid the need for a lake mixing zone are not reasonably achievable;

ii. Overriding considerations of the public interest will be served; and

iii. All technological and managerial methods available for pollution reduction and removal that are economically achievable would be implemented prior to discharge

e) Step 2. Mixing zones, singularly or in combination with other mixing zones, shall comply with the most restrictive combination of the following:

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i. Not exceed ten percent of the waterbody volume;

ii. Not exceed ten percent of the waterbody surface area (maximum radial extent of the plume regardless of whether it reaches the surface); and

iii. Not extend beyond fifteen percent of the width of the waterbody.

5) The above conditions do not relieve the project owner from the need to obtain all the applicable permits. Activities that could discharge pollutants to waters of the state must use appropriate Best Management Practices to protect water quality.

4.6 OIL SPILL PREVENTION AND CONTROL

1) No oil, fuel, or chemicals shall be discharged into waters of the state, or onto land with a potential for entry into waters of the state as prohibited by Ch. 90.56 RCW and Ch. 90.48 RCW.

2) Contain and remove from the water, visible floating oils released from construction or project operation.

   a) In the event of a discharge of oil, fuel or chemicals into state waters, or onto land with a potential for entry into state waters, immediately begin and complete containment and clean-up efforts, taking precedence over normal work. Clean-up shall include proper disposal of any spilled material and used clean-up materials.

   b) Do not use emulsifiers or dispersants in waters of the state without prior approval from Ecology, Southwest Regional Office.

   c) Within three (3) months of receiving a license from FERC, establish an Ecology-approved on-site spill cleanup material inventory. Maintain this on-site inventory and a complete inventory list.

   d) Project Operators shall be familiar with and trained on use of oil spill cleanup materials. In the event of an oil spill, properly dispose of used/contaminated materials and oil and as soon as possible restock new supplies. Include records of proper disposal in the oil consumption records and keep copies of disposal records of contaminated cleanup supplies on-site for inspection.

   e) Ensure that operational work boats and trained boat operators are available on short notice in the event of a spill. Install mechanisms as appropriate to safely launch or lower work boats into areas where work boats would be deployed in the event of an oil spill. These mechanisms must be pre-approved by Ecology.

   f) Keep SPCC Plans as required and historical spill records on-site. Provide these to Ecology immediately upon request.

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g) Identify and map floor drains. Post these maps at the Project in a conspicuous location for use by Operators and other personnel in the event of an oil spill. Seal floor drains that are no-longer needed.

h) Install, or have on site to deploy stair-cases, ladders, etc. which will allow for oil spill response staff to safely reach areas that could, in the event of an oil spill, need to be accessed to deploy sorbent pads and boom materials.

3) Oil-Water Separators (OWS)

a) Within three months of issuance of the FERC license, submit a maintenance plan for the OWS to Ecology for approval. This maintenance plan must include a process to periodically test the oil-stop valves and provide assurance that they will work as designed. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

b) OWS shall only admit rain and water run-off that originates in the containment area that is intended to drain into the OWS.

c) Perform periodic and appropriate maintenance and inspection on a schedule to include sediment removal. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

d) Clean and service the OWS after each event where oil is introduced into the OWS.

e) Evaluate each oil water separator (OWS) for inflows to account for the total volume of the largest transformer plus fifteen (15) percent. Verify and conduct corrective action that will insure that oil would not be washed through the OWS if a failure of the single largest transformer in the containment area occurs during a major rain event.

4) Transformers

a) Transformer deck containment areas must be impervious. Conduct periodic inspections and resurface areas, fill cracks, caulk metal plate footings or otherwise ensure that containment areas will contain spills from the volume of the largest transformer plus fifteen (15) percent.

b) Obtain prior approval from Ecology before breaching containment areas for reasons other than containment area maintenance.

c) Conform to industry standards for protecting water quality, and preventing and containing oil spills when transporting transformers and transformer oil.

d) Snowy or icy conditions require daily inspections of transformer deck containment area including an inspection of the drains leading to the OWS for freeze-up conditions. Remove any observed rain water pooling in the containment areas. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

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e) Retrofit the secondary containment area so in the event: of a catastrophic oil loss from the largest transformer plus fifteen (15) percent, this oil would either be fully contained in the secondary containment area or drain into the oil-water separator without discharge into waters of the state.

5) Sumps

a) Maintain oil sensors on the surface of the water in each sump. Inspect and test these sensors every three (3) months or sooner if needed to insure that they will work as designed. Visually inspect all of these areas each week or immediately if oil is suspected to be present such as in the event of an oil sensor alarm or the observance of an oil or grease spill in the turbine pit of sufficient volume to reach the sump. Oil detected in the sumps by visual inspection or by sensor requires immediate cleanup, and oil in an amount that triggers an oil sensor alarm must immediately be report to the Emergency Management Division (EMD). (See condition 4.8.3 of Certification-Order 3679 under Monitoring and Reporting.)

b) Immediately repair oil leaks in the turbine pit that are of sufficient volume to reach the sump and that can not be contained by placing a container underneath the leak. Immediately repair water leaks located in the turbine pit area that are leaking at a volume of greater than one gallon per hour.

c) Install or deploy hand rails and mechanisms so the sump covers can be removed for a visual inspection of the sump. Provide water-proof lighting in the sumps or spotlights adequate to view the surface water in the sumps. Provide a mechanism to satisfactorily deploy and recover sorbent boom in the sumps at each project.

6) Oil, fuel and chemical storage containers, containment areas, and conveyance systems

a) Provide proper containment around each storage container (including transformers) or around a combination of storage containers as appropriate and agreed upon by Ecology. Proper containment equals the volume of the container plus 10 per cent.

b) Recalculate required containment areas to insure proper containment still exists after major equipment changes. Example: when converting from water cooled transformer to an air cooled unit, re-calculate oil volume and compare to containment area. Calculate containment volumes from *maximum* storage volumes, not normal oil level volumes.

c) Provide external oil level gauges for governor oil tanks, transformers and other oil tanks that contain over 100-gallons of oil. Provide appropriate level markings for these gauges. Provide a sign or other indicator at each tank, near the tank level gauge, that describes these level markings and the relationship of each inch vs. how many gallons (in the case of a glass tube type of gauge).

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Dial gauges must also describe oil volume in gallons or have a sign or other means provided at each reservoir that adequately describes dial movement in relation to gallons. Provide a sign or other indication that shows ¼, ½, ¾, and full gauge readings or indications in gallons. If equipment must be placed in a special mode of operation, prior to level observance, this must also be posted. Example: wicker gate ram position or other hydraulic ram positions, prior to oil level reading. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

d) Regularly check all fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc, for drips and leaks. Maintain and properly store them to prevent spills into state waters. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

e) Do not refuel equipment within 50 feet of rivers, creeks, wetlands, or other waters of the state.

f) Provide full oil spill containment capacity plus 10 per cent when working on transformers and other equipment that might spill or drip oil.

g) Inspect containers once per week. Maintain container Inspection sheets to include: maximum container volume and an exact reading recording of the oil level by the staff/operator conducting the inspection. Weekly inspection readings must be consistent; provide training to the staff/operator to ensure consistent and accurate readings. (See condition 4.8.3 of this Certification-Order under Monitoring and Reporting)

h) Keep oil consumption records maintained on-site; provide these records to Ecology immediately upon request and in the annual report.

i) In the event that the project modifies the oil transfer operation to include hard-plumbing to reservoirs such as the governor oil tank from the oil tank room, or other extensive modifications, the Licensee must notify and receive approval from Ecology.

j) Contain wash water containing oils, grease, or other hazardous materials resulting from wash-down of equipment or working areas for proper disposal, and do not discharge this water into state waters.

7) Other

a) Maintain site security at the project site to reduce chance of oil spills.

b) Initiate, plan for, document, and train staff for the deployment of General Response Plan and boom strategies for each project. Review and update as needed annually.

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4.7 PESTICIDE APPLICATIONS (SEE DEFINITION OF PESTICIDE IN EXHIBIT C)

1) Prior to the application of pesticides to waters of the state, coverage under applicable Aquatic Pesticides Permit shall be obtained, and conformance with any other applicable state requirement such as SEPA, shall be attained.

2) Best Management Practices and other control measures for the application of pesticides to waters of the state must be addressed in an In-Water-Work Protection Plan. An appropriate water quality monitoring plan shall be developed prior to the application and shall be implemented for all related work.

3) Prior to the use of pesticides adjacent to waters of the state, the Licensee shall follow Best Management Practices to avoid the entry of such materials into waters of the state. Applicable Best Management Practices include, but are not limited to, such actions as hand application and avoiding drift of materials into the water.

4.8 MONITORING AND REPORTING

1) The water quality monitoring component of the Licensee's application to FERC is incorporated as a requirement of this Certification-Order and shall be followed except as further modified by this Certification-Order. Within 90 days of issuance of the new FERC license for the Project, the Licensee shall submit to Ecology for its review and approval a plan for any additional monitoring requirements set forth in this Certification-Order.

2) Monitoring pursuant to the requirements set forth in this Certification-Order shall begin as soon as practicable and in no event shall monitoring begin any later than one (1) year after issuance of the new FERC license for measures that do not specify a start date.

3) Representative water quality measurements shall be made for the parameters listed in Table 2 at the identified locations and frequencies. Further monitoring is required or may be required under compliance schedules or to respond to specific problems not identified at the time of the Certification-Order.

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Table 2. Water Quality Monitoring Schedule

Parameter	Location	Depths (ft)	Frequency	Duration	Condition No.
Flow	Swift Reservoir Swift No 1 Dam spill gate	Swift Creek Reservoir elevation times gate width times gate height	Every change in gate opening when spill occurs	Ongoing for the term of the license	4.2.8 Flows
	Upper Constructed Channel release point	n/a	15 minutes	Ongoing for the duration of the license	4.2.7 Flows
	Lower Constructed Channel release point "Canal Drain"	n/a	15 minutes	Ongoing for the duration of the license	4.2.7 Flows
Gravel	Bypass Reach	Bottom and sides	After the first gravel augmentation: Spring following first occurrence of spill of 5,000 cfs or greater into the bypass reach (Condition 4.1 Habitat phase 2)	One time	4.2.9 Phase 2 Habitat
	Bypass Reach	Bottom and sides	After the second gravel augmentation: Spring following first occurrence of spill of 5,000 cfs or greater into the bypass reach (Condition 4.1 Habitat phase 4)	One time	4.2.9 Phase 4 Habitat
	Bypass Reach	Bottom, where gravel deposition is likely to occur in likely fish spawning areas	Spring following third and fourth occurrence of spill of 5,000 cfs or greater into the bypass reach (Condition 4.1 Habitat phase 5b).	One to three times	4.2.9 Phase 5b Habitat
Fish rearing and spawning	Both constructed channels and the bypass reach from river mile 44.1 to 47.3	n/a	Quarterly	One year. After first full year of operation of both constructed channels	4.2 .10a Habitat

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	Both constructed channels and the bypass reach from river mile 44.1 to 47.3	n/a	Quarterly	One year. Beginning in the fourth year after first full year of operation of both constructed channels	4.2.10b Habitat
	Both constructed channels and the bypass reach from river mile 44.1 to 47.3	n/a	Quarterly	One year. Beginning one year after each change in the combined flow schedule	4.2.10c Habitat
	Both constructed channels and the bypass reach from river mile 44.1 to 47.3	n/a	Quarterly	One year. After reintroduction of anadromous fish into Yale Lake	4.2.10d Habitat
		n/a	Quarterly	One year. Beginning one year after construction of upstream fish passage at the Swift Projects.	4.2.10e Habitat
Redds	Both constructed channels and the bypass reach from river mile 44.1 to 47.3	Bottom	Once every two weeks from October 1-November 15 and from February 1 to May 31	Ongoing	4.2.3 Habitat
Total Dissolved Gas (TDG)	Swift No. 1 Lake forebay	15	Hourly	1. One year after issuance of this Certification-Order 2. One month before and after planned departure from normal operations reallocate the duration or the quantity of air injected into the turbines to the point that the 110% criterion is likely exceeded. 3. Ongoing if exceedances occur until three months after such exceedances are corrected.	4.3.2a

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	Swift No. 1 turbine outlets	15	Hourly	1. One year after issuance of this Certification-Order 2. One month before and after planned departure from normal operations reallocate the duration or the quantity of air injected into the turbines to the point that the 110% criterion is likely exceeded. 3. Ongoing if exceedances occur until three months after such exceedances are corrected.	4.2.2a
	Swift No. 1 bypassed natural river reach below Swift No. 1 and below aerated zone	10-15	During spill events through the spillway. Hourly, as close as possible to 24 hrs before to 48 after event	Ongoing unless TDG during spill is found not exceed 110% during river flows approaching 21,322 cfs See Exhibit B for the TDG Monitoring Plan	4.3.3a & 4.2.8 Flows
Temperature	Swift No. 1 forebay	1, 5, 10, 20, 40, 60, 80, 120, 145	May 1–Oct 31: Hourly	Ongoing until temperature behavior in the forebay of Swift No. 2, the upper constructed channel, the canal drain channel, and the bypass reach are understood.	4.4.4
	Swift No. 1 tailrace canal	1	Hourly all year	Ongoing	4.4.4
	Bypassed natural river just upstream and downstream from the mouth of Ole Creek	1	Hourly	Ongoing	4.4.4
Oil & Grease	Record amounts of oil, grease and hydraulic fluids used	n/a	Weekly	Ongoing for the term of the license	4.6.6g
	Sumps	Surface and bottom	At least weekly (visual) At least three months (test)	Ongoing for the term of the license	4.6.5a

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	Trans-former deck	Drains	Daily during icy conditions	Ongoing for the term of the license	4.6.4d
	Oil tanks, transformers, other oil tanks >100 gallons	n/a	At least weekly	Ongoing for the term of the license	4.6.6c
	Fuel hoses, oil drums, oil & fuel transfer valves and fittings.	n/a	Weekly	Ongoing for the term of the license	4.6.6d
	Oil-water separators	n/a	Periodically test oil stop valves	Ongoing for the term of the license	4.6.3a
	Oil-water separators	n/a	Regularly prior to cleaning	Ongoing for the term of the license	4.6.3c

4) All water quality monitoring shall meet accepted standards for data quality. The monitoring plan shall include monitoring and data evaluation procedures and objectives that ensure data quality. Data quality procedures shall be consistent with United States Environmental Protection Agency and Ecology guidance on this subject.

5) The monitoring plan shall be updated annually by amendment to reflect any changes in monitoring parameters, schedule, or methodology. These amendments, or a notification of no change, shall be included in the Annual Report further described below in condition 4.8.6 and in Section 14.2.6 of the Settlement Agreement. Ecology will provide its revisions and approval for the monitoring plan within three (3) months of receipt of the amendment.

6) Data from all water quality monitoring shall be summarized and reported in a format approved by Ecology and submitted annually. The monitoring report shall include sample dates, times, locations, and results. Any exceedances of numeric state water quality standards as well as any deviation from the flow requirements found in this Certification-Order shall be highlighted. The report shall be included in the Annual Report provided to FERC as described in Section 14.2.6 of the Settlement Agreement; provided that if Ecology determines that the format of the Annual Report does not meet Ecology's needs, the Licensee shall modify or supplement the report so that it is acceptable to Ecology. Data reports shall be submitted to Ecology's, Water Quality Program, Southwest Regional Office.

7) The Licensee may request to modify or eliminate parts of the monitoring program after a minimum of the ongoing monitoring requirements or a period of five (5) years of reliable data collection following issuance of the new license. Modifications to this monitoring schedule can be requested by submitting to Ecology reasons for the modifications along with a modified monitoring plan.

8) A more rigorous water quality sampling program for the parameters listed in Table 2 or additional parameters may be required by Ecology if necessary to protect water quality in the future based on monitoring results, regulatory changes,

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changes in project operations and/or requirements of TMDLs, or to otherwise provide reasonable assurance of compliance with state water quality standards.

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Exhibit A

Section 6.1 of the Settlement Agreement Concerning Relicensing of the Lewis River Hydroelectric Projects signed November 30, 2005

6.1 Flow Releases in the Bypass Reach; Constructed Channel.
The Licensees shall provide flow releases to the reach of the Lewis River downstream of Swift No. 1 ending at Yale Reservoir, which parallels the Swift No. 2 canal (the "Bypass Reach"), for the duration of each New License subject to the terms and limitations in this Section 6.1. The Licensees shall not be required to schedule flow releases in any year that exceeds, in the aggregate for that year, 55,200 acre-feet (55,349 acre-feet in each leap year) (the "Annual Release Quantity"). These amounts are sufficient to supply the flows described in Section 6.1.3(g) below. The Licensees shall release the Annual Release Quantity at the following two release points (the "Release Points"): (a) from and as measured at the outflow from a water delivery structure to be constructed at the upstream end of the Bypass Reach (such water delivery structure being referred to as the "Upper Release Point"); and (b) to a constructed channel described in Section 6.1.3 below (defined in Section 6.1.3(a) as the "Constructed Channel") from and as measured at the existing canal drain (the "Canal Drain") that is located approximately one-third the length of the canal downstream of the Swift No. 1 tailrace. The monthly schedule of flow releases from these two Release Points are together referred to as the "Combined Flow Schedule," which shall be determined as provided in Section 6.1.4 below. 6.1.1 Commencement of Flow Releases from the Canal Drain. The Licensees shall commence flow releases from the Canal Drain at the time that Swift No. 2 reconstruction is complete. Prior to completion of the Upper Release Point, the Licensees shall only be obligated to release the maximum discharge from the Canal Drain, without modification, estimated to be 47 cfs.

6.1.2 Construction of Upper Release Point.
The Licensees shall determine the location to construct the Upper Release Point and shall design the necessary Project modifications to deliver water at the upstream end of the Bypass Reach by the first anniversary of the Effective Date. The Licensees shall commence construction of the Upper Release Point within six months after Issuance of the New Licenses for the Swift No. 1 Project or the Swift No. 2 Project, whichever is later, and all required Interests in Land and Permits have been obtained, and shall complete construction as soon as practicable.

