

UNITED STATES OF AMERICA 120 FERC ¶ 62,024  
FEDERAL ENERGY REGULATORY COMMISSION

City and Borough of Sitka, Alaska

Project No. 2230-034

ORDER ISSUING NEW LICENSE

(July 10, 2007)

**INTRODUCTION**

1. On March 28, 2006, the City and Borough of Sitka, Alaska (City) 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 7.54-megawatt (MW) Blue Lake Project No. 2230. The project is located on Sawmill Creek in the Borough of Sitka, Alaska. The project occupies 1,628.1 acres of federal lands administered by the U.S. Forest Service (Forest Service).<sup>2</sup> For the reasons discussed below, I am issuing a new license for the project.

**BACKGROUND**

2. The original license for the Blue Lake Project was issued on April 24, 1958.<sup>3</sup> The project was constructed and began generating electric power in July 1961. The license will expire on March 31, 2008.

3. On May 25, 2006, the Commission issued notice that the City's application for a new license was accepted for filing. The notice established a deadline of July 24, 2006, for filing protests and motions to intervene in the proceeding. Timely motions to intervene were filed by the U.S. Department of Agriculture through the U.S. Forest

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

<sup>2</sup> Because the project occupies lands of the United States, section 23(b)(1) of the FPA, 16 U.S.C. § 817(1) (2000), requires the project to be licensed.

<sup>3</sup> 19 FPC 579 (1958).

Service (Forest Service), and the Alaska Department of Fish and Game (Alaska Fish and Game).<sup>4</sup>

4. On December 8, 2006, the Commission issued public notice that the City's application was ready for environmental analysis and solicited comments, recommendations, terms and conditions, and prescriptions. In response, comments and recommendations were filed by the U.S. Department of the Interior (Interior), National Marine Fisheries Service (NMFS), Forest Service, and Alaska Fish and Game.

5. Commission staff issued an environmental assessment (EA) on April 17, 2007. The Forest Service and the City filed comments on the EA. The motions to intervene, comments, and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

## **PROJECT DESCRIPTION**

6. The Blue Lake Project includes three developments: (1) the Blue Lake Development (located between stream miles 2.31 at Blue Lake dam and 0.32 at the Blue Lake powerhouse); (2) the Fish Valve Unit (located about 1,900 feet downstream of the Blue Lake dam); and (3) the Pulp Mill Feeder Unit (located just upstream from the Blue Lake powerhouse). Water is discharged from the Blue Lake powerhouse, and the Fish Valve and Pulp Mill Feeder units into the Sawmill Creek bypassed reach. The total length of Sawmill Creek bypassed reach (from Blue Lake dam to Blue Lake powerhouse) is over 10,000 feet.

7. The Blue Lake development consists of a 211-foot-high, 256-foot-long concrete arch dam equipped with a 140-foot-long spillway and a release valve impounding the 1,225-acre Blue Lake reservoir with a normal water surface elevation of 342 feet mean sea level (msl). A 7,110-foot-long power conduit from the dam leads to a powerhouse containing two 3,000-kilowatt (kW) generating units. Power from the Blue Lake development is transmitted through a 5-mile-long, 69-kilovolt (kV) transmission line.

8. The Fish Valve Unit is also connected to the power conduit and consists of a 24-inch-diameter, 19-foot-long penstock leading to a powerhouse containing one 670-kW generating unit. Power from the Fish Valve Unit is transmitted through a 7,700-foot-long, 12.47-kV transmission line.

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<sup>4</sup> The motions were timely and unopposed, and were therefore automatically granted by operation of 18 C.F.R. § 385.214(c)(1) (2006).

9. The Pulp Mill Feeder Unit is also connected to the power conduit and consists of a 36-inch-diameter, 24-foot-long penstock leading to a powerhouse containing one 870-kW generating unit. Power from the Pulp Mill Feeder Unit is transmitted through a 470-foot-long, 4.16-kV transmission line. A more detailed project description is contained in ordering paragraph (B)(2).

10. The project boundary encloses all the facilities described above, as well as a road spur leading from Blue Lake Road to the Sawmill Creek campground and portions of Blue Lake Road from its intersection with the road spur to a point near the Blue Lake development which is the right-of-way for the Fish Valve Unit transmission line. The project boundary does not currently include portions of Blue Lake Road from its intersection with Sawmill Creek Road to its terminus at Blue Lake, the Blue Lake overlook on the reservoir, and Sawmill Creek campground, located approximately a third of a mile downstream of the Blue Lake dam and immediately adjacent to the Fish Valve Unit.

#### Project Operation

11. The Blue Lake Project is operated in conjunction with the Green Lake Project No. 2818.<sup>5</sup> The Blue Lake Project is operated to meet daily base loads and the Green Lake Project is operated to meet daily peak loads. Both project reservoirs are drawn down during winter when inflow to the reservoirs decreases and the demand for electricity increases.

12. When the Blue Lake water surface elevation exceeds 342 feet msl (the dam spillway crest elevation), water is spilled into the bypassed reach, and when Blue Lake falls below 342 feet msl, spillage ceases. The current license, as amended,<sup>6</sup> requires the City to release a continuous minimum flow of 50 cubic-feet-per-second (cfs) year-round from the Fish Valve Unit into the Sawmill Creek bypassed reach, except during the months of December through April, when the City must release either 37 or 22 cfs from the Fish Valve Unit when the Blue Lake water surface drops below elevations 336 and 324 msl, respectively.

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<sup>5</sup> The Green Lake Project, licensed in 1979 (7 FERC ¶ 61,021), is located on the Vodopad River about 10 miles from the City, and is operated in tandem with the Blue Lake Project to meet the City's total daily electrical needs.

<sup>6</sup> 56 FERC ¶ 62,170 (1991).

13. In addition to the minimum bypassed reach flow, the current license requires the City to restrict ramping rates to no more than 30 percent of the existing creek flow per hour every time the flow released from the Fish Valve Unit is changed.

#### Proposed Measures

14. In its application, the City proposes to: (1) release 70 cfs or the maximum hydraulic capacity,<sup>7</sup> whichever is less, from April 15 through June 30, and 50 cfs from July 1 through April 14, from the project's Fish Valve Unit into the Sawmill Creek bypassed reach; (2) implement ramping rate restrictions at the Fish Valve Unit as follows: (a) from April 1 through July 15, 0.2 foot per hour up-ramping and 0.1 foot per hour down-ramping; (b) from July 16 through September 30, 0.1 foot per hour up- and down-ramping; and (c) from October 1 through March 31, 0.2 foot per hour up- and down-ramping; (3) enhance steelhead habitat in an adjacent watershed (Indian River); and (4) improve recreational facilities by reconstructing a parking lot located at the intersection of Blue Lake Road and Sawmill Creek Road, improving an overlook at Blue Lake, improving the Sawmill Creek campground, and improving and maintaining the entire length of Blue Lake Road. The City also proposes that the new license not include the conditions which allow flows to be reduced from 50 cfs to either 35 or 27 cfs from the Fish Valve Unit when the Blue Lake water surface drops below 336 and 324 msl.<sup>8</sup> No new capacity or construction is proposed.

