

UNITED STATES OF AMERICA  
123 FERC ¶ 62,021  
FEDERAL ENERGY REGULATORY COMMISSION

PacifiCorp

Project No. 2630-004

ORDER ISSUING NEW LICENSE

(April 8, 2008)

**INTRODUCTION**

1. On June 27, 2003, PacifiCorp filed an application for a new license pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),<sup>1</sup> to continue operation and maintenance of the Prospect Nos. 1, 2, and 4 Hydroelectric Project No. 2630. The project's authorized capacity being licensed is 41.56 megawatts (MW). The project is located on the Rogue River, Middle Fork Rogue River, and Red Blanket Creek in Jackson County, Oregon.<sup>2</sup> The project does not occupy federal lands.
2. On October 26, 2006, PacifiCorp filed a Settlement Agreement (settlement) signed by it and the Oregon Department of Fish and Wildlife (Oregon DFW) that addresses certain resident trout issues related to this relicense proceeding, including ramping rate effects and large woody debris management.
3. As discussed below, I am issuing a new license for the project. The license incorporates most of the settlement's provisions.

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<sup>1</sup> 16 U.S.C. §§ 797(e) and 808 (2000).

<sup>2</sup> The project is part of PacifiCorp's interconnected system that transmits power across state lines for public utility purposes. The project was constructed in different segments, the first of which was completed in 1911 (Prospect No. 1) and the last in 1944 (Prospect No. 4). Because the project (1) is located on a body of water over which Congress has Commerce Clause jurisdiction, (2) affects interstate commerce through its connection to an interstate power grid, and (3) has had significant post-1935 construction, it is required to be licensed pursuant to section 23(b)(1) of the FPA, 16 U.S.C. § 817(1) (2000).

## BACKGROUND

4. The Federal Energy Regulatory Commission (Commission) issued the original license for the project on July 28, 1980, and the license expired on July 1, 2005.<sup>3</sup> Since then, PacifiCorp has operated the project under annual licenses pending disposition of its new license application.

5. Notice of the application was published in the Federal Register on September 25, 2003.<sup>4</sup> The State of Oregon Hydroelectric Application Review Team (Oregon HART) by and through the Oregon DFW, Oregon Department of Environmental Quality (Oregon DEQ), Oregon Public Utility Commission, and Oregon Water Resources Department (Oregon Water) and the U.S. Department of the Interior (Interior) timely filed motions to intervene.<sup>5</sup> None of the intervenors oppose the project.

6. On October 28, 2004, the Commission issued a public notice that the project was ready for environmental analysis and solicited comments, recommendations, terms and conditions, and prescriptions. In response, comments, recommendations, or prescriptions were filed by the National Marine Fisheries Services (NMFS), American Whitewater, Oregon HART, Interior, Kokopelli River Guides, and nine individuals.

7. Commission staff prepared a draft Environmental Assessment (EA), which staff issued on November 18, 2005. In response, the U.S. Fish and Wildlife Service (FWS), U.S. Geological Survey (USGS), National Park Service, Oregon DEQ, American Whitewater, Oregon DFW, PacifiCorp, and 22 individuals filed comments or modified recommendations.

8. Commission staff considered the comments and modified recommendations received in response to the draft EA, and prepared a final EA, which staff issued on September 28, 2006. In response, the National Park Service, PacifiCorp, and Oregon DFW filed comments stating their objections to certain recommendations or analyses in the final EA. Their substantive comments are discussed in this order.

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<sup>3</sup> The effective date of the license was May 1, 1965. *See* 12 FERC ¶ 62,056 (1980).

<sup>4</sup> 68 Fed. Reg. 55,386 (September 25, 2003).

<sup>5</sup> Because the motions to intervene were timely and unopposed, they were granted by operation of Rule 214(c)(1) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 214(c)(1) (2007).

9. On November 3, 2006, the Commission issued a notice of PacifiCorp's settlement with Oregon DFW and solicited comments. No one filed a response to the notice.
10. The motions to intervene, comments, recommendations, and settlement have been fully considered in determining whether, and under what conditions, to issue this license.

## **PROJECT DESCRIPTION**

### **A. Project Facilities**

11. The Prospect Nos. 1, 2, and 4 (Prospect) Project, constructed between 1911 and 1944, consists of: three diversion dams that divert water from three separate locations (Rogue River<sup>6</sup>, Middle Fork Rogue River, and Red Blanket Creek); a 260-acre-foot impoundment (North Fork reservoir) behind the North Fork diversion dam;<sup>7</sup> a fishway on the Middle Fork diversion dam; a 6-mile-long canal that carries water from the Middle Fork diversion dam to the North Fork reservoir (Middle Fork canal);<sup>8</sup> the Red Blanket canal (0.8 miles long) that carries water from the Red Blanket diversion to the Middle Fork canal; a 1.4-mile-long canal (North Fork canal) that carries water from the North Fork reservoir to the Prospect No. 2 forebay; and a surge tank and system of flowlines extending about 0.8 miles from the Prospect No. 2 forebay to the project's powerhouses and then to the Rogue River; three powerhouses located at about river mile 169 of the Rogue River and containing four turbine generating units for a combined installed capacity of 41.56 MW; three 69-kilovolt (kV) transmission lines and one 2.3-kV transmission line; a developed recreation area known as North Fork Park; and appurtenant facilities. A more detailed project description is contained in ordering paragraph (B)(2).

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<sup>6</sup> The Rogue River upstream of its confluence with the South Fork Rogue River is also referred to as the North Fork Rogue River.

<sup>7</sup> The Red Blanket and Middle Fork diversion dams form minimal impoundments, both of which are almost completely filled with sediment.

<sup>8</sup> The Middle Fork canal also receives water from the project's Red Blanket canal and from a project siphon that diverts water from the tailrace of the Prospect No. 3 Project No. 2337 (on the South Fork Rogue River). The Middle Fork canal originally consisted of nine wood stave flumes. One of the flumes was converted to a lined canal section in 1964. PacifiCorp recently completed upgrading and replacing the remaining eight flumes -- two with concrete-lined earthen canal sections, three with steel sag pipe, and three with wooden and steel tubs.

## **B. Project Operation**

12. PacifiCorp operates the project run-of-river.<sup>9</sup> PacifiCorp monitors project operations real-time from a remote Control Center in Ariel, Washington. An operator is on duty at the project 7 days a week from 8:00 a.m. to 4:30 p.m. to provide operational response, confirmation of proper equipment operation, and manual adjustments of the Control Center's operation of the powerhouse units.

13. PacifiCorp diverts up to 150 cubic feet per second (cfs) of water from the Middle Fork Rogue River through the Middle Fork canal. Water in the Middle Fork canal flows west-northwest from the Middle Fork diversion dam for 0.88 mile and is then joined by up to 150 cfs of water diverted from the tailrace of the Prospect No. 3 Project No. 2337 (located on the South Fork Rogue River). From there, the combined flow travels 2.72 miles to the Red Blanket canal junction where flows up to 75 cfs delivered from Red Blanket Creek by the 0.84-mile-long Red Blanket canal add to the flow in the Middle Fork canal. The combined flows then continue west-northwest for 2.37 miles to a point just upstream of the east abutment of the North Fork diversion dam, where the canal flow empties into North Fork reservoir.

14. Up to 1,050 cfs of water from the North Fork reservoir, which includes water from the Middle Fork canal, is drawn through an intake located at the west abutment of the North Fork diversion dam. The intake directs the water into the North Fork canal, which conveys the water southwest about 1.4 miles to the Prospect No. 2 forebay.<sup>10</sup> From the Prospect No. 2 forebay, the water travels south 0.6 miles through two flowlines to a surge tank. At the surge tank, the water is divided and directed in two ways depending upon generation needs and availability of water. One route is through two penstocks that convey water to the Prospect No. 2 powerhouse, whereupon the water is discharged to the Rogue River. The second route is through a flowline a short distance to the Prospect No. 4 powerhouse. Water leaves the powerhouse through a short flowline that carries it to the Prospect No. 1 forebay. From the forebay, the water is directed into a 1,000-foot-

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<sup>9</sup> The term run-of-river, as used here, means that there is no storage of water at the project for later generation use. All water flowing to the project is either diverted for immediate generation use or is allowed to freely pass downstream of the project's diversion dams.

<sup>10</sup> A programmable logic controller controls the delivery of water to the Prospect No. 2 forebay and maintains the elevation of North Fork reservoir at 2,597 feet above mean sea level during low flow conditions by raising or lowering the intake gates. During high flow conditions, the device controls spill over the dam by adjusting the dam's spill gates.

long penstock to the Prospect No. 1 powerhouse, whereupon the water discharges to the Rogue River about 400 feet downstream of the Prospect No. 2 powerhouse.<sup>11</sup>

15. Under the original license, PacifiCorp maintained a minimum flow of 25 cfs in the Middle Fork Rogue River from July 1 through September 15 and 10 cfs at all other times. The original license for the project did not require a minimum flow for the Red Blanket Creek or the Rogue River bypassed reaches; however, during non-spill periods, a notch in the Red Blanket Creek diversion dam provided a flow of 5 cfs and about 15-20 cfs leaked into the Rogue River bypassed reach from the North Fork diversion dam.

16. The project boundary incorporates lands occupied by project structures and recreational facilities, including North Fork Park, for a total of about 369 acres.

17. PacifiCorp proposes to continue operating the project in a run-of-river mode with no increase in capacity or substantial new facilities. PacifiCorp does propose implementation of specified minimum flows for the project's four bypassed reaches on the Rogue River, Middle Fork Rogue River, South Fork Rogue River,<sup>12</sup> and Red Blanket Creek as well as ramping rates during certain project operational events that result in the manipulation of flows on the Rogue River, Middle Fork Rogue River, and Red Blanket Creek.

### **SETTLEMENT AGREEMENT**

18. The settlement proposes measures to be implemented by PacifiCorp for the protection and enhancement of fishery resources affected by the project under a new license. In the Rogue River bypassed reach and "full-flow" reach downstream of the Prospect No. 2 powerhouse, the year-round target ramping rate<sup>13</sup> would be a 100-cfs

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<sup>11</sup> Typically, the Prospect No. 2 powerhouse is loaded to hydraulic capacity first. When extra flow becomes available, PacifiCorp operates the Prospect Nos. 1 and 4 powerhouses in tandem; however, water can be diverted around the Prospect No. 4 powerhouse through a canal, allowing the Prospect No. 1 powerhouse to operate while the Prospect No. 4 powerhouse is shut down.

<sup>12</sup> The Middle Fork Rogue River flows into the South Fork Rogue River; therefore, project flow diversions from the Middle Fork Rogue River result in reduced flows in the South Fork Rogue River.

