UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

Orion Power New York GP II, Inc. Project No. 7000-015

ORDER ON OFFER OF SETTLEMENT AND ISSUING NEW LICENSE
(August 13, 2003)

INTRODUCTION

1. On January 30, 2002, Newton Falls Holdings, L.L.C. (NFH) filed an application for a new license pursuant to Sections 4(e) and 15 of the Federal Power Act (FPA)¹ to continue operation and maintenance of the 2.22-megawatt (MW) Newton Falls Hydroelectric Project No. 7000, located on the Oswegatchie River, in the town of Clifton, St. Lawrence County, New York.² The project generates approximately 9,500,000 kilowatt-hours (kWh) of electricity annually.

2. The Federal Energy Regulatory Commission (Commission) issued the original license for the project to Newton Falls Paper Mill, Inc., on February 28, 1984.³ The license expires on January 31, 2004. The Commission approved the transfer of the license to NFH on September 28, 2001,⁴ and it approved the transfer of the license to Orion Power New York GP II, Inc. (Orion Power) on September 12, 2002.⁵ Orion Power proposes no new construction or new capacity at the project.

1 16 U.S.C. ' 797(e) and 808.

2 The Oswegatchie River is navigable from its mouth on the St. Lawrence River at Ogdenbury, to Cranberry Lake (about River mile 110), including the reach of the river in which the project is located (about river mile 98). See the licensing order at 26 FERC, supra, at p. 63,301 and 19 FERC & 62,047 (1982). Therefore, Section 23(b)(1) of the Federal Power Act, 16 U.S.C. § 817(1), requires Project No. 7000 to be licensed.


5 100 FERC ¶ 62,171 (2002). Orion failed to file a request to be (continued...)
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BACKGROUND

3. The Commission issued public notice of the application on April 5, 2002, indicating that the application for a new license for the project had been accepted for filing and setting June 4, 2002, as the deadline for filing comments, protests, and motions to intervene. The U.S. Department of the Interior (Interior), the New York State Department of Environmental Conservation (NYSDEC), the Adirondack Mountain Club (ADK), the Adirondack Council, American Rivers, Inc., New York Rivers United (NYRU), and the Natural Heritage Institute filed timely motions to intervene, but did not oppose the project. 6

4. NFH file a Settlement Agreement (Settlement) with the Commission on July 16, 2002, for proposed protection, mitigation, and enhancement measures at the Newton Falls Project. Signatories of the Settlement are NFH, the U.S. Fish and Wildlife Service (FWS), NYSDEC, Adirondack Park Agency, Adirondack Council, ADK, American Rivers, NYRU, and the New York State Conservation Council. 7

(continued...)

substituted as the applicant for the instant license, as described in the order approving the transfer of the original license to it. However, in the circumstances here, it would serve no useful purpose to delay this proceeding to require Orion to file the request and to publish notice of it, especially since, the notice of Orion’s license transfer application indicated that the project was the subject of a pending relicensing proceeding. Pursuant to authority in 18 C.F.R. § 375.308(y)(1) (2003), I will waive the requirements for substituting applicants. However, Orion is admonished to comply with the Commission’s regulations in the future.

6 The motions to intervene were automatically granted because they were timely and unopposed. See 18 C.F.R. § 385.214(c )(1) (2003).

7 In the September 12, 2002, license transfer order, the Commission noted that although Orion Power was not a signatory to the Settlement, NFH signed the Settlement as licensee, and Section 1.5 of the Settlement states that the Settlement would be binding on the Settlement parties and on their successors and assigns. On November 12, 2002, and November 22, 2002, Orion Power submitted its acknowledgment of acceptance of the transfer order and its terms and conditions, and adopted the provisions of the Settlement for the license application for the Newton Falls Project.
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5. The Commission issued a public notice on November 1, 2002, indicating the project was ready for environmental analysis and soliciting comments, recommendations, terms and conditions, and prescriptions. In response, the Commission received comments from Interior and ADK.