#### WATER QUALITY CERTIFICATION

15. Under Section 401(a)(1) of the Clean Water Act (CWA),<sup>9</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 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 one year. Section 401(d) of the CWA<sup>10</sup> provides

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<sup>7</sup> The Fish Valve Unit maximum hydraulic capacity is 75 cfs when the Blue Lake water surface elevation is at 342 feet msl. As Blue Lake is drawn down, the head at the Fish Valve Unit is reduced, thereby limiting its hydraulic capacity.

<sup>8</sup> In order to be consistent with the City's intent, in the EA staff assumed the City's 70/50 cfs minimum flow proposal would replace the minimum flow requirements in the existing license, as amended.

<sup>9</sup> 33 U.S.C. § 1341(a)(1) (2000).

<sup>10</sup> 33 U.S.C. § 1341(d) (2000).

that the certification shall become a condition of any federal license that authorizes construction or operation of the project.

16. The City applied for certification with the Alaska Department of Environmental Conservation (Alaska DEC) by letter dated October 17, 2006. In a letter dated October 30, 2006, Alaska DEC waived its right to issue a certification for the Blue Lake Project.<sup>11</sup>

### **COASTAL ZONE MANAGEMENT ACT**

17. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),<sup>12</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.

18. On October 17, 2006, the City submitted its Coastal Project Questionnaire, the form requesting a Coastal Zone Consistency Review, to the Alaska Department of Natural Resources (Alaska DNR), Office of Project Management and Permitting. The Alaska DNR received the City's request on November 20, 2006.

19. By letter filed June 7, 2007, the Alaska DNR issued its consistency determination which contains seasonal minimum instream bypassed flows consistent with the City's proposal, and ramping rate restrictions consistent with the City's proposal. Because Alaska DNR did not act on the City's certification request within 180 days of receiving it, the agency's concurrence is conclusively presumed. However, this license nonetheless includes conditions consistent with the Alaska DNR's proposed requirements.

### **SECTION 4(e) FINDINGS AND CONDITIONS**

20. Section 4(e) of the FPA,<sup>13</sup> provides that the Commission may issue a license for a project located within a federal reservation only if it finds that the license will not interfere or be inconsistent with the purpose for which the reservation was created or

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<sup>11</sup> The letters are attached to the City's November 22, 2006, filing in response to a staff request for additional information.

<sup>12</sup> 16 U.S.C. § 1456(c)(3)(A) (2000).

<sup>13</sup> 16 U.S.C. § 797(e) (2000).

acquired. The Blue Lake Project occupies 1,628.1 acres of the Tongass National Forest.<sup>14</sup> I have reviewed the Organic Administration Act of 1897, which established the purposes for forest reservations, and the presidential proclamation that created the Tongass National Forest. There is no evidence or allegation in this proceeding to indicate that relicensing the Blue Lake Project would interfere with the purposes of the Tongass National Forest. Therefore, I find that this license will not interfere or be inconsistent with the purposes for which the Tongass National Forest was created.

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

22. On February 7, 2007, the Forest Service filed 12 final 4(e) conditions for the Blue Lake Project. The first seven conditions are standard conditions that require the City to: (1) obtain prior Forest Service approval of changes after initial construction (condition 1); (2) consult annually with the Forest Service on affected National Forest resources (condition 2); (3) prepare a hazardous substances plan prior to new construction or maintenance (condition 3); (4) maintain its improvements on NFS lands (condition 4); (5) ensure restoration of the project area upon surrender of license or transfer of ownership (condition 5); (6) obey pesticide restrictions (condition 6); and (7) protect heritage resources (condition 7). The next five conditions are project-specific conditions that require the City to: (1) release seasonal minimum instream bypassed reach flows consistent with the City's proposal (condition 8); (2) ramp flow releases at a rate consistent with the City's proposal (condition 9); (3) improve the Sawmill Creek campground consistent with the City's proposal (condition 10); (4) improve Blue Lake Road consistent with the City's proposal (condition 11); and (5) maintain Blue Lake Road during the term of the license consistent with the City's proposal (condition 12).

23. The Forest Service's mandatory conditions are set forth in Appendix A of this license, and made a part of this license by ordering paragraph (D).

24. Certain Forest Service conditions either do not require filing the required plans for Commission approval (conditions 10 and 12), notification of the Commission of actions completed (conditions 6 and 11), or a timeframe for Commission notification (conditions 8 and 9). Therefore, Article 401 requires these filings and notifications. Article 402

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<sup>14</sup> The Tongass National Forest was established by Presidential Proclamation No. 37, 35 Stat. 2152-53 (September 10, 1907). At that time, the Organic Administration Act of 1897, 16 U.S.C. § 475, stipulated that all national forest lands were established and administered only for watershed protection and timber production.

requires the City to file a plan for monitoring compliance with the operational requirements of this order (conditions 8 and 9).

25. Forest Service condition 11 requires the City to improve Blue Lake Road, by resurfacing portions, realigning existing roadside barriers, replacing culverts, and installing additional signage. Blue Lake Road was constructed to provide access to the Blue Lake Project, and a significant portion of the traffic on the road is from City maintenance vehicles accessing project facilities. The road is also used by the public to access project lands and water for recreation. The City's proposal is consistent with this condition and these measures would improve access to the project and improve road safety. Article 203 requires the City to file a revised exhibit G project boundary map that encloses Blue Lake Road.

### **SECTION 18 FISHWAY PRESCRIPTIONS**

26. Section 18 of the Federal Power Act,<sup>15</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. No fishway prescriptions for the Blue Lake Project were filed.

### **ESSENTIAL FISH HABITAT**

27. Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act,<sup>16</sup> requires federal agencies to consult with the Secretary of Commerce on any action or proposed action authorized, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat identified under the Act. Under section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide Essential Fish Habitat conservation recommendations for actions that would adversely affect Essential Fish Habitat.<sup>17</sup> Under section 305(b)(4)(B) of the Act, an agency must, within 30 days after receiving recommended conservation measures from NMFS or a Regional Fishery Management Council, describe the measures proposed by the agency for avoiding, mitigating, or offsetting the effects of the agency's activity on the Essential Fish Habitat.<sup>18</sup>

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<sup>15</sup> 16 U.S.C. § 811 (2000).

<sup>16</sup> 16 U.S.C. § 1855(b)(2) (2000).

<sup>17</sup> 16 U.S.C. § 1855(b)(4)(A) (2000).

<sup>18</sup> 16 U.S.C. § 1855(b)(4)(B) (2000).

28. Essential Fish Habitat has been designated for pink, chum, and coho salmon including spawning and rearing habitat. No Essential Fish Habitat conservation measures were filed, however. In the EA, staff concluded that licensing the project, as proposed by the City with the staff recommended measures, including the Forest Service 4(e) conditions and the NMFS and Alaska Fish and Game 10(j) recommendations for protecting and enhancing the aquatic habitat and fishery, would not adversely affect Essential Fish Habitat found in Sawmill Creek for pink, chum, or coho salmon, and would enhance the creek's salmonid species populations and their Essential Fish Habitat.<sup>19</sup>

### **THREATENED AND ENDANGERED SPECIES**

29. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)<sup>20</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.