<sup>13</sup> Section 3.1.1 of the settlement defines "ramping" as "those Project-induced increases and decreases in river discharge and associated changes in river surface elevation over time below a Project dam or the Prospect No. 2 Powerhouse caused by

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increase or decrease per 30-minute increment, and would not exceed a ramping rate of 130 cfs per 30-minute increment. Ramping rates would be measured at gaging locations “as close as practicable to the head of the Rogue River bypassed reach and at a location within the Prospect 2 penstocks using generator-based output.”<sup>14</sup>

19. The settlement further provides that, in the Middle Fork Rogue River and Red Blanket Creek bypassed reaches, PacifiCorp would establish the following ramping rates: (1) from May 1 through September 30, 1 inch per hour; and (2) from October 1 through April 30, 2 inches per hour. Ramping rates would be measured “as close as practicable to the head of each bypassed reach.”<sup>15</sup>

20. In addition, PacifiCorp would prepare a flow monitoring plan with provisions for providing the ramping rates and establishing the specific gaging locations for purposes of determining compliance.<sup>16</sup>

21. PacifiCorp would not be required to remove large woody debris from above the project dams, but if it did, the large woody debris would be placed downstream of the dam to the extent practicable at locations where, during high flow events, the debris could reasonably be expected to be transported downstream.<sup>17</sup>

22. PacifiCorp would not be required to augment gravel below the project’s dams.

23. Overall, the terms of the settlement achieve an appropriate balance between continued project generation and fishery enhancement measures. As discussed below, these proposed ramping rates and flow monitoring plan are included as conditions of the

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Project operations or for Project maintenance.” Section 3.1.1 specifically defines “ramping rate” as “the rate of change in stage resulting in regulated discharges.”

<sup>14</sup> Settlement, section 3.1.3.1.

<sup>15</sup> *Id.*, section 3.1.3.2.

<sup>16</sup> *Id.*, section 3.1.3. For compliance purposes, the ramping rates stipulations would not apply to: (1) changes in flows due to “natural” changes in river flow or surface runoff; (2) unplanned and forced outages; (3) emergency situations involving flood management, public safety, or protection of project facilities; or (4) periodic flow releases through the spill gates of North Fork dam for purposes of passing large woody debris. *Id.*, section 3.1.2.

<sup>17</sup> *Id.*, section 3.2.

water quality certification issued for this project, and are made conditions of this license by Ordering paragraph (D). In addition, Article 404 requires PacifiCorp to manage large woody debris as provided in the settlement.

### **WATER QUALITY CERTIFICATION**

24. Under section 401(a)(1) of the Clean Water Act (CWA),<sup>18</sup> the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed 1 year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.<sup>19</sup>

25. On June 25, 2003, PacifiCorp applied to the Oregon DEQ for water quality certification for the Prospect Project. Oregon DEQ received the application on the same day. PacifiCorp withdrew the application and then filed a new application for certification on June 7, 2004, which Oregon DEQ received on June 8, 2004. PacifiCorp subsequently withdrew and re-filed applications on April 20, 2005 (received by Oregon DEQ on April 25, 2005), and March 31, 2006 (received by Oregon DEQ on the same day).

26. On March 21, 2007, Oregon DEQ issued certification for the project that includes 11 conditions, which are set forth in Appendix A of this order and incorporated into the license (*see* Ordering paragraph D). The certification includes requirements for minimum flows, ramping rates, project maintenance and repair scheduling, use of Best Management Practices during ground-disturbing activities and instream work, turbidity monitoring, dissolved oxygen monitoring, water temperature monitoring, flow and river stage monitoring, adaptive management with regard to state dissolved oxygen and water temperature standards, recordkeeping and reporting, Oregon DEQ's access to the project to verify compliance with the certification, procedures to follow if project changes are planned, payment of a project-specific fee for Oregon DEQ oversight, Oregon DEQ's reserved authority to modify the conditions of the certification, and posting of the certification conditions in a "prominent location at the Project facility."

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<sup>18</sup> 33 U.S.C. § 1431(a)(1) (2000).

<sup>19</sup> 33 U.S.C. §1341(d) (2000).

27. Certain of Oregon DEQ's certification conditions: (1) contemplate unspecified, long-term changes to project operations, facilities, or Commission-approved plans generally for the purpose of protecting water quality in the reaches of the Rogue River, Middle Fork Rogue River, and Red Blanket Creek affected by the project; (2) do not provide for consultation with FWS on the development of a flow monitoring plan or Commission approval of the plan; and (3) do not provide for Commission notification of temporary modification of required ramping rates. Article 401 requires the licensee to: (1) receive Commission approval through the filing of an application to amend the license prior to implementing any such contemplated changes; (2) consult with the FWS during development of the flow monitoring plan and file the plan for Commission approval prior to implementation; and (3) notify the Commission of any temporary modifications of the required ramping rates.

### **COASTAL ZONE MANAGEMENT ACT**

28. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),<sup>20</sup> the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

29. By letter of June 8, 2004, the Oregon Department of Land Conservation and Development notified PacifiCorp that the project is not within a geographic area in which the Department would review licenses for consistency with the state's coastal zone management plan. Therefore, no consistency certification is required.

### **SECTION 18 FISHWAY PRESCRIPTIONS**

30. Section 18 of the FPA<sup>21</sup> 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.

31. By letters filed December 22, 2004, and January 5, 2005, NMFS and Interior, respectively, requested that the Commission reserve authority to prescribe fishways. Consistent with Commission policy, Article 407 of this license reserves the

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<sup>20</sup> 16 U.S.C. § 1456(3)(A) (2000).

<sup>21</sup> 16 U.S.C. § 811 (2000).



Commission's authority to require fishways that may be prescribed by Interior or Commerce for the project.

### **THREATENED AND ENDANGERED SPECIES**

32. Section 7(a)(2) of the Endangered Species Act of 1973,<sup>22</sup> 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.

33. There are three federally listed species with the potential to occur in the project area: northern spotted owl, gray wolf, and Canada lynx. Northern spotted owls likely occur in the vicinity of the project. One of the most likely locations of suitable northern spotted owl habitat occurs along the Rogue River near the project's North Fork reservoir. There is no documented occurrence of gray wolf or Canada lynx. In the final EA, staff determined that relicensing the Prospect Nos. 1, 2, and 4 Project "is not likely to adversely affect" the northern spotted owl and would have no effect on gray wolf and Canada lynx. The FWS concurred with these findings by letter filed on December 15, 2005.

### **NATIONAL HISTORIC PRESERVATION ACT**

34. Under section 106 of the National Historic Preservation Act (NHPA),<sup>23</sup> and its implementing regulations,<sup>24</sup> federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (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.

35. To satisfy these responsibilities, the Commission executed a Programmatic Agreement (PA) with the Oregon SHPO. The PA requires the licensee to implement an attached Historic Properties Management Plan (HPMP) for the term of any new license

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<sup>22</sup> 16 U.S.C. § 1536(a) (2000).

<sup>23</sup> 16 U.S.C. § 470 *et seq.* (2000).

<sup>24</sup> 36 C.F.R. Part 800 (2007).

issued for the project.<sup>25</sup> Execution of the PA demonstrates the Commission's compliance with section 106 of the NHPA. Article 416 requires the licensee to implement the PA and associated HPMP for the project.

## **RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES**

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

36. Section 10(j) of the FPA,<sup>26</sup> 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,<sup>27</sup> to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

37. In response to the October 28, 2004, public notice that the project was ready for environmental analysis, FWS filed 23 recommendations and Oregon DFW filed 35 recommendations under section 10(j). Subsequently, on January 20, 2006, in response to staff's issuance of the draft EA, FWS withdrew eight of their original recommendations and Oregon DFW withdrew five of their original recommendations, modified three of their recommendations, and added three recommendations.

38. Out of a final total of 15 recommendations filed by FWS, Commission staff determined that 4 were outside of the scope of section 10(j), and out of a final total of 33 recommendations filed by Oregon DFW, Commission staff determined that 17 were outside the scope of section 10(j). Those recommendations found to be outside of the scope of section 10(j) are discussed in the next section.

39. This license includes conditions consistent with the remaining 8 of 11 FWS recommendations and 13 of 16 Oregon DFW recommendations that are within the scope of section 10(j).<sup>28</sup> These include recommendations to: release minimum flows in the project's bypassed reaches (Appendix A - Condition 1(a)); install gages with telemetry at the head of the project's bypassed reaches (Appendix A – Condition 2(d)(1), and

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<sup>25</sup> PacifiCorp filed the HPMP (dated May 2005) on August 19, 2005.

<sup>26</sup> 16 U.S.C. § 803(j)(1) (2000).

<sup>27</sup> 16 U.S.C. §§ 661 *et seq.* (2000).

<sup>28</sup> Many of the FWS and Oregon DFW recommendations overlap.

Article 401(b)); conduct project maintenance that results in altering of canal intake flows only during the months of August and September (Appendix A – Condition 1(c)), maintain specific ramping rates in river reaches affected by the project (Appendix A - Condition 1(b)); salvage live trout from the project’s canals during maintenance shutdowns (Article 405); develop and implement an erosion and sediment control plan for the project (Articles 302 and 402); manage large woody debris at the project (Article 404); develop and implement a plan to monitor the efficacy of the wildlife crossings (Article 408); inspect and maintain the wildlife crossings (Articles 409 and 410); and develop and implement an avian protection plan (Article 411).

40. If the Commission believes that any such recommendation may be inconsistent with the purposes and requirements of Part I of the FPA or other applicable law, section 10(j)(2) requires the Commission and the agencies to attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities to such agencies.<sup>29</sup> If the Commission still does not adopt a recommendation, it must explain how the recommendation is inconsistent with Part I of the FPA or other applicable law and how the conditions imposed by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources.

41. Commission staff made an initial determination that the following recommendations by FWS and Oregon DFW for PacifiCorp may be inconsistent with the public interest standard of section 4(e) and the comprehensive planning standard of section 10(a)(1) of the FPA: (1) develop and implement plans to provide fishways at the Middle Fork and Red Blanket diversions, (2) install, operate, and maintain fish screens at the project’s three diversion dams; and (3) increase the width of the existing large-animal crossings to 36 feet, and install additional 36-foot-wide large-animal crossings.

42. By letters dated November 22, 2005, Commission staff advised FWS and Oregon DFW of its preliminary determinations and attempted to resolve the apparent inconsistencies. FWS and Oregon DFW each responded with a letter filed on January 20, 2006. A meeting was subsequently held on February 23, 2006, to try to resolve the inconsistencies.<sup>30</sup> These issues remained unresolved.

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<sup>29</sup> 16 U.S.C. § 803(j)(2) (2000).

<sup>30</sup> At the meeting, staff explained each inconsistency, invited comments from FWS and Oregon DFW, and requested further evidence for staff to consider to attempt to resolve the inconsistencies. *See* summary of section 10(j) meeting, issued on March 13, 2006.

43. With respect to fishways and fish screens, as discussed in the final EA, adult trout in the project area are small (about 7 to 9 inches in length), and recreational fishing activity in the immediate project area is light. Although constructing and operating fishways and fish screens at the project would produce some benefits, they would be minor, because adult trout in the project area are generally resident. The final EA notes that fry do disperse and some are likely entrained in the project's canals and powerhouses, but that the trout populations continue to persist (*i.e.*, the population is self-sustaining)<sup>31</sup> upstream of the diversion dams at population densities that are similar to locations downstream of the project diversion dams.<sup>32</sup> The fishways and fish screens recommended by Oregon DFW and FWS would have a combined annual cost of \$423,600, which would significantly increase the construction, operation, and maintenance costs of the project. In consideration of: (1) the low value of the fishery in terms of the average size of the trout; (2) the light fishing pressure in the project area; (3) the small passage benefits of providing fishways and fish screens; and (4) the adverse effects of the costs involved on project economics, requiring the construction, operation, and maintenance of the fishways and fish screens at the project is not justified.