6.1.3 Constructed Channel.

a. Swift Bypass Habitat Channel Reconnaissance Study. The Licensees, in Consultation with the Parties, have commissioned a study, conducted by Northwest Hydraulic Consultants, Inc., dated December 9, 2003, entitled "Swift Bypass Habitat Channel Reconnaissance Study" (the "Feasibility Report"), attached as Schedule 6.1.3, concerning the biological and technical feasibility of developing a constructed channel in the Bypass Reach downstream of the Swift No. 2 Canal Drain. The

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purpose of such a channel is to maximize the biological benefits of Canal Drain flows and to enhance connectivity with Yale Reservoir (the channel to be built and any measures undertaken in the lower Bypass Reach to connect that channel to Yale Reservoir shall be referred to collectively in this Agreement as the "Constructed Channel").

b. Funding for the Constructed Channel. The Licensees shall provide funds in a Tracking Account for the construction of the Constructed Channel, including the costs of design, Permitting, construction, and the acquisition of necessary Interests in Land (the "Construction Costs"), subject to the cost limitations provided below. Costs shall be shared by Licensees as follows: Cowlitz PUD shall fund or cause to be funded Construction Costs in an amount not to exceed $182,000; PacifiCorp shall fund Construction Costs in an amount not to exceed $818,000. In the event total Construction Costs are less than $1 million:

(a) PacifiCorp shall make its portion of the remaining funds available (as Adjusted for Inflation until spent) for needed restoration or maintenance of the Constructed Channel beginning in year 19 after the Issuance of the New License for the Swift No. 1 Project; and (b) Cowlitz PUD shall make or cause to be made its portion of the remaining funds available (as Adjusted for Inflation until spent) for needed restoration or maintenance of the Constructed Channel beginning in year 21 after the Issuance of the New License for the Swift No. 2 Project. After PacifiCorp and Cowlitz PUD make such funds available, the funds shall be used for purposes of the Constructed Channel prior to the use of the other Aquatics Funds to support the Constructed Channel. The Licensees shall keep the ACC informed as to the progress of construction and shall notify the ACC within four working days after the Licensees determine that costs are likely to exceed $1 million. If before or after construction begins, the Licensees expect the Construction Costs to exceed $1 million, the Licensees shall inform the ACC and the ACC must decide whether to proceed, consistent with subsection **(c)** below, and draw the additional funds required from the Aquatics Fund or from other supplemental funds as may be available. If the ACC decides to proceed, all costs associated with the Constructed Channel in excess of $1 million, including, but not limited to, construction, operational, and maintenance costs, shall be funded through the use of the Aquatics Fund (Section 7.5). Should the Constructed Channel be built, in no event shall more than $20,000 per year on average be expended from the Aquatics Fund for maintenance of the Constructed Channel. The Parties other than the Licensees may pay such costs from third party funds that may be available to those Parties in lieu of using monies from the Aquatics Fund.

c. Channel Design and Cost Estimate. The Licensees, in Consultation with the ACC, shall complete a design for the construction and maintenance of the Constructed Channel, including the estimated cost of such construction and maintenance, consistent with the findings of the Feasibility Report as soon as practicable after the Effective Date. The design shall include any modifications to the lower Bypass Reach

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that are required to connect the channel to Yale Reservoir. The Licensees shall provide the ACC with a period of 90 days after receipt of the design from the Licensees to either approve the design or provide comments and suggestions for changes to the design. Following receipt of any comments and suggestions, the Licensees shall review and revise the design for the Constructed Channel and provide the revised design to the ACC for approval. Alternatively, the ACC (other than the Licensees), with the concurrence of the CIT and Yakama Nation, may determine at that time that the Constructed Channel should not be built. If the WDOE requires Licensees to build the Constructed Channel as a condition of the 401 Certifications for either or both of the Swift No. 1 and Swift No. 2 Projects, and if the ACC later decides, with the concurrence of the CIT and the Yakama Nation, that the Constructed Channel should not be built, then at the time of such decision by the ACC, any Party may object to such 401 Certification requirement as being Inconsistent with this Agreement and such Inconsistency shall be resolved in accordance with Section 15 below.

d. Permitting and Construction. The Licensees shall obtain necessary Permits as soon as practicable following design approval by the ACC. The Licensees shall consult with the ACC concerning construction contracts and methods to build the Constructed Channel. The Licensees shall commence and complete construction of the Constructed Channel as soon as practicable after the construction of the Upper Release Point is complete and all required Interests in Land and Permits have been obtained.

e. Maintenance of the Constructed Channel. Licensees shall inspect the Constructed Channel at least once annually to determine whether maintenance may be required. After Consultation with the ACC, and using maintenance funds described in subsection b, above, the Licensees shall perform such maintenance as is determined to be necessary.

f. Flow Releases if Constructed Channel Is Not Constructed. If the Constructed Channel is not constructed pursuant to Section 6.1.3.c, the Licensees shall implement the Annual Release Quantity pursuant to the Combined Flow Schedule provided under Section 6.1.4 below; provided that the Licensees, upon the recommendation of the ACC, may allocate all of the Combined Flow Schedule to the upstream end of the Bypass Reach.

g. Flow Releases During Construction of Channel. During the construction of the Constructed Channel, the Licensees shall suspend discharges from the Canal Drain to facilitate construction activities. Licensees shall salvage fish during the dewatering of the channel, and any third-party cost associated with such efforts will be part of the cost of the Constructed Channel. During construction of the Constructed Channel, discharges from the Upper Release Point will conform to the following schedule, consistent with the conditions described in Section 6.1.5:
(i) July 1 through October 31, 60 cfs.
(ii) November 1 through January 31, 100 cfs.
(iii) February 1 through June 30, 75 cfs.

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6.1.4 Interim Flow Schedule; Combined Flow Schedule.

a. On or before the date the Constructed Channel and the Upper Release Point are both operational, the Licensees shall, in Consultation with and with the approval of the ACC, design an Interim Combined Flow Schedule that shall (1) allocate the Annual Release Quantity by month for a complete twelve-month period; (2) allocate the monthly quantities between the Upper Release Point and the Canal Drain for a complete twelve-month period, and; (3) provide for flow releases that remain unchanged during any given month, but may vary from month to month subject to the conditions in Section 6.1.5. The Licensees shall implement the Interim Combined Flow Schedule when both the Constructed Channel and the Upper Release Point are operational, continuing until replaced by the Combined Flow Schedule. The Licensees shall, during the following twelve months (the "Adjustment Period"), in Consultation with and with the approval of the ACC, make periodic adjustments to the Interim Combined Flow Schedule based on observation of discharges in the Constructed Channel and related biological considerations. Any such changes will conform to the conditions described in Section 6.1.5 below.

b. During the final months of the Adjustment Period, the Licensees shall, in Consultation with and with the approval of the ACC, based on the experience and observations during the Adjustment Period, design a Combined Flow Schedule that shall (1) allocate the Annual Release Quantity by month; (2) allocate the monthly quantities between the Upper Release Point and the Canal Drain for a complete twelve month period; and (3) provide for flow releases that remain unchanged during any given month, but may vary from month to month, all subject to the conditions in Section 6.1.5. The Licensees shall implement such Combined Flow Schedule on or before the first anniversary of the date that the Constructed Channel and the Upper Release Point are both operational or approval of the ACC, whichever is later. The Combined Flow Schedule shall remain fixed for the duration of each New License, unless altered as described in Section 6.1.4.c below.

c. The Combined Flow Schedule shall remain substantially unchanged during the New Licenses' terms; provided that, in response to significant physical changes in the channel (e.g., due to major spill events) or changes in biological priorities (e.g., species reintroduction or changes in species status), the Licensees, with the approval of the ACC, shall make changes to the Combined Flow Schedule based on clearly articulated biological or ecological justifications; provided further, however, that any such changes shall comply with the conditions in Section 6.1.5. The Licensees shall not be required to revise the Combined Flow Schedule pursuant to this subsection (c) more frequently than once every five years, except in response to a significant physical alteration of the Constructed Channel due to spill events. The Parties other than the Licensees may not require any change to the Combined Flow Schedule in a manner that necessitates physical modification to the Projects or related facilities, including, but not limited to, modification of the Upper Release Point or the Canal Drain, or require additional Permits. The Licensees shall implement the revised

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Combined Flow Schedule no later than twelve months after the written approval by the ACC of such change.

6.1.5 Conditions on Combined Flow Schedule.

a. The Annual Release Quantity as scheduled for a given calendar year shall not constrain the Licensees' ability to spill water at Swift No. 1 and at the Swift No. 2 Canal during high flow events, for operational reasons, or during emergency circumstances; however, water spilled during such events shall not be charged against the Annual Release Quantity; provided that such spill may be counted to the extent that it displaces scheduled releases from the Upper Release Point, but shall not be counted toward nor displace scheduled releases from the Canal Drain. During the time that spills displace scheduled releases from the Upper Release Point, the Licensees may in their discretion stop releases through the Upper Release Point;
b. No more than a total of 17,078 acre-feet of the Annual Release Quantity (equivalent to an average of 70 cfs for the four-month period) may be scheduled during the period July 1st through October 31st, inclusive, and the maximum Combined Flow Schedule for those months shall not exceed 80 cfs in any month during the period July 1st through October 31st;
c. During the period from November 1st through June 30th, the maximum Combined Flow Schedule in each month shall not exceed 100 cfs;
d. The maximum flow that may be scheduled for release from the Canal Drain to the Constructed Channel shall be the maximum discharge capacity of the Canal Drain, without modification, estimated to be 47 cfs; and
e. No portion of the Annual Release Quantity may be credited to a later year or otherwise carried over from year to year. All of the Annual Release Quantity shall be scheduled for release during each year.

6.1.6 Response to Flow Reductions or Interruptions.

The Parties intend that the Combined Flow Schedule, once established, shall be implemented throughout the terms of the New Licenses, without interruption. Certain events may cause the flow to be reduced or interrupted at either the Canal Drain or the Upper Release Point. The Licensees shall deal with such reductions or interruptions in flow as follows:

a. If a non-emergency maintenance or replacement of release point facilities is required, and such activities could decrease or interrupt scheduled releases, the Licensees shall notify the Services, WDFW, and the ACC as far in advance as practicable. The Licensees shall utilize temporary replacement facilities (e.g., pumps, siphons) for the period of potential flow reduction or interruption to maintain release of scheduled amounts of water.
b. If emergency maintenance or replacement of release point facilities is required, or if any other event of Force Majeure occurs, and such activities or such event will decrease or interrupt scheduled releases, the Licensees shall notify the Services,

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WDFW, and the ACC as soon as practicable. The Licensees shall utilize temporary replacement facilities (e.g., pumps, siphons) for the period of potential flow reduction or interruption to maintain release of scheduled amounts of water to the extent practicable under such emergency or Force Majeure conditions. The Licensees shall take action to maintain or replace the release point facilities and to restore their normal operation as soon as is practicable.

c. On or before the date that the Licensees begin delivering flows from the Upper Release Point under this Section 6.1, the Licensees shall prepare and deliver to the Services, WDFW, and the ACC plans for expeditious installation and operation of temporary replacement facilities for delivery of flows from the Canal Drain and Upper Release Point, respectively, to avoid or minimize reductions or interruptions in flow to the extent practicable under the circumstances described in paragraphs (a) and (b) above.

d. If under paragraphs (a) and (b) above, discharge is reduced or interrupted at either release point, the Licensees shall document the duration (in days or hours), rate (in cfs), and volume (in acre-feet) of flow reduction to the extent practicable, and shall provide such documentation to the Services, WDFW, and the ACC.

6.1.7 Clean Water Act Certification.

WDFW shall support the Annual Release Quantity and Combined Flow Schedule described in this Section 6.1 (with or without the Constructed Channel) by filing supporting comments and recommendations with WDOE. WDFW further agrees that the Annual Release Quantity and Combined Flow Schedule are consistent with WDFW's biological and other objectives. The Licensees' applications for Clean Water Act certifications may or may not include reference to the Constructed Channel. A decision by the respective Licensees to not include the Constructed Channel in Licensee applications for 401 Certifications shall not discharge Licensee obligations to construct the Constructed Channel in accordance with Section 6.1.3, including the obligation to obtain necessary Permits. All Parties shall support or not oppose the Licensees' applications for Clean Water Act certifications, or the final certificates, relating to flows in the Bypass Reach that are consistent with this Section 6.1.

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Exhibit B

Total Dissolved Gas Spill Monitoring Plan for Swift No 1, Yale, and Merwin Dams

This plan includes:

1. A quality assurance/quality control (QA/QC) plan;
2. A description of how spill events (including 7Q-10 events) will be anticipated;
3. A description of how equipment will be mobilized quickly prior to a spill event and timing of monitoring frequency and duration;
4. Location of monitoring equipment; and,
5. Reporting deadline.

1) Quality Assurance/Quality Control

Data Quality Objectives and Decision Criteria

Total Dissolved Gas meters can exhibit biased results depending on calibration, maintenance and/or field conditions. The Licensee's staff will minimize bias by assuring proper maintenance and care of the TDG meters. Therefore, no Data Quality Objectives (DQOs) are being established.

TDG readings are expected to fall between 100% and 130% saturation. Washington State standard is 110% saturation. Measurement Quality Objectives (MQOs) are equivalent to DQOs and are equal to 1% saturation. MQOs will be met if the TDG meter readings are within 1 percent saturation or 5 mm HG of the expected value based on comparison to paired meters. If MQOs are not met for these pairs, the differences between paired data will be evaluated, including differences in the data quality procedures used, but the data will not be qualified or discarded unless other information indicates problems with the data.

Percent TDG measurements are dependent on barometric pressure readings, so secondary MQOs are also needed for the on-site barometric pressure readings. There are two weather stations at Yale and Swift so it is possible to obtain direct measurements of barometric pressure at those locations. A portable barometer will be employed at Merwin. The target for this monitoring effort will be an MQO of 5 mm HG for the field barometer readings. If the barometric pressure MQOs are exceeded, the data will be considered acceptable if the TDG percent saturation MQOs are met.

Temperature will also be collected during the monitoring periods. Since temperature is of secondary importance, DQOs will not be established but an MQO will be established to determine if data are acceptable for reporting. The MQO for temperature will be met and reported if post-calibration shows that the temperature is within 0.5 º C.

In terms of data quality the following acceptance criteria shall be applied:

Data Reasonableness: Data will be reviewed to determine if the amount of variability is

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appropriate, based on expected values and comparison between data sets. Data with too much or reasonably too little variability will not be used.

Data Completeness: Data sets will be used that are reasonably complete during the period of sampling. Incomplete data sets will be used if they are considered representative of conditions during the sampling period.

Data Representation: Data will be used that are representative of the location or time period for sampling. Attention will be paid to the variations in meteorological conditions and to seasonal differences between high and low flow conditions.

Study Design and Field Procedures: All data will be collected using Hydrolab® Model MS5 remote TDG meters. Prior to deployment, instruments will be calibrated to ensure that total pressure (in air) equals barometric pressure. Meters will be attached to a streamside structure such as the Ariel USGS gage house below Merwin and existing cabling, or a large rock or tree below Yale and Swift No. l. The meters will be weighted such that they will maintain position in at least 10 feet of water (compensation depth) to prevent air bubble formation on the sensor membranes.

The Hydrolab® Model MS5 remote TDG meters will be checked for calibration before and after each deployment. Meters will be checked for performance at each site at the beginning and the end of each deployment.

Data Review, Quality Assessment, and Validation: Data will be downloaded from the Hydrolab® Model MS5 remote TDG meters to a spreadsheet and reviewed for reasonableness and any values exceeding the MQOs. Outliers will be evaluated for reasons behind any unexpected deviation. Exceedances related to equipment malfunction result in rejection of the data.
Data sets will be considered complete if the data meet the MQOs at least 85 percent of the time. All data meeting MQOs will be accepted. Data will then be evaluated for compliance and acceptance criteria.

2) How spill events will be anticipated including 7Q-10 events
The Licensee will use prediction tools described below to determine when to deploy TDG meters for any anticipated spill event.

The following is a description of how the Licensee will anticipate spill events, including 7Q-10 events, at Merwin Dam, Yale Dam and Swift No. 1 Dam. The Licensee will regularly monitor weather and inflow forecasts from the National Weather Service and River Forecast Center as well as a number of private forecasting vendors. Based on expected inflows and current reservoir elevations, the Licensee will target total Project releases, typically 2 to 3 days in advance, so as to minimize the frequency and magnitude of Project spill. Since the Lewis River Project has a large amount of storage compared to typical inflow, The Licensee is often able to manage and re-regulate natural high flow

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events so as not to spill at the Projects thereby saving water for such purposes as generation, fishery needs and refill. The Licensee has real time reservoir elevation indication in each of its three reservoirs. With this data, total available Project storage is calculated on an hourly basis and made available to staff involved in Project operations. Reservoir elevations, available storage, and inflow forecasts are routinely monitored by Hydro Control Operators as well as technical water management staff. This information is scrutinized carefully particularly during actual and potential high run off situations.

During the high run off season (November 1 - April 1) the Licensee is required to maintain an aggregate of at least 70,000 AF of storage in the Lewis River reservoirs. If there is a reasonable threat of encroaching on this storage, the Licensee typically spills at Merwin dam as necessary to manage the available flood control storage. The rate at which inflow encroaches on required available storage is updated using existing Project telemetry and inflow forecasts provided by NOAA's National Weather Service River Forecast Center, and/or a third party consultant. Telemetered inflow and reservoir instrumentation currently includes:

- The Licensee and USGS stream gages on the river mainstem and tributaries
- The Licensee Energy lake stage gages
- The Licensee Energy and National Weather Service weather stations
- The Licensee Energy and Natural Resource Conservation Service snow stations

Some spill events are not driven by high flow events, and these are typically planned with enough time to provide ample opportunity for the installation of monitoring equipment. Examples include spilling for required periodic testing of the spill gates as well as meeting some special water management needs, including minimum flow requirements, when the generation units are out of service.