30. By letter filed on July 5, 2006, the U.S. Fish and Wildlife Service (FWS) stated that there are no federally listed threatened, endangered, or proposed species or proposed critical habitat in the vicinity of the Blue Lake Project. That being the case, no further ESA coordination or consultation with the FWS is required.

### **NATIONAL HISTORIC PRESERVATION ACT**

31. Under Section 106 of the National Historic Preservation Act<sup>21</sup> and its implementing regulations,<sup>22</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.

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<sup>19</sup> The NMFS and Alaska Fish and Game recommendations are consistent with the City's proposal and the section 4(e) conditions (conditions 8 and 9, Appendix A).

<sup>20</sup> 16 U.S.C. § 1536(a) (2000).

<sup>21</sup> 16 U.S.C. § 470, *et seq.* (2000).

<sup>22</sup> 36 C.F.R. Part 800 (2004).

32. By letter to the City dated October 17, 2006, the SHPO determined that relicensing the Blue Lake Project would have no effect on cultural resources listed in or eligible for the National Register.<sup>23</sup>

33. Forest Service condition 7 would require the City, if previously unidentified historic resources are discovered during project-related ground-disturbing activities or project operation, to cease work in the affected area, notify the Forest Service, and not resume ground-disturbing activities until it receives written approval from the Forest Service. In the EA, staff concluded that developing and implementing a plan in consultation with the Commission, Forest Service, SHPO, and Sitka Tribe of Alaska (Sitka Tribe) to protect any discovered cultural or historic sites would mitigate any potential affects during the term of any issued license. Article 403 requires the City to consult with the Commission, SHPO, and the Sitka Tribe, and file a site-specific plan if archaeological or historic sites are discovered during the license term.

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

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

34. Section 10(j)(1) of the FPA<sup>24</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>25</sup> to “adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)” affected by the project.

35. In response to the December 8, 2006, public notice that the project was ready for environmental analysis, NMFS and Alaska Fish and Game on January 19, 2007, filed identical section 10(j) recommendations. This license includes conditions consistent with the section 10(j) recommendations, which include releasing seasonal minimum instream flows in the bypassed reach, and implementing ramping rates at the Fish Valve Unit.<sup>26</sup>

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<sup>23</sup> The SHPO letter is attached to the City’s November 22, 2006, filing in response to a staff request for clarification of additional information.

<sup>24</sup> 16 U.S.C. § 803(j)(1) (2000).

<sup>25</sup> 16 U.S.C. §§ 661 *et seq.* (2000).

<sup>26</sup> The recommendations are consistent with the City’s proposal and the section 4(e) conditions (conditions 8 and 9, Appendix A).

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

36. Along with its section 4(e) conditions, the Forest Service filed two section 10(a) recommendations. The Forest Service recommends reconstructing the parking lot at the intersection of Blue Lake Road and Sawmill Creek Road, and improving the Blue Lake overlook at the terminus of Blue Lake Road. These recommendations are consistent with the City's proposal.

37. In the EA, staff recommended improving the parking area and overlook site because the proposed upgrades would enhance recreational access while improving safety and minimizing resource damage from recreational use. Article 301 requires the City to implement these measures and file documentation with the Commission that the improvements have been completed.

### **COMMENTS ON THE EA**

38. A number of comments were received on the EA that relate to technical aspects of the project. This order makes technical corrections in response to the City and Forest Service comments.

#### *Cumulative Effects Analysis*

39. Regarding the scope of the cumulative effects analysis, the Forest Service cites as a weakness in the EA the lack of analysis of cumulative effects on resources other than anadromous salmonids.<sup>27</sup>

40. Regarding the analysis of cumulative effects on anadromous salmonids, the Forest Service notes that the Northern Southeast Regional Aquaculture Association's (Aquaculture Association) proposed Sawmill Creek Fish Hatchery is still in the planning phase; however, the release point for coho salmon produced at the proposed hatchery will be into Deep Inlet instead of into Sawmill Creek as stated in the EA.<sup>28</sup>

41. In the EA staff identified anadromous salmonids as a resource that could be cumulatively affected by continued operation of the project in combination with other

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<sup>27</sup> The Forest Service does not specify which other resources should have been addressed.

<sup>28</sup> Aquaculture Associates is proposing to construct a fish hatchery in the vicinity of the Sawmill Creek Industrial Park near the Blue Lake development powerhouse.

activities such as the Aquaculture Association's proposed fish hatchery.<sup>29</sup> The EA found that operation of the new hatchery along with the increased minimum flows and more restrictive ramping rates in a new project license would cumulatively benefit the fishery.

42. Regarding the hatchery's release point, even if the hatchery fish are released into Deep Inlet (presumably because of better coho rearing habitat in Deep Inlet) rather than into Sawmill Creek,<sup>30</sup> some returning coho could escape into Sawmill Creek. Therefore, the cumulative effect on the Sawmill Creek fishery from the increased minimum instream flow releases and ramping rate restrictions required in this license along with the new hatchery would be beneficial.

#### *Terrestrial Resources*

43. The Forest Service notes that sensitive and rare plant surveys should be completed in any areas where potential changes to the environment are proposed. The Forest Service also notes that the City filed a final draft EA with its license application that recognized botanical resources in various sections, but asserts that there is no discussion or analysis of this subject in the Commission staff EA.

44. The EA assessed two measures proposed by the City and recommended by the Forest Service that would require clearing or disturbance of vegetation on Forest Service land: the proposed improvements to the Blue Lake Road parking lot and Sawmill Creek campground. The EA estimated that these improvements would require removal of about 0.5 acre of generally woody shrub and herbaceous ground cover vegetation, and such removal would result in a minor adverse effect on vegetation and wildlife in the project area. However, the areas proposed for clearing are at or adjacent to existing developed facilities and because of past clearing of botanical resources to develop and maintain these facilities, it is likely that areas adjacent to these facilities have also been cleared or disturbed. Therefore, the likelihood of these areas supporting sensitive species would be negligible. Beyond this analysis, there is nothing in the record suggesting impacts to sensitive and rare plants.

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<sup>29</sup> Primary water for the fish hatchery would be from a 20-inch feeder line taken from a 42-inch bulk water supply line within the Sawmill Creek Industrial Park.

<sup>30</sup> Sawmill Creek flows into Silver Bay which then enters the Eastern Channel of Sitka Sound. Deep Inlet also enters the Eastern Channel about 3 miles southwest of the confluence of Sawmill Creek and Silver Bay.