6. On May 27, 2003, the Commission's staff made available for public comment an environmental assessment (EA). The EA recommended that the project be licensed consistent with its Settlement Agreement, and with certain additional measures. The EA found that licensing the project would not constitute a major federal action significantly affecting the quality of the human environment. Comments on the EA were filed by the FWS, ADK, NYSDEC, and Orion Power. The Commission's staff considered these comments and addresses them in this order. The motions to intervene and comments filed by the agencies and interested parties have been fully considered and addressed in this order in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

7. The existing Newton Falls Project consists of the Upper Development and the Lower Development. The Upper Development, which operates in a storage-and-release peaking mode, consists of a 600-foot-long, 40-foot-high, concrete dam; a 650-acre reservoir; a 1,200-foot-long bypassed reach, a 1,200-foot-long penstock; a 375-foot-long 2.3-kilovolt (kV) transmission line; and a powerhouse containing 3 turbine/generator units with a total rated capacity of 1.54 MW. The Lower Development, which operates in a run-of-river mode, consists of a 350-foot-long, 25-foot-high concrete dam; a 9-acre reservoir; a 300-foot bypassed reach; a 2,200-foot-long, 2.3-kV transmission line; and a powerhouse containing 1 turbine/generator unit with a rated capacity of 680 kilowatt (kW). A more detailed project description is contained in ordering paragraph (B)(2).

THE SETTLEMENT AGREEMENT

8. The Settlement incorporates agreements reached among the parties to the Settlement (Parties) with regard to the Upper and Lower Developments. The stated goal of the Settlement is to provide for the continued operation of the developments with appropriate long-term environmental and recreational protection and mitigation measures. The Parties provide in the Settlement recommended terms and conditions for the resolution of operational, fisheries, wildlife, water quality, and recreational issues

8 The Upper Development's powerhouse discharges directly to the reservoir of the Lower Development.
applicable to the issuance of a new license and a water quality certificate (WQC) for the
Newton Falls Hydroelectric Project.

9. Section 1 of the Settlement states the effective date of the agreement, the
agreement's continued effectiveness throughout the term of the license, and the purpose of
settlement. Section 1 also provides a set of definitions and conventions and stipulates the
Parties intent to support issuance of a license consistent with the terms of the agreement.

10. Section 1.2 of the Settlement states the Parties' intent that the license condition
provisions of Section 3 of the Settlement be included in numbered license articles.
However, Commission policy requires placing provisions (such as the Section 3
provisions) that are mandatory license provisions (here, because they are included as
requirements of the water quality certification for the project) verbatim in appendices, and
incorporating the provisions by reference in ordering paragraphs. Nevertheless, the
provisions are incorporated in numbered license articles for the purpose of adding basic
requirements to enable the Commission to enforce the provisions. However, these
articles do not purport to, and indeed cannot, alter or override mandatory conditions, but
rather are meant to be complementary to them. The license provisions in Section 3 of
the Settlement, along with the Settlement provisions listing acronyms and definitions
referenced in those provisions, are set forth in Appendix B of this order and incorporated
in the license (see Ordering Paragraph E).

11. Section 2 of the Settlement states the Parties' agreement to support the issuance of
a new license with a 40 year term, and proposes a condition reserving the Commission's
authority to require the construction, operation, and maintenance of such fishways as may
prescribed by Interior. Pursuant to Section 2, the Parties propose to establish the project
boundary of the Upper Development at elevation 1424.0 feet National Geodetic Vertical
Datum (NGVD). The Parties propose to establish the project boundary of the Lower
Development at elevation 1375.5 feet NGVD.

12. Section 3 of the Settlement sets forth proposed impoundment fluctuation ranges,
flashboard heights, fish protection bypass flows, minimum flows for the Lower
Development, fish protection measures to facilitate downstream fish movement, and

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9 See Erie Boulevard Hydropower L.P., 101 FERC ¶ 62,090 at p. 64,208 para.14 (2002),
order on rehearing, 102 FERC ¶ 61,115 (2003) citing Avista Corporation, 93 FERC ¶

10 Avista, 93 FERC ¶ 61,116, supra, n. 13.
measures to improve public access and enhance recreational opportunities at the project. Also, in Section 3, the prospective licensee agrees to develop a stream flow and water level monitoring plan.