Rainfall is but one factor considered in forecasting inflows. Other factors include air temperature (which will affect whether precipitation falls as rain or snow and at what elevations), wind, soil moisture and snowpack conditions. The Licensee relies on the output of complex weather and streamflow models, typically managed by National Weather Service and third party consultants to assimilate these conditions as well as forecasted weather to predict streamflows, including 7Q-10 events.

3) Deployment, Timing of Monitoring, Frequency, and Duration

The Licensee's staff will have meters and deployment equipment at the ready at all times. A test deployment will take place at each site prior to the high run off season. During the high run off season (November 1 - April 1) staff will be on alert to be prepared to deploy at any time. The MS5 meters will be programmed to record TDG and temperature on an hourly schedule. Meters will be deployed at approximately 24 hours before a spill event and continuing for 48 hours afterward. While the meters will be removed following spill events/periods, The Licensee staff will be ready to deploy equipment as many times as

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needed to capture each event. Threat of vandalism or theft, and unwillingness to risk data loss drives the decision to remove equipment after each spill event.

4) Location of monitoring equipment
Three meters will be deployed in spill water at the following locations:

- Approximately ¼ mile downstream of Merwin dam near the Ariel gage site;
- Approximately ½ mile downstream of Yale dam and upstream of the confluence with Canyon Creek; and,
- Approximately ½ mile downstream of Swift No.1 dam.

Placement will be far enough downstream of the dams to be outside the aeration area below each spillway in order to avoid air bubble accumulation on the sensing membrane.

5) Reporting
Summary output of the streamflow forecast models, as well as inflow records, will be included in The Licensee reports identifying and justifying periods of 7Q-10 exemptions identified in section 4.3.5.f. Likewise when Federal Energy Regulatory Commission license conditions or other safety and environmental requirements require spill not otherwise explicitly included in 7Q-10 exemptions, The Licensee will document and report those events, including the basis of the operation. As called for in the Lewis River Settlement Agreement (Section 14.2.6), annual reporting of spill events and data analysis will be included in joint Licensee's Annual Aquatics Coordination Committee Report.

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Exhibit C

Definitions

7Q-10 – The high flow that is calculated to occur only once, for 7 consecutive days during any 10-year period.

ACC – Aquatic Coordination Committee

BMPs **–** Best Management Practices to reduce pollution

CWQPP – Construction Water Quality Protection Plan – necessary for all construction projects in, over, or near water.

FERC – Federal Energy Regulatory Commission

FWPCA – Federal Water Pollution Control Act

HPA – Hydraulic Project Approval

IWPP – In Water Work Protection Plan. Part of the CWQPP as described above. This is for work in the water—such as boat ramps or cement work in the water. This does not apply inside the dam when before beginning the project, the water can be completely removed.

MSL – Mean Sea Level

NPDES – National Pollution Discharge Elimination System.

NTU – Nephelometric Turbidity Units

Pesticide –

a) Any substance or mixture of substances intended to prevent, destroy, control, repel, or mitigate any insect, rodent, snail, slug, fungus, weed, and any other form of plant or animal life or virus, except virus on or in a living person or other animal which is normally considered to be a pest or which the director may declare to be a pest;

b) Any substance or mixture of substances intended to be used as a plant regulator, defoliant or desiccant; and

c) Any spray adjuvant, such as a wetting agent, spreading agent, deposit builder, adhesive, emulsifying agent, deflocculating agent, water modifier, or similar agent with or without toxic properties of its own intended to be used with any pesticide as an aid to the application or effect thereof, and sold in a package or container separate from that of the pesticide with which it is to be used.

RCW – Revised Code of Washington

RM – River Mile

SWPPP – Stormwater Pollution Prevention Plan –Part of the CWQPP as described above. This is to prevent polluted stormwater from entering the reservoir or river.

TDG – Total Dissolved Gas

TMDL – Total Maximum Daily Load

TWQAP – Temperature Water Quality Attainment Plan

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USC – United States Code

USDA-FS – Forest Service of the United States Department of Agriculture

USGS – United Stated Geological Survey

USFWS – United States Fish and Wildlife Service

WAC – Washington Administration Code

WQAP – Water Quality

WQMP – Water Quality Monitoring Plan

WDFW – Washington Department of Fish and Wildlife

WQS – Water Quality Standards Rule, WAC 173 201A. For further descriptions of terms, refer to the definitions in this rule

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APPENDIX D

Modified Fishway Prescriptions filed by the Department of Commerce under Section 18 of the Federal Power Act for the Swift No. 1 Project, FERC No. 2111

February 14, 2006

Modified Fishway Prescriptions

The following prescriptions were developed in response to the Settlement Agreement filed for the Projects with the Commission on December 1, 2004. These modified prescriptions are intended to implement the Settlement Agreement with respect to anadromous fish resources.

Section 18 of the FPA states in relevant part that, "the Commission shall require the construction, maintenance, and operation by a licensee of... such fishways as may be prescribed by the Secretary of Commerce or the Secretary of the Interior." Section 1701(b) of the National Energy Policy Act of 1992, P.L. 102-486, provides guidance as to what constitutes a fishway. Section 1701(b) states, "The items which may constitute a 'fishway' under section 18 for the safe and timely upstream and downstream passage of fish shall be limited to physical structures, facilities or devices necessary to maintain all life stages of such fish, and project operations and measures related to such structures, facilities or devices which are necessary to ensure the effectiveness of such structures, facilities or devices for such fish."

These mandatory fishway prescriptions are based on the best available biological and engineering information available. NMFS' prescriptions for the Merwin, Yale, Swift No. 1, and Swift No. 2 Projects include structures for upstream and downstream passage, and project operations, performance standards, outcome goals, and other measures to ensure effective passage. The facilities, measures, and other related provisions were developed in consultation with all parties to the Settlement Agreement, as part of this relicensing proceeding. Each prescription is based on substantial evidence contained in the record. Because these prescriptions are the product of settlement, the rationale for each provision is tied to the rationale for the overall agreement. Where appropriate, additional rationale has been provided in previous filings. NMFS has carefully reviewed these prescriptions, and considers them to fall fully within the scope of its Section 18 authority because they are measures needed to ensure the effectiveness of fishway structures, facilities, or devices.

NMFS hereby prescribes the following license conditions for the construction, operation, and maintenance of upstream and downstream fishways to provide safe, timely, and effective passage around the Merwin, Yale, and Swift No. 1, and 2 Projects.

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Recognizing that the following prescriptions are consistent with the Settlement Agreement, NMFS respectfully requests, pursuant to its authority under Section 18 of the FPA, that the Commission incorporate into the Project licenses, in their entirety and without modification, the prescriptions included herein.

Article 1. Prescription for Anadromous Fish Reintroduction Outcome Goals

Regarding the stocks of Chinook, steelhead, and coho that are being transported under the Settlement Agreement, the Licensee must implement the relevant PM&E Measures that are the Licensee's obligation in the Settlement Agreement and the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects must implement the relevant PM&E Measures that are shared obligations of the licensees in the Settlement Agreement to achieve the Reintroduction Outcome Goal as described in the Settlement Agreement. The "Reintroduction Outcome Goal" is to achieve genetically viable, self-sustaining, naturally reproducing, harvestable populations above Merwin Dam greater than minimum viable populations. "Harvest" includes all forms *of* harvest including, without limitation, commercial, tribal, and recreational. Notwithstanding the previous sentences, the Licensee shall not be responsible for limiting factors that are not related to project effects, e.g. harvest. These Reintroduction Outcome Goals are separate from and have no relationship to the targets listed under Section 8 *of* the Settlement Agreement relating to numbers of returning hatchery fish.

1.1 Monitoring and Evaluation

The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 project in Consultation with the Aquatics Coordination Committee (ACC) (including at least the Services) and with the final approval of the Services, must monitor progress for achieving Reintroduction Outcome Goals periodically as set forth in Sections 3.2 and 9 of the Settlement Agreement. The results of such monitoring must be included in the reports on monitoring and evaluation to be provided to the Commission by the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 project, under Section 9.1 of the Settlement Agreement. The monitoring must rely on the work of regional recovery groups (e.g., the Technical Recovery Team and the Lower Columbia Fish Recovery Board) relating to North Fork Lewis River populations to the extent possible, in combination with the data gathered by the Licensee and the licensees for the Merwin, Yale and Swift No. 2 projects in accordance with the Settlement Agreement. As contemplated by the Settlement Agreement, the Licensee must supplement such work if needed to determine whether the Reintroduction Outcome Goals have been achieved or whether they are on track to being achieved on a timely basis.

1.2 Phase I Status Check

If the Services determine, on or after the later of (a) the 27th anniversary of Issuance

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of the last of the Licenses for Swift No. 1, Yale, Merwin, and Swift No. 2 projects, or (b) the 12th year after reintroduction of anadromous fish above Swift No. 1 Dam together with the operation of both the Merwin Upstream Transport Facility, as provided in the License for the Merwin project, and the Swift Downstream Facility, using the approach developed pursuant to Section 3.1.1 of the Settlement Agreement (such determination process is referred to as the "Phase I Status Check"), that the Reintroduction Outcome Goal has been achieved for each North Fork Lewis River anadromous fish population that is being transported under the Settlement Agreement, the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, shall continue to implement the relevant measures contained in Sections 4 through 9 of the Settlement Agreement for the remainder of the License terms, including adjusting and modifying fish passage facilities as needed to meet relevant performance standards as provided in Section 4.1.6 of the Settlement Agreement.

If the Services determine, on or after the later of (a) the 27th anniversary of issuance of the last of the Licenses for the Swift No. 1, Yale, Merwin, and Swift No. 2 projects, or (b) the 12th year after reintroduction of anadromous fish above Swift No. 1 Dam together with the operation of both the Merwin Upstream Transport Facility, as provided in the License for the Merwin project, and the Swift Downstream Facility, using the approach developed pursuant to Section 3.1.1 of the Settlement Agreement (such determination process is referred to as the "Phase I Status Check"), that any of the Reintroduction Outcome Goals have not been met, the Licensee must perform a limiting factors analysis, in Consultation with the ACC (including at least the Services) and subject to final approval and acceptance of the Services. If the limiting factors analysis concludes, for all Reintroduction Outcome Goals that are not being met, that all significant limiting factors contributing to the failure to meet such goals are unrelated to Project effects, the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must continue carrying out the relevant measures contained in Sections 4 through 9 of the Settlement Agreement, including adjusting and modifying fish passage facilities as provided in Section 4.1.6 of the Settlement Agreement, but shall not be obligated to implement any additional measures. Examples of factors unrelated to project effects include but are not limited to, harvest, upstream of Merwin off-Project habitat conditions (e.g. degradations in habitat due to forest management practices and natural catastrophic events), and ocean conditions. However, if the limiting factors analysis concludes that a Project effect is a significant limiting factor in any Reintroduction Outcome Goal not being met, then, in addition to continuing carrying out of the relevant measures contained in Sections 4 through 9 of the Settlement Agreement, including adjusting and modifying fish passage facilities as provided in Section 4.1.6 of the Settlement Agreement, the Licensee must complete any actions that the Services, informed by discussions with the ACC in a meeting that the Licensee must convene, determine would provide biological benefits adequate to thoroughly offset the impact of the identified Project-related limiting factor(s) for North Fork Lewis populations (e.g., habitat enhancement projects, continuing juvenile supplementation,

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etc.) provided the Licensee shall not be required to (1) make structural or operational changes with respect to its generating facilities or Project reservoirs to achieve standards, (2) replace any fish passage facility with another fish passage facility, or (3) install additional collection and transport facilities or alternative fish passage facilities.

1.3 Phase II Status Check

If the Services determine, on or after the later of (a) the 37th anniversary of Issuance of the last of the Licenses for the Swift No. 1, Yale, Merwin, and Swift No. 2 projects, or (b) the seventh year after the Phase I Status Check, using the approach developed pursuant to Section 3.1.1 of the Settlement Agreement (such determination process is referred to as the "Phase II Status Check"), that the Reintroduction Outcome Goals have been achieved, the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must continue to carry out the relevant measures provided in Sections 4 through 9 of the Settlement Agreement for the remainder of the License terms, including adjusting and modifying fish passage facilities as needed to meet relevant performance standards as provided in Section 4.1.6 of the Settlement Agreement.

If the Services determine, on or after the later of (a) the 37th anniversary of issuance of the last of the Licenses for the Swift No. 1, Yale, Merwin, and Swift No. 2 projects, or (b) the seventh year after the Phase I Status Check, using the approach developed pursuant to Section 3.1.1 of the Settlement Agreement (such determination process is referred to as the "Phase II Status Check"), that any of the Reintroduction Outcome Goals have not been achieved, the Licensee must perform a limiting factors analysis, in Consultation with the ACC (including at least the Services) and subject to the final approval and acceptance of the Services. If the limiting factors analysis concludes, for all Reintroduction Outcome Goals not being met, that all significant limiting factors contributing to the failure to meet such goals are unrelated to Project effects, the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must continue carrying out the relevant measures contained in Sections 4 through 9 of the Settlement Agreement including adjusting and modifying fish passage facilities as provided in Section 4.1.6 of the Settlement Agreement, but shall not be obligated to implement any additional measures. Examples of factors unrelated to project effects include but are not limited to, harvest, upstream of Merwin off-Project habitat conditions (e.g. degradations in habitat due to forest management practices and natural catastrophic events), and ocean conditions. If the limiting factors analysis concludes that a Project effect is a significant limiting factor in any Reintroduction Outcome Goal not being met, then, in addition to continuing carrying out the relevant measures contained in Sections 4 through 9 of the Settlement Agreement, including Facility Adjustments and Facility Modifications as provided in Section 4.1.6 of the Settlement Agreement, the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must Consult with the Services to determine what further actions by the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, would be necessary to meet

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Reintroduction Outcome Goals pursuant to Section 3.5.2.6 of the Settlement Agreement. Such actions may include, without limitation, consideration of structural or operational changes with respect to the generating facilities or Project reservoirs or construction of new or replacement passage facilities.

Article 2. Prescription for Fish Passage Facilities Design

To provide for the safe, timely and effective passage past the Project of upstream and downstream migrating salmonids, the Licensee shall develop and implement the Swift Downstream Facility and, together with the licensee for the Swift No. 2 project, shall develop and implement the Swift Upstream Facility in accordance with, and subject to the limitations included in, all of the relevant provisions of the Settlement Agreement.

2.1 Studies to Inform Design Decisions

The Licensee, in Consultation with the ACC (including at least the Services) and subject to the final approval of the Services, must develop and carry out studies to inform the design of upstream and downstream fish passage facilities described in the Settlement Agreement with the goal of improving the likelihood that the passage facilities will be successful as initially constructed. Needed information may include the hydraulic characteristics of the Swift No. 1, Yale, and Merwin forebays and tailraces (e.g., a three-dimensional numerical flow-field analysis) and the movement of adult and juvenile salmonids. The Licensee must complete these studies sufficiently in advance of the design decisions required by the Settlement Agreement so that the Licensee, the Services, and the ACC can take the resulting information into account when making final design decisions.

2.2 Design Review

Except as. otherwise provided under Section 4.1.9 of the Settlement Agreement, the Licensee must design the Swift Downstream Facility and, together with the licensee for the Swift No. 2 project, shall design the Swift Upstream Facility, to meet the performance standard targets, as set out in Section 4.1.4.b of the Settlement Agreement as applicable. The Licensee, together with Swift No. 2 with respect to the Swift Upstream Facility, must use the best available technology for the type of passage facility being constructed, and design the passage facility to provide flexibility for subsequent expansion or Facility Adjustments, if needed, to meet performance standards. A fish passage facility may include duplication of some components (for example, multiple entrances) and still be considered a single passage facility. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must coordinate with and provide 30 percent and 60 percent completed preliminary designs for review and comment to the Services and WDFW. The Licensee, together with the licensee for the

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Swift No. 2 project with respect to the Swift Upstream Facility, must notify the ACC when design work has begun, and provide the 30 percent and 60 percent preliminary designs to any other Party to the Settlement Agreement at the Party's request. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must provide the Services and WDFW 45 days to provide their comments. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must submit the 90 percent preliminary designs with the relevant engineering, hydraulic, and biological work to the ACC (including at least the Services) at the times set forth in the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must provide the ACC (including at least the Services) 45 days to provide its comments on the 90 percent preliminary designs and must finalize the designs in Consultation with the ACC (including at least the Services) and with the approval of the Services. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must consider and address in writing those written comments provided by the members of the ACC (including at least the Services) when submitting final designs to the Services for approval.

Article 3. Prescription for Permits and Time for Construction

Upon approval of passage facility designs by the Commission, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must diligently and expeditiously acquire all required Permits. The time by which each passage facility must be placed in operation is set forth in the Settlement Agreement.

Article 4. Prescription for Performance Standards for Fish Passage

The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must provide for the safe, timely, and effective passage of salmonids being transported past the Project as described in the Settlement Agreement. The sole performance standard for kelts and downstream migration of adult sea-run cutthroat must be safe, timely, and effective passage. Specific life stages described below (not including kelts or downstream migrating sea-run cutthroat) have quantitative standards. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must construct and provide for the operation and maintenance of fish passage facilities that collect all life stages of salmonids that are present at the facility, and function during all flows and during all seasons; except (i) for the downstream facility at Swift No. 1 when it is infeasible to function during flood events that require spill that could not be reasonably accommodated by the passage facility, or (ii) for upstream passage facilities, to the extent it is infeasible due to flood events that require spill that could not be reasonably accommodated by the passage facility.