*Recreation*

45. The Forest Service states that there is no discussion in the EA on the project's effect on recreation resources (including analysis of trends and cumulative effects) and specifically cites as a weakness of the EA that there is no discussion of commercial recreational use (outfitters and guides) in the project area. The Forest Service also believes the EA should address lost recreational opportunities because Blue Lake is the City's domestic water supply source.<sup>31</sup> Finally, the Forest Service notes that it cannot verify the numbers of users and vehicles cited in the EA because a final recreation report to be prepared by the City was not distributed.<sup>32</sup>

46. The EA includes analyses of existing recreational use of the project area and of the effect of issuing a new license with the measures proposed by the City and required by the Forest Service which are essentially identical. This analysis was based on the information in the license application and additional information filed by the City in response to staff requests.<sup>33</sup> This information includes estimates of recreational use of Blue Lake, Blue Lake Road, Sawmill Creek, and the Sawmill Creek Campground. There is no information in the record on commercial recreational use of the project area, nor is there any indication of a significant change in demand for recreational access in the foreseeable future. Further, there is no evidence there would be cumulative effects on recreation from continued project operation. Based on the information available, the EA determined that licensing the project as proposed and required by the Forest Service (including the improvements to Blue Lake Road, the Blue Lake overlook, and Sawmill Creek campground) would benefit recreational access and use. These improvements should also benefit any commercial use of project resources.

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<sup>31</sup> Recreational use is not encouraged at Blue Lake because it's the City's domestic water supply. The Forest Service federal land use designation of the Blue Lake watershed is "Municipal Watershed" which emphasizes protection of municipal water through watershed planning.

<sup>32</sup> The Forest Service refers to a recreation report the City reportedly prepared using data on use of Blue Lake Road and Beaver Lake Trail. The recreation report has not been filed with the Commission. However, the data collected for the report was included in the City's November 22, 2006 additional information filing and was used in the EA.

<sup>33</sup> Additional information was filed on August 28 and November 22, 2006, respectively.

47. Regarding lost recreational opportunities at Blue Lake, prior to project construction Blue Lake was a natural 490-acre lake with a surface elevation of 208 feet msl and was not accessible by road. Since project construction, the public has been able to access the lake for recreational purposes by using Blue Lake Road and the lake is available for public recreation. That the City does not encourage recreational use of Blue Lake to protect its water source is reasonable.

#### *Subsistence Use*

48. The Forest Service notes that it has a legal requirement to manage subsistence use which should be addressed in the EA. The Forest Service states that the City's EA filed with the license application addresses subsistence resources, yet there is no discussion or analysis in the EA.

49. In the license application, the City assessed subsistence use based on an Alaska Fish and Game household subsistence survey taken in Sitka. The survey showed that about 97 percent of the households used at least one species of subsistence resources.<sup>34</sup> The City concluded that relicensing the project would not affect existing or future subsistence uses in the project area.

50. The discussion in section V.C.3 of the EA acknowledges that both sport and subsistence hunting occurs in the project area. The analysis focused on the effects, if any, that continued project operation would have on habitat or access to project land and water. The EA addressed the potential improvement in fish habitat and concluded that the proposed action would benefit environmental resources. The EA indicates that continued operation of the project with the proposed recreational access improvements would not significantly affect wildlife habitat. Because Blue Lake Road is open to the public, it provides access to National Forest and project lands for recreation and hunting. Thus, continued operation of the project should improve opportunities for subsistence use.

#### *Exhibit G Drawings*

51. The City notes that the description of the Exhibit G drawings project boundary in the recommended alternative section in the EA is incorrect. The EA notes that the revised Exhibit G drawings filed August 28, 2006, show Blue Lake Road from its junction with Sawmill Creek Road to Sawmill Creek campground within the project

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<sup>34</sup> Subsistence resources include fish, land mammals, birds and eggs, marine invertebrates and mammals, and vegetation.

boundary. The City states that the Exhibit G drawings were intended to show only the Fish Valve Unit transmission line within the project boundary, which is located along portions of the right-of-way for Blue Lake Road because Blue Lake Road is not in the project boundary. The City intends, however, as recommended in the EA to include the entire length of Blue Lake Road including the road spur to Sawmill Creek campground within a revised project boundary. The project boundary is discussed further below.

## **OTHER ISSUES**

### **Indian River Improvements**

52. The City proposes steelhead habitat improvement measures at Indian River, which is located about 3 miles west of the Blue Lake Project in an adjacent watershed. Some of the measures would include removing abandoned vehicles and equipment, removing trash, road paving, and working with the Alaska Coastal Management Program to establish and maintain a buffer zone.

53. In the EA, staff noted that it was unclear whether the City's proposed Indian River steelhead habitat improvement measures are intended to address effects of operating the Blue Lake Project. Based on the consultation record, the measures appear to be proposed in lieu of fish passage on Sawmill Creek as the result of the agreement the City reached with the Sitka Tribe. However, the falls area located within the project bypassed reach appears to be a natural barrier to upstream passage and no entity has recommended fish passage. Because there appears to be no connection between the proposed Indian River habitat improvement measures and continued operation of the Blue Lake Project, these measures are not included in the license. However, the City is free to implement these measures outside of the license.

## **ADMINISTRATIVE CONDITIONS**

### **Annual Charges**

54. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA and use and occupancy of U.S. lands.

### **Exhibit F Drawings**

55. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. The Exhibit F-5 and F-6 drawings filed with the license application, and the Exhibit F-4, F-7, and F-8 drawings refiled on August 28, 2006, are approved and made part of this license. Article 202 requires the filing of these drawings in the appropriate formats.

### **Exhibit G Drawings**

56. Revised Exhibit G drawings filed on August 28, and September 7, 2006, show all the project transmission lines within the project boundary. The drawings also show the Fish Valve Unit transmission line from its powerhouse to a point near the Blue Lake development located for the most part, adjacent to and within the right-of-way of Blue Lake Road. The drawings do not include within the project boundary, the sections of the Blue Lake Road from: (1) its intersection with Sawmill Creek Road to a point near the Blue Lake development; (2) its intersection with the road spur to the Sawmill Creek campground to the road terminus at Blue Lake including the Blue Lake overlook; and (3) the Sawmill Creek campground. Blue Lake Road was built for the purpose of constructing the Blue Lake Project and its primary purpose continues to be for access to project facilities; it is also used by the public to access project recreational sites and Forest Service lands. Sawmill Creek campground provides access to the project water within the Sawmill Creek bypassed reach and should be recognized as a project recreational facility. Therefore, the project boundary should be revised to enclose the entire length of Blue Lake Road including the road spur leading to the campground, Sawmill Creek campground, Blue Lake overlook, and show the total number of acres of federal land occupied by the project. Article 203 requires the City to file revised Exhibit G drawings. The Exhibit G drawings filed with the license application, and the revised Exhibit G drawings filed on August 28, and September 7, 2006, are not approved and are not made part of the license (see ordering paragraph (C)).

### **Headwater Benefits**

57. Some projects directly benefit from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 204 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**

58. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 404 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for minor activities such as landscape planting. Such use must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

### **As-built Drawings**

59. Where new construction or modifications to the project are proposed, such as improvements to recreational facilities in this case, the Commission requires a licensee to file revised drawings of the project features as built. Article 301 provides for the filing of these drawings.