13. In the EA, the staff evaluated the measures proposed in the Settlement and concluded that the measures would adequately protect and enhance fishery, recreational, and other resources affected by the project.

APPLICANT'S PLANS AND CAPABILITIES

14. In accordance with Sections 10(a)(2)(c) and 15(a) of the FPA,\textsuperscript{11} staff has evaluated Orion Power's record as a licensee with respect to the following: (A) conservation efforts; (B) compliance history and ability to comply with the license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission services; (G) cost effectiveness of plans; and (H) actions affecting the public. I accept the staff's findings in each of the following areas.

A. Conservation Efforts (Section 10(a)(2)(C))

15. Section 10(a)(2)(C) of the FPA requires the Commission to consider the electricity consumption improvement program of the applicant, 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 requirements of state regulatory authorities. Orion Power sells the project's energy to Niagara Mohawk Power Corporation, a utility. Both companies are subsidiaries of Reliant Energy.

16. Staff concludes that Orion Power has and will continue to comply with section 10(a)(2)(C) of the FPA.

B. Compliance History and Ability to Comply with the New License (Sections 15(a)(2)(A) and 15(a)(3)(A))

17. Staff reviewed the relicensing application and Orion Power's compliance with the terms and conditions of the existing license. Staff finds that Orion Power's overall record

\textsuperscript{11} 16 U.S.C. \textsuperscript{8} 803(a)(2)(c) and 808(a).
of making timely filings and compliance with its license is satisfactory. Staff concludes that Orion Power can comply with the conditions of a new license.

C. Plans and Abilities of the Applicant to Manage, Operate, and Maintain the Project Safely (Section 15(a)(2)(B))

18. Orion Power owns and operates the Newton Falls Project. The project dam and appurtenant facilities are subject to Part 12 of the Commission's regulations concerning project safety. Staff reviewed Orion Power's management, operation, and maintenance of the project pursuant to the requirements of Part 12 and the associated Engineering Guidelines, including all applicable safety requirements such as warning signs and boat barriers, Emergency Action Plan, and Independent Consultant's Safety Inspection Reports. Orion Power's record of managing, operating, and maintaining these facilities presents no reason not to issue a new license.

19. Staff concludes that the dam and other project works are safe, and that the applicant's record of managing, operating, and maintaining these facilities is adequate.

D. Plans and Abilities of the Applicant to Operate and Maintain the Project in a Manner Most Likely to Provide Efficient and Reliable Electric Service (Section 15(a)(2)(C))

20. Staff reviewed the project's past operational record, as well as Orion Power's plans and abilities to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. In the 5 years prior to filing their application, there hasn't been any unscheduled outages. Based on its review, staff concludes that Orion Power has been operating the project in an efficient manner, within the constraints of the existing license, and is likely to continue to do so under a new license.

E. Need of the Applicant Over the Short and Long Term for the Electricity Generated by the Project to Serve Its Customers (Section 15(a)(2)(D))

21. Power generated by the Newton Falls Project is sold to Niagara Mohawk Power Corporation. While the Newton Falls Project represents only a portion of the need for Niagara Mohawk Power Corporation, the project provides a source of low-cost, dependable generation that displaces non-renewable fossil-fuel generation. The project's power also contributes to a diversified generation mix and helps meet power needs in the Northeast Power Coordinating Council region.
22. We conclude that power from the Newton Falls Project would help meet a need for power and ancillary services in both the short and long term. The project provides low-cost power that displaces non-renewable, fossil-fired generation and contributes to a diversified generation mix. Displacing the operation of fossil-fueled facilities avoids some power plant emissions and creates an environmental benefit.