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The Licensee must employ the following definitions in carrying out and monitoring the performance standards:

- Adult Trap Efficiency ("ATE"): The percentage of adult Chinook, coho, steelhead, bull trout, and sea-run cutthroat that are actively migrating to a location above the trap and that are collected by the trap.
- Collection Efficiency ("CE"): The percentage of juvenile anadromous fish of each of the species to be transported, as described in Section 4.1.7 of the Settlement Agreement, that is available for collection and that is actually collected.
- Collection Survival ("CS"): The percentage of juvenile anadromous fish of each of the species to be transported collected that leave Release Ponds alive.
- Injury: Visible trauma (including, but not limited to, hemorrhaging, open wounds without fungus growth, gill damage, bruising greater than 0.5 cm in diameter, etc.), loss of equilibrium, or greater than 20 percent descaling. "Descaling" is defined as the sum of the area on one side of the fish that shows recent scale loss. This does not include areas where scales have regenerated or fungus has grown.
- Overall Downstream Survival ("ODS"): The percentage of juvenile anadromous fish of each of the species to be transported that enter the reservoirs from natal streams and that survive to enter the Lewis River below Merwin Dam by collection, transport, and release via the juvenile fish passage system, passage via turbines, or some combination thereof, calculated as provided in Schedule 4.1.4 of the Settlement Agreement.
- Upstream Passage Survival ("UPS"): Percentage of adult fish of each of the species to be transported that are collected that survive the upstream trapping-and-transport process.
- For sea-run cutthroat and bull trout, "adult" means fish greater than 13 inches in length.

4.1 Overall Fish Passage Performance Standards for Salmonids

For each species, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must achieve the following overall performance standards for fish passage: ODS of greater than or equal to 80 percent until such time as the Yale Downstream Facility is built as provided in the License for the Yale project (P-2071), or the funds from the In Lieu Fund, as described in Section 7.6 of the Settlement Agreement, become available to the Services in lieu of constructing the Yale Downstream Facility, after which time ODS must be greater than or equal to 75 percent; UPS of greater than or equal to 99.5 percent; and ATE to be established as described in the Settlement Agreement. ODS, as defined by the Settlement Agreement, must include several components of juvenile passage, including reservoir survival, collection efficiency and collection survival, with the latter two terms having individual, quantitative performance standards, as described in Section 4.1.4 of the Settlement

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Agreement. Moreover, ODS must also incorporate estimates of juvenile survival rates for fish that elude collection but successfully navigate through Project turbines. For purposes of estimating ODS, until turbine survival studies are performed, the Licensee must assume that the turbine survival is equal to zero percent (0%). If the performance standards for ODS, UPS and ATE are not achieved within a reasonable time, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must make Facility Adjustments and Modifications, as described in Section 4.1.6 of the Settlement Agreement.

4.2 Passage Facility Design Performance Standards for Salmonids

The Licensee must design and construct downstream fish passage facilities to achieve, for each species, a CE of equal to or greater than 95 percent, a CS of equal to or greater than 99.5 percent for smolts and 98 percent for fry, and adult bull trout survival of equal to or greater than 99.5 percent. Design performance objectives for Injury are less than or equal to 2 percent. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must design and construct upstream fish passage facilities to achieve the UPS equal to or greater than 99.5 percent and the ATE to be established as described in the Settlement Agreement.

4.3 Adult Trap Efficiency for Salmonids

As soon as practicable, and following Consultation described by the Settlement Agreement, the Licensee, together with the licensee for the Swift No. 2 project must develop an ATE performance standard for the Swift Upstream Facility to ensure the safe, timely, and effective passage of adult salmonids. Until such time as the standard has been developed, the Licensee must use NOAA Fisheries Service's fish passage guidelines (Anadromous Salmonid Passage Facility Guidelines and Criteria, NMFS (Jan. 31, 2004)). The Licensee, together with the licensee for the Swift No. 2 project, must consider without limitation entry rate, fall back, crowding at the entrance, delay, and abandonment of the trap area. When performance standards for ATE have been developed, the Licensee, together with the licensee for the Swift No. 2 project, must submit the standards to the Commission and such standards must be used to judge performance for the facilities when considering Facility Adjustments or Facility Modifications.

4.4 Monitoring and Evaluation of Performance Standards

As described in the Settlement Agreement, once the Swift Downstream Facility or Swift Upstream Facility is constructed and placed in operation, and after each Facility Adjustment or Facility Modification, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must evaluate, in Consultation with the ACC (including at least the Services) and with the approval of the

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Services, whether performance standards are being met for each of the species designated in the Settlement Agreement, in accordance with the monitoring and evaluation plan described in Section 9 of the Settlement Agreement.

4.5 Adjustments or Modifications to Passage Facilities to Achieve Performance Standards

A "Facility Adjustment" means a physical passage facility upgrade, improvement, or addition that was part of the original design of the passage facility, or an adjustment to the fish passage facility or its operations. A "Facility Modification" means a physical alteration or addition to a physical passage facility that requires a new design. When making Facility Modifications, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must follow the design process set out in Section 4.1.2 of the Settlement Agreement, in Consultation with the ACC (including at least the Services). Whenever any Facility Adjustment or Facility Modification is completed, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must test the operation of the relevant facility for a reasonable time to determine the effectiveness of such adjustment or modification. At the direction of the Services and after any required Commission approvals and obtaining all required Permits, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must make Facility Adjustments and Facility Modifications to the relevant passage facility to achieve the relevant performance standards for each of the species designated in the Settlement Agreement as soon as practicable.

(a) If ODS is not being met, then the Licensee must make Facility Adjustments or Facility Modifications to downstream passage facilities as follows:

(1) If the CE is less than 95 percent and greater than or equal to 75 percent or the CS for smolts is less than 99.5 percent and greater than or equal to 98 percent, or the CS for fry is less than 98 percent and greater than or equal to 96 percent, or Injuries to juvenile Transported Anadromous Species caused by downstream collection and transport are greater than 2 percent but less than 4 percent, the Licensee must make Facility Adjustments directed by the Services to achieve the performance standard or standards that are not being met but is not required to make Facility Modifications; or

(2) If the CE is less than 75 percent, or the CS for smolts is less than 98 percent, or the CS for fry is less than 96 percent, or Injuries to juvenile Transported Anadromous Species caused by downstream collection and transport are greater than or equal to 4 percent, the Licensee must make the Facility Modifications directed by the Services to achieve the performance standard or standards that are not being met; provided that if the Services believe a Facility Adjustment will likely achieve the performance standard or standards that are not being met, then the Licensee must first make Facility Adjustments as directed by the Services.

(b) If the ODS is being met but the CE is less than 95 percent, the CS for smolts is

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less than 99.5 percent, the CS for fry is less than 98 percent, or Injury to juvenile Transported Anadromous Species caused by downstream collection and transport is greater than 2 percent, the Licensee must make Facility Adjustments directed by the Services to downstream facilities but is not required to make Facility Modifications.

(c) [Reserved]

(d) For Transported Species, if UPS and/or ATE are not being met, then the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, will make Facility Adjustments or Facility Modifications to upstream passage facilities as directed by the Services, consistent with the Settlement Agreement.

(e) Except as required in a proceeding initiated with Section 15.3.2 of the Settlement Agreement, or as provided in Section 3.5.2.b of the Settlement Agreement, the Licensee shall not be required to (1) make structural or operational changes with respect to its generating facilities or Project reservoir to achieve standards, (2) replace any fish passage facility with another passage facility, or (3) install additional collection and transport facilities or alternative fish passage facilities beyond those required by the Settlement Agreement. This Article is not intended to alter specific obligations provided under this License or the Settlement Agreement, including, without limitation, operational constraints required under Settlement Agreement Sections 4.2, 4.9.1, and 6.2.

Article 5. Prescription for Species to be Transported

For purposes of all fish passage provisions contained herein, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must only provide for the transport of spring Chinook, winter steelhead, coho, bull trout, and sea-run cutthroat. Notwithstanding the preceding sentence, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, after Consultation with the ACC (including at least the Services), and if directed by the Services, must also provide for the transport of fall Chinook or summer steelhead that enter the passage facilities.

Article 6. Prescription for Upstream Transport Before Full Adult Fish Passage

Unless and until alternative technologies are implemented, the Licensee, together with the licensee for the Swift No. 2 project, must provide for the transport by truck of all Transported Species collected at the Swift Upstream Facility. Once the Merwin Upstream Transport Facility is completed, and for so long as trucks are used, the Licensee, together with the licensee for the Swift No. 2 project, must provide for transport according to the Upstream Transport Plan described in Section 4.1.8.c of the Settlement Agreement.

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Article 7. Prescription for Upstream Transport After Full Adult Fish Passage

On or before the 13th anniversary of the Issuance of the last of the Licenses for the Merwin (P-935), Yale (P-2071), Swift No. 1 (P-2111), and Swift No. 2 (P-2213) projects, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must evaluate alternative adult fish transport technologies (such as fish trams, cable lifts, or other new technologies) at the facility that allow transportation of the fish with the least practicable amount of handling or other stress-inducing actions, considering the need for sorting fish. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must implement such technologies provided that (1) alternative technologies are determined, by engineers qualified in fish passage and designated respectively by WDFW, USFWS, NOAA Fisheries Service, the Licensee, and the licensee for the Swift No. 2 project, to be feasible and effective in transporting fish over dam facilities; (2) the Services determine that such technologies are suitable for meeting the Services' fish passage goals and the biological benefits are expected to be equal to or greater than the benefits of trap-and-transport by truck; and (3) the costs of the selected technology (considering both initial capital cost and ongoing operational and maintenance costs) do not significantly exceed the costs of transporting fish by truck. If there is a disagreement with the engineers' determination under (1) above, the Licensee, together with the licensee for Swift No. 2 with respect to the Swift Upstream Facility shall allow for the resolution of disputes in accordance with the ADR Procedures in Section 15.10 of the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project, must begin carrying out such technologies after acquisition of all required Permits according to the schedule set forth in the Settlement Agreement. The selection of such technologies and selection of final designs by the Licensee, together with the licensee for the Swift No. 2 project, must be made with the approval of the Services after Consultation with the ACC (including at least the Services), pursuant to Section 4.1.2 of the Settlement Agreement. The costs for such alternate technologies must be considered cumulatively for all of the Lewis River projects, so that a cost savings from alternate technology at one Project could offset a cost increase for such technology at another Project, compared to trapping and transporting by truck. If costs are determined to significantly exceed the costs of transporting fish by truck, the Parties to the Settlement Agreement may make reasonable efforts to find more cost-effective facility designs that will achieve the same or greater biological benefit compared to trap-and-transport by truck. If (i) after due comparison of the costs of initial capital and ongoing operations and maintenance through the remaining term of the Licenses of trapping and transporting by truck versus such costs of an alternative technology for upstream passage it appears that such alternate technologies would not be implemented because of increased costs; and (ii) any Party (other than the Licensee or the Licensees for the Swift No. 2, Merwin or Yale projects): (A) identifies alternate sources of funding, (B) provides a guarantee of payment acceptable to the Licensee and the licensee for the Swift No. 2 project of the difference in capital and ongoing operations and maintenance costs over the remaining term of the Licenses between trap-and-transport and

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such alternative technology, and (C) provides such funding without additional conditions unacceptable to the Licensee and the licensee for the Swift No. 2 project, express or implied; then the Licensee, together with the licensee for the Swift No. 2 project, shall implement such technologies after acquisition of all required Permits according to the schedule set forth in Section 4.8 of the Settlement Agreement for the Swift Upstream Facility. If alternative methods are not used at any facility because they do not meet the standards of Section 4.1.8 of the Settlement Agreement, then the Licensee, together with the licensee for the Swift No. 2 project, must continue to use trap and transport by truck at such facility.

7.1 Upstream Transport Plan

The Licensee, together with the licensees for the Merwin, Yale, and Swift No. 2 projects, must modify the Upstream Transport Plan prepared in accordance with the licenses for the Merwin and Yale projects, in Consultation with the ACC (including at least the Services) and with the approval of the Services, subject to Section 15.14 of the Settlement Agreement, to address transport from the Swift Upstream Facility if trucking is to be used for transport from that facility. The plan must describe the frequency and procedures to achieve safe, timely, and effective upstream passage. The Licensee, together with the licensee for the Swift No. 2 project, must provide for the transport of fish at a minimum frequency of once daily, or more if necessary, to achieve safe, timely, and effective passage. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must submit the modified Upstream Transport Plan to the Commission before completion of the Swift Upstream Facility.

Article 8. Prescription for Downstream Transport

The Licensee must provide for the downstream transport of migrating Transported Species collected in the Swift Downstream Facility by truck.

For the Swift Downstream Facility, the Licensee must Consult with the ACC (including at least the Services) regarding a possible change in methods for downstream passage, e.g., a bypass facility in lieu of trap and transport by truck, if (i) the Swift Downstream Facility has been constructed, (ii) a determination has been made that the Licensee for the Merwin project must construct and operate a bypass facility at the Merwin Downstream Facility as provided in the License for the Merwin project (P-935); (iii) the Services determine that a salmonid bypass passage system would provide equal or greater biological benefit; and (iv) the Licensee does not determine that the capital, operation, and maintenance costs of such bypass would be significantly greater than the capital, operation, and maintenance costs of continued use of trap and transport by truck.

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8.1 Downstream Transport Plan

The Licensee must develop, in Consultation with the ACC (including at least the Services) and with the approval of the Services, a plan that must describe the frequency and procedures to achieve safe, timely, and effective downstream transport from the Swift Downstream Facility (the "Downstream Transport Plan"), subject to Section 15.14 of the Settlement Agreement. The Licensee must submit the Downstream Transport Plan to the Commission before completion of the Swift Downstream Facility. The Licensee, together with the licensees for the Yale and Merwin projects, must modify the Downstream Transport Plan to provide for transport from the Yale Downstream Facility as provided in the license for the Yale project and from the Merwin Downstream Facility as provided in the license for the Merwin project.

Article 9. Prescription for Downstream Transport at Swift No. 1 Dam

By six months after the fourth anniversary of the Issuance of the License for the Swift No. I project or the Swift No. 2 project, whichever is later, the Licensee must construct and provide for the operation of a passage facility at the Swift No. 1 Dam, including a modular surface collector, to collect, sort, tag, and transport downstream-migrating anadromous species (the "Swift Downstream Facility"). The Licensee must provide for the downstream transport of migrating Transported Anadromous Species to below Merwin Dam to a Release Pond. Unless otherwise directed by USFWS, bull trout collected in the Swift Downstream Facility shall be transported to Yale Lake, except that bull trout with a smolt-like appearance, as determined by the Licensee (using methods devised in Consultation with the ACC, including at least the services and in the case of bull trout the USFWS), shall be transported to a location determined by USFWS below Merwin Dam.

The Licensee must Consult with the ACC (including at least the Services) concerning the precise location of the passage facility, which the Licensee must incorporate into the design to be approved by the Services.

The Licensee must provide for the tagging of a statistically valid sample of the fish transported as appropriate to accomplish the monitoring and evaluation objectives set forth in the monitoring plan described in Section 9 of the Settlement Agreement, the methodology of such tagging to be determined by the Licensee in Consultation with the ACC (including at least the Services) and with the approval of the Services. The Licensee must provide for the operation of the passage facility for the remaining term of the License for the Swift No. I project.

The Licensee must provide the 90 percent preliminary designs to the ACC (including at least the Services) by the first anniversary of the Issuance of the License for

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the Swift No. I project or the Swift No. 2 project, whichever is later. Subject to Section 15.14 of the Settlement Agreement, the Licensee must submit final designs to the Commission upon approval by the Services, but not later than six months after the first anniversary of the Issuance of a License for the Swift No. l or Swift No.2 project, whichever is later.

If NOAA Fisheries Service determines that the Swift Downstream Facility does not adequately collect juvenile spring Chinook, the Licensee, in Consultation with the ACC (including at least the Services) and with the approval of NOAA Fisheries Service, must evaluate the behavior of the spring Chinook to determine why they are not being collected by the Swift Downstream Facility. If NOAA Fisheries Service concludes that the Swift Downstream Facility is not working because of fish behavior and that a different type of satellite passage facility has a reasonable likelihood of collecting spring Chinook, the Licensee, in Consultation with the ACC (including at least the Services) and with the final approval of the Services, must design and install the satellite passage facility. The Licensee must design the satellite passage facility to minimize unacceptable incidental impacts to species other than spring Chinook. The Licensee, as part of the monitoring plan required in Section 9 of the Settlement Agreement, must develop and carry out a plan to monitor the satellite facility effectiveness and its effects on species other than spring Chinook. Should NOAA Fisheries Service conclude, given the behavior of the spring Chinook, that another passage facility would not likely be successful, the Licensee.must continue to attempt to collect spring Chinook at the Swift Downstream Facility and must make any further Facility Adjustments or Facility Modifications required by Section 4.1.6 *of* the Settlement Agreement.

Article 10. Prescription for Release Ponds

By six months after the fourth anniversary *of* the Issuance of the License for either the Swift No. I project or the Swift No. 2 project, whichever is later, the Licensee, together with the licensees for the Merwin and Yale projects, in Consultation with the ACC (including at least the Services) and with the final approval of NOAA Fisheries Service, must design and construct stress Release Ponds below the Merwin project to be used for downstream migrating fish that are collected at the Swift Downstream Facility, the Yale Downstream Facility and the Merwin Downstream Facility, in accordance with the Settlement Agreement. To the extent practicable, the Release Ponds will be located downstream of Eagle Island to minimize interaction of the transported fish with wild fall Chinook. The Licensee must Consult with the ACC (including at least the Services) concerning the precise locations of the Release Ponds, which must become part of the design to be approved by NOAA Fisheries Service. The Licensee must provide preliminary designs to the ACC (including at least the Services) by the first anniversary of the Issuance of the License for the Swift No. 1 project. Subject to Section 15.14 of the Settlement Agreement, the Licensee must submit final designs to the Commission upon approval by NOAA Fisheries Service, but

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not later than six months after the first anniversary of the Issuance of the License for the Swift No. l project.