### **STATE AND FEDERAL COMPREHENSIVE PLANS**

60. Section 10(a)(2)(A) of the FPA<sup>35</sup> requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.<sup>36</sup> In the EA, staff identified and reviewed seven federal and state comprehensive plans that address resources relevant to the Blue Lake Project.<sup>37</sup> No conflicts were found.

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

61. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,<sup>38</sup> staff evaluated the City's record as licensee with respect to the following: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission service; (G) cost effectiveness of plans; and (H) actions affecting the public. I accept the staff's findings in each of the following areas.

#### **A. Conservation Efforts**

62. Section 10(a)(2)(C) of the FPA<sup>39</sup> requires the Commission to consider the applicant's electricity consumption improvement program, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and

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<sup>35</sup> 16 U.S.C. § 803(a)(2)(A) (2000).

<sup>36</sup> Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2006).

<sup>37</sup> The list of applicable plans can be found in section IX of the EA.

<sup>38</sup> 16 U.S.C. §§ 803(a)(2)(C) and 808(a) (2000).

<sup>39</sup> 16 U.S.C. § 803(a)(2)(C) (2000).

requirements of state regulatory authorities. The City's electric system is an isolated electric utility with no interconnection to other electrical supplies. As such, the City must use its own generating resources to supply the power needs of its commercial and residential customers. The City has published *A Codification of the General Ordinances*<sup>40</sup> that includes a customer service policy providing guidelines for electric service while meeting the requirements of good business practices for reliable, safe, and efficient operation of the City's electric utility system. These guidelines show that the City 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 the New License**

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

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

64. Staff reviewed the City's management, operation, and maintenance of the Blue Lake 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 dam and other project works are safe, and finds that there is no reason to believe that the City cannot continue to safely manage, operate, and maintain these facilities under a new license.

### **D. Ability to Provide Efficient and Reliable Electric Service**

65. Staff reviewed the City's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Staff review indicates that the City regularly inspects the project turbine generator units to ensure they continue to perform in an optimal manner, and schedules maintenance to minimize effects on energy production in an effort to reliably operate the project into the future. Staff concludes that the City is capable of operating the project to provide efficient and reliable electric service in the future.

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<sup>40</sup> See <http://www.codepublishing.com/AK/sitka.html>.

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

66. The Blue Lake Project is located on Baranof Island, an isolated area of Alaska. Hydroelectric generation from the project is used to displace diesel-fired generation. According to the City, recent electrical load growth forecasts for the Sitka service area indicate a range between no growth and up to 2.0 percent annual growth over a 30-year period, with a medium case growth rate of 0.8 percent. Even if load growth remains stable, there would still be a need for the projects power due to the high cost of alternative diesel generation. Staff concludes that the project's power, low cost, displacement of nonrenewable fossil-fired generation (primarily diesel facilities), and contribution to the City's diversified generation mix will help meet the need for power for the City.

### **F. Transmission Services**

67. The Blue Lake Project includes three primary transmission lines that carry electric power generated from the project to the City's electric utility system. The project and project transmission lines are important elements in providing power and voltage control to the City. The City is proposing no changes that would affect its own transmission services to its customers.

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

68. The City plans to make a number of recreational facility and operational modifications to enhance environmental resources affected by the project. Based on the City'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**

69. The City uses the project to help meet its customers' power needs which benefits the public. The City provided extensive opportunity for public involvement in the development of its application for a new license for the Blue Lake Project. During the previous license period, the City provided employment opportunities and attracted those interested in various forms of recreation.

## **PROJECT ECONOMICS**

70. In determining whether to issue a subsequent license for an existing hydroelectric project, the Commission considers a number of public interest factors, including the economic benefit of project power. Under the Commission's approach to evaluating the

economics of hydropower projects, as articulated in *Mead*,<sup>41</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. This estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

71. In applying this analysis to the Blue Lake Project, staff has considered two licensing options: the City's proposal and the project as licensed herein. As proposed by the City, the annual cost of operating the Blue Lake Project would be \$1,249,000, or \$19.24/MWh. The proposed project would generate an estimated average of 64,931 MWh of energy annually. When we multiply our estimate of average annual generation by the alternative power cost of \$180.00/MWh,<sup>42</sup> we get a total value of the project's power of \$11,687,600 in 2007 dollars. To determine whether the proposed project is currently economically beneficial, we subtract the project's cost from the value of the project's power. Therefore, in the first year of operation, the project would cost \$10,438,600, or \$160.76/MWh, less than the likely alternative cost of power.

72. As licensed herein with the mandatory conditions and staff measures, the annual cost of operating the Blue Lake Project would be \$1,239,700, or \$19.09/MWh. The proposed project would generate the same average energy annually and have the same value of project power as proposed by the City. Therefore, in the first year of operation, the project would cost \$10,447,900, or \$160.91/MWh, less than the likely alternative cost of power.<sup>43</sup>

73. 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

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<sup>41</sup> *Mead Corp.*, 72 FERC ¶ 61,027 (1995).

<sup>42</sup> The alternative power cost is based on the City's value of replacement diesel generation.

<sup>43</sup> The project as licensed herein costs less than the City's proposal because the license does not include the City's off-site steelhead habitat improvement measure.

a source of power available to help in quickly putting fossil-fuel based generating stations back on line following a major utility system blackout.

### **COMPREHENSIVE DEVELOPMENT**

74. Sections 4(e) and 10(a)(1) of the FPA,<sup>44</sup> respectively, require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

75. The EA for the Blue Lake Project contains background information, analysis of impacts, support for related license articles, and the basis for a finding that issuance of the license is not a major federal action significantly affecting the quality of the human environment. The project would be safe if operated and maintained in accordance with the requirements of this license.

76. Based on my independent review and evaluation of the Blue Lake Project, recommendations from resource agencies, section 4(e) conditions, and the no-action alternative, as documented in the EA, I have selected the proposed Blue Lake Project, with the section 4(e) conditions and staff-recommended measures as the preferred alternative, and find that it is best adapted to a comprehensive plan for developing Sawmill Creek.

77. I have selected this alternative because: (1) issuance of the new license will serve to maintain a beneficial, dependable, and inexpensive source of electric energy for the City; (2) the required environmental measures will protect or enhance fish and wildlife resources, water quality, recreational resources, and historic properties; and (3) the 7.54 MW of electric energy generated from this renewable resource would continue to offset the use of diesel generation, thereby conserving nonrenewable resources and reducing atmospheric pollution.

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<sup>44</sup> 16 U.S.C. § 797(e) and 803(a)(1) (2000).

**LICENSE TERM**

78. Section 15(e) of the FPA,<sup>45</sup> provides that any new license issued shall be for a term which 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 measures.<sup>46</sup>

79. In the license application, the City requests that the license be issued for a term of 50 years. The reasons given by the City include: the City is a small isolated community fully dependent on its own electric generating facilities for power; the costs of reauthorizing energy facilities are borne entirely by the ratepayer; the cost of living in Sitka is 40 percent above the national average, while wages are below the Alaska average; economic growth in Sitka is challenged by the high cost of living and employment downturns, especially the loss of the timber industry in 1992; the City seeks to encourage new industry and employment, and controlling costs and uncertainty of its energy base, including reducing the frequency and cost associated with relicensing would help meet its goals; the hydro power project should be recognized under the current national energy policies, and a longer license term would provide cost incentives and assurances of financial stability; and the City recognizes that the usual justification for a longer license term is the need for more time to repay costs associated with relicensing, and acknowledges its request is the same but in the sense of avoidance of those costs.