F. The Impact of Receiving or Not Receiving the Project License on the Operation, Planning and Stability of Applicant's Transmission System (Section 15(a)(2)(E))

23. Orion Power does not have a transmission system.

G. Whether the Plans of the Applicant Will be Achieved, to the Greatest Extent Possible, in a Cost Effective Manner (Section 15(a)(2)(F))

24. Orion Power proposes no new construction or changes in project operation. The project, under a new license, would continue to operate in a storage and release peaking mode, and the existing project, which has had its debt significantly reduced over the previous license, would continue to be a very valuable source of economical electric power. The project, with the proposed and additional staff-recommended measures included as part of this license, would produce about 8.5 GWh of power annually, at a cost of about 44.92 mills per kilowatt-hour. Staff concludes that the plans of the applicant would be achieved, to the extent possible, in a cost-effective manner.

H. Actions Affecting the Public (Section 15(a)(3)(B))

25. The Newton Falls Project generates electricity used to serve the needs of the public. Orion Power provides project lands and access sites for public recreation usage, and also provides public safety measures at the dam. Environmental measures included in the license will generally improve environmental quality, and will have a beneficial effect on public use of project facilities for recreational purposes.

ANCILLARY SERVICE BENEFITS

26. In analyzing public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary benefits). These benefits include their value as almost instantaneous load-following response to dampen voltage and frequency instability on the transmission system, system-power-factor-correction through condensing operations, and a source of
power available to help in quickly putting fossil-fuel-based generating stations back on line following a major utility system or regional blackout.

WATER QUALITY CERTIFICATION

27. Under Section 401(a)(1) of the Clean Water Act (CWA), the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency either has issued a Water Quality Certificate (WQC) 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 provides that the State certification shall become a condition on any Federal license or permit that is issued.

28. On January 31, 2002, NFH applied to the NYSDEC for a Water Quality Certification (WQC) for the Newton Falls Project, as required by Section 401 of the Clean Water Act. The NYSDEC received the request for a WQC on January 31, 2002, and issued a WQC for the Newton Falls Project, consistent with the provisions of the Settlement, on December 20, 2002. The WQC requires that Orion Power meet all the terms and conditions of the Settlement relating to water quality, 20 NYSDEC general and special conditions for the protection of water quality under state regulations implementing section 401, and a special condition for providing public access and recreational opportunities in conformance with the Settlement. The WQC conditions are attached to this order as Appendix A, and are made part of this license (see ordering paragraph D).

COASTAL ZONE MANAGEMENT PROGRAM

29. Under Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. ' 1456(c)(3)(A), the Commission cannot issue a license for a hydropower 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 Coastal Zone Management Program. The Newton Falls Project is located outside New York's coastal zone management boundary. By letter dated May 30, 2002, the New York Department of State, Division of Coastal Resources determined that the project would not affect land and water uses and natural resources within the State's coastal areas. Therefore, a coastal zone consistency certification is not needed.


1333 U.S.C. ' 1341(d)
SECTION 18 FISHWAY PRESCRIPTIONS

30. Section 18 of the FPA\(^{14}\) provides that the Commission shall require the construction, operation, and maintenance by a licensee of such fishways as the Secretaries of Commerce or the Interior may prescribe. By letter dated December 20, 2002, Interior requested that the Commission reserve, in any license issued for the Newton Falls Project, Interior's authority to prescribe fishways. Consistent with the Commission's policy, Article 405 of this license reserves the Commission's authority to require such fishways as may be prescribed by Interior for the Newton Falls Project.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES UNDER FPA SECTION 10(j)

31. Section 10(j)(1) of the FPA\(^{15}\) requires the Commission, when issuing a license, to include license conditions based on the recommendations of the federal and state fish and wildlife agencies, submitted pursuant to the Fish and Wildlife Coordination Act\(^{16}\) to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

32. On December 23, 2002, Interior filed section 10(j) recommendations for the Newton Falls Project, which were generally consistent with the provisions of the Settlement. The conditions of this license are consistent with Interior's 10(j) recommendations and the settlement.

\(^{14}\) 16 U.S.C. ' 811.