Article 11. Prescription for Upstream Passage at the Swift Projects

Unless otherwise directed by the Services pursuant to Section 4.1.9 of the Settlement Agreement, on or before the 17th anniversary of the Issuance of the License for the Swift No. I project or the Swift No. 2 project, whichever is later, the Licensee, together with the licensee for the Swift No. 2 project, must complete construction and provide for the operation of an adult trap and transport facility at the single best site above Yale Lake, based on biological and hydrological factors, to collect, sort, and transport upstream-migrating adult Transported Anadromous Species to above the Swift No. I Dam (the "Swift Upstream Facility"), except that the USFWS may direct that bull trout be transported to a different location. The specific location of the Swift Upstream Facility must be determined by the Licensee, together with the licensee for the Swift No. 2 project, in Consultation with the ACC (including at least the Services) and with the approval of the Services subject to Section 15.14 of the Settlement Agreement, on or before 12th anniversary of Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later. The Licensee, together with the licensee for the Swift No. 2 project, must provide for the operation of the Swift Upstream Facility for the remaining term of this License unless the Services determine, after discussion with the ACC, that operation of the Swift Upstream Facility should not continue. If the Services make such determination after the passage facility is operational, the Licensee, together with the licensee for the Swift No. 2 project, shall notify the Commission of such decision. The Licensee, together with the licensee for the Swift No. 2 project, must provide 90 percent preliminary designs to the ACC (including at least the Services) on or before the 14th anniversary of the Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later, including any engineering, hydraulic and biological information considered by the design team. Subject to Section 15.14 of the Settlement Agreement, the Licensee, together with the licensee for the Swift No. 2 project, must submit final designs to the Commission upon approval by the Services, but not later than six months after providing preliminary designs to the ACC. If these facilities do not function as well to collect bull trout as the interim collection method based on effectiveness monitoring, as determined by the USFWS, the Licensee, together with the licensee for the Swift No. 2 project, shall continue the interim collection method established in Section 4.9 of the Settlement Agreement.

Article 12. Prescription for Monitoring and Evaluation Plan

Pursuant to Section 9.1 of the Settlement Agreement, the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must complete a master monitoring and evaluation plan (the "M&E Plan") in Consultation with the ACC (including at least the Services) to carry out a program to monitor and evaluate the

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effectiveness of aquatic PM&E Measures contained in the Settlement Agreement and to assess achievement of the Reintroduction Outcome Goals as provided in the Settlement Agreement.

The M&E Plan must address the tasks, and the methods, frequency and duration of those tasks, necessary to accomplish the monitoring and evaluation items described below. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must provide a draft M&E Plan to the ACC (including at least the Services) as described in Section 9.1 of the Settlement Agreement. The Licensee must allow the ACC (including at least the Services) a period of 90 days to provide comments on the draft M&E Plan as part of such Consultation. The Services must have final approval authority over elements of the M&E Plan relating to fish passage or species listed under the ESA, subject to Section 15.14 of the Settlement Agreement. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, shall finalize the M&E Plan and submit it to the Commission for approval within 90 days after the close of the ACC comment period and must implement the M&E Plan upon approval by the Commission. For the purposes of Section 9 of the Settlement Agreement, as provided in the license for the Swift No. 2 project, the licensee for the Swift No. 2 project must prepare elements of the M&E Plan to be performed within the boundaries of Swift No. 2 and must implement such elements. As provided in the licenses for the Merwin, Yale and Swift No. I projects, the Licensee, together with the licensees for the Merwin and Yale projects must prepare and implement all other elements of the M&E Plan. As provided in the Settlement Agreement, the Licensee, and the licensees for the Merwin, Yale and Swift No. 2 projects, must cooperate to prepare a single M&E Plan and a single annual report to the Commission, but if that is not successful, the Licensee must submit its own plan and annual report as required under Section 9 of the Settlement Agreement.

The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must provide to the ACC (including at least the Services) the results of the monitoring and evaluations under the M&E Plan as part of the Licensee's annual report, which must be prepared in accordance with the Settlement Agreement. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must also include in such annual report a description of the monitoring and evaluation tasks to be completed during the following year. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must Consult with the ACC (including at least the Services) as necessary, but no less often than every five years, to determine if modifications to the M&E Plan are warranted. As a result of such Consultation, the Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must propose changes to the M&E Plan to improve the effectiveness of monitoring and evaluation.

The Services must have final approval of changes to the M&E Plan with respect to fish passage or species listed under the ESA, subject to Section 15.14 of the

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Settlement Agreement. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must carry out any changes to the M&E Plan as soon as they have been approved by the Commission.

The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must amend the M&E Plan in Consultation with the ACC (including at least the Services), to incorporate newly constructed facilities and other aquatic PM&E Measures to be carried out during the term of this License. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must provide a draft revised M&E Plan relating to facilities to be constructed in the future, and other aquatic PM&E Measures to be carried out in the future, to the ACC (including at least the Services) not less than two years before completing construction of such facilities or implementation of such measures. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must allow the ACC (including at least the Services) a period of 90 days to provide comments on the draft revised M&E Plan as part of such Consultation. The Services must have final approval authority for the revised M&E Plan relating to fish passage or species listed under the ESA, subject to Section 15.14 of the Settlement Agreement. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must finalize the revised M&E Plan and submit it to the Commission for approval within 90 days after the close of the ACC comment period. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must carry out any amendments to the M&E Plan as soon as they have been approved by the Commission.

The following provisions provide guidance regarding elements to be included in the original M&E Plan, and in subsequent amendments to the M&E Plan, relating to specific passage facilities and other aquatic measures. The monitoring and evaluation tasks described in Section 9 of the Settlement Agreement shall be incorporated into and made part of the M&E Plan. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, may revise and adapt the monitoring and evaluation tasks described in Section 9 of the Settlement Agreement, in Consultation with the ACC (including at least the Services) and with the approval of the Services. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, shall allow the ACC a period of 90 days to provide comments on revisions to the draft M&E Plan as part of such Consultation. The Services shall have final approval authority for the revisions to the M&E Plan relating to fish passage or species listed under the ESA, subject to Section 15.14 of the Settlement Agreement. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, shall finalize any revisions to the M&E Plan and submit them to the Commission for approval within 90 days after the close of the ACC comment period. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, shall implement the revised M&E Plan upon approval by the Commission.

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The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must include in the M&E Plan elements to determine whether the Reintroduction Outcome Goals have been achieved, provided that for such purposes the Licensee shall be required to monitor and evaluate only elements that are under the control of the Licensee (such as the functioning of fish passage facilities) and that are affected by the Project. The Licensee shall not be required, without its express written consent, to conduct monitoring that is the obligation of a third party under applicable law or permits (including, but not limited to, marine harvest).

Article 13. Prescription for Monitoring and Evaluation of Fish Passage Facilities

The Licensee, together with the licensee for Swift No. 2 with respect to the Swift Upstream Facility, must include in the M&E Plan the following monitoring and evaluation elements with respect to the Project and the Swift Downstream Facility and Swift Upstream Facility for Chinook, steelhead, coho, bull trout and sea-run cutthroat.

(a) Juvenile migration timing and the estimated number *of* juveniles entering Swift Creek Reservoir;

(b) Reservoir Survival *of* juvenile fish migrating through Swift Creek Reservoir, determined by monitoring a statistically valid sample of fish entering the reservoir;(c) Collection Efficiency and Collection Survival for the Swift Downstream Facility;

(d) Injury to and mortality of juvenile fish collected at the Swift Downstream Facility, and mortality measured at stress Release Ponds;

(e) Survival of, Injury to, and mortality of kelts, bull trout and adult sea-run cutthroat collected at the Swift Downstream Facility;

(f) Turbine Entrainment ("TE"), as contemplated by the Settlement Agreement, the percentage of juvenile anadromous.fish of each of the species designated to be transported that are available for collection and that are not collected by the downstream passage facility, and enter the turbines;

(g) Turbine Survival ("TS"), the percentage of juvenile anadromous fish of each of the species to be transported that are entrained in turbines and that survive through turbines; provided that such monitoring must only be performed if and when fish passing through Project turbines may contribute materially to ODS; provided further that prior to performing Turbine Survival studies, the Licensee must assume Turbine Survival equals zero;

(h) UPS at the Swift Upstream Facility;

(i) The ATE at the Swift Upstream Facility;

(j) The number by species of juvenile and adult fish being collected at the Project; and

(k) Hydraulic performance, such as attraction flows in cfs and water velocities in feet per second, to verify that each facility is operating according to its approved design.

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Article 14. Prescription for Adult Migration/Spawning Assessment

As contemplated by the Settlement Agreement, the Licensee must identify the spawning timing, distribution, and spawning abundance for Transported Anadromous Species passed upstream by monitoring a statistically valid sample of each stock. The primary purpose is to identify preferred spawning areas to inform revisions to the Hatchery and Supplementation Plan and the Upstream Transport Plan, and to inform the decisions of the ACC in determining how to expend funds from the Aquatics Fund, but such identification must not otherwise create or increase obligations of the Licensee except as expressly set forth in the Settlement Agreement.

Article 15. Prescription for Adjustment in Monitoring Frequency

As contemplated by the Settlement Agreement, once any fish passage standard has been achieved, future monitoring of that standard would be limited to periodic checks to determine continued compliance with the standard.

Article 16. Response to Fish Passage Monitoring Results

To the extent not set forth specifically in Section 9.2 of the Settlement Agreement, as contemplated by the Settlement Agreement, the obligations of the Licensee and the licensees for the Merwin, Yale, and Swift No. 2 projects, based on the results of monitoring related to fish passage facilities, are set forth in Section 4 of the Settlement Agreement.

Article 17. Obligation to Consult

Notwithstanding any other provision of these Articles, and with respect to the requirements contained therein, the Licensee's obligation to convene the ACC shall be subject to Section 15.12 of the Settlement Agreement. Where Consultation is required by the Settlement Agreement, the Licensee shall not have an obligation to Consult regarding these Articles with Parties (other than the Services) which have withdrawn from the Settlement Agreement, or with any Party (other than the Services) if the Settlement Agreement is terminated, except as described in Section 15.13 of the Settlement Agreement.

Article 18. Dispute Resolution

In implementing these Articles, the Licensee shall allow for the resolution of disputes, if any, among the Parties to the Settlement Agreement in accordance with the non-binding Alternative Dispute Resolution procedures set forth in the Settlement Agreement.

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RESERVATION OF AUTHORITY

NOAA Fisheries Service reserves its right under Section 18 of the FPA to modify these fishway prescriptions and recommended terms and conditions based upon significant new information and conclusions developed in connection with the fulfillment of other statutory consultation and review requirements, including consultation under Section 7 of the ESA, 16 USC §1536, or Section 305(b) of the MSA, 16 USC § 1855, regarding essential fish habitat. NOAA Fisheries Service respectfully requests the Commission, upon issuance of any new license in this proceeding, retain by means of a specific reopener provision for fishway prescriptions, in accordance with Section 18 of the FPA, and other appropriate reservations of authority, sufficient discretionary involvement or control with respect to project construction, operation, maintenance, and modification under the new license, or any amendments thereto, so as to ensure full compliance with the requirements of Section 18 of the FPA and any new or modified fishway prescription issued thereunder.

In addition, NOAA Fisheries Service respectfully requests the Commission, upon issuance of any new license in this proceeding, retain by means of a specific ESA reopener provision and other appropriate reservations of authority (including authority to require license amendments or project modifications to comply with the ESA following reinitiation of ESA Section 7 consultation at the request *of* the NOAA Fisheries Service), sufficient discretionary involvement or control with respect to project construction, operation, maintenance, and modification under each new license, or any amendments thereto, so as to ensure full compliance with the requirements *of* the ESA, with respect to the carrying out *of* such actions during the term of the new license.

NOAA Fisheries Service's prescriptions for fishways presumes that the Licensee's obligations under the Settlement Agreement filed with FERC on December 1, 2004, are accepted in their entirety and without material modification. In addition to the descriptions contained herein, NOAA Fisheries Service's prescriptions rely on the Settlement Agreement and its attachments, as well as other documents in the record at FERC, as the basis and rationale for the construction, operation, and maintenance of fishways. If the Licensee's obligations under the Settlement Agreement are not accepted in their entirety, and without material modification by FERC, or are materially altered by court order or other review before becoming final, NOAA Fisheries Service reserves the right to revise and refile modified prescriptions and recommended terms and conditions within 90 days of notice indicating any such material modification or alteration.

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APPENDIX E

Fishway Prescriptions filed by the Department of the Interior under Section 18 of the Federal Power Act for the Swift No. 1 Project No. 2111

February 22, 2006

(For convenience and clarity, these prescriptions are numbered to match the numbers contained in the applicants revised draft license articles filed with the Commission on January 6, 2006)

2 Fish Passage Facilities Design

To provide for the safe, timely and effective passage past the Project of upstream and downstream migrating salmonids, the Licensee shall develop and implement the Swift Downstream Facility and, together with the licensee for the Swift No. 2 project, shall develop and implement the Swift Upstream Facility in accordance with, and subject to the limitations included in, all of the relevant provisions of the Settlement Agreement.

2.1 Studies to Inform Design Decisions

The Licensee, in Consultation with the ACC (including at least the Services) and subject to the final approval of the Services, must develop and carry out studies to inform the design of upstream and downstream fish passage facilities described in the Settlement Agreement with the goal of improving the likelihood that the passage facilities will be successful as initially constructed. Needed information may include the hydraulic characteristics of the Swift No. 1, Yale, and Merwin forebays and tailraces (e.g., a three-dimensional numerical flow-field analysis) and the movement of adult and juvenile salmonids. The Licensee must complete these studies sufficiently in advance of the design decisions required by the Settlement Agreement so that the Licensee, the Services, and the ACC can take the resulting information into account when making final design decisions.

2.2 Design Review

Except as otherwise provided under Section 4.1.9 of the Settlement Agreement, the Licensee must design the Swift Downstream Facility and, together with the licensee for the Swift No. 2 project, shall design the Swift Upstream Facility to meet the performance standard targets, as set out in Section 4.1.4.b of the Settlement Agreement as applicable. The Licensee, together with Swift No. 2 with respect to the Swift Upstream Facility, must use the best available technology for the type of passage facility being constructed, and design the passage facility to provide flexibility for subsequent expansion or Facility Adjustments, if needed, to meet performance standards. A fish

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passage facility may include duplication of some components (for example, multiple entrances) and still be considered a single passage facility. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must coordinate with and provide 30 percent and 60 percent completed preliminary designs for review and comment to the Services and WDFW. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must notify the ACC when design work has begun, and provide the 30 percent and 60 percent preliminary designs to any other Party to the Settlement Agreement at the Party's request. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must provide the Services and WDFW 45 days to provide their comments. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must submit the 90 percent preliminary designs with the relevant engineering, hydraulic, and biological work to the ACC (including at least the Services) at the times set forth in the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must provide the ACC (including at least the Services) 45 days to provide its comments on the 90 percent preliminary designs and must finalize the designs in Consultation with the ACC (including at least the Services) and with the approval of the Services. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must consider and address in writing those written comments provided by the members of the ACC (including at least the Services) when submitting final designs to the Services for approval.

3 Permits and Time for Construction

Upon approval of passage facility designs by the Commission, the Licensee, together with the licensee for the-Swift No. 2 project with respect to the Swift Upstream Facility, must diligently and expeditiously acquire all required Permits. The time by which each passage facility must be placed in operation is set forth in the Settlement Agreement.

4 Performance Standards for Fish Passage

The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must provide for the safe, timely, and effective passage of salmonids being transported past the Project as described in the Settlement Agreement. The sole performance standard for kelts and downstream migration of adult sea-run cutthroat must be safe, timely, and effective passage. Specific life stages described below (not including kelts or downstream migrating sea-run cutthroat) have quantitative standards. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must construct and provide for the operation and maintenance of fish passage facilities that collect all life stages of salmonids that are present at the facility, and function during all flows and during all seasons; except (i) for

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the downstream facility at Swift No. 1 when it is infeasible to function during flood events that require spill that could not be reasonably accommodated by the passage facility, or (ii) for upstream passage facilities, to the extent it is infeasible due to flood events that require spill that could not be reasonably accommodated by the passage facility.

The Licensee must employ the following definitions in carrying out and monitoring the performance standards:

- Adult Trap Efficiency ("ATE"): The percentage of adult Chinook, coho, steelhead, bull trout, and sea-run cutthroat that are actively migrating to a location above the trap and that are collected by the trap.
- Collection Efficiency ("CE"): The percentage of juvenile anadromous fish of each of the species to be transported, as described in Section 4.1.7 of the Settlement Agreement, that is available for collection and that is actually collected.
- Collection Survival ("CS"): The percentage of juvenile anadromous fish of each of the species to be transported collected that leave Release Ponds alive.
- Injury: Visible trauma (including, but not limited to, hemorrhaging, open wounds without fungus growth, gill damage, bruising greater than 0.5 cm in diameter, etc.), loss of equilibrium, or greater than 20 percent descaling. "Descaling" is defined as the sum of the area on one side of the fish that shows recent scale loss. This does not include areas where scales have regenerated or fungus has grown.
- Overall Downstream Survival ("ODS"): The percentage of juvenile anadromous fish of each of the species to be transported that enter the reservoirs from natal streams and that survive to enter the Lewis River below Merwin Dam by collection, transport, and release via the juvenile fish passage system, passage via turbines, or some combination thereof, calculated as provided in Schedule 4.1.4 of the Settlement Agreement.
- Upstream Passage Survival ("UPS"): Percentage of adult fish of each of the species to be transported that are collected that survive the upstream trapping-and-transport process. For sea-run cutthroat and bull trout, "adult" means fish greater than 13 inches in length.