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<sup>31</sup> Related to the final EA's finding of trout population persistence in the project area, by letter filed on January 11, 2007, Oregon DFW refutes the final EA's conclusion that low numbers of newly hatched rainbow trout fry observed at some locations in the project area during PacifiCorp's fish survey (conducted in support of their license application) are explained by the fact that those particular locations lack the smaller gravels from which trout fry emerge rather than by a specific project-related effect. To support their claim, Oregon DFW presents a correlation analysis using data taken from table 4 of the final EA, and states their assumption that the "hyphens" in table 4 represent "no data." However, Oregon DFW's correlation analysis is based on an incorrect interpretation of the data in table 4. The "hyphens" in table 4 indicate 0 percent, not a lack of data. When the notation in the table is interpreted correctly, the data suggests a strong correlation between percent small gravels (*i.e.*, gravel size between 6 and 25 millimeters, which is the size the 7- to 9-inch adult trout in the project area likely use for spawning) and percent trout fry (*i.e.*, trout in their first year of life – "age 0+"). *See* final EA at 29.

<sup>32</sup> Although trout downstream of the diversion dams are not susceptible to entrainment into the project's canals, they are naturally susceptible to downstream passage over impassible waterfalls or high velocity reaches where they are similarly unable to later return to their "home" reach and are thus lost to their local populations. *See* final EA at 62-66.

44. This license requires the licensee to: release minimum flows in the project's bypassed reaches (Appendix A – Condition 1(a)) for the enhancement of trout habitat and water quality, install gages with telemetry at the head of the project's bypassed reaches (Appendix A – Condition 2(d)(1), and Article 401(b)), operate the project run-of-river (Article 403), conduct project maintenance that results in altering of canal intake flows only during the months of August and September to protect rearing trout fry (Appendix A – Condition 1(c)), maintain specific ramping rates in river reaches affected by the project to protect trout from stranding (Appendix A – Condition 1(b)), salvage live trout from the project's canals during maintenance shutdowns and place them back in the project area rivers (Article 405), develop and implement an erosion and sediment control plan for the project to prevent adverse water quality conditions (Article 402), and manage large woody debris to allow for the passage of the wood intact downstream of the project's diversion dams to serve as trout habitat (Article 404). These protection measures would ensure that the trout population is not significantly adversely affected by the operation and maintenance of the project.

45. With respect to the Oregon DFW and FWS recommendation for PacifiCorp to increase the width of the existing large animal crossings across the project canals to 36 feet and install additional 36-foot-wide large animal crossings, as discussed in the final EA, individual elk (which are the largest animals in the project area) are physically able to use the existing four 6-foot-wide and two recently installed 12-foot-wide crossings.<sup>33</sup> The final EA further concludes that, although the 12-foot-wide crossings would likely not provide sufficient room for a whole elk herd traveling abreast to pass at once, the crossings nevertheless would provide sufficient room for a whole elk herd to pass in smaller groups. For this reason, the benefits of providing the larger, 36-foot-wide crossings would be small and not justified in light of their \$92,000 levelized annual cost.

46. This license requires the licensee to: develop and implement a large animal crossing plan to evaluate the project's existing 12-foot-wide crossings and install eight additional 12-foot-wide or ten 36-foot-wide large animal crossings (Article 408);<sup>34</sup> and

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<sup>33</sup> The 12-foot-wide crossings were installed recently as part of an amendment proceeding under the original license. See PacifiCorp's January 20, 2006, filing in response to the draft EA at p. 6.

<sup>34</sup> The intent of Article 408 is that there are ultimately a total of 10 large animal crossings at the project. If the evaluation shows that the project's two existing 12-foot-wide crossings would effectively allow passage of large animals (*i.e.*, elk and deer), then the Commission may direct PacifiCorp to install eight additional 12-foot-wide crossings. However, if the evaluation shows that the two existing 12-foot-wide crossings would not provide effective passage for large animals, then the Commission may direct PacifiCorp

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develop and implement plans to inspect and maintain the large animal crossings (Article 409) and provide crossings for small animals (Article 410). These measures will allow wildlife greater use of habitat and contribute to meeting Oregon DFW's population objectives for game animals in the project area.

47. For the above reasons, I conclude, in accordance with FPA section 10(j)(2)(A), that the recommendations for fishways, fish screens, and wildlife crossings by FWS and Oregon DFW are inconsistent with the comprehensive planning standard of sections 4(e) and 10(a)(1) of the FPA. In accordance with section 10(j)(2)(B) of the FPA, I find that the measures required by this license will adequately and equitably protect, mitigate damages to, and enhance fish and wildlife affected by this project.

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

48. FWS and Oregon DFW made a number of recommendations that are not within the scope of section 10(j) because they are not for specific project-related measures to protect, mitigate damages to, or enhance fish and wildlife; or are for studies that could have been conducted prior to relicensing.<sup>35</sup> I instead consider these recommendations under the broad public-interest standard of FPA section 10(a)(1).<sup>36</sup>

49. I have considered and adopted the following recommendations by Oregon DFW or FWS: (1) notify Oregon DFW and FWS at least two weeks in advance of project maintenance that results in dewatering or reduced flow conditions in the project canals (Article 405); (2) notify the Oregon Emergency Response System within 24 hours of a project waterway failure and Oregon DFW and FWS within 24 hours of an unanticipated or emergency situation where fish and wildlife or their habitats are being harmed

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to remove the two existing large animal crossings and then install ten, 36-foot-wide large animal crossings.

<sup>35</sup> See 18 C.F.R. § 4.30(b)(9)(ii) (2007). The final EA at table 14 identifies the recommendations that Commission staff did not consider under section 10(j).

<sup>36</sup> 16 U.S.C. § 803(a)(1) (2000). Section 10(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.

(Appendix A – Condition 6 and Article 406); (3) allow free public access to project waters and adjacent lands owned by the licensee (Standard Article 18 of Form L-10); and (4) provide Oregon DFW and FWS with annual reports of avian mortality associated with project structures (Article 411).

50. I am not adopting Oregon DFW's recommendation for PacifiCorp to establish a fund in an amount up to \$1.4 million to study and enhance resident trout and habitat in the Rogue River basin. Oregon DFW provided no information with regard to the specific studies and measures that would be implemented under the fund, did not identify specific locations for the studies or measures, and provided no justification as to the need for the specific studies and measures. I, therefore, am unable to assess the benefits of the fund and consequently there is no justification for requiring it.

51. I am not adopting Oregon DFW's recommendation for PacifiCorp to fund fish passage improvements at Little Butte Creek Mill Dam. Little Butte Creek Mill Dam is a non-project facility located over 30 miles southwest of the project in another sub-basin; therefore, the dam and the resources that may be affected by the dam have no nexus to the Prospect Project.

52. I am not adopting Oregon DFW's recommendation that PacifiCorp conduct a fish entrainment study, fish mark-and-track study, and fish passage study should the license not include a requirement for PacifiCorp to construct, operate, and maintain fishways and fish screens at the project. There is no justification for collecting such information, because the project record includes the information needed to assess the benefits of providing fishways and screens at the project.<sup>37</sup>

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<sup>37</sup> On a related matter regarding the project record, Oregon DFW, by filing of January 11, 2007, noted that it sent PacifiCorp a letter on December 31, 2002, (*See License Application, Volume IV, Appendix 2 – Consultation Record, Agency Documents, for a copy of the letter*) expressing concern with the adequacy of a fish population study conducted by PacifiCorp in support of its license application. In the December 31, 2002 letter, Oregon DFW specifically argued that the river reaches surveyed by PacifiCorp were too small to be representative of the entire length of river reaches found by Oregon DFW to be affected by the project. PacifiCorp responded to the 2002 letter by stating that in selecting the sampling stations for its fish population survey, it was guided by the results of an extensive aquatic habitat survey to ensure that the survey stations would adequately represent the entire project reaches (*See License Application, Volume IV, No. 1 of 3, Appendix 2, Oregon DFW Consultation Record, page 12 referring to an earlier response letter dated September 8, 2000, on a similar issue raised by Oregon DFW*).

53. I conclude that Oregon DFW's recommendation for a separate license condition providing that PacifiCorp consult with all appropriate local, state, or federal agencies before modifying the project and obtain and comply with all required permits before making such modifications is unnecessary. Modification of the project to the extent the agency appears to be contemplating would require prior Commission authorization after the filing of an application to amend this license. The Commission's pre-filing consultation requirements at 18 C.F.R. § 4.38 (2007) would need to be followed by PacifiCorp in preparing its amendment application.

54. I decline to adopt Oregon DFW's recommendation for PacifiCorp to, upon project abandonment, remove or modify the project facilities and restore the area to pre-project conditions in a manner reasonably required by the state and federal agencies. The issue of the disposition of project works would be addressed if and when the licensee would file a request to surrender the project license.<sup>38</sup> Nor do I adopt Oregon DFW's recommendation for a license condition requiring PacifiCorp to make financial provisions in case of early retirement of the project. There is no reason to conclude that project retirement would be likely to occur during the license term.

55. I am not adopting Oregon DFW's recommendation for PacifiCorp to file an annual report of project inspection and maintenance activities and provide copies to FWS and Oregon DFW. Such measures are unnecessary, because the Commission is solely responsible for inspecting and ensuring the safety and adequate maintenance of licensed projects.

## **OTHER ISSUES**

### **A. Project Exhibits**

56. Exhibits A, F, and G for this project were filed multiple times. On June 23, 2003, PacifiCorp filed Exhibits A, F, and G as part of their final license application. Subsequently, on August 9, 2004, PacifiCorp filed additional Exhibit F drawings and revised Exhibit G drawings in response to Commission staff's May 13, 2004 request for additional information. Additionally, on October 18, 2006, PacifiCorp filed revisions to

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Upon review of PacifiCorp's license application, Commission staff found this approach to be acceptable, and agreed with PacifiCorp that the sampling stations were reasonably representative of the project reaches in their entirety.

<sup>38</sup> See 18 C.F.R. § 6.2 (2007).



some of the original license's Exhibits A, F, and G to show as-built replacements of the project flumes.<sup>39</sup>

57. I find that most of PacifiCorp's Exhibits A and F filed on October 18, 2006, supersede its previously filed Exhibits A and F. However, none of the Exhibit G drawings filed on October 18, 2006, conform to the Commission's regulations, and therefore, I find that the Exhibit G drawings filed on August 9, 2004, are the most current Exhibit G drawings on record for the project. Ordering paragraph (B) approves the exhibits with the exceptions noted below, and Article 202 requires PacifiCorp to file the approved project drawings on microfilm and in electronic file format. Certain portions of PacifiCorp's Exhibits A, F, and G do not reflect the recent flume modifications or other pertinent project features as described below, and therefore, are not approved in this order.

58. Exhibit A (filed October 10, 2006). Figures A1.0-1 and A3.3-1 (pages 3 and 8) do not depict the recently completed canal upgrades, but rather show the location of the now removed wood stave flumes. Section A3.2.1.1 (page 5) does not include pertinent dimensions, including those of the Middle Fork diversion dam fish ladder entrance, canal intake, and short span cutoff wall. Sections A3.5 and A3.7 (page 11) includes PacifiCorp's internal editing comments.

59. Exhibit F (filed October 18, 2006). Sheet No. 1 does not include the profile of the inverted siphon from the Prospect No. 3 powerhouse tailrace (crossing the Middle Fork of the Rogue River).

60. Exhibit G (filed August 9, 2004). Exhibits G-4 of 12 through G-12 of 12 do not show the location of the recently completed canal upgrades, but rather show the location of the now removed wood stave flumes. Exhibit G-10 of 12 does not label the location of the inverted siphon from the Prospect No. 3 powerhouse tailrace.