80. As stated above, the Commission's policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures. The cost to develop and implement the required enhancement measures in this license is about \$39,800 annually. Therefore a 30-year license term for the Blue Lake Project is appropriate. Because the term of the current license does not expire until March 31, 2008, this license is not effective until April 1, 2008.<sup>47</sup>

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<sup>45</sup> 16 U.S.C. § 808(e) (2000).

<sup>46</sup> See *Consumers Power Company*, 68 FERC ¶ 61,077 at 61,383-84 (1994).

<sup>47</sup> For this reason, the various deadlines in the license articles are measured from April 1, 2008, the effective date, rather than from the order issuance date.

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The Director orders:

(A) This license is issued to the City and Borough of Sitka, Alaska (licensee), for a period of 30 years, effective April 1, 2008, to operate and maintain the Blue Lake Project. This license is subject to the terms and conditions of the Federal Power Act, which is incorporated by reference as part of this license, and is subject to the regulations the Commission issues under the provisions of the Federal Power Act.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by the exhibit G drawing filed on August 28, and September 7, 2006:

<u>Exhibit G Drawings</u>	<u>FERC No. 2230-</u>	<u>Description</u>
1 of 9	1001	General Project Map
2 of 9	1002	Sitka Transmission line Right of Way
3 of 9	1003	Sitka Transmission line Right of Way
4 of 9	1004	Sitka Transmission line Right of Way
5 of 9	1005	Sitka Transmission line Right of Way
6 of 9	1006	Blue Lake Hydro & Pulp Mill Feeder Unit
7 of 9	1007	Blue Lake Hydro & Fish Valve Unit
8 of 9	1008	Blue Lake Reservoir
9 of 9	1009	Blue Lake Project Boundary

## (2) Project works consisting of the following three developments:

The Blue Lake Development which includes: (1) a 211-foot-high, 256-foot-long concrete arch dam equipped with a 140-foot-long spillway and a release valve at the base of the dam; (2) a 1,225-acre reservoir (Blue Lake) with a normal water surface elevation of 342 feet mean sea level (msl); (3) a 7,110-foot-long power conduit consisting of: (a) an 11.5-foot-diameter, 1,500-foot-long upper tunnel; (b) an 84-inch-diameter, 460-foot-long penstock; (c) a 10-foot-diameter, 4,650-foot-long lower tunnel; (d) an 84-inch-diameter, 500-foot-long penstock with a 36-inch-diameter tap; (4) a powerhouse containing two 3,000-kW generating units; (5) a 150-foot-long tailrace; (6) a 5-mile-long, 69-kV transmission line; and (7) appurtenant facilities.

The Fish Valve Unit which includes: (1) a 36-inch wye branch connected to a valve on the power conduit; (2) a 24-inch-diameter, 19-foot-long penstock; (3) a powerhouse containing one 670-kW generating unit; (4) a 7,700-foot-long, 12.47-kV transmission line; and (5) appurtenant facilities.

The Pulp Mill Feeder Unit which includes: (1) a 36-inch tee connected to the power conduit; (2) a 36-inch-diameter, 24-foot-long penstock; (3) a powerhouse containing one 870-kW generating unit; (4) a 470-foot-long, 4.16-kV transmission line; and (5) other appurtenant facilities.

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

Exhibit A: Pages A-1 through A-12 filed on March 28, 2006.

The following Exhibit F-5 and F-6 drawings filed on March 28, 2006, and Exhibit F-4, F-7, and F-8 drawings re-filed on August 28, 2006:

<u>Exhibit F Drawings</u>	<u>FERC No. 2230-</u>	<u>Description</u>
4	1010	Blue Lake Dam Plan and Sections
5	1011	Fish Valve Unit General Arrangement Plan and Sections

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<u>Exhibit F Drawings</u>	<u>FERC No. 2230-</u>	<u>Description</u>
6	1012	Pulp Mill Feeder Unit General Arrangement Plan and Sections
7	1013	Powerhouse Plan
8	1014	Powerhouse Sections

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

(C) The Exhibits A and F described above are approved and made part of the license. The Exhibit G drawings filed on March 28, 2006, and refiled on August 28, and September 7, 2006, do not enclose all project facilities within the project boundary and are not approved.

(D) This license incorporates and is subject to the conditions submitted by the U.S. Forest Service under section 4(e) of the Federal Power Act as those conditions are set forth in Appendix A to this order.

(E) The following recreational facility improvements are approved and made part of this license. Article 301 requires the City to implement these measures and file as-built drawings:

(1) Upgrades to the Blue Lake Road and Sawmill Creek Road parking lot, shown in figure 6 filed on August 28, 2006, in response to an additional information request; and

(2) Upgrades to the Blue Lake overlook, shown in figure 8 filed on August 28, 2006, in response to an additional information request.

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

Article 201. Administrative Annual Charges. The licensee shall pay the United States the following annual charges, effective April 1, 2008, and as determined in accordance with the provisions of the Commission's regulations in effect from time to time for the purpose of:

- (1) 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 7,540 kilowatts;
- (2) recompensing the United States for use, occupancy and enjoyment of 1,603 acres of its lands (other than for transmission line right-of-way); and
- (3) recompensing the United States for use, occupancy and enjoyment of 25.1 acres of its lands for transmission line right-of-way.

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

a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project Drawing Number (*i.e.*, P-1234-#### through P-1234-####) 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, 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 critical energy infrastructure information (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-1234-####, F-1, Description, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

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

Article 203. Exhibit G Drawing. Within 60 days of the effective date of this license, the licensee shall file, for Commission approval, revised Exhibit G drawings enclosing within the project boundary all project works necessary for operation and maintenance of the project, including the Sawmill Creek campground, Blue Lake overlook, and Blue Lake Road from its intersection with Sawmill Creek Road to the road terminus at Blue Lake, including the road spur leading to the campground. The drawings shall also identify all federal acreage occupied by the project. The Exhibit G drawings shall comply with sections 4.39 and 4.41 of the Commission’s regulations, 18 C.F.R. §§ 4.39 and 4.41 (2006).

Article 204. 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 Recreation Facility Drawings. Within 1 year of the effective date of this license, the licensee shall implement the recreation improvements for the Blue Lake Road and Sawmill Creek Road parking lot, and the Blue Lake overlook, and within 90 days of completion of construction, file as-built drawings with the Commission showing the completed recreation facility improvements (see figures 6 and 8 filed on August 28, 2006, in response to an additional information request). A courtesy copy shall be filed with the Commission’s Division of Dam Safety and Inspections – Portland Regional Engineer, the Director, Division of Dam Safety and Inspections, and the Director, Division of Hydropower Administration and Compliance.

Article 401. Commission Approval and Reporting.