\(^{15}\) 16 U.S.C. ' 803(j)(1).

\(^{16}\) 16 U.S.C. ' 661 et seq.
THREATENED AND ENDANGERED SPECIES

33. Section 7 of the Endangered Species Act (ESA), 16 U.S.C. ' 1536(a), requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of such species. In a letter dated November 8, 2002, FWS states that except for occasional transient individuals, no federally-listed or proposed endangered or threatened species are known to exist in the Newton Falls Project impact area. In addition, no habitat in the project's impact area is currently designated or proposed "critical habitat." Interior concludes that no Biological Assessment or further Section 7 consultation under the Endangered Species Act is required.

COMMENTS RECEIVED ON THE EA

34. On May 27, 2003, the EA for the Newton Falls Project was made available for public comment. Comments were filed timely by the FWS, ADK, and NYSDEC.17 Orion Power's comments were not filed in a timely manner; nevertheless, I have considered these comments.18 Staff responses are summarized below.

Project Decommissioning

35. In the EA, the annual loss of energy is incorrect, it should be 9,500,000 kWh.

Water Quality

36. In non-trout waters, Dissolved Oxygen requirement refers to the minimum daily average.

Reservoir Fluctuations and Flashboard Height

37. The FWS, NYSDEC, and Orion Power requested Commission staff to clarify how the proposed action would reduce the Upper Development's reservoir fluctuations during July 16 and April 30.

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17 The entities filed their comments on June 13, 2003, July 10, 2003, July 11, 2003, respectively.

18 Comments were due July 11, 2003, and Orion Power's comments were filed on July 14, 2003.
38. Under the existing license, the maximum allowable water level fluctuation in the Upper Development’s reservoir is up to 2.2 feet below the top of the flashboards, except during May 1 through June 30, the spawning period for smallmouth bass and northern pike. During spawning, the Upper Development’s reservoir drawdown is limited to 1.0 foot below the top of the flashboards. The proposed action is to limit fluctuation of the Upper Development’s reservoir to within 1.0 foot below the top of the flashboards from July 16 through April 30, and within 0.5 foot below the top of the flashboards from May 1 through July 15. This action would then correspond to a 1.2-foot reduction in the fluctuation from the existing conditions (2.2 feet below top of flashboards) to the proposed conditions (1.0 foot below top of flashboards) from July 16 through April 30.

39. Also the EA incorrectly stated that a 0.5-foot reduction in the fluctuation from existing conditions (1.0 foot below top of flashboards) to the proposed conditions (0.5 foot below top of flashboards) would occur from May 1 through July 15. Under the current license, during May 1 to June 30, the water level fluctuation is limited to 1.0 foot. Therefore, a 0.5-foot reduction in the fluctuation from existing conditions would occur from May 1 to June 30. During July 1 to July 15, the reduction in reservoir fluctuation for the Upper Development’s reservoir would be 1.7 feet (from 2.2 feet to 0.5 foot below top of flashboards).

Fish Passage

40. Commission staff uses the terminology “fish passage” and “fish movement” interchangeably to describe facilities for downstream fish movement.

Terrestrial Resources

41. The EA states that Orion Power agreed to transfer a parcel of land containing portions of Chaumont Swamp, which are located outside of the project boundary, to the State of New York, or other appropriate organization should the state decline the offered donation. This statement is incorrect, Orion Power does not own the parcel of land, rather the donor is Newton Falls Holding, L.L.C.

Project Boundary

42. Orion Power objected to Commission staff recommending that proposed recreational facilities at the Upper Development be included within the project boundary. Orion Power proposed to provide permanent recreational easements; however, Orion Power’s proposal to acquire and retain rights to fulfill the license requirement is not sufficient. All lands that are required to fulfill project purposes (i.e., recreational
facilities at the Upper Development), need to be included in the project boundary. Therefore, I am requiring that the project boundary be expanded to include the proposed project recreational facilities that are currently located outside of the project boundary, and that Orion Power hold sufficient rights to these properties, such as Orion Power's proposed recreational easements, to fulfill project purposes.