61. Article 203 requires PacifiCorp to file within 90 days of license issuance the revised portions of Exhibits A, F, and G described above. Article 301 requires that once construction of the flow gages and data loggers required by Ordering paragraph (D) and Article 401 and the small animal crossings required by Article 410 are complete, the licensee shall file revised exhibit drawings to show those facilities as built, and to include them within the project boundary.

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<sup>39</sup> Those filings were docketed Project No. 2630-007.

## **B. Operation and Maintenance of Middle Fork Diversion Fishway**

62. The Middle Fork diversion dam currently has an operating fishway. In a letter filed on January 11, 2007, Oregon DFW states that under staff's recommended alternative in the final EA, there is no specific recommendation for PacifiCorp to operate and maintain the Middle Fork diversion fishway.

63. The Middle Fork diversion fishway is a licensed project facility as stated in Ordering paragraph B of the license; therefore, PacifiCorp is required to operate and maintain the facility throughout the license term.

## **C. Recreation**

### North Fork Park Recreational Improvements

64. To enhance recreation resources at the project's existing North Fork Park, PacifiCorp proposed to install and maintain barrier-free recreational facilities (*i.e.*, picnic area, interpretative trail, and a single vault restroom), an information kiosk, and directional signs.

65. In the final EA, staff determined that these measures would enhance recreational use of the park and would address recreation needs for the project vicinity as identified by Jackson County, Oregon, and by the Oregon State Comprehensive Outdoor Recreation Plan.<sup>40</sup> Article 412 requires Pacific to develop and implement a plan for the proposed recreation enhancements.

### Whitewater Boating Flow Releases

66. The bypassed reach is currently used by whitewater boaters,<sup>41</sup> and American Whitewater and numerous commenters have requested that PacifiCorp provide increased flows to enhance whitewater opportunities in the bypassed reach. In the final EA, staff determined that whitewater boating is an important use of the Rogue River bypassed reach and recommended that PacifiCorp conduct a 3-year whitewater boating study with provisions to evaluate various whitewater flow releases between 85 cfs and 500 cfs and

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<sup>40</sup> See final EA at 92.

<sup>41</sup> See *id.*

file a report of the results with a recommendation for a permanent whitewater flow and schedule.<sup>42</sup>

67. Article 413 requires PacifiCorp to prepare a whitewater boating flow release plan, which includes the release of flows between 85 and 500 cfs into the bypassed reach for eight days a year. The article further requires PacifiCorp to study the effects of the flow releases.

#### Whitewater Flow Reporting

68. To notify whitewater boaters of flow conditions in the Rogue River bypassed reach, PacifiCorp proposed to report a daily flow reading by telephone recording during the months of March through June when flows and whitewater boating uses are highest.

69. In the final EA, staff noted that whitewater boating use of the reach occurs not only during the high flow months of March through June, but throughout the summer as well. Therefore, staff recommended that PacifiCorp provide a telephone recording daily from March 1 through Labor Day with a report on that day's flow measurement made at the head of the bypassed reach.<sup>43</sup> Article 415 includes such a requirement.

#### Recreation Access at the Project Powerhouse

70. PacifiCorp currently does not allow public access to the project powerhouses. In their comments filed on December 20, 2004, American Whitewater recommended that PacifiCorp be required to provide access to the Rogue River near Powerhouse No. 2 for whitewater boaters to put in or take out their boats.<sup>44</sup> By letter filed on February 18, 2005, PacifiCorp responded that the powerhouse access road is not of a standard to support both public access and project-related uses and that, because parking is minimal at Powerhouse No. 2, whitewater boaters may park their cars on the powerhouse access road and potentially block PacifiCorp's or emergency personnel's access to the area.

71. In the final EA, Commission staff recommended that PacifiCorp provide limited access to the Rogue River near Powerhouse No. 2 and monitor for any conflicts between project-related and recreational uses.<sup>45</sup> The final EA concluded that signs could be

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<sup>42</sup> See *id.* at 127-28.

<sup>43</sup> See *id.* at 129-130.

<sup>44</sup> Numerous individuals filed similar comments.

<sup>45</sup> See final EA at 128 and 129.

installed along the access road directing whitewater boaters to the river access site, parking area, and turn-around areas as well as alerting drivers to on-coming blind spots and narrow sections of the powerhouse road.<sup>46</sup>

72. After consideration of American Whitewater's recommendation that PacifiCorp provide whitewater boating access near Powerhouse No. 2 as well as PacifiCorp's stated concerns with doing so, I am including Article 414 requiring PacifiCorp to develop and implement a whitewater boating access monitoring plan. Article 414 requires that the plan include provisions for whitewater boating access near Powerhouse No. 2 during the whitewater boating flow releases required by Article 413, installing signs where needed for public and project safety and project security, evaluating the use of the access road and access site, and providing a report of the results along with a recommendation and schedule for providing the whitewater boating access for the remainder of the license term.

#### Powerhouse Pressure Relief Valves and Whitewater Boating

73. Powerhouse No. 2 is equipped with two pressure relief valves that release a high pressure stream of water into the Rogue River during a load rejection.<sup>47</sup> By letter filed on December 15, 2006, PacifiCorp noted that a high pressure release from the valves could endanger whitewater boaters, and for this reason, the Commission should not require whitewater boating access in this area.

74. Whitewater boating currently occurs in the Rogue River in the vicinity of Powerhouse No. 2. Commission staff reviewed the project's operation reports, environmental inspection reports, and public safety plan, and found no reported safety incidents associated with the valve releases.

75. Additional whitewater boating use of the Rogue River at and near the project may require that additional precautions be taken by PacifiCorp to ensure the safety of the public. Article 303 requires PacifiCorp to submit a report to the Commission's Division of Dam Safety and Inspections - Portland Regional Engineer evaluating the need to install, operate, and maintain any signs, lights, sirens, barriers, or other safety measures

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<sup>46</sup> *See id.* at 91.

<sup>47</sup> A unit trip may occur at any time and is frequent during thunderstorms in the summer (*See* letter by PacifiCorp filed December 16, 2006).

that may be reasonably necessary or desirable to warn the public of high pressure releases of water from the pressure relief valves at Powerhouse No. 2.<sup>48</sup>

#### **D. Administrative Conditions**

##### Review of Final Plans and Specifications

76. Article 302 requires PacifiCorp to provide the Commission and its Portland Regional Director with final contract drawings and specifications--together with a supporting design report consistent with the Commission's engineering guidelines--at least 60 days before the start of construction of project facilities authorized by the license.

##### Annual Charges, Amortization Reserves, and Headwater Benefits

77. The Commission collects annual charges from licensees for administration of the FPA, and to reimburse the United States for the occupancy and use of any federal lands. Article 201 provides for the collection of funds for administration of the FPA.

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

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

##### Use and Occupancy of Project Lands and Waters

80. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Article 417 allows PacifiCorp to grant permission, without prior Commission approval, for the use and occupancy of project lands for minor activities, such as landscape planting. Such uses must be consistent with the purpose of protecting and enhancing the scenic, recreational, and environmental values of the project.

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<sup>48</sup> 18 C.F.R. §12.42 (2007) provides that “to the satisfaction of, and within a time specified by, the Regional Engineer, an applicant or licensee must install, operate, and maintain any signs, lights, sirens, barriers, or other safety devices that may reasonably be necessary or desirable to warn the public of fluctuations in flow from the project or otherwise to protect the public in the use of project lands and waters.”

## STATE AND FEDERAL COMPREHENSIVE PLANS

81. Section 10(a)(2)(A) of the FPA<sup>49</sup> requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving waterways affected by the project.<sup>50</sup>

82. Under section 10(a)(2)(A) of the FPA, the staff reviewed 19 comprehensive plans to determine whether the Prospect Nos. 1, 2, and 4 Project would be consistent with their provisions. Out of the 19 relevant plans, the staff found there would be inconsistencies with two of the plans if the project were licensed under the Staff Alternative: (1) Oregon Comprehensive Waterway Management Plan, and (2) Oregon Wildlife and Commercial Fishing Codes.<sup>51</sup>

83. Sections 509.585 and 509.615 of the Oregon Wildlife and Commercial Fishing Codes require those in Oregon who construct or operate dams to provide upstream and downstream passage for fish, and those in Oregon who divert flows of 30 cfs or more, to screen their intakes to prevent the entrainment of fish. The Oregon Comprehensive Waterway Management Plan adopts these two provisions of the wildlife and commercial fishing codes.

84. The license does not require PacifiCorp to construct a new fishway or intake screen at the Middle Fork diversion, an intake screen at the North Fork diversion, or a fishway and intake screen at the Red Blanket diversion; therefore, the project, as licensed herein, would be inconsistent with the Oregon Wildlife and Commercial Fishing Codes and the Oregon Comprehensive Waterway Management Plan.

85. Although these inconsistencies would exist, the license need not be denied. In the preamble to Order No. 481-A, the Commission noted that Congress, in enacting the Electric Consumers Protection Act of 1986, affirmed the Commission's responsibility to resolve competing demands in the public interest, and that while the Commission must give full consideration to recommendations submitted in a licensing proceeding, no one recommendation or comprehensive plan is dispositive. Section 10(a)(2)(A), therefore, does not limit the Commission's ability to carry out its broad responsibilities under

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<sup>49</sup> 16 U.S.C. § 803(a)(2)(A) (2000).

<sup>50</sup> A comprehensive plan for this purpose is defined at 18 C.F.R. § 2.19 (2007).

<sup>51</sup> The list of comprehensive plans can be found in section IX of the final EA for the project.

sections 10(a)(1) and 4(e) to consider and balance all aspects of the public interest in determining whether and under what conditions a license should be issued.

86. As discussed herein, adult trout in the project area are small (about 7 to 9 inches in length), and recreational fishing activity in the immediate project area is light. Although constructing and operating fishways and fish screens at the project would produce some benefits, they would be minor, considering that adult trout in the project area are generally resident,<sup>52</sup> and the trout population on the whole continues to persist under existing passage and screening conditions at the project.<sup>53</sup> For these reasons, requiring the construction, operation, and maintenance of the fishways and fish screens at the project is not justified.

87. As discussed herein, the license includes conditions that would provide new measures for the resident trout residing in the project area, including bypassed reach minimum flows, ramping rate limits, large woody debris management, trout rescue from the project's canals, and erosion and sediment control. These measures would provide substantial new enhancement and protection of the trout population in the project area and would ensure that the trout population is not significantly adversely affected by the operation and maintenance of the project.

#### **APPLICANT'S PLANS AND CAPABILITIES**

88. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,<sup>54</sup> Commission staff evaluated PacifiCorp's record as a licensee for these areas: (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 services; (G) cost effectiveness of plans; and (H) actions affecting the public. I accept the staff's findings in each of the following areas.

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<sup>52</sup> Anadromous salmon and steelhead trout, which migrate between fresh and saltwater, have been extirpated in the immediate project area since the construction of the downstream U.S. Army Corps of Engineers William Jess Dam in 1977 (*See* final EA at 27).

<sup>53</sup> Currently, only the Middle Fork diversion dam has an operating fishway, and none of the project intakes (located at the Middle Fork diversion, Red Blanket diversion, and North Fork diversion) are screened.

<sup>54</sup> 16 U.S.C. § § 803(a)(2)(C) and 808(a) (2000).