## (A) Requirements to File Plans for Commission Approval

The U. S. Forest Service 4(e) conditions (Appendix A) require the licensee to develop certain plans and measures without prior Commission approval. These plans and measures shall be submitted to the Commission for approval. The plans and measures are listed below.

Forest Service 4(e) Condition No.	License Requirement	Due Date
10	Sawmill Creek Campground Improvement Plan	Within 6 months of the license effective date
12	Blue Lake Road Maintenance Agreement	Within 6 months of the license effective date

## (B) Requirements to File Documentation of Completion

The license shall also file with the Commission documentation of completion or notification of the following activities.

Forest Service 4(e) Condition No.	License Requirement	Due Date
6	Planned pesticide use approval notification	Within 10 days of each planned use
8 and 9	Notification of temporary flow modifications	Within 10 days of each occurrence
11	Notification of completion of Blue Lake Road improvements	Within 30 days of the license effective date

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with the plans and measures identified in paragraph (A) above, and a description of how the plans and measures accommodates the comments and recommendations. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan submitted. The plans shall not be implemented until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the plan becomes a

requirement of the license, and the licensee shall implement the plan or changes in project operations or facilities, including any changes required by the Commission.

Article 402. Operation Compliance Monitoring Plan. Within 6 months of the effective date of this license, the licensee shall file for Commission approval an operation compliance monitoring plan. The plan shall include how the licensee shall monitor and document compliance with the seasonal minimum bypassed reach flows and ramping rate restrictions, required under section 4(e) conditions 8 and 9 in Appendix A of this order, and how this information will be provided to the resources agencies, if requested.

The plan shall be prepared in consultation with the U.S. Forest Service, U.S. Department of Commerce National Oceanic and Atmospheric Administration, and Alaska Department of Fish and Game.

The plan shall include documentation of agency consultation, including copies of agency comments and recommendations on the plan, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for agencies to comment and 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. The operation compliance monitoring plan shall not be implemented 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. Historic Properties. If archeological or historic properties, or human remains are discovered during any future project modifications or construction that require land-disturbing activities, or during project operation or maintenance, other than routine maintenance, the licensee shall: (1) consult with the Alaska State Historic Preservation Officer (SHPO) about the discovered sites; (2) prepare a site-specific plan, including a schedule, to evaluate the significance of the sites and to avoid or mitigate any impacts to sites found eligible for inclusion in the National Register of Historic Places; (3) base the site-specific plan on recommendations of the SHPO and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation; (4) file the site-specific plan for Commission approval, together with the written comments of the SHPO, U.S. Forest Service, and the Sitka Tribe of Alaska; and (5) take the necessary steps to protect the discovered archeological or historic sites from further impact until notified by the Commission that all of these requirements have been satisfied.

Article 404. 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, such action includes, as 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 types of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft 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, the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements.

Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction; (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (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; (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; and (iii) the grantee shall not unduly restrict public access to project waters; and (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 licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

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(H) 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****U.S. FOREST SERVICE FINAL 4(e) CONDITIONS  
FILED ON FEBRUARY 7, 2007****Condition No. 1 - Approval of Changes After Initial Construction**

Notwithstanding any license authorization to make changes to the project, the Licensee shall obtain written approval from the Forest Service prior to making any changes in any constructed project features or facilities, or in the uses of project lands and waters the Forest Service deems as affecting or potentially affecting National Forest System lands and resources. Following receipt of such approval from the Forest Service, and a minimum of 60-days prior to initiating any such changes, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the Forest Service for such changes. The Licensee shall file an exact copy of this report with the Forest Service at the same time it is filed with the Commission. This article does not relieve the Licensee from the requirement for license amendment or other requirements of Article 2 or Article 3 of this license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions the Secretary of Agriculture may make pursuant to section 4(e) of the Federal Power Act.

**Condition No. 2 – Consultation**

Each year during the 60-days preceding the anniversary of this license, or as arranged with the Forest Service, the Licensee shall consult with the Forest Service with regard to measures needed to ensure protection and utilization of the National Forest System lands and resources affected by the Project. Within 60-days following such consultation, the Licensee shall file with the Commission evidence of the consultation with any recommendations made by the Forest Service. The Forest Service reserves the right, after notice and opportunity for comment and administrative review, to require changes in the project and its operation through revision of the 4(e) conditions that require measures necessary to accomplish protection and utilization of National Forest Systemlands and resources.

**Condition No. 3 - Hazardous Substances Plan**

During planning for and prior to any new construction or maintenance, the Licensee shall file with Commission, a Hazardous Substances Plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup.

At a minimum, the Licensee shall:

- Outline the Licensee's procedures for reporting and responding to releases of hazardous substances, including names and phone numbers of all emergency response personnel and their assigned responsibilities,
- Maintain in the project area, a cache of spill cleanup equipment suitable to contain any spill from the project,
- Semi-annually inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the project area; and
- Inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands and Licensee adjoining fee title property.

#### **Condition No. 4 - Maintenance of Improvements**

The Licensee shall maintain all its improvements and premises on National Forest System lands to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the Forest Service. The Licensee shall comply with all applicable Federal, State, and local laws, regulations, including but not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., the Resources Conservation and Recovery Act, 42 U.S.C. 6901 et seq., the Comprehensive Environmental Response, Control, and Liability Act, 42 U.S.C. 9601 et seq., and other relevant environmental laws, as well as public health and safety laws and other laws relating to the sighting, construction, operation, maintenance of any facility, improvement, or equipment.

#### **Condition No. 5 - Surrender of License or Transfer of Ownership**

Prior to any surrender of this license, the Licensee shall restore National Forest System lands to a condition satisfactory to the Forest Service. At least 1 year in advance of the proposed application for license surrender, the Licensee shall file with the Commission a restoration plan approved by the Forest Service. The restoration plan shall identify improvements to be removed, restoration measures, and time frames for implementation and estimated restoration costs. In addition, the Licensee shall pay for an independent audit to assist the Forest Service in determining whether the Licensee has the financial ability to fund the surrender and restoration work specified in the plan.

As a condition of any transfer of the license or sale of the project, the Licensee shall guarantee or assure, in a manner satisfactory to the Forest Service, that the Licensee or transferee will provide for the costs of surrender and restoration.

**Condition No. 6 - Pesticide Use Restrictions**

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, and rodents on National Forest System lands without the prior written approval of the Forest Service. The Licensee shall submit a request for approval of planned uses of pesticides. The request must cover annual planned use and be updated as required by the Forest Service. The Licensee shall provide information essential for review in the form specified. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the request was submitted. In such an instance, an emergency request and approval may be made.

The Licensee shall use on National Forest System lands only those materials registered by the U.S. Environmental Protection Agency for the specific purpose planned. When their use is approved by the Forest Service, the Licensee must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers.