**Cultural Resources**

43. The shoreline erosion monitoring plan requires a reconnaissance and monitoring of the area of concern to be completed by responsible personnel of the licensee as defined by the SHPO. Commission staff worded the phase "responsible personnel as defined by the SHPO" in order to provide further clarification as to what constitutes a "responsible personnel."

**Developmental Analysis**

44. ADK commented the economic analysis of the EA was flawed since Orion Power would not have acquired a project that operated at a loss. As discussed in the introductory paragraphs to the developmental analysis, the FERC economic model incorporates a number of simplifications and assumptions. The purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and costs of a project and reasonable alternatives, and to support an informed decision on the public interest with respect to a proposed license. However, it does not always reflect the true conditions under which an applicant would own and operate a project. As discussed for this case, the model uses a single current year energy price, whereas the applicant may anticipate that the sale price of project output would increase in the future. An applicant may be able to obtain financing at a more favorable rate than the assumed interest rate; the assumed discount rate may not be appropriate for the applicant's circumstances; or the applicant may derive some other benefit from the project, such as load following capability, that is not captured in a simple mill rate. The uncertainty introduced by these assumptions is part of why project economics are only one of the many public interest factors the Commission must consider in determining whether, and under what conditions, to issue a license. The applicant's decisions, on the other hand, are based on their own financial analysis and business requirements.

45. ADK also commented that the capital costs for the recreation features ($40,680) was high, but Commission staff have no reason to refute the estimates provided by the Orion Power in the Additional Information Request filed on October 21, 2002.
ADK and Orion Power both commented that the footnotes for Table 7 are incorrect. Provided below are the revised footnotes for Table 7.

NFH would also donate a parcel of land to the State of New York, for which they provided a capital cost of $400,000. However, the land is not within the existing project boundary and is not to be included in the project boundary for a new license. Therefore, we have not included it in our developmental analysis.

Also recommended by Interior.

Combination of Upper Development ($112,000 capital; $10,000 O&M) and Lower Development ($92,000 capital; $10,000 O&M) fish protection measures from Orion Power (2002a). Escalated to 2003 at 1.7 percent annual rate. Annualized cost includes $1,890 (50,000 kWh) in lost energy.

Combination of Upper Development ($42,000 capital; $1,500 O&M) and Lower Development ($35,000 capital; $1,500 O&M) fish movement measures from Orion Power (2002a). Escalated to 2003 at 1.7 percent annual rate.

Combination of Upper Development ($25,000 capital; $1,500 O&M) and Lower Development ($25,000 capital; $1,500 O&M) minimum flow measures from Orion Power (2002a). Escalated to 2003 at 1.7 percent annual rate. Annualized cost includes $28,350 (750,000 kWh) in lost energy.

A minimum flow of 100 cfs is provided at the Lower Development under the current license.

Increase in O&M of $1,000 from Orion Power (2002a), escalated to 2003 at 1.7 percent annual rate. Annualized cost includes $7,180 (190,000 kWh) in lost energy.

Increase in O&M of $1,000 from Orion Power (2002a), escalated to 2003 at 1.7 percent annual rate. Annualized cost includes $380 (10,000 kWh) in lost energy.

Costs assumed to be included under minimum flow and reservoir fluctuation enhancements.

Combination of Upper Development ($25,000 capital, $1,000 O&M) and Lower Development ($15,000 capital; $1,000 O&M) recreation measures from Orion Power (2002a), with assumed distribution between boat launches and canoe portage. Escalated to 2003 at 1.7 percent annual rate.

Minimal costs.

Proposed by Orion Power outside the terms of the Settlement.
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Settlement Agreement, with two additional measures (recreation easements and shoreline monitoring plan).

COMPREHENSIVE PLANS

47. Section 10(a)(2)(A) of the FPA\textsuperscript{19} requires the Commission to consider the extent to which a hydroelectric project is consistent with federal and state comprehensive plans for improving, developing, or conserving waterways affected by the project. Under Section 10(a)(2), federal and state agencies filed a total of 29 comprehensive plans that address various resources in New York. Of these, the Commission staff identified and reviewed eight plans relevant to the project.\textsuperscript{20} No inconsistencies were found.