**A. Conservation Efforts**

89. Section 10(a)(2)(C) of the FPA requires the Commission to consider the extent of electricity consumption efficiency improvement programs in the case of license applicants primarily engaged in the generation or sale of electric power, like PacifiCorp. Each year, PacifiCorp completes a comprehensive analysis of future load growth and the need for new resources, including customer efficiency programs, to meet its customer demand. Demand side management actions and goals proposed by the most recent report indicate PacifiCorp promotes demand side load management practices for both residential and commercial/industrial customers and has undertaken several programs to improve efficiency and promote energy conservation at its own plants. These programs show that PacifiCorp is making an effort to conserve electricity and has made a satisfactory good faith effort to comply with section 10(a)(2)(C) of the FPA.

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

90. Based on a review of PacifiCorp's compliance with the terms and conditions of the existing license, Commission staff determined that PacifiCorp's overall record of making timely filings and compliance with its license is satisfactory. Therefore, Commission staff believes that PacifiCorp can satisfy the conditions of a new license.

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

91. Commission staff reviewed PacifiCorp's management, operation, and maintenance of the Prospect Project pursuant to the requirements of 18 C.F.R. Part 12 and the Commission's Engineering Guidelines and periodic Independent Consultant's Safety Inspection Reports. Staff concludes that the dams 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**

92. Commission 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. Staff's review indicates that PacifiCorp regularly inspects the project turbine generator units to ensure that they continue to perform in an optimal manner, schedules maintenance to minimize effects on energy production, and since the project has been in operation, has undertaken several initiatives to ensure that the project is able to operate reliably into the future. Staff concludes that PacifiCorp is capable of operating the project to provide efficient and reliable electric service in the future.



### **E. Need for Power**

93. The Prospect Project is owned and operated by PacifiCorp, a corporation currently supplying electricity to 1.5 million customers in six western states: California, Idaho, Oregon, Utah, Washington, and Wyoming. About 40 percent of PacifiCorp's retail power sales are to industrial customers, about 30 percent are to commercial customers, and about 30 percent are to residential customers. PacifiCorp estimates that the total average annual generation for the Prospect Project is 280,657 MWh. Power from the project serves PacifiCorp's residential and commercial customers in the communities of northern Jackson County and southern Douglas County, Oregon.

94. On a periodic basis, PacifiCorp completes an analysis of future load growth, the ability of existing power plants to meet customers' power needs, and the need for new resources, including new power plants and customer efficiency programs. This process, called the Integrated Resource Plan (IRP), provides a basis for prudent future actions so that PacifiCorp can continue to provide reliable and least cost electric service to its customers. The 2003 IRP shows that a significant amount of additional resources will be needed to meet the energy demands of customers in PacifiCorp's six-state service area. A projected load growth rate of 2.2 percent per year on the east side of the company's system and 2 percent per year on the west side indicates a need for about 4,000 additional MW of capacity between 2004 and 2014. PacifiCorp expects its electricity obligations to its customers will continue to increase while its existing resources will diminish.

95. The Prospect Project is located in the Northwest Power Pool Area (NWPP) of the Western Electricity Coordinating Council region of the North American Electric Reliability Council. The peak demand and annual energy requirements for the NWPP area are projected to grow at an annual compound rate of 1.1 percent and 1.8 percent, respectively, over the 10-year period from 2004 through 2013.

96. With planned generation additions of approximately 10,000 MW, generating capacity reserve margins as a percent of firm peak winter demand in the NWPP area are projected to range from 35.2 percent to 46.0 percent over the 10-year planning period. The future adequacy of the generation supply in the NWPP area will depend on how many of the planned projects, which are mostly natural gas-fired, combined cycle combustion turbines, are actually constructed.

97. The power from the Prospect Project would continue to be useful in meeting a small part of the regional need for power. The project would also continue to displace some of the fossil-fueled electric power generation the region now uses, thereby conserving nonrenewable resources and reducing the emission of noxious by-products caused by the combustion of fossil fuels.

## **F. Transmission Services**

98. Power is transmitted from the three powerhouses to the Prospect substation, which is part of PacifiCorp's primary transmission system. The Prospect substation is located near the Prospect No. 1 forebay. PacifiCorp is proposing no changes that would affect its own or other transmission services in the region. The project and project transmission lines are important elements in providing power and voltage control to local Jackson County communities and the region.

## **G. Cost Effectiveness of Plans**

99. PacifiCorp plans to make a number of facility and operational modifications to both improve project generating capability and enhance environmental resources affected by the project. Based on PacifiCorp's record as an existing licensee, staff concludes that these plans are likely to be carried out in a cost-effective manner.

## **H. Actions Affecting the Public**

100. PacifiCorp provided extensive opportunity for public involvement in the development of its application for a new license for the Prospect Project. During the previous license period, PacifiCorp provided facilities to enhance the public use of project lands and facilities. PacifiCorp uses the project to help meet local power needs and pays taxes that contribute to the cost of public services provided by local government.

## **PROJECT ECONOMICS**

101. 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.*,<sup>55</sup> 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.

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<sup>55</sup> 72 FERC ¶ 61,027 (1995).

102. In applying this analysis to the Prospect Project, staff considered two options: PacifiCorp's proposal and the project as licensed herein. As proposed by PacifiCorp, the levelized annual cost of operating the Prospect Project is \$9,401,300, or \$38.01/megawatt-hour (MWh). The proposed project would generate an estimated average of 244,356 MWh of energy annually, which when multiplied by the alternative power cost of \$41.75/MWh,<sup>56</sup> results in a total value of the project's power of \$10,202,300 in 2005 dollars. To determine whether the proposed project is currently economically beneficial, staff subtracts the project's cost from the value of the project's power.<sup>57</sup> Therefore, in the first year of the new license, the project would cost \$801,000, or \$3.74/MWh, less than the likely alternative cost of power.

103. As licensed herein with the staff measures, the levelized annual cost of operating the project would be about \$9,495,200, or \$38.85/MWh. Based on an estimated average generation of 243,456 MWh as licensed, the project would produce power valued at \$10,164,700, in 2005 dollars when multiplied by the \$41.75/MWh value of the project's power. Therefore, in the first year of operation, project power would cost \$669,500, or \$2.9/MWh, less than the likely cost of alternative power.

104. In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include their capability to provide an 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.

### **COMPREHENSIVE DEVELOPMENT**

105. Sections 4(e) and 10(a)(1) of the FPA<sup>58</sup> require the Commission to give equal consideration to the power development purposes and to the purposes of energy

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<sup>56</sup> PacifiCorp provided a value of \$39.74/MWh (2003 dollars) as the estimated cost to replace project power using a combined-cycle combustion turbine facility. In the final EA, staff escalated this value by 2.5 percent per year to adjust to 2005 dollars. Staff assumes that this value includes both energy and capacity costs.

<sup>57</sup> Details of staff's economic analysis for the project as licensed herein and for various alternatives are included in the final EA.

<sup>58</sup> 16 U.S.C. §§ 797(e) and 803(a)(1) (2000).

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 herein, reflect such consideration.

106. The final EA for the project contains background information, analysis of effects, and support for related license articles. I conclude based on the record of this proceeding, including the final EA and the comments thereon, that licensing the Prospect Nos. 1, 2, and 4 Project as described in this order would not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of this license.

107. 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 final EA, I have selected the proposed Prospect Nos. 1, 2, and 4 Project, with the staff-recommended measures (including environmental measures in Oregon DEQ's water quality certification), and find that it is best adapted to a comprehensive plan for improving or developing the Rogue River, Middle Fork Rogue River, and Red Blanket Creek.

108. I selected this alternative because: (1) issuance of a new license will serve to maintain a beneficial, dependable, and inexpensive source of electric energy; (2) the required environmental measures will protect and enhance fish and wildlife resources, water quality, recreational resources, and historic properties; (3) the 41.56 MW of electric energy generated from a renewable resource will continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

### **LICENSE TERM**

109. Section 15(e) of the FPA,<sup>59</sup> provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or 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

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<sup>59</sup> 16 U.S.C. § 808(e) (2000).

measures.<sup>60</sup> This license authorizes no new capacity, and only a minor amount of new construction (construction of animal crossings) and environmental measures. Consequently, a 30-year license term for the Prospect Nos. 1, 2, and 4 Project is appropriate.

The Director orders:

(A) This license is issued to PacifiCorp (licensee), for a period of 30 years, effective the first day of the month in which this order is issued, to operate and maintain the Prospect Nos. 1, 2, and 4 Hydroelectric Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interest in these lands, described in the project description and the project boundary discussion of this order, and as enclosed by the project boundary shown by the approved Exhibit G drawings listed below.

The following approved Exhibit G drawings filed on August 9, 2004:

<u>Exhibit G Drawings</u>	<u>FERC No. 2630-</u>	<u>Description</u>
Sheet 1	1010	Project Boundary Map
Sheet 2	1011	Project Boundary Map
Sheet 3	1012	Project Boundary Map

(2) Project works consisting of: (a) a 9-foot-high, 1,160-foot-long concrete and earth-fill diversion dam on Red Blanket Creek; (b) a 10-foot-high, 165-foot-long concrete gravity-type overflow diversion dam on the Middle Fork Rogue River; (c) a 50-foot-high, 384-foot-long concrete gravity diversion dam on the Rogue River (North Fork diversion dam); (d) a 260-acre-foot impoundment at a normal pool elevation of 2,597 feet above mean sea level (North Fork reservoir) behind the North Fork diversion

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<sup>60</sup> See, e.g., Consumers Power Company, 68 FERC ¶ 61,077 at 61,383-84 (1994).

dam; (e) a fishway on the Middle Fork diversion dam; (f) an approximately 9-mile-long water conveyance system composed of: (i) concrete lined canals (32,700 feet), (ii) an unlined earthen canal (4,426 feet), (iii) three elevated open-top steel-tub flumes (1,070 feet), (iv) three steel sag pipes (inverted siphons totaling 4,590 feet), (v) an inverted siphon from the Prospect #3 powerhouse under the Middle Fork Rogue River (vi) a twin steel pipe flowline (3,300 feet), and (vii) steel penstocks (1,796 feet); (f) an elevated 48.5-foot-high, 20-foot-diameter steel surge tank supported by a 77-foot-high steel tower for an overall height of 125.5 feet; (8) three powerhouses located at about river mile 169 of the Rogue River with four turbine generating units for a combined installed capacity of 41.56 MW; (9) three 69-kilovolt (kV) transmission lines (0.26, 0.28, and 0.31 mile in length) and one 2.3-kV transmission line (0.05 mile in length); (10) a developed recreation area known as North Fork Park; and (11) appurtenant facilities.

The project works generally described above are more specifically shown and described by those approved portions of Exhibits A and F shown below.

The following approved Exhibit A pages (of 12) filed on October 18, 2006:

Pages 1, 2, 4, 6, 7, 9, 10, and 12.

The following approved Exhibit F drawings filed on June 27, 2003:

<u>Exhibit F Drawings</u>	<u>FERC No. 2630-</u>	<u>Description</u>
8 <sup>61</sup>	1009	Powerhouses Nos. 1 and 4

The following Exhibit F drawings filed on October 18, 2006:

<u>Exhibit F Sheet No.</u>	<u>FERC No. 2630-</u>	<u>Description</u>
2	1002	Red Blanket Creek Diversion Dam <sup>62</sup>

<sup>61</sup> This sheet was not included in the October 18, 2006 Exhibit F filing, *infra*. Because no revisions occurred at Powerhouse Nos. 1 and 4, sheet number 8 of the June 27, 2003 filing is approved as part of this license.