4.1 Overall Fish Passage Performance Standards for Salmonids

For each species, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must achieve the following overall performance standards for fish passage: ODS of greater than or equal to 80 percent until such time as the Yale Downstream Facility is built as provided in the License for the Yale project (P-2071), or the funds from the In Lieu Fund, as described in Section 7.6 of the Settlement Agreement, become available to the Services in lieu of constructing the Yale Downstream Facility, after which time ODS must be greater than or equal to 75 percent;

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UPS of greater than or equal to 99.5 percent; and ATE to be established as described in the Settlement Agreement. ODS, as defined by the Settlement Agreement, must include several components of juvenile passage, including reservoir survival, collection efficiency and collection survival, with the latter two terms having individual, quantitative performance standards, as described in Section 4.1.4 of the Settlement Agreement. Moreover, ODS must also incorporate estimates of juvenile survival rates for fish that elude collection but successfully navigate through Project turbines. For purposes of estimating ODS, until turbine survival studies are performed, the Licensee must assume that the turbine survival is equal to zero percent (0%). If the performance standards for ODS, UPS and ATE are not achieved within a reasonable time, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must make Facility Adjustments and Modifications, as described in Section 4.1.6 of the Settlement Agreement.

4.2 Passage Facility Design Performance Standards for Salmonids

The Licensee must design and construct downstream fish passage facilities to achieve, for each species, a CE of equal to or greater than 95 percent, a CS of equal to or greater than 99.5 percent for smolts and 98 percent for fry, and adult bull trout survival of equal to or greater than 99.5 percent. Design performance objectives for Injury are less than or equal to 2 percent. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must design and construct upstream fish passage facilities to achieve the UPS equal to or greater than 99.5 percent and the ATE to be established as described in the Settlement Agreement.

4.3 Adult Trap Efficiency for Salmonids

As soon as practicable, and following Consultation described by the Settlement Agreement, the Licensee, together with the licensee for the Swift No. 2 project must develop an ATE performance standard for the Swift Upstream Facility to ensure the safe, timely, and effective passage of adult salmonids. Until such time as the standard has been developed, the Licensee must use NOAA Fisheries' fish passage guidelines (*Anadromous Salmonid Passage Facility Guidelines and Criteria*, NMFS (Jan. 31, 2004)). The Licensee, together with the licensee for the Swift No. 2 project, must consider without limitation entry rate, fall back, crowding at the entrance, delay, and abandonment of the trap area. When performance standards for ATE have been developed, the Licensee, together with the licensee for the Swift No. 2 project, must submit the standards to the Commission and such standards must be used to judge performance for the facilities when considering Facility Adjustments or Facility Modifications.

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4.4 Monitoring and Evaluation of Performance Standards

As described in the Settlement Agreement, once the Swift Downstream Facility or Swift Upstream Facility is constructed and placed in operation, and after each Facility Adjustment or Facility Modification, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must evaluate, in Consultation with the ACC (including at least the Services) and with the approval of the Services, whether performance standards are being met for each of the species designated in the Settlement Agreement, in accordance with the monitoring and evaluation plan described in Section 9 of the Settlement Agreement.

4.5 Adjustments or Modifications to Passage Facilities to Achieve Performance Standards

A "Facility Adjustment" means a physical passage facility upgrade, improvement, or addition that was part of the original design of the passage facility, or an adjustment to the fish passage facility or its operations. A "Facility Modification" means a physical alteration or addition to a physical passage facility that requires a new design. When making Facility Modifications, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must follow the design process set out in Section 4.1.2 of the Settlement Agreement, in Consultation with the ACC (including at least the Services). Whenever any Facility Adjustment or Facility Modification is completed, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must test the operation of the relevant facility for a reasonable time to determine the effectiveness of such adjustment or modification. At the direction of the Services and after any required Commission approvals and obtaining all required Permits, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must make Facility Adjustments and Facility Modifications to the relevant passage facility to achieve the relevant performance standards for each of the species designated in the Settlement Agreement as soon as practicable.

(a) If ODS is not being met, then the Licensee must make Facility Adjustments or Facility Modifications to downstream passage facilities as follows:

(1) If the CE is less than 95 percent and greater than or equal to 75 percent or the CS for smolts is less than 99.5 percent and greater than or equal to 98 percent, or the CS for fry is less than 98 percent and greater than or equal to 96 percent, or Injuries to juvenile Transported Anadromous Species caused by downstream collection and transport are greater than 2 percent but less than 4 percent, the Licensee must make Facility Adjustments directed by the Services to achieve the performance standard or standards that are not being met but is not required to make Facility Modifications; or

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(2) If the CE is less than 75 percent, or the CS for smolts is less than 98 percent, or the CS for fry is less than 96 percent, or Injuries to juvenile Transported Anadromous Species caused by downstream collection and transport are greater than or equal to 4 percent, the Licensee must make the Facility Modifications directed by the Services to achieve the performance standard or standards that are not being met; provided that if the Services believe a Facility Adjustment will likely achieve the performance standard or standards that are not being met, then the Licensee must first make Facility Adjustments as directed by the Services.

(b) If the ODS is being met but the CE is less than 95 percent, the CS for smolts is less than 99.5 percent, the CS for fry is less than 98 percent, or Injury to juvenile Transported Anadromous Species caused by downstream collection and transport is greater than 2 percent, the Licensee must make Facility Adjustments directed by the Services to downstream facilities but is not required to make Facility Modifications.

(c) For bull trout, the Licensee shall make Facility Adjustments or Facility Modifications to downstream passage facilities as follows:

(1) If the survival of bull trout is less than 99.5% and is greater than or equal to 98%, or Injuries caused by downstream collection and transport are greater than 2% but less than 4%, the Licensee shall make Facility Adjustments directed by USFWS to achieve the performance standard or standards that are not being met, but shall not be required to make Facility Modifications; or

(2) If the survival of bull trout is less than 98%, or Injuries caused by downstream collection and transport are greater than or equal to 4%, the Licensee shall make the Facility Modifications directed by USFWS to achieve the performance standard or standards that are not being met; provided that if the Service determines that a Facility Adjustment will likely achieve the performance standard or standards that are not being met, then the Licensees shall make Facility Adjustments as directed by USFWS.

(d) For Transported Species, if UPS and/or ATE are not being met, then the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, will make Facility Adjustments or Facility Modifications to upstream passage facilities as directed by the Services, consistent with the Settlement Agreement.

(e) Except as required in a proceeding initiated with Section 15.3.2 of the Settlement Agreement, or as provided in Section 3.5.2.b of the Settlement Agreement, the Licensee shall not be required to (1) make structural or operational changes with respect to its generating facilities or Project reservoir to achieve standards, (2) replace any fish passage facility with another passage facility, or (3) install additional collection and transport

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facilities or alternative fish passage facilities beyond those required by the Settlement Agreement. This Article is not intended to alter specific obligations provided under this License or the Settlement Agreement, including, without limitation, operational constraints required under Settlement Agreement Sections 4.2, 4.9.1, and 6.2.

5 Species to be Transported

For purposes of all fish passage provisions contained herein, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must only provide for the transport of spring Chinook, winter steelhead, coho, bull trout, and sea-run cutthroat. Notwithstanding the preceding sentence, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, after Consultation with the ACC (including at least the Services), and if directed by the Services, must also provide for the transport of fall Chinook or summer steelhead that enter the passage facilities.

6 Upstream Transport Before Full Adult Fish Passage

Unless and until alternative technologies are implemented, the Licensee, together with the licensee for the Swift No. 2 project, must provide for the transport by truck of all Transported Species collected at the Swift Upstream Facility. Once the Merwin Upstream Transport Facility is completed, and for so long as trucks are used, the Licensee, together with the licensee for the Swift No. 2 project, must provide for transport according to the Upstream Transport Plan described in Section 4.1.8.c of the Settlement Agreement.

7 Upstream Transport After Full Adult Fish Passage

On or before the 13th anniversary of the Issuance of the last of the Licenses for the Merwin (P-935), Yale (P-2071), Swift No. 1 (P-2111), and Swift No. 2 (P-2213) projects, the Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must evaluate alternative adult fish transport technologies (such as fish trams, cable lifts, or other new technologies) at the facility that allow transportation of the fish with the least practicable amount of handling or other stress-inducing actions, considering the need for sorting fish. The Licensee, together with the licensee for the Swift No. 2 project with respect to the Swift Upstream Facility, must implement such technologies provided that (1) alternative technologies are determined, by engineers qualified in fish passage and designated respectively by WDFW, USFWS, NOAA Fisheries, the Licensee, and the licensee for the Swift No. 2 project, to be feasible and effective in transporting fish over dam facilities; (2) the Services determine that such technologies are suitable for meeting the Services' fish passage goals and the biological benefits are expected to be equal to or greater than the benefits of trap-and-transport by truck; and (3) the costs of the selected technology (considering both initial capital cost

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and ongoing operational and maintenance costs) do not significantly exceed the costs of transporting fish by truck. If there is a disagreement with the engineers' determination under (1) above, the Licensee, together with the licensee for Swift No. 2 with respect to the Swift Upstream Facility shall allow for the resolution of disputes in accordance with the ADR Procedures in Section 15.10 of the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project, must begin carrying out such technologies after acquisition of all required Permits according to the schedule set forth in the Settlement Agreement. The selection of such technologies and selection of final designs by the Licensee, together with the licensee for the Swift No. 2 project, must be made with the approval of the Services after Consultation with the ACC (including at least the Services), pursuant to Section 4.1.2 of the Settlement Agreement. The costs for such alternate technologies must be considered cumulatively for all of the Lewis River projects, so that a cost savings from alternate technology at one Project could offset a cost increase for such technology at another Project, compared to trapping and transporting by truck. If costs are determined to significantly exceed the costs of transporting fish by truck, the Parties to the Settlement Agreement may make reasonable efforts to find more cost-effective facility designs that will achieve the same or greater biological benefit compared to trap-and-transport by truck. If (i) after due comparison of the costs of initial capital and ongoing operations and maintenance through the remaining term of the Licenses of trapping and transporting by truck versus such costs of an alternative technology for upstream passage it appears that such alternate technologies would not be implemented because of increased costs; and (ii) any Party (other than the Licensee or the licensees for the Swift No. 2, Merwin or Yale projects): (A) identifies alternate sources of funding, (B) provides a guarantee of payment acceptable to the Licensee and the licensee for the Swift No. 2 project of the difference in capital and ongoing operations and maintenance costs over the remaining term of the Licenses between trap-and-transport and such alternative technology, and (C) provides such funding without additional conditions unacceptable to the Licensee and the licensee for the Swift No. 2 project, express or implied; then the Licensee, together with the licensee for the Swift No. 2 project, shall implement such technologies after acquisition of all required Permits according to the schedule set forth in Section 4.8 of the Settlement Agreement for the Swift Upstream Facility. If alternative methods are not used at any facility because they do not meet the standards of Section 4.1.8 of the Settlement Agreement, then the Licensee, together with the licensee for the Swift No. 2 project, must continue to use trap and transport by truck at such facility.

7.1 Upstream Transport Plan

The Licensee, together with the licensees for the Merwin, Yale, and Swift No. 2 projects, must modify the Upstream Transport Plan prepared in accordance with the licenses for the Merwin and Yale projects, in Consultation with the ACC and with the approval of the Services, subject to Section 15.14 of the Settlement Agreement, to address transport from the Swift Upstream Facility if trucking is to be used for transport

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from that facility. The plan must describe the frequency and procedures to achieve safe, timely, and effective upstream passage. The Licensee, together with the licensee for the Swift No. 2 project, must provide for the transport of fish at a minimum frequency of once daily, or more if necessary, to achieve safe, timely, and effective passage. The Licensee, together with the licensees for the Merwin, Yale and Swift No. 2 projects, must submit the modified Upstream Transport Plan to the Commission before completion of the Swift Upstream Facility.

8 Downstream Transport

The Licensee must provide for the downstream transport of migrating Transported Species collected in the Swift Downstream Facility by truck.

For the Swift Downstream Facility, the Licensee must Consult with the ACC (including at least the Services) regarding a possible change in methods for downstream passage, e.g., a bypass facility in lieu of trap and transport by truck, if (i) the Swift Downstream Facility has been constructed, (ii) a determination has been made that the Licensee for the Merwin project must construct and operate a bypass facility at the Merwin Downstream Facility as provided in the License for the Merwin project (P-935); (iii) the Services determine that a salmonid bypass passage system would provide equal or greater biological benefit; and (iv) the Licensee does not determine that the capital, operation, and maintenance costs of such bypass would be significantly greater than the capital, operation, and maintenance costs of continued use of trap and transport by truck.

8.1 Downstream Transport Plan

The Licensee must develop, in Consultation with the ACC (including at least the Services) and with the approval of the Services, a plan that must describe the frequency and procedures to achieve safe, timely, and effective downstream transport from the Swift Downstream Facility (the “Downstream Transport Plan”), subject to Section 15.14 of the Settlement Agreement. The Licensee must submit the Downstream Transport Plan to the Commission before completion of the Swift Downstream Facility. The Licensee, together with the licensees for the Yale and Merwin projects, must modify the Downstream Transport Plan to provide for transport from the Yale Downstream Facility as provided in the license for the Yale project and from the Merwin Downstream Facility as provided in the license for the Merwin project.

9 Downstream Transport at Swift No. 1 Dam

By six months after the fourth anniversary of the Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later, the Licensee must construct and provide for the operation of a passage facility at the Swift No. 1 Dam, including a modular surface collector, to collect, sort, tag, and transport downstream-

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migrating anadromous species (the "Swift Downstream Facility"). The Licensee must provide for the downstream transport of migrating Transported Anadromous Species to below Merwin Dam to a Release Pond. Unless otherwise directed by USFWS, bull trout collected in the Swift Downstream Facility shall be transported to Yale Lake, except that bull trout with a smolt-like appearance, as determined by the Licensee (using methods devised in Consultation with the ACC, including at least the services and in the case of bull trout the USFWS), shall be transported to a location determined by USFWS below Merwin Dam.

The Licensee must consult with the ACC (including at least the Services) concerning the precise location of the passage facility, which the Licensee must incorporate into the design to be approved by the Services.

The Licensee must provide for the tagging of a statistically valid sample of the fish transported as appropriate to accomplish the monitoring and evaluation objectives set forth in the monitoring plan described in Section 9 of the Settlement Agreement, the methodology of such tagging to be determined by the Licensee in Consultation with the ACC (including at least the Services) and with the approval of the Services. The Licensee must provide for the operation of the passage facility for the remaining term of the License for the Swift No. 1 project.

The Licensee must provide the 90 percent preliminary designs to the ACC (including at least the Services) by the first anniversary of the Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later. Subject to Section 15.14 of the Settlement Agreement, the Licensee must submit final designs to the Commission upon approval by the Services, but not later than six months after the first anniversary of the Issuance of a License for the Swift No.1 or Swift No.2 project, whichever is later.

If NOAA Fisheries determines that the Swift Downstream Facility does not adequately collect juvenile spring Chinook, the Licensee, in Consultation with the ACC (including at least the Services) and with the approval of NOAA Fisheries, must evaluate the behavior of the spring Chinook to determine why they are not being collected by the Swift Downstream Facility. If NOAA Fisheries concludes that the Swift Downstream Facility is not working because of fish behavior and that a different type of satellite passage facility has a reasonable likelihood of collecting spring Chinook, the Licensee, in Consultation with the ACC (including at least the Services) and with the final approval of the Services, must design and install the satellite passage facility. The Licensee must design the satellite passage facility to minimize unacceptable incidental impacts to species other than spring Chinook. The Licensee, as part of the monitoring plan required in Section 9 of the Settlement Agreement, must develop and carry out a plan to monitor the satellite facility effectiveness and its effects on species other than spring Chinook. Should NOAA Fisheries conclude, given the behavior of the spring Chinook, that another

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passage facility would not likely be successful, the Licensee must continue to attempt to collect spring Chinook at the Swift Downstream Facility and must make any further Facility Adjustments or Facility Modifications required by Section 4.1.6 of the Settlement Agreement.

10 Release Ponds

By six months after the fourth anniversary of the Issuance of the License for either the Swift No. 1 project or the Swift No. 2 project, whichever is later, the Licensee, together with the licensees for the Merwin and Yale projects, in Consultation with the ACC and with the final approval of NOAA Fisheries, must design and construct stress Release Ponds below the Merwin project to be used for downstream migrating fish that are collected at the Swift Downstream Facility, the Yale Downstream Facility and the Merwin Downstream Facility, in accordance with the Settlement Agreement. To the extent practicable, the Release Ponds will be located downstream of Eagle Island to minimize interaction of the transported fish with wild fall Chinook. The Licensee must Consult with the ACC concerning the precise locations of the Release Ponds, which must become part of the design to be approved by NOAA Fisheries. The Licensee must provide preliminary designs to the ACC by the first anniversary of the Issuance of the License for the Swift No. 1 project. Subject to Section 15.14 of the Settlement Agreement, the Licensee must submit final designs to the Commission upon approval by NOAA Fisheries, but not later than six months after the first anniversary of the Issuance of the License for the Swift No.1 project.

11 Upstream Passage at the Swift Projects

Unless otherwise directed by the Services pursuant to Section 4.1.9 of the Settlement Agreement, on or before the 17th anniversary of the Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later, the Licensee, together with the licensee for the Swift No. 2 project, must complete construction and provide for the operation of an adult trap and transport facility at the single best site above Yale Lake, based on biological and hydrological factors, to collect, sort, and transport upstream-migrating adult Transported Anadromous Species to above the Swift No. 1 Dam (the "Swift Upstream Facility"), except that the USFWS may direct that bull trout be transported to a different location. The specific location of the Swift Upstream Facility must be determined by the Licensee, together with the licensee for the Swift No. 2 project, in Consultation with the ACC (including at least the Services) and with the approval of the Services subject to Section 15.14 of the Settlement Agreement, on or before 12th anniversary of Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later. The Licensee, together with the licensee for the Swift No. 2 project, must provide for the operation of the Swift Upstream Facility for the remaining term of this License unless the Services determine, after discussion with the ACC, that operation of the Swift Upstream Facility should not continue. If the Services

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make such determination after the passage facility is operational, the Licensee, together with the licensee for the Swift No. 2 project, shall notify the Commission of such decision. The Licensee, together with the licensee for the Swift No. 2 project, must provide 90 percent preliminary designs to the ACC (including at least the Services) on or before the 14th anniversary of the Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later, including any engineering, hydraulic and biological information considered by the design team. Subject to Section 15.14 of the Settlement Agreement, the Licensee, together with the licensee for the Swift No. 2 project, must submit final designs to the Commission upon approval by the Services, but not later than six months after providing preliminary designs to the ACC. If these facilities do not function as well to collect bull trout as the interim collection method based on effectiveness monitoring, as determined by the USFWS, the Licensee, together with the licensee for the Swift No. 2 project, shall continue the interim collection method established in Section 4.9 of the Settlement Agreement.