COMPREHENSIVE DEVELOPMENT

48. Sections 4(e) and 10(a)(1) of the FPA,\textsuperscript{21} respectively, require the Commission to give equal consideration to the power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish

\textsuperscript{19} 16 U.S.C. \textsuperscript{1} 803(a)(2)(A).


\textsuperscript{21} 16 U.S.C. \textsuperscript{1} 797(e) and 803(a)(1).
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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.

49. In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, the Commission considers a number of public interest factors, including the economic benefits of project power.

50. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corp.,\(^{22}\) the Commission employs an analysis that 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 reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license. In making its decision, the Commission considers the project power benefits both with the applicant's proposed mitigation and enhancement measures and with the Commission's modifications and additions to the applicant's proposal.

51. As proposed by Orion Power, staff estimates that the annual cost of the project would be about $381,840 (44.92 mills/kWh). The annual power benefit, for the estimated annual generation of 8.5 GWh, would be $321,300 (37.80 mills/kWh). The resulting annual net benefit would be negative $60,540 (-7.12 mills/kWh). The proposed action with additional staff-recommended measures would increase the annual cost about $2,390 to $384,230 (45.20 mills/kWh) for the same generation, so the annual net benefit would decrease by $2,390 to negative $62,930 (-7.40 mills/kWh).

52. Our evaluation of the economics of the proposed action and the proposed action with additional staff-recommended measures shows in each analysis that project energy

\(^{22}\)72 FERC & 61,207 (1995).
would cost more than alternative energy. However, project economics is only one of the many public interest factors that is considered in determining whether or not to issue a license, and operation may be desirable for other reasons. For example, other public interest factors are to: (a) diversify the mix of energy sources in the area; (b) promote local employment; and (c) provide a fixed- cost source of power and reduce contract needs. Ultimately, the applicant must decide if it is in their best interest to operate the project.

53. Based on our independent review and evaluation of the Newton Falls Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EA, I have selected the relicensing of the Newton Falls Project as proposed by Orion Power in the Settlement, with the additional staff-recommended measures, as the preferred alternative.

54. I selected this alternative because: (1) issuance of a new license would serve to maintain a beneficial, dependable, and an inexpensive source of electric energy; (2) the required environmental measures would protect and enhance fish and wildlife resources, water quality, recreational resources and historic properties; and (3) the 2.22-MW of electric energy generated from renewable resource would continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

55. The preferred alternative includes the following measures:

1. limit reservoir fluctuations for the Upper and Lower Developments (Article 401);

2. develop and implement a streamflow and water level monitoring plan (Article 402);

3. replace or modify existing trashracks to provide bar racks with 1-inch clear spacing between the bars (Article 403);

4. develop downstream fish movement facilities at the Upper and Lower Developments, and provide a flow of 20 cfs, or inflow, whichever is less, through both developments' downstream fish movement facilities (Article 404);

5. reserve the Commission's authority to require the construction, operation, and maintenance of fishways as may be prescribed by Interior (Article 405);
(6) develop and implement a recreation plan (Article 406);

(7) modify the project boundary of the Upper and Lower Developments and include, within the project boundary, recreational facilities associated with the project (Article 407); and

(8) develop and implement a shoreline erosion monitoring plan (Article 408).

LICENSE TERM

56. Section 15(e) of the FPA\textsuperscript{23} provides that any license issued shall be for a term of not less than 30 years nor more than 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigative and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures.

57. The Settlement contains a provision requesting the issuance of a 40-year license term. This license authorizes a relatively moderate amount of new environmental mitigation and enhancement measures, encompassing such matters as minimum flows, limits on reservoir fluctuations, and recreational and fishery resources, as well as development and implementation of plans to improve public access and cultural resources management. Consequently, and because the term of the license was likely an important element in the negotiations that led to the Settlement, a 40-year term of license for the Newton Falls Project is appropriate.