<sup>62</sup> The sheet title in the October 18, 2006 filing is incorrect. The sheet should be labeled as “Flume and Sag Pipe Profiles and Sections” and should be corrected prior to  
(continued)

<u>Exhibit F Sheet No.</u>	<u>FERC No. 2630-</u>	<u>Description</u>
3	1003	Middle Fork Diversion Dam
4	1004	Red Blanket Creek Diversion Dam
5	1005	North Fork Diversion Dam
6	1006	North Fork Canal and Forebay
7	1007	General Plan and Powerhouse Area
8	1008	Powerhouse Prospect No. 2

(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) Portions of the Exhibits A, F, and G are not approved as discussed in the “Other Issues” section of this license order, and as listed below:

Exhibit A filed on October 18, 2006: Figure A1.0-1 (page 3 of 12) and Figure A3.3-1 (page 8 of 12); section A.3.2.1.1 (page 5 of 12); sections A3.5 and A3.7 (page 11 of 12).

Exhibit F filed on October 18, 2006: Sheet No. 1.

Exhibit G filed on August 9, 2004: Exhibits G-4 through G-12.

(D) This license is subject to the conditions submitted by the Oregon Department of Environmental Quality (filed by PacifiCorp on April 5, 2007) under

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filing the approved exhibit drawings in aperture card and electronic file formats, as required by Article 202.

section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1431(a)(1) (2000), as those conditions are set forth in Appendix A to this order.

(E) This license is also subject to the articles set forth in Form L-10 (October 1975), entitled “Terms and Conditions of License for Constructed Major Project Affecting the Interests of Interstate or Foreign Commerce” (*see* 54 FPC 1858 (1975)), and the following additional articles:

Article 201. *Administrative 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 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 41.56 megawatts.

Article 202. *Exhibit 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. Before preparing drawing number 2630-1002, the licensee shall correct the sheet title as described in Ordering paragraph B.

(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 Project-Drawing Number (i.e., P-2630-#### through P-2630-####) 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 (i.e., F-1, G-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. Exhibit F 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 in the following format [P-2630-####, G-1, Project Boundary, 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

Each Exhibit G drawing that includes the project boundary must contain a minimum of three known reference points (i.e., latitude and longitude coordinates, or state plane coordinates). The points must be arranged in a triangular format for GIS georeferencing the project boundary drawing to the vector (or polygon) data, and must be based on a standard map coordinate system. The spatial reference for the drawing (i.e., map projection, map datum, and units of measurement) must be identified on the drawing and each reference point must be labeled. In addition, each project boundary drawing must be stamped by a registered land surveyor.

(c) The licensee shall file two separate sets of the project boundary data in a georeferenced electronic file format (such as ArcView shape files, GeoMedia files, MapInfo files, or a similar GIS format) with the Secretary of the Commission, ATTN: OEP/DHAC. The filing shall include both vector (or polygon) data and all reference points shown on the individual project boundary drawings. A single electronic boundary vector data (or polygon) file is required for the project boundary. Depending on the electronic file format, the vector (or polygon) and point data can be included in a single file with multiple layers. The georeferenced electronic boundary data file must be positionally accurate to  $\pm 40$  feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) shall include: FERC Project Number, data description, date of this license, and file extension in the following format [P-2630, boundary vector/polygon/or point data, MM-DD-YYYY.SHP]. The data must be accompanied by a separate text file describing the spatial reference for the georeferenced data: map projection used (i.e., UTM, State Plane, Decimal Degrees, etc.), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this license, and file extension in the following format [P-2630, project boundary metadata, MM-DD-YYYY.TXT].

Article 203. Revised Exhibit Drawings. Within 90 days of license issuance, the licensee shall file, for Commission approval, revised Exhibits A, F, and G, which were not approved, showing all principal project works necessary for operation and maintenance of the project, including all changes relevant to the recently completed flume replacement project. If submission of the revised exhibits (or any additional

information) causes any other part of the approved exhibits to become inaccurate, that part of those approved exhibits shall also be revised and re-filed by the due date.

Article 204. Amortization Reserve. Pursuant to section 10(d) of the FPA, 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 rates 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 construction of the facilities authorized by this license, the licensee shall file, for Commission approval, revised Exhibits A, F, and G 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.

Article 302. Contract Plans and Specifications. At least 60 days prior to the start of any construction, the licensee shall submit one copy of its plans and specifications to the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer, and two copies to the Commission (one of which shall be a courtesy copy to the Director, D2SI). The submittal also must include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and Soil Erosion and Sediment Control Plan. The licensee may not begin construction until the D2SI – Portland Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of construction.

Article 303. Public Safety. Within 90 days of license issuance, the licensee shall submit a report to the Commission's Division of Dam Safety and Inspections - Portland Regional Engineer that evaluates the need to install, operate, and maintain any signs, lights, sirens, barriers, or other safety measures that may be reasonably necessary or desirable to warn the public of high pressure releases of water from the pressure relief valves at Prospect Powerhouse No. 2.

Article 401. Supplemental Requirements to Mandatory Conditions

(a) Dissolved Oxygen and Water Temperature Monitoring

Within six months of license issuance, the licensee shall file for Commission approval a Water Quality Monitoring Plan for the purpose of implementing the requirements of Conditions 2(a), 2(b), and 6(b) of Appendix A of this license (conditions under section 401 of the Clean Water Act) along with the additional requirements stipulated below.

The plan shall include, but not necessarily be limited to: (1) provisions to conduct the monitoring activities and file annual reports as required by Conditions 2(a), 2(b), and 6(b) of Appendix A; (2) a provision to measure dissolved oxygen (DO) levels in the Middle Fork Rogue River at one site upstream and one site downstream of the Middle Fork diversion dam and at the site of the abandoned U.S. Geological Survey (USGS) gage no. 143347000 on the South Fork Rogue River for a minimum of 72 consecutive hours (hourly readings) during July of the first full calendar after license issuance; (3) a provision to measure water temperature hourly at a minimum of one site upstream and one site downstream of Middle Fork and Red Blanket diversions and at the location of the abandoned USGS gage no. 143347000 on the South Fork Rogue River during the months of May through October for three consecutive years commencing with the first

full calendar year after license issuance; (4) a provision to file annual reports of the DO and water temperature monitoring results with the Commission consistent with the timing required by Condition 6(b); and (5) an implementation schedule.

The licensee shall prepare the plan after consultation with the Oregon DEQ, Oregon Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. 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 agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 require changes to the plan. Implementation of the 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.

(b) Flow and River Stage Measurements

The licensee shall equip each gage utilized to meet the requirements of Condition 2(d)(1) of Appendix A with telemetry equipment for purposes of real-time reporting of flow and stage data to the project's operator(s). The licensee also shall rate the Rogue River bypassed reach gage for the full range of flows to accommodate reporting of flows for whitewater boating in the reach as required by Article 415.

(c) Requirement to File Plan for Commission Approval

Condition 3 of Appendix A requires the licensee to prepare a Flow Monitoring Plan for Oregon Department of Environmental Quality's (Oregon DEQ's) approval within six months of license issuance. The plan shall also be filed with the Commission for approval within 30 days of receiving Oregon DEQ's approval, or within eight months of license issuance, whichever occurs first, and include the following: (1) a description of the exact location, method of calibration, and frequency of recording of each gage used to measure flow and river stage at the project; (2) a description of how the project would maintain compliance with the operational requirements of this license; (3) a provision for maintaining a log of project operation and generation; and (4) an implementation schedule.

The licensee shall prepare the plan after consultation with the Oregon DEQ, Oregon Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. 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 agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 require changes to the plan. Implementation of the 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.

(d) Requirement to Notify the Commission of Operating Emergencies

Condition 1(b) of Appendix A allows the licensee to temporarily modify ramping rate limits stipulated by Condition 1 under certain conditions. If the ramping rate limits are so modified, the licensee shall notify the Commission as soon as possible, but not later than 10 days after each such incident.

(e) Requirement to Notify the Commission of Temporary Modifications of the Project's Maintenance Schedule

Condition 1(c) of Appendix A provides that the licensee may schedule certain maintenance activities at times other than August 1 through September 30 if agreed to in writing by the Oregon Department of Environmental Quality (Oregon DEQ).

The maintenance schedule may be temporarily modified as such provided that: (1) the licensee also obtains written agreement from both the Oregon Department of Fish and Wildlife (Oregon DFW) and U.S. Fish and Wildlife Service (FWS); and (2) the licensee files with the Commission copies of the agreements prior to conducting such maintenance outside of the specified time period.

(f) Requirement to File Amendment Applications

Certain of the conditions in Appendix A contemplate unspecified, long-term changes to project operations or facilities for the purpose of mitigating environmental effects. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license. The conditions are listed below.

Condition	Modification
1(b)	Ramping rate limits
3(a)	Flow monitoring equipment
5	Operational and minimum flow requirements
10	Project operations or facilities

Article 402. *O&M Erosion and Sediment Control Plan.* Within six months of license issuance, the licensee shall file for Commission approval a plan to control erosion and sedimentation for operation and maintenance activities at the project.

The plan shall be based on actual-site geological, soil, and groundwater conditions and on project design, and shall include, at a minimum, the following: (1) a detailed description of actual site conditions; (2) measures proposed to control erosion, to prevent slope instability, and to minimize the quantity of sediment resulting from the project operation or maintenance activities; (3) detailed descriptions, functional design drawings, and specific topographic locations of control measures; and (4) a specific implementation schedule and details for monitoring and maintenance of proposed control measures.

The licensee shall prepare the plan after consultation with the appropriate federal and state soil conservation agencies, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. 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 agencies, and specific descriptions of how the agencies’ comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 geological, soil, and groundwater conditions at the site.

The Commission reserves the right to require changes to the plan. Implementation of the 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.

Article 403. *Run-of-River Operation.* The licensee shall operate the project in a run-of-river mode for the protection of aquatic resources in the Rogue River, Middle Fork Rogue River, South Fork Rogue River, and Red Blanket Creek. The licensee shall at all times act to minimize fluctuation of each project reservoir surface elevation (North Fork reservoir, Red Blanket reservoir, and Middle Fork reservoir) such that at any point in time, the sum of all outflows from each reservoir approximates the sum of all inflows to each reservoir.

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon mutual agreement between the licensee and the Oregon Department of Fish and Wildlife. If the operation is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 404. *Large Woody Debris Management.* The licensee shall, to the extent practicable and in consideration of the safety of project personnel and structures, place any large woody debris removed upstream of a project diversion dam, at locations downstream of the dam that, during high flow events, could reasonably be expected to result in the transport of the large woody debris.

Article 405. *Trout Salvage Plan.* Within six months of license issuance, the licensee shall file for Commission approval a Trout Salvage Plan for the protection of trout trapped in the project canals during canal maintenance activities that result in dewatering or stagnation of waters in the canals.

The plan shall include, but not necessarily be limited to: (1) a provision to notify the Oregon Department of Fish and Wildlife (Oregon DFW) and U.S. Fish and Wildlife Service (FWS) at least two weeks in advance of any planned canal maintenance shutdowns that would result in dewatering or stagnation of waters within the project's canals; (2) a provision to, in consultation with Oregon DFW or FWS, salvage trout from the applicable canals during the maintenance activity and relocate the trout to river or reservoir reaches at the project; and (3) an implementation schedule.