**Condition No. 7 - Heritage Resource Protection**

In order to evaluate the potential effect of the action on heritage resources and complete Section 106 Consultation with the State Historic Preservation Office, the Licensee is required to provide the Forest Service with the following information: area of potential effects, including effects of implementing Section 4(e) conditions, presence or absence of National Register properties (including American Indian traditional cultural properties), and the effect of the project on National Register properties. In the case of Adverse Effects to National Register properties, the Licensee shall also provide measures to mitigate the identified impacts. If necessary, this would include recovery, excavation, and/or preservation of the site and its artifacts at the Licensee's expense through provisions of an Archaeological Resources Protection Act (36 CFR Part 296) permit issued by the Forest Service.

If, prior to or during ground disturbing activities or as a result of project operations, archaeological or historical artifacts, or paleontological items are reported or discovered, or a known deposit of such items is disturbed on National Forest System lands and Licensee adjoining fee title property, the Licensee shall immediately cease work in the area so affected. The Licensee shall then notify the Forest Service and shall not resume work on ground-disturbing activity until it receives written approval from the Forest Service.

If human remains of any kind are found under any conditions, the Licensee is required to notify both the Alaska State Troopers and the Forest Service under both the State of Alaska Statute 11.46.482(a)(3) and the Native American Graves Protection and Repatriation Act (43 CFR Part 10). No activities of any kind will resume until the requirements of both acts have been met, and written permission has been received from the Forest Service.

### **Condition No. 8 – Instream Flow**

From April 15 through June 30, Licensee will assure, by releases from the Fish Valve Unit (FVU), a minimum instream flow into Sawmill Creek of 70 cubic feet per second (cfs) or maximum hydraulic capacity of the FVU, at the concurrent reservoir level, whichever is less. During the remainder of the year (July 1-April 14) Licensee will assure, by releases from the FVU, a minimum instream flow of 50 cfs.

The instream flow releases may be temporarily modified, if required for safety reasons, by operating emergencies, by actions beyond the control of Licensee, or upon agreement among the Licensee, Forest Service, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Alaska Department of Fish and Game. The Licensee shall notify FERC, the Forest Service, and other agencies about the flow modification.

### **Condition No. 9 – Ramping Rate Restrictions**

For instream flow changes caused by project operations, Licensee shall observe specified ramping rate restrictions. The allowable ramping rates will vary depending on whether normal or non-normal operating conditions, described below, apply.

The instream flow releases may be temporarily modified, if required for safety reasons, by operating emergencies, by actions beyond the control of Licensee, or upon agreement among the Licensee, Forest Service, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Alaska Department of Fish and Game. The Licensee shall notify FERC, the Forest Service, and other agencies about the flow modification.

**Normal Operations.** Normal Operation is defined as operation during those periods when the Fish Valve Hydroelectric Generating Unit (“FVU”) is the sole source of controllable water discharge into the bypassed reach of Sawmill Creek. During Normal Operations, Licensee shall operate the FVU to assure the following periodic up- and down-ramping rates:

<u>Time Period</u>	<u>Up-ramping Rate</u>	<u>Down-ramping Rate</u>
April 1 – July 15	0.2 ft/hr	0.1 ft/hr
July 16 – Sept 30	0.1 ft/hr	0.1 ft/hr
Oct 1 – March 31	0.2 ft/hr	0.2 ft/hr

The ramping rate shall be measured as change in stage over a one hour period at the Upper Staff Gage which is installed at the Sawmill Creek Bridge near the Forest Service campground at Sawmill Creek SM 1.57.

**Non-normal Operations.** Non-normal Operations are defined as those outside the normal daily operation of the FVU, specifically, operation of the Howell-Bunger release valve in the Blue Lake dam and the FVU bypass valve. No ramping restriction will apply when these devices are in use. However, during non-normal operations the City will minimize ramping rates to the extent possible given equipment constraints and needs for worker safety.

### **Condition No. 10 – Sawmill Creek Campground Improvements**

Licensee will improve the Forest Service Sawmill Creek Campground according to the conceptual plan agreed to by the Forest Service and Licensee. The Forest Service, in consultation with the Licensee, will develop a Campground Improvement Plan (“Plan”), to implement this condition, within 12 months after issuance of the new license. Licensee will perform all scheduled improvements as specified in the Plan. All designs, plan and improvements shall meet Forest Service engineering standards existing at the time of design and implementation. Within five years after issuance of a new license, Licensee will:

- Reconstruct campsite arrangement according to Forest Service design;
- Reconfigure the existing campground drive-around;
- Construct new shelter, vault toilet, kiosk, and picnic table;
- Install a drainage channel and culverts through the reconfigured campground drive-around;
- Relocate the campground host site to better serve incoming traffic; and
- Install 220v/110v, 50 Amp, single-phase electrical service to the relocated campground host site.

**Condition No. 11 – Blue Lake Road (NFSR 5755) Improvement Responsibilities**

Upon issuance of the new license, Licensee will initiate the following measures on the Blue Lake Road and complete all items within six months. All work completed by the Licensee shall be reviewed and approved by the Forest Service. (The “Blue Lake Road” is defined as National Forest System Road (NFSR) 5755 from its junction with Sawmill Creek road to its terminus at the Blue Lake overlook, including the spur from NFSR 5755 to the Forest Service Sawmill Creek campground):

- Resurface existing road turnouts for parking;
- Realign the existing concrete roadside barriers where necessary to improve road safety; and
- Install or replace signs, as supplied and directed by the Forest Service, along Blue Lake Road (NFSR 5755).

**Condition 12 – Blue Lake Road Maintenance**

Upon issuance and throughout the term of the new license, Licensee will maintain Blue Lake Road (NFSR 5755) on a regular basis. The Forest Service, in consultation with the Licensee, will develop a Forest Road Agreement to reflect the maintenance needs of these areas, within one year of issuance of the new license. The Forest Road Agreement shall include approved Forest Service protocols and standards for maintenance items. The Agreement shall include:

- Snow removal during winter as necessary to assure dam site access;
- Clearing ditches and culverts as necessary to assure drainage;
- Blading the road as necessary (minimum 2 times per year) to assure adequate driving conditions as established by Forest Service engineering standards;
- Resurfacing the road by gravel replacement and replacement of damaged culverts, as necessary to assure adequate driving conditions as established by Forest Service engineering standards;
- Maintenance of existing road turnouts for parking;
- Maintenance of all gravel speed bumps installed by the Forest Service; and
- Realignment of existing concrete roadside barriers where necessary to improve road safety.

**Form L-1**  
(October, 1975)

**FEDERAL ENERGY REGULATORY COMMISSION**

**TERMS AND CONDITIONS OF LICENSE**  
**FOR CONSTRUCTED MAJOR PROJECT AFFECTING**  
**LANDS OF THE UNITED STATES**

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

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

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

**Article 4.** The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not

conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The 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.** Timber on lands of the United State cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the

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

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

**Article 23.** The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

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

**Article 25.** The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads,

trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

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

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

**Article 28.** The Licensee shall make use of the Commission's guidelines and other recognized guidelines for treatment of transmission line rights-of-way, and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

**Article 29.** The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 31, 1947, 61 Stat. 681, as amended (30 U.S.C. sec. 601, et seq.), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: Provided, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: Provided further,

That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice and opportunity for hearing.

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

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

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