12 Interim Bull Trout Collect and Haul Programs

Until the earlier of (a) operation of the Yale Upstream Facility and the Swift Upstream Facility or (b) alternative measures are implemented as provided herein, and unless otherwise directed by USFWS, the Licensee, together with the licensee for the Swift No. 2 project shall implement a collect-and-haul program below Swift No. 2. A description of the bull trout collect-and-haul programs to be implemented below Swift No. 2 is provided in Schedule 4.9.1 of the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project, shall provide for the transport of bull trout collected at Swift No. 2 to above Swift No. 1. Upon the request of and subject to approval by USFWS, the Licensee, together with the licensee for the Swift No. 2 project, and in Consultation with the ACC, shall develop criteria, based on the latest research, to determine if, when, and where alternative release locations are needed. Any such alternative locations shall be accessible by transport truck or other mutually acceptable transportation system. At the direction of the USFWS, the Licensee, together with the licensee for the Swift No. 2 project, shall provide for the transport of bull trout to such alternative locations. The Licensee, together with the licensee for the Swift No. 2 project, shall continue to prepare, in Consultation with the ACC and with the approval of USFWS, an annual Bull Trout Collection and Transport Program outlining the manner of and schedule for bull trout collection and passage at Project facilities, incorporating as appropriate either (1) the collection method identified in this Article and testing of alternative interim collection methods as provided in Section 4.9.2 of the Settlement Agreement; or (2) an alternative collection method developed pursuant to Section 4.9.2 of the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project, may propose minor modifications to the program identified in Schedule 4.9.1 of the Settlement Agreement as part of the Bull Trout Collection and Transport Program. The Licensee, together with the licensee for the Swift No. 2 project, shall not implement any modifications to the Bull Trout Collection and Transport Program until USFWS has

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approved those changes.

13 Investigation of Alternative Bull Trout Collection Methods

The Licensee, together with the licensee for the Swift No. 2 project, shall investigate the use of alternative interim bull trout collection methods in Consultation with the ACC (including at least the USFWS). Such methods may include, but are not limited to, fyke traps, Denil steep passes, seines, fish wheels, and other types of active and passive gear. Annual testing of alternative methods shall begin upon approval of the Bull Trout Collection and Transport Program described in Section 4.9.1 of the Settlement Agreement, and shall continue until USFWS approves an alternate interim collection method or until operation of the Yale Upstream Facility and the Swift Upstream Facility. The Licensee, together with the licensees for the Yale and Swift No. 2 projects, shall submit, annually, a draft report to the ACC (including at least the Services) evaluating alternative interim collection methods tested during the prior year. The Licensee, together with the licensees for the Yale and Swift No. 2 projects, shall provide the ACC (including at least the Services) 90 days to comment on the draft report. The Licensee, together with the licensees for the Yale and Swift No. 2 projects, shall finalize the report, respond to the comments of the ACC (including at least the USFWS), and submit a final report to the Commission within 180 days after sending out the report for comments.

14 Implementation of Alternative Bull Trout Collection Methods

If the Licensee, together with the licensee for the Swift No. 2 project, identifies, as part of the annual reporting process, an alternative interim collection method that will more safely and effectively collect bull trout than the collection method in use at that time, and if USFWS concurs, then the collection method shall be modified. The Licensee, together with the licensee for the Swift No. 2 project, shall (1) within 180 days of submission of the report to the Commission, prepare a plan to implement such method in Consultation with the ACC and with the approval of the USFWS, subject to Section 15.14 of the Settlement Agreement, and the Commission; (2) implement such alternative method as soon as practicable after obtaining USFWS approval, subject to Section 15.14 of the Settlement Agreement; and (3) continue to implement the alternative method until the USFWS approves an alternate interim collection method or until operation of the Swift Upstream Facility.

15 Upstream Bull Trout Facilities

If pursuant to Section 4.1.9 of the Settlement Agreement, the Swift Upstream Facility is not constructed, and USFWS determines on or before the 13th anniversary of the Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later, that bull trout collect-and-haul methods established under Sections 4.9.1 or 4.9.2 of the Settlement Agreement, are not meeting bull trout performance

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standards provided in Section 4.1.4 of the Settlement Agreement, then on or before the 17th anniversary of the Issuance of the License for the Swift No. 1 project or the Swift No. 2 project, whichever is later, the Licensee, together with the licensee for the Swift No. 2 project, shall complete construction of and provide for the operation of an alternate upstream passage facility (Swift Upstream Bull Trout Facility) for the Swift No. 1 and Swift No. 2 projects.

The Swift Upstream Bull Trout Facility is not intended to be a passage facility of the same magnitude and expense as the Swift Upstream Facility described in Section 4.8 of the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project, shall select an alternative passage facility design for the Swift Upstream Bull Trout Facility, in Consultation with the ACC (including at least the USFWS) and with approval of the USFWS, subject to Section 15.14 of the Settlement Agreement. The Licensee, together with the licensee for the Swift No. 2 project for the Swift Upstream Bull Trout Facility, shall construct and provide for the operation of such passage facility for the remaining term of this License. The Licensee, together with the licensee for the Swift No. 2 project, shall follow the provisions of Sections 4.1.1 through 4.1.3 of the Settlement Agreement, when developing designs for these facilities.

The Licensee, together with the licensee for the Swift No. 2 project, shall monitor performance of the Swift Upstream Bull Trout Facility as provided in the Monitoring and Evaluation Plan (M&E Plan) in Section 9 of the Settlement Agreement, and make Facility Adjustments and Facility Modifications pursuant to Section 4.1.6 of the Settlement Agreement, to the Swift Upstream Bull Trout Facility.

16 Obligation to Consult

Notwithstanding any other provision of these prescriptions for Fishways, and with respect to the requirements contained therein, the Licensee's obligation to convene the ACC shall be subject to Section 15.12 of the Settlement Agreement. Where Consultation is required by the Settlement Agreement, the Licensee shall not have an obligation to Consult regarding these Fishway prescriptions with Parties (other than the Services) which have withdrawn from the Settlement Agreement, or with any Party (other than the Services) if the Settlement Agreement is terminated, except as described in Section 15.13 of the Settlement Agreement.

17 Dispute Resolution

In implementing these prescriptions for Fishways, the Licensee shall allow for the resolution of disputes, if any, among the Parties to the Settlement Agreement in accordance with the non-binding Alternative Dispute Resolution procedures set forth in the Settlement Agreement.

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APPENDIX F

Terms and Conditions included in the National Marine Fisheries Service's Biological Opinion for Relicensing of the Lewis River Hydroelectric Projects: Merwin (No. 935), Yale (No. 2071), Swift No. 1 (No. 2111), and Swift No. 2 (No. 2213)

August 27, 2007

9.3.1 Terms and Conditions

To be exempt from the prohibitions of Section 9 of the ESA, FERC must fully comply with conservation measures described as part of the Proposed Action and the following terms and conditions that complete the reasonable and prudent measures (RPMs) described above. In order to be exempt from the take prohibitions of Section 9 of the ESA and regulations issued pursuant to Section 4(d) of the ESA, FERC must include in the licenses and PacifiCorp and Cowlitz PUD must implement the following terms and conditions, which implement the RPMs listed above. These terms and conditions are non-discretionary. NMFS may amend the provisions of this ITS consistent with its statutory and regulatory authorities.

1) All Settlement Agreement provisions that relate to anadromous fish (including, but not limited to, provisions related to passage, provisions that affect habitat conditions (e.g., flows) or provisions related to monitoring) for these Projects must be followed by PacifiCorp and Cowlitz PUD and enforced by FERC. This applies to those Settlement Agreement articles that relate to salmon, their habitat, and implementation of those measures including adaptive management. Some key provisions include, but are not limited to:
   Settlement Agreement:
   - Section 3: Anadromous Fish Reintroduction Outcome Goals
   - Section 4: Fish Passage Measures,
   - Section 6: Flow Releases for Fish and Other Aquatic Species,
   - Section 7: Aquatic Habitat Enhancement Actions,
   - Section 8: Hatchery and Supplementation Program, and
   - Section 9: Aquatic Monitoring and Evaluation.

2) In all proposed actions involving construction in or near waterways, FERC must require PacifiCorp and Cowlitz PUD to follow the construction best management practices described below to control sediment, disturbance, and other potential detrimental effects to listed salmonids.

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a. Minimum area. Construction impacts will be confined to the minimum area necessary to complete the project.

b. Alteration or disturbance of the streambanks and existing riparian vegetation will be minimized to the greatest extent possible.

c. No herbicide application should occur as part of this action. Mechanical removal of undesired vegetation and root nodes is permitted.

d. All existing vegetation within 150 ft of the edge of bank should be retained to the greatest extent possible.

e. Timing of inwater work. Work below the bankfull elevation will be completed during the State of Washington's or the Corps' preferred inwater work period as appropriate for the project area, unless otherwise approved in writing by NMFS.

f. Cessation of work. Construction project activities will cease under high flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage. All materials, equipment, and fuel must be removed if flooding of the area is expected to occur within 24 hours.

g. Fish screens. All water intakes used for a construction project, including pumps used to isolate an inwater work area, will have a fish screen installed, operated, and maintained according to NMFS' fish screen criteria.

h. Fish passage. Passage must be provided for any adult or juvenile salmonid species present in the Project area during construction, unless otherwise approved in writing by NMFS, and maintained after construction for the life of the Project. Passage will be designed in accordance with NMFS' "Anadromous Salmonid Passage Facility Guidelines and Criteria" (2004) (ATTACHMENT 1). Upstream passage is required during construction if it previously existed.

i. Construction activities associated with habitat enhancement and erosion control measures must meet or exceed best management practices and other performance standards contained in the applicable state and Federal permits.

j. Pollution and Erosion Control Plan. Prepare, in consultation with NMFS, and carry out a Pollution and Erosion Control Plan to prevent pollution caused by survey, construction, operation, and maintenance activities. The Plan will be available for inspection upon request by FERC or NMFS.

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i. Plan Contents. The Pollution and Erosion Control Plan will contain the pertinent elements listed below, and meet requirements of all applicable laws and regulations.
   1. The name and address of the party(s) responsible for accomplishment of the Pollution and Erosion Control Plan.
   2. Practices to prevent erosion and sedimentation associated with access roads, decommissioned roads, stream crossings, drilling sites, construction sites, borrow pit operations, haul roads, equipment and material storage sites, fueling operations, and staging areas.
   3. Practices to confine, remove, and dispose of excess concrete, cement, and other mortars or bonding agents, including measures for washout facilities.
   4. A description of any regulated or hazardous products or materials that will be used for the Project, including procedures for inventory, storage, handling, and monitoring.
   5. A spill containment and control plan with notification procedures, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures that will be available on the site, proposed methods for disposal of spilled materials, and employee training for spill containment.
   6. Practices to prevent construction debris from dropping into any stream or water body, and to remove any material that does drop with a minimum disturbance to the streambed and water quality.
   7. Erosion control materials (e.g., silt fence, straw bales, aggregate) in excess of those installed must be available on site for immediate use during emergency erosion control needs.
   8. Temporary erosion and sediment controls will be used on all exposed slopes during any hiatus in work exceeding 7 days.

ii. Inspection of erosion controls. During construction, the operator must monitor instream turbidity and inspect all erosion controls daily, or as required by Washington Department of Ecology's Construction stormwater general permit, or as determined by NMFS at the time of construction.
   1. If monitoring or inspection shows that the erosion controls are ineffective, mobilize work crews immediately to make repairs, install replacements, or install additional controls as necessary.
   2. Remove sediment from erosion controls once it has reached one-third of the exposed height of the control.

k. Construction discharge water. Treat all discharge water created by construction (e.g., concrete washout, pumping for work area isolation, vehicle wash water, drilling fluids) as follows:

i. Water quality. Design, build, and maintain facilities to collect and treat all construction discharge water using the best available technology applicable

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to site conditions. Provide treatment to remove debris, nutrients, sediment, petroleum hydrocarbons, metals, and other pollutants likely to be present.

ii. Discharge velocity. If construction discharge water is released using an outfall or diffuser port, velocities will not exceed 4 fps, and the maximum size of any aperture will not exceed 4 fps.

iii. Spawning areas, submerged estuarine vegetation. Do not release construction discharge water within 300 ft upstream of spawning areas or areas with submerged estuarine vegetation. Clean construction discharge may be released.

iv. Pollutants. Do not allow pollutants, including green concrete, contaminated water, silt, welding slag, or sandblasting abrasive to contact any wetland or the 2-year floodplain, except cement or grout when abandoning a drill boring or installing instrumentation in the boring.

l. During completion of habitat enhancement activities, no pollutants of any kind (sewage, waste spoils, petroleum products, etc.) should come in contact with the water body or wetlands nor their substrate below the mean high-high water elevation or 10-year flood elevation, whichever is greater.

m. Treated wood.

i. Projects using treated wood that may contact flowing water or that will be placed over water where it will be exposed to mechanical abrasion or where leachate may enter flowing water will not be used, except for pilings installed following NMFS' guidelines.

ii. Projects that require removal of treated wood will use the following precautions:

1. Treated wood debris. Use the containment necessary to prevent treated wood debris from falling into the water. If treated wood debris does fall into the water, remove it immediately.

2. Disposal of treated wood debris. Dispose of all treated wood debris removed during a project, including treated wood pilings, at an upland facility approved for hazardous materials of this classification. Do not leave treated wood pilings in the water or stacked on the streambank.

n. Preconstruction activity. Complete the following actions before significant alteration of the Project area:

i. Marking. Flag the boundaries of clearing limits associated with site access and construction to prevent ground disturbance of critical riparian vegetation, wetlands, and other sensitive sites beyond the flagged boundary. Construction activity or movement of equipment into existing vegetated areas must not begin until clearing limits are marked.

ii. Emergency erosion controls. Ensure that the following materials for

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emergency erosion control are on site: A supply of sediment control materials (e.g., silt fence, straw bales), and an oil-absorbing, floating boom whenever surface water is present.

iii. Temporary erosion controls. All temporary erosion controls will be in place and appropriately installed downslope of project activity within the riparian buffer area until site rehabilitation is complete.

o. Temporary access roads.

i. Steep slopes. Do not build temporary roads mid-slope or on slopes steeper than 30 percent.

ii. Minimizing soil disturbance and compaction. Low-impact, tracked drills will be walked to a survey site without the need for an access road. Minimize soil disturbance and compaction for other types of access whenever a new temporary road is necessary within 150 ft of a stream, water body, or wetland by clearing vegetation to ground level and placing clean gravel over geotextile fabric, unless otherwise approved in writing by NMFS.

iii. Temporary stream crossings.

1. Do not allow equipment in the flowing water portion of the stream channel where equipment activity could release sediment downstream, except at designated stream crossings.
2. Minimize the number of temporary stream crossings.
3. Design new temporary stream crossings as follows:
   a) Survey and map any potential spawning habitat within 300 ft downstream of a proposed crossing.
   b) Do not place stream crossings at known or suspected spawning areas, or within 300 ft upstream of such areas if spawning areas may be affected.
   c) Design the crossing to provide for foreseeable risks (e.g., flooding and associated bedload and debris) to prevent the diversion of stream flow out of the channel and down the road if the crossing fails.
   d) Vehicles and machinery will cross riparian buffer areas and streams at right angles to the main channel wherever possible.
4. Obliteration. When the project is completed, obliterate all temporary access roads, stabilize the soil, and revegetate the site. Abandon and restore temporary roads in wet or flooded areas by the end of the inwater work period.

p. Vehicles.

i. Choice of equipment. When heavy equipment will be used, the equipment selected will have the least adverse effects on the environment (e.g., minimally sized, low ground pressure equipment).

ii. Vehicle staging. Fuel, operate, maintain, and store vehicles as follows:

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1. Complete vehicle staging, cleaning, maintenance, refueling, and fuel storage, except for that needed to service boats, in a vehicle staging area placed 150 ft or more from any stream, water body, or wetland, unless otherwise approved in writing by NMFS.
2. Inspect all vehicles operated within 150 ft of any stream, water body, or wetland daily for fluid leaks before leaving the vehicle staging area. Repair any leaks detected in the vehicle staging area before the vehicle resumes operation. Document inspections in a record that is available for review on request by FERC or NMFS.
3. Before activities begin and as often as necessary during construction activities, steam clean all equipment that will be used below the bankfull elevation until all visible external oil, grease, mud, and other visible contaminates are removed. Any washing of equipment must be conducted in a location that will not contribute untreated wastewater to any flowing stream or drainage area.
4. Diaper all stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150 ft of any stream, waterbody, or wetland to prevent leaks, unless suitable containment is provided to prevent potential spills from entering any stream or water body.
5. At the end of each work shift, vehicles must not be stored within or over the waterway.

q. Site preparation. Conserve native materials for site rehabilitation.
   i. If possible, leave native materials where they are found.
   ii. If materials are moved, damaged, or destroyed, replace them with a functional equivalent during site rehabilitation.
   iii. Stockpile any large wood, native vegetation, weed-free topsoil, and native channel material displaced by construction for use during site rehabilitation.

r. Isolation of inwater work area. If adult or juvenile fish are reasonably certain to be present, or if the work area is less than 300 ft upstream of spawning habitats, completely isolate the work area from the active flowing stream using inflatable bags, sandbags, sheet pilings, or similar materials, unless otherwise approved in writing by NMFS.

s. Capture and release. Before and intermittently during pumping to isolate an inwater work area, attempt to capture and release fish from the isolated area using trapping, seining, electrofishing, or other methods as are prudent to minimize risk of injury.
   i. The entire capture and release operation will be conducted or supervised by a fishery biologist experienced with work area isolation and competent to ensure the safe handling of all ESA-listed fish.