The licensee shall prepare the plan after consultation with the Oregon DFW and FWS. 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 agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 require changes to the plan. Implementation of the 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.

Article 406. *Notification of Unanticipated Events or Emergencies.* The licensee shall notify the Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the Commission of any unanticipated or emergency situation at the project where fish and wildlife or their habitats are being harmed as soon as possible but not later than 24 hours after becoming aware of such harm.

Article 407. *Reservation of Authority – Fishways.* Pursuant to section 18 of the Federal Power Act, 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 either the Secretary of the Interior or the Secretary of Commerce.

Article 408. *Large Animal Crossing Plan.* Within six months of license issuance, the licensee shall file for Commission approval a Large Animal Crossing Plan to facilitate the passage of large animals, such as deer and elk, over the project canals.

The plan shall include an implementation schedule and at a minimum provide for the following: (1) using video cameras at the existing six-foot-wide and 12-foot-wide wildlife crossings to gather information on large animal use and behavior upon approaching and using the crossings; (2) conducting the evaluation for a period of three years; (3) preparing a report of the results at the end of the three-year evaluation along with recommendations, based on the results, for providing additional monitoring and either eight additional 12-foot-wide large animal crossings or ten 36-foot-wide large animal crossings; and (4) providing a draft of the report to the Oregon Department of Fish and Wildlife (Oregon DFW) and the U.S. Fish and Wildlife Service (FWS) for comment at a minimum of 30 days before filing the report and recommendations with the Commission.

The licensee shall prepare the plan after consultation with the Oregon DFW and FWS. 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 agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 require changes to the plan. Implementation of the 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.

Article 409. *Large Animal Crossing Inspection and Maintenance Plan.* Within six months of license issuance, the licensee shall file for Commission approval a Large Animal Crossing Inspection and Maintenance Plan to ensure that large animal wildlife crossings are in adequate condition to provide crossing opportunities for wildlife.

The plan shall include an implementation schedule and at a minimum provide for the following: (1) inspecting the crossings on an annual basis to ensure that the structures are functioning properly; (2) ensuring that suitable habitat components are provided on the crossing surfaces to facilitate their use by all classes of terrestrial species; (3) documenting any signs of animal use; and (4) annually providing documentation of any signs of animal use to the Oregon Department of Fish and Wildlife (Oregon DFW) and the U.S. Fish and Wildlife Service (FWS).

The licensee shall prepare the plan after consultation with the Oregon DFW and the FWS. 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 agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 require changes to the plan. Implementation of the 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

Article 410. *Small Animal Crossing Plan.* Within six months of license issuance, the licensee shall file for Commission approval a Small Animal Crossing Plan to enhance the ability of small animals to cross the project canals.

The plan shall include an implementation schedule and at a minimum provide for the following: (1) constructing a sufficient number of 2-foot-wide small animal crossings within the fencing along the project canals to average 14 small animal crossings per mile of canal, to the extent feasible; (2) inspecting the crossings on an annual basis to ensure

that the structures are functioning properly; (3) documenting any signs of animal use; and (4) annually providing documentation of any signs of animal use to the Oregon Department of Fish and Wildlife (Oregon DFW) and the U.S. Fish and Wildlife Service (FWS).

The licensee shall prepare the plan after consultation with the Oregon DFW and the FWS. 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 agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 require changes to the plan. No land-disturbing or land-clearing activities shall 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 411. Avian Protection Plan. Within six months of license issuance, the licensee shall file for Commission approval an Avian Protection Plan for the project.

The plan, at a minimum, shall: (1) adopt the applicable provisions of the licensee's "Bird Management Program;" (2) address the U.S. Fish and Wildlife Service's (FWS') guidelines in "Suggested Practices for Raptor Protection on Powerlines: The State of the Art in 1996;" (3) recommend any additional measures to ensure the protection of raptors from project facilities; (4) include a provision to send annual reports to the Oregon Department of Fish and Wildlife (Oregon DFW) and the U.S. Fish and Wildlife Service (FWS) (with proof of completion filed annually with the Commission) and file summary reports with the Commission every five years; and (5) include an implementation schedule and provisions for the plan's periodic agency review.

The licensee shall prepare the plan after consultation with the Oregon DFW and FWS. 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 agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies 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 require changes to the plan. Implementation of the 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.

Article 412. *North Fork Park Recreation Plan.* Within one year of license issuance, the licensee shall file for Commission approval a Recreation Plan to enhance recreation resources at the project's North Fork Park.

The plan shall include, at a minimum, provisions for: (1) a group picnic area; (2) a barrier-free picnic area; (3) a barrier-free interpretive trail from North Fork Park to the Rogue River National Forest boundary; (4) a barrier-free single vault restroom; (5) an informational kiosk; and (6) directional signs. The plan shall include design drawings of the recreation measures, a cost for each facility, identification of the entity responsible for the operation and maintenance of the facilities, and an implementation schedule.

The licensee shall prepare the plan after consultation with Oregon Parks and Recreation Department; U.S. Fish and Wildlife Service; Jackson County, Oregon; and American Whitewater. 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 above entities, 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 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 require changes to the plan. Implementation of the 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.

Article 413. *Whitewater Boating Flow Release Plan.* Within six months of license issuance, the licensee shall file for Commission approval a Whitewater Boating Flow Release Plan for the 2.5-mile-long Rogue River bypassed reach (between the North Fork diversion dam and Prospect No. 2 powerhouse) for purposes of identifying a schedule and precise flow to release between 85 cubic feet per second (cfs) and 500 cfs to facilitate whitewater boating activities.

The plan shall include, at a minimum:

- (1) a provision to release a range of flows from and including the minimum

flow of 85 cfs required by Ordering paragraph D and Appendix A of this license (conditions under section 401 of the Clean Water Act) up to and including a maximum flow of 500 cfs into the Rogue River bypassed reach, to the extent an equivalent amount of Rogue River inflow to the North Fork reservoir is available, for a six-hour duration on: (a) one weekend (2 days) each in the months of July, August, and September; and (b) the Fourth of July and Labor Day holidays;

(2) the specific flow-dependent and flow-enhanced recreation opportunities (*e.g.*, whitewater rafting, kayaking, fishing/wading) to be evaluated at the various flow releases;

(3) an assessment of the effects of the whitewater flow releases on: (a) any loss of project generation and (b) the fishery and aquatic resources of the bypassed reach;

(4) a provision to release and evaluate the whitewater flow releases in three consecutive years;

(5) identification of the relevant costs associated with the various whitewater flow releases;

(6) a provision to notify the public through a call-in telephone recording or similar means if a scheduled whitewater flow release would be cancelled or modified due to operating emergencies beyond the control of the licensee; and

(7) a schedule for: (a) implementation of the plan; (b) consultation with the entities listed below concerning the results of the evaluation; and (c) filing a report of the results, recommendations for a permanent whitewater boating flow and associated release schedule, consulting entity comments, and the licensee's response to the comments with the Commission.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, National Park Service, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, and American Whitewater. 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 listed entities, 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 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 require changes to the plan. Implementation of the 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.

Article 414. Whitewater Boating Access Monitoring Plan. Within six months of license issuance, the licensee shall file for Commission approval a Whitewater Boating Access Monitoring Plan to determine the feasibility of providing whitewater boating access to the Rogue River near the Prospect No. 2 powerhouse.

The plan shall include, at a minimum: (1) a provision for allowing public access to the Rogue River near the Prospect No. 2 powerhouse on the dates the licensee releases the whitewater flows required by Article 413; (2) provisions for monitoring and documenting whitewater boating use at the powerhouse site, parking, and vehicle turn-around areas, and documenting any public or project safety incidents related to the use of the site; (3) a provision for providing appropriate signage directing users to the access, parking, and turn-around areas, and cautioning drivers of the narrow sections of the roadway; and (4) a schedule for: (a) implementation of the plan; (b) consultation with the entities identified below concerning the results of the evaluation; and (c) filing a report of the results along with a recommendation and schedule for providing whitewater boating access at the site for the remainder of the license term, consulting entity comments, and the licensee's response to the comments with the Commission.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, National Park Service, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, Oregon Parks and Recreation Department, and American Whitewater. 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, 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 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 require changes to the plan. Implementation of the 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.

Article 415. Whitewater Flow Reporting Requirement. The licensee shall provide a daily, morning flow reading for the head of the Rogue River bypassed reach by a

telephone recording from March 1 through Labor Day throughout the term of the license for purposes of alerting whitewater boaters of flow conditions in the bypassed reach.

Article 416. Implementation of the Programmatic Agreement. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission and the Oregon State Historic Preservation Officer for Managing Historic Properties that may be Affected by a License Issuing to PacifiCorp for the Continued Operation of the Prospect Nos. 1, 2, and 4 Hydroelectric Project in Jackson County, Oregon (FERC No. 2630-004)," executed on November 3, 2005, including but not limited to, the Historic Properties Management Plan (HPMP) for the project dated May 2005. 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 of the Commission and the Oregon State Historic Preservation Office where the HPMP calls upon the licensee to do so.

Article 417. 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 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 impoundment 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 impoundment. 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. If no conveyance was made during the prior calendar year, the licensee shall so inform the Commission in writing no later than January 31 of each year.

(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 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 report on recreational resources of an Exhibit E; or, if the project does not have an 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; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, 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.

(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.

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

(G) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in section 313(a) of the FPA. The filing of 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

**APPENDIX A – SECTION 401 WATER QUALITY CERTIFICATION  
CONDITIONS - MARCH 2007**

No later than thirty days following the Federal Energy Regulatory Commission (FERC) issuance of a new license (License) for the Prospect Hydroelectric Project Nos. 1, 2 and 4 (Project), PacifiCorp Energy must comply with the following §401 Certification Conditions except when a different date is specified in the condition:

**1. Operation**

a. PacifiCorp Energy may not divert water such that flows at the upstream end of the following Project bypass reaches are less than the specified minimum in-stream flow levels measured in cubic feet per second (CFS):

<b>Project Bypass Reach</b>	<b>Minimum Flow, CFS</b>	<b>Time Period</b>
Middle Fork Rogue River	90	April 1 - July 31
	70	August 1 - October 31
	40	November 1 - March 31
South Fork Rogue River	120	April 1 - July 31
	200	August 1 - October 31
	60	November 1 - March 31
Red Blanket Creek	30	April 1 - October 31
	20	November 1 - March 31
Rogue River	50	December 1 - June 30
	85	July 1 - November 30

The minimum flow requirement for the South Fork Rogue River downstream of the confluence with the Middle Fork Rogue River is to be attained by the instream flow requirements for Red Blanket Creek and the Middle Fork Rogue River combined with groundwater accretion and tributary flows. PacifiCorp Energy will be deemed to be in compliance with minimum instream flow requirements for the South Fork Rogue River below the confluence with the Middle Fork Rogue River if PacifiCorp Energy complies with minimum instream flow requirements for the Middle Fork Rogue River and Red Blanket Creek.

b. PacifiCorp Energy must limit Project-induced ramping of river stage as follows:

<b>Project Reach</b>	<b>May 1 - September 30</b>	<b>October 1-April 30</b>
Middle Fork Rogue River	Target of 1 inch per hour, not to exceed 2 inches per hour	Target of 2 inches per hour, not to exceed 3 inches per hour
Red Blanket Creek	Target of 1 inch per hour, not to exceed 2 inches per hour	Target of 2 inches per hour, not to exceed 3 inches per hour
North Fork bypassed reach	The target ramp rate is 100 CFS increase or decrease per 30 minutes, not to exceed 130 CFS per 30 minute interval.	
Rogue River below Powerhouse # 2	The target ramp rate is 100 CFS increase or decrease per 30 minutes, not to exceed 130 CFS per 30 minute interval.	

The above ramping limits do not apply to changes in river flows due to natural increases or decreases, unplanned outages, or emergency situations involving public safety or protection of project developments.

At the request of PacifiCorp Energy or on the initiative of ODEQ, the ramping limits in this Certification Condition may be modified upon written approval by ODEQ.

c. PacifiCorp Energy must limit scheduled maintenance that necessitates ramping in bypass reaches to the time period between August 1 - September 30 unless otherwise agreed to in writing by ODEQ.

d. During ground-disturbing activities or instream work, PacifiCorp Energy shall implement all required Best Management Practices to protect surface water and beneficial uses from adverse Project-related water quality effects including but not limited to preventing excessive sediment and turbidity, shall comply with state and federal permitting requirements, and shall comply with state and federal emergency notification requirements.

## **2. Monitoring**

a. Turbidity. During the first occasion that scheduled project maintenance necessitates ramping in the Middle Fork Rogue River bypass reach, PacifiCorp Energy must measure turbidity in the Middle Fork Rogue River above the Middle Fork diversion and at a point upstream of the mouth of Red Blanket Creek. After review of the initial data set or for other reasons, ODEQ may require additional turbidity measurements during scheduled project maintenance upon written notice from ODEQ.

b. Dissolved Oxygen. PacifiCorp Energy must measure dissolved oxygen (DO) levels in Red Blanket Creek for a minimum of 72 consecutive hours (hourly readings) during June 1 - 15 and July.

PacifiCorp Energy shall collect data for three consecutive years commencing with the first full calendar year following License issuance. ODEQ may extend the monitoring to additional year(s) based on its need to further evaluate attenuation of Project effects on DO, or add, amend, or delete monitoring locations or times.

c. Temperature. PacifiCorp Energy must measure instream temperature in Red Blanket Creek from June-to-August as follows:

(1) Location: Red Blanket Creek Bypass Reach at sites above and below the diversion dam and above Red Blanket Creek falls.

(2) Frequency: Monitoring must start in the first full calendar year of the License and be repeated once more in years 3, 4, or 5 of the License.

(3) The frequency and location of monitoring may be modified by written notice from ODEQ.

d. Flow and River Stage. PacifiCorp Energy must measure stream flow and river stage as follows:

(1) Measure flow and river stage, at no more than 15 minute intervals, in the Rogue River, Middle Fork Rogue River and Red Blanket Creek bypass reaches as near to diversions as is practicable, and in the South Fork Rogue River below the confluence with the Middle Fork Rogue River.

(2) Measure flow in the Prospect no. 2 penstocks using generator-based output.

(3) Stream flow and river stage monitoring shall be conducted in accordance with a Flow Monitoring Plan approved by ODEQ.

e. Septic Tanks. At the time of removal of accumulated sludge from the septic tank at each on-site system, PacifiCorp Energy must check that the leach field is operating correctly and that there are no discernable areas of surfacing sewage.

f. In undertaking monitoring required by this Certification, PacifiCorp Energy must exercise reasonable care in the selection, installation, calibration, maintenance, and use of monitoring devices. Providing such care is exercised, PacifiCorp Energy will not be

responsible for missing or inaccurate monitoring data. ODEQ, however, may require PacifiCorp Energy to undertake additional monitoring reasonably necessary to address either missing or inaccurate data.

- g. Water quality monitoring must follow an ODEQ-approved QA/QC plan and meet Level A data quality in accordance with the ODEQ *Mode of Operations Manual*, as updated.
- h. Test methods used to comply with Certification Condition 2 must be in accordance with the *Standard Methods for Examination of Water and Wastewater*, as updated, or as otherwise approved by ODEQ.

### **3. Management Plans and Consultation Requirements**

- a. Flow Monitoring Plan. Within six months of License issuance, PacifiCorp Energy shall develop a proposed Flow Monitoring Plan in consultation with the Oregon Department of Fish and Wildlife (ODFW), Oregon Department of Water Resources (OWRD), and ODEQ and submit the plan to ODEQ for approval. Following ODEQ approval, PacifiCorp Energy shall implement the plan in accordance with the plan's schedule and specifications.

The Flow Monitoring Plan may be revised and updated, subject to consultation with ODFW, OWRD and ODEQ, and with approval of ODEQ, as necessary to address personnel safety, advances in flow measurement technology, or other reasons.

- b. PacifiCorp Energy must consult with ODEQ at least 60 days in advance of activities related to the implementation of protection, mitigation, and enhancement measures that may cause potential short-term increases in turbidity or increased erosion.

### **4. Repair and Maintenance**

PacifiCorp Energy must allow 60 days for ODEQ review and approval before undertaking Project repair or maintenance activities that might significantly affect water quality. The exceptions to this requirement are repair or maintenance activities required by or contemplated in this Certification, and repair or maintenance activities that must occur in less than 60 days in order to protect public safety, project facilities, or the environment. In the later event, PacifiCorp Energy must notify ODEQ of potential adverse effects on water quality and the practicable measures being employed to limit effects on water quality and beneficial uses. ODEQ may, at PacifiCorp Energy's request, pre-approve specified repair and maintenance activities that will occur on a periodic or ongoing basis.

## **5. Adaptive Management**

- a. In the event the Red Blanket Creek bypass reach stream monitoring required under this Certification shows that water column dissolved oxygen levels are below 9.0 mg/I during June 1-15 or below 8.0 mg/L during June 16-July 31, and the Project reduces the dissolved oxygen by 0.1 mg/I or more, ODEQ may require additional feasible measures to be implemented by PacifiCorp Energy to avoid the violations, including but not limited to increasing minimum stream flows.
- b. ODEQ may propose modification of the §401 certification in accordance with OAR 340-048-0050 and Certification Condition 10, below, to apply the spawning DO criterion beyond June 15 on a site-specific basis. The modified conditions may include, if appropriate, requirements to propose and implement studies, with ODEQ approval, to determine the Project's compliance with a change in the period of application of the spawning DO criterion and to implement additional feasible measures necessary to comply with the changed period.
- c. In the event surface water temperature monitoring shows exceedences of the temperature criteria and the Project contribution to the warming is 0.3°C or more, ODEQ may require PacifiCorp Energy to develop and implement a temperature management plan to achieve compliance with the applicable temperature criteria or an applicable TMDL load allocation.

## **6. Recordkeeping and Reporting**

- a. PacifiCorp Energy must report stream flows and river stage to ODEQ for each water year (October 1 - September 30) in accordance with the approved Flow Monitoring Plan.
- b. PacifiCorp Energy must report DO and stream temperature data to ODEQ by December 31 of the year the data were collected.
- c. PacifiCorp Energy shall compile and report turbidity data to ODEQ within 60 days after testing is completed.
- d. PacifiCorp Energy must maintain written records of on-site sewage system septic tank pumping and visual observations of the operation and function of the leach field and other parts of the on-site system at the time of pumping.
- e. In the event of a spill or release or threatened spill or release to state waters of petroleum products or hazardous substances at or above reportable quantities as specified in applicable federal and state regulations, PacifiCorp Energy must immediately

implement the site-specific emergency contingency plan, comply with Oregon Revised Statute Chapters 466 and 468, and notify the Oregon Emergency Response System (OERS) at 1-800-452-0311.

f. In the event of a canal or flume failure, or other erosive event resulting in uncontrolled and catastrophic release of diverted water, PacifiCorp Energy must notify OERS as soon as reasonably practicable but in no circumstance later than the next day.

g. PacifiCorp Energy must retain records for the duration of the License of instances where the Environmental Management System Plan is modified or implemented. Records must include correspondence and reports of remediation activities and the results of the clean-up efforts or resource damage, if any.

## **7. Access**

PacifiCorp Energy must allow ODEQ access at reasonable times to inspect the Project area and Project records as is necessary to verify compliance with these Certification Conditions.

## **8. Project Changes**

PacifiCorp Energy must obtain ODEQ review and approval before undertaking any change to the Project that might significantly affect water quality (other than project changes required by or contemplated in this Certification), including but not limited to changes to Project structures, operations, and minimum flows.

## **9. Project-Specific Fee**

In accordance with ORS 543.080, PacifiCorp Energy must pay a project-specific fee for ODEQ's costs of overseeing implementation of this Certification per this schedule:

<b>FERC License</b>	<b>Amount of Fee (subject to adjustment, below)</b>
30 days after Issuance	\$16,000
First License Anniversary	\$22,000
Second License Anniversary	\$11,000
Third License Anniversary	\$12,000
Fourth License Anniversary	\$9,000
Fifth License Anniversary	\$8,000
Sixth License Anniversary	\$9,000

The fee is payable to the "State of Oregon, Department of Environmental Quality. PacifiCorp Energy shall adjust the site-specific fee identified in this condition according to the following formula:

$$AD = D \times (CPI-U)/(CPI-U-June 2007)$$

WHERE:

AD = Adjusted dollar amount payable to ODEQ.

D = Dollar amount prior to adjustment.

CPI-U = the most current published version of the Consumer Price Index-Urban (U.S. All items, 1982-84=100 - CUUR0000SAO). The CPI-U is published monthly by the Bureau of Labor Statistics of the federal Department of Labor. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted by written agreement between ODEQ and PacifiCorp Energy.

ODEQ will credit against this amount any fee or other compensation paid or payable to ODEQ, directly or through other agencies of the State of Oregon, during the preceding year (July 1 to June 30) for ODEQ's costs of oversight.

ODEQ may review with PacifiCorp Energy the need, if any, to modify, extend, or terminate the fee, in accordance with ORS 543.080. PacifiCorp Energy must pay any Project-specific fee required after such review.



## **10. §401 Certification Modification**

a. ODEQ, in accordance with OAR Chapter 340, Division 048, and, as applicable, 33 USC §1341, may modify this Certification to add, delete, or modify Certification Conditions as necessary and feasible to address:

(1) Adverse or potentially adverse Project effects on water quality or designated beneficial uses that did not exist or were not reasonably apparent when this Certification was issued;

(2) TMDLs (not specifically addressed in these Certification Conditions);

(3) Changes in water quality standards or beneficial uses;

(4) Any failure of Certification Conditions to protect water quality or designated beneficial uses as expected when the Certification was issued; or

(5) Any change in the Project or its operations that was not contemplated by this Certification that might adversely affect water quality or designated beneficial uses.

b. In accordance with 33 USC §1341, any added or modified condition shall, so long as it is in effect, become a condition of any federal license or permit that is thereafter issued for the Project. ODEQ may seek, in accordance with applicable law and procedures, to have any new or modified Certification Condition incorporated into any existing federal license or permit for the Project.

## **11. Posting of §401 Certification**

PacifiCorp Energy must post a copy of these Certification Conditions in a prominent location at the Project facility.

**Form L-10**  
(October, 1975)

**FEDERAL ENERGY REGULATORY COMMISSION**

**TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED  
MAJOR PROJECT AFFECTING THE INTERESTS OF  
INTERSTATE OR FOREIGN COMMERCE**

**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 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 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 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 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.

**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.** 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 22.** 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 23.** 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.