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ii. If electrofishing equipment is used to capture fish, comply with NMFS' electrofishing guidelines, listed below.

1. Do not electrofish near adult salmon in spawning condition or near redds containing eggs.
2. Keep equipment in good working condition. Complete manufacturers' preseason checks, follow all provisions, and record major maintenance work in a log.
3. Train the crew by a crew leader with at least 100 hours of electrofishing experience in the field using similar equipment. Document the crew leader's experience in a logbook. Complete training in waters that do not contain listed fish before an inexperienced crew begins any electrofishing.
4. Measure conductivity and set voltage as follows:

Conductivity (µS/cm)	Voltage
Less than 100	900 to 1100
100 to 300	500 to 800
Greater than 300	150 to 400

5. Use direct current (DC) at all times.
6. Begin each session with pulse width and rate set to the minimum needed to capture fish. These settings should be gradually increased only to the point where fish are immobilized and captured. Start with pulse width of 500µs and do not exceed 5 milliseconds. Pulse rate should start at 30Hz and work carefully upwards. In general, pulse rate should not exceed 40 Hz, to avoid unnecessary injury to the fish.
7. The zone of potential fish injury is 0.5 meters from the anode. Care should be taken in shallow waters, undercut banks, or where fish can be concentrated, because in such areas the fish are more likely to come into close contact with the anode.
8. Work the monitoring area systematically, moving the anode continuously in a herringbone pattern through the water. Do not electrofish one area for an extended period.
9. Have crew members carefully observe the condition of the sampled fish. Dark bands on the body and longer recovery times are signs of injury or handling stress. When such signs are noted, the settings for the electrofishing unit may need adjusting. End sampling if injuries occur or abnormally long recovery times persist.
10. Whenever possible, place a block net below the area being sampled to capture stunned fish that may drift downstream.
11. Record the electrofishing settings in a logbook along with conductivity, temperature, and other variables affecting efficiency. These notes, with observations on fish condition, will improve technique and form the basis for training new operators.

iii. Do not use seining or electrofishing if water temperatures exceed 18°C.

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iv. Handle ESA-listed fish with extreme care, keeping fish in water to the maximum extent possible during seining and transfer procedures, to prevent the added stress of out-of-water handling.
v. Transport fish in aerated buckets, tanks, or sanctuary nets that hold water during transfer. Release fish into a safe release site as quickly as possible, and as near as possible to capture sites.
vi. Do not transfer ESA-listed fish to anyone except NMFS or USFWS personnel, unless otherwise approved in writing by them.
vii. Obtain all other Federal, state, and local permits necessary to conduct the capture and release activity.
viii. Allow NMFS or the USFWS or its designated representative to accompany the capture team during the capture and release activity, and to inspect the team's capture and release records and facilities.

t. Earthwork. Complete earthwork (including drilling, excavation, dredging, filling, and compacting) as quickly as possible.
   i. Excavation. Material removed during excavation will only be placed in locations where it cannot enter sensitive aquatic resources. Whenever topsoil is removed, it must be stored and reused on site to the greatest extent possible. If culvert inlet/outlet protecting riprap is used, it will be class 350 metric or larger, and topsoil will be placed over the rock and planted with native woody vegetation.
   ii. Drilling and sampling. If drilling, boring, or jacking is used, the following conditions apply.
      1. Isolate drilling activities in wetted stream channels using a steel pile, sleeve, or other appropriate isolation method to prevent drilling fluids from contacting water.
      2. If it is necessary to drill through a bridge deck, use containment measures to prevent drilling debris from entering the channel.
      3. If directional drilling is used, the drill, bore, or jack hole will span the channel migration zone and any associated wetland.
      4. Sampling and directional drill recovery/recycling pits, and any associated waste or spoils, will be completely isolated from surface waters, off-channel habitats, and wetlands. All drilling fluids and waste will be recovered and recycled or disposed to prevent entry into flowing water.
      5. If a drill boring conductor breaks and drilling fluid or waste is visible in water or a wetland, all drilling activity will cease, pending written approval from NMFS to resume drilling.
   iii. Site stabilization. Stabilize all disturbed areas, including obliteration of temporary roads, following any break in work, unless construction will resume within 4 days.
   iv. Source of materials. Obtain boulders, rock, woody materials, and other

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natural construction materials used for the project outside the riparian buffer area.

u. Implementation monitoring. For projects undertaken by or funded by PacifiCorp or Cowlitz PUD, PacifiCorp or Cowlitz PUD will include the status of a project or a description of the completed project in the annual report. This annual report will submitted to FERC and NMFS describing the success in meeting the RPMs and associated terms and conditions of the Opinion and will include the following.
   i. Project identification.
      1. Project implementor name, project name, detailed description of the project.
      2. Project location by 5th or 6th field HUC and by latitude and longitude as determined from the appropriate U.S. Geological Survey 7-minute quadrangle map.
      3. Starting and ending dates for the work completed.
   ii. Photo documentation. Photo documentation of habitat conditions at the project site before, during, and after project completion.
      1. Include general views and close-ups showing details of the project and project area, including pre- and post-construction.
      2. Label each photo with date, time, project name, photographer's name, and documentation of the subject activity.
   iii. Other data. Additional project-specific data, as appropriate, for individual projects.
      1. Work cessation. Dates work ceased because of high flows, if any.
      2. Fish screen. Compliance with NMFS' fish screen criteria.
      3. Pollution and Erosion Control Plan. A summary of pollution and erosion control inspections, including any erosion control failures, contaminant releases, and correction efforts.
      4. Description of site preparation.
      5. Isolation of inwater work area, capture, and release.
         a) Supervisory fish biologist's name and address.
         b) Methods of work area isolation and take minimization.
         c) Stream conditions before, during, and within 1 week after completion of work area isolation.
         d) Means of fish capture.
         e) Number of fish captured by species.
         f) Location and condition of all fish released.
         g) Any incidence of observed injury or mortality of listed species.
      6. Streambank protection.
         a) Type and amount of materials used.
         b) Project size - one bank or two, width, and linear feet.
      7. Site rehabilitation. Photo or other documentation that site rehabilitation

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performance standards were met.

NMFS will be reviewing the detailed construction plans submitted to advise FERC regarding whether or not those plans are likely to meet the "best management practices" articulated in this incidental take statement terms and conditions, or such additional best management practices that NMFS deems appropriate.

3) Conditions for research for the monitoring and evaluation identified in the November 30, 2004 Lewis River Settlement Agreement. Not all of these conditions may apply to the specific actions authorized by this ITS. Nonetheless, failure to adhere to any condition that does apply may cause NMFS to revoke the ITS.

a. All Monitoring and Evaluation plans associated with anadromous fish developed under the November 30, 2004 Lewis River Settlement Agreement must meet NMFS' satisfaction and must be approved by NMFS. Work will be conducted by PacifiCorp, Cowlitz PUD, or those hired by the Licensee(s) to conduct the work.
To ensure that the monitoring and evaluation plan will provide a benefit to listed species, and provide useful information on the effectiveness of various aquatic measures as well as achievement of the Reintroduction Outcome Goals, PacifiCorp and Cowlitz PUD will develop plan(s) and methods to monitor aspects of the various aquatic measures, including:

- Fish passage
- Adult anadromous salmonid migration, spawning, distribution, and abundance
- Water quality
- Hatchery supplementation programs
- Resident fish species

The Licensees' plan(s), among other items, will thoroughly describe of all methods that will be used to capture fish and how fish will be handled; details such as sampling locations and dates; and invasive procedures such as tagging, taking tissue samples, or sacrifice and will explain the purpose of each. Each plan will include estimates of the number of each species and life stage that will be handled and/or killed for that study. In addition, the plans will include methods by which they will be modified if empirical evidence indicates that negative effects on a species/life stage are greater than expected. The Licensees' will provide NMFS with annual reports, which NMFS will use to determine whether or not to authorize the next year's work under a multiyear plan. NMFS must approve all plans in writing before they are implemented.

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b. The evaluator must ensure that listed species are taken only at the levels, by the means, in the areas, and for the purposes stated in the plans developed, and according to the conditions in this permit.

c. The evaluator must not intentionally kill or cause to be killed any listed species unless the plan specifically allows intentional lethal take.

d. The evaluator must handle listed fish with extreme care and keep them in cold water to the maximum extent possible during sampling and processing procedures. When fish are transferred or held, a healthy environment must be provided; e.g., the holding units must contain adequate amounts of well-circulated water. When using gear that captures a mix of species, the researcher must process listed fish first to minimize handling stress.

e. The evaluator must stop handling listed juvenile fish if the water temperature exceeds 70° F at the capture site. Under these conditions, listed fish may only be visually identified and counted.

f. If the evaluator anesthetizes listed fish to avoid injuring or killing them during handling, the fish must be allowed to recover before being released. Fish that are only counted must remain in water and not be anesthetized.

g. The evaluator must use a sterilized needle for each individual injection when PIT-tags are inserted into listed fish.

h. If the evaluator unintentionally captures any listed adult fish while sampling for juveniles, the adult fish must be released without further handling and such take must be reported.

i. The evaluator must exercise care during spawning ground surveys to avoid disturbing listed adult salmonids when they are spawning. Evaluators must avoid walking in salmon streams whenever possible, especially where listed salmonids are likely to spawn. Visual observation must be used instead of intrusive sampling methods, especially when just determining fish presence.

j. The evaluator must use the other applicable terms and conditions in this ITS including, but not limited to, term and condition 2.s.

k. The evaluator must obtain approval from NMFS before changing sampling locations or research protocols.

l. The evaluator must notify NMFS as soon as possible but no later than 2 days

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after any authorized level of take is exceeded or if such an event is likely. The evaluator must submit a written report detailing why the authorized take level was exceeded or is likely to be exceeded.

m. The evaluator is responsible for any biological samples collected from listed species as long as they are used for research purposes. The evaluator may not transfer biological samples to anyone not listed in the application without prior written approval from NMFS.

n. The person(s) actually doing the evaluation must carry a copy of this ITS and the applicable plan while conducting the authorized activities.

o. The evaluator must allow any NMFS employee or representative to accompany field personnel while they conduct the evaluation activities.

p. The evaluator must allow any NMFS employee or representative to inspect any records or facilities related to the permit activities.

q. The evaluator must obtain all other Federal, state, and local permits/authorizations needed for the evaluation activities.

r. Every year, the evaluator must submit to NMFS a post-season report in the prescribed form (ATTACHMENT 2) describing the evaluation activities, the number of listed fish taken and the location, the type of take, the number of fish intentionally killed and unintentionally killed, the take dates, and a brief summary of the monitoring results. This report may be included in the annual report identified in the SA and required by this ITS. Falsifying annual reports or permit records is a violation of this ITS.

s. If the evaluator violates any permit condition they will be subject to any and all penalties provided by the ESA. NMFS may revoke this permit if the authorized activities are not conducted in compliance with the permit and the requirements of the ESA or if NMFS determines that its ESA findings are no longer valid.

t. Listed fish mortalities and tissue samples will be returned to the capture site.

4) Within 2 days of observance, reports of dead or injured salmon or steelhead shall be sent to:

Lewis Hydro Projects Staff Lead
HydroPower Division
National Marine Fisheries Service
1201 NE Lloyd Blvd., Suite 1100

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Portland, Oregon 97232

Include a concise description of the causative event (if known), and a description of any resultant corrective actions taken (if any) to reduce the likelihood of future mortalities or injuries.

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APPENDIX G

Terms and Conditions included in the U.S. Fish and Wildlife Service's Biological Opinion for the Relicensing of the Lewis River Hydroelectric Projects: Merwin (No. 935), Yale (No. 2071), Swift No. 1 (No. 2111), and Swift No. 2 (No. 2213)

September 15, 2006

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the ESA, the FERC or its applicant must comply with the following Terms and Conditions (T&C), which implement the Reasonable and Prudent Measures described above and outline required reporting/monitoring requirements. These Terms and Conditions are non-discretionary. Because no RPMs were identified to minimize the incidental take of spotted owls and bald eagles, there are no associated Terms and Conditions for these species.

Bull Trout

T&C 1.1: In restoring coho to Yale Lake, select for early spawners, if feasible, so that Cougar Creek bull trout will spawn at least partly after coho, thus reducing coho redd superimposition on bull trout.

T&C 2.1: Conduct annual bull trout surveys in the Swift No. 2 tailrace, Bypass Reach, and Lower and Upper Constructed Channels to document presence or absence of bull trout spawning and egg survival, if appropriate, in these locations. This will occur for a minimum of 3 years following completion of the Upper Release Point and implementation of the Bypass Reach flows (as directed by the WDOE) or until it is demonstrated that bull trout spawning does not occur in these areas.

T&C 3.1: If bull trout occur in the required random sample of mixed downstream migrant species in the Swift Creek Reservoir and Yale Lake traps, smolt-sized bull trout should be placed immediately in the recovery tank and transported to the next reservoir downstream. Bull trout fry should be separated from larger fish and be transferred to a separate fry tank. If possible, bull trout fry should be separated from other fry and released back into Swift Creek Reservoir away from the surface collector.

T&C 4.1: Determine the appropriate timing windows for instream construction in the Bypass Reach based on annual patterns of flow, temperature, and adult bull trout abundance, with a view toward minimizing suspended sediment impacts on bull trout and substrate embeddedness.

T&C 4.2: Where feasible and appropriate for the type, magnitude and duration of the instream activity, isolate instream construction from the flow during the work

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period by installing temporary dams and pumping or diverting the water around the work zone. Dewatering may require fish rescue to avoid stranding.

T&C 5.1: The Licensees are authorized the direct take (harass by survey, capture, handle, and release) of bull trout while conducting annual monitoring activities and surveys for the purpose of enhancing bull trout survival, as well as to take bull trout in interim and permanent bull trout passage operations in accordance with the conditions stated below. Permitted activities are restricted to the Lewis River Subbasin, from the Columbia River to North Fork Lewis River Mile 72.5 (Lower Falls), including Lake Merwin, Yale Lake, and Swift Creek Reservoir, and all Lewis River tributaries up to Lower Falls.

T&C 5.2. The Utilities are responsible for assuring that the individuals conducting monitoring or collect and haul operations are properly trained and educated, and complying with the following Terms and Conditions. The Utilities shall retain a current list of such people and the list should include the following:

1) The name of each individual;

2) The resume or qualifications statement of each, detailing their experience with each species and type of activity for which they will be conducting; and

3) The names and phone numbers of a minimum of two references.

T&C 5.3: All capture, handling, and observation methods shall be implemented at times that will avoid temperature stress of bull trout being surveyed, collected, monitored, rescued, or relocated.

T&C 5.4: All live bull trout captured shall be released as soon as possible. Any bull trout captured and showing signs of stress or injury should only be released when able to maintain itself. Nurture such individuals in a holding tank until they have recovered. If bull trout are held in a tank, a healthy environment for the stressed bull trout must be provided, and the holding time must be minimized. Water-to-water transfers, the use of shaded, dark containers, and supplemental oxygen shall all be considered in designing bull trout handling operations. Any bull trout fry must be held in a separate container from other bull trout (including juvenile bull trout), to avoid predation by larger bull trout during captivity.

T&C 5.5: The period of time that captured bull trout are anesthetized shall be minimized. The number of bull trout that are anesthetized at one time shall be no more than what can be processed (biosampled) within several minutes.

T&C 5.6: Prior to conducting activities that involve handling of bull trout, the permittee shall ensure that hands are free of sunscreen, lotion, or insect repellent.

Reporting Requirements

In order to monitor the effectiveness of implementing the Reasonable and Prudent Measures, the FERC or its applicants will prepare a report describing their progress in implementing the Terms and Conditions and the licenses. An annual progress report should be sent to the FWS attention: Division Manager, Division of Conservation and Hydropower Planning. The report may be included in the Annual Report required under

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the SA and shall include, but not be limited to, the following:

1) Significant research results and its importance with regards to recovery of bull trout;
2) Maps or descriptions of locations sampled for each species;
3) The results of all sampling efforts including estimates of population size;
4) Quantification of take, including numbers of individuals incidentally killed, including dates, locations, and circumstances of lethal take, and an estimate of the numbers of individuals otherwise harmed or harassed (e.g., displaced during snorkeling surveys);
5) Other pertinent observations made during sampling efforts regarding the status and ecology of the bull trout, including size of individuals and presumed life-history form;
6) Progress with implementing the RPMs;
7) Activities carried out in the Conservation Covenants;
8) Activities conducted under the WHMPs;
9) Changes to dam operations that improve or protect the species or their habitat; and
10) Implementation of any Conservation Recommendations.

The FERC or its Licensees are to notify the FWS within 3 working days upon locating a dead, injured, or sick endangered or threatened species specimen. They must make initial notification at the nearest FWS Law Enforcement Office. Contact the FWS Law Enforcement Office at (425) 883-8122 or the FWS Western Washington Fish and Wildlife Office at (360) 753-9440. Notification must include the date, time, precise location of the injured animal or carcass, and any other pertinent information. Care should be taken in the handling of sick or injured specimens to preserve biological materials in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered or threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence associated with the specimen is not unnecessarily disturbed. Reports of incidental injury or killing must include the date, time, precise location of the injured animal or carcass, and any other pertinent information such as cause of death or injury. In regards to bull trout, all incidental mortalities shall be preserved in a fashion to best provide maximum scientific information (otoliths, scales, genetic samples, general fisheries statistics, etc.). Any specimen killed shall be kept whole and put on ice or frozen, and a small sample of tissue (fin clip approximately 1 square centimeter) shall be preserved in a vial of 95 percent ethanol for genetic analysis.

Document Content(s)

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