SUMMARY OF FINDINGS

58. The EA contains background information, analysis of effects, support for related license articles, and the basis for a finding of no significant impact on the environment. Issuance of the license is not a major federal action significantly affecting the quality of the human environment. The design of this project is consistent with the engineering standards governing dam safety. The project would be safe if operated and maintained in accordance with the requirements of this license.

59. Based on the review and evaluation of the project, as proposed by the applicant, and with the additional staff-recommended environmental measures, I conclude that the

\textsuperscript{23} 16 U.S.C. ' 808(e).
continued operation and maintenance of the project in the manner required by the license will protect and enhance fish and wildlife resources, water quality, recreational, aesthetic, and cultural resources. The electricity generated from this renewable water power resource will be beneficial because it will continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution. I conclude that the Newton Falls Project, with the conditions and other special license articles set forth below, will be best adapted to the comprehensive development of the Oswegatchie River for beneficial public uses.

The Director orders:

(A) This license is issued to Orion Power New York GP II, Inc. (licensee) for a period of 40 years, effective February 1, 2004, to operate and maintain the Newton Falls Hydroelectric Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G, filed on January 30, 2002 and revised on October 21, 2002:

<table>
<thead>
<tr>
<th>Exhibit G Drawing</th>
<th>FERC No. 7000-</th>
<th>Showing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet-1</td>
<td>1007</td>
<td>Project Boundary-General</td>
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<tr>
<td>Sheet-2</td>
<td>1008</td>
<td>Project Boundary (Western Portion)</td>
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<tr>
<td>Sheet-5</td>
<td>1012</td>
<td>Project Boundary (Enlarged Area Around Powerhouse)</td>
</tr>
</tbody>
</table>

(2) The project works consisting of:

The Upper Development including: (a) a 600-foot-long, 40-foot-high concrete
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gravity dam, including (i) a 114-foot-long non-overflow section that forms the left abutment of the dam, (ii) a 42-foot-long floodgate structure with four 8-foot-wide by 7-foot-high gate openings, (iii) a 58-foot-long spillway with a height of 21 feet and 2.3-foot-high flashboards (crest elevation of 1,421.0 feet National Geodetic Vertical Datum [NGVD]), (iv) a 36-foot-long by 45-foot-wide by 25-foot-high intake structure, having truss racks with 2-inch clear bar spacing, and (v) a 315-foot-long non-overflow section that forms the right abutment of the dam; (b) a powerhouse containing three Leffel Type "Z" turbine-generator units that have a combined installed capacity of 1,540 kW and a combined hydraulic capacity of 464 cubic feet per second (cfs); (c) a 1,200-foot-long, 9-foot-diameter woodstave penstock with a riveted steel surge tank; (d) a 375-foot-long 2.3-kilovolt (kV) transmission line; (e) a reservoir with a surface area of 650 acres and 5,930 acre-feet of gross storage capacity; (f) a 35-foot-wide, 250-foot-long tailrace; and (g) appurtenant facilities.

The Lower Development including: (a) a 350-foot-long, 28-foot-high concrete gravity dam, including (i) 120-foot-long spillway with a height of 25 feet and 1.5-foot-high flashboards (crest elevation of 1,372.5 feet NGVD) and (ii) a 75-foot-long by 20-foot-wide by 15-foot-high intake structure, having truss racks with 2-inch clear bar spacing; (b) a powerhouse containing a Leffel Type "Z" turbine-generator unit has an installed capacity of 680 kW and a hydraulic capacity of 486 cfs; (c) a 2,200-foot-long, 2.3-kV transmission line; (d) a reservoir with a surface area of 9 acres and 115 acre-feet of gross storage capacity; (e) a 30-foot-wide, 200-foot-long tailrace; and (f) appurtenant facilities.

The project works generally described above are more specifically described in Exhibit A of the application (pages A-1 to A-4) and shown by Exhibit F drawings, filed on January 30, 2002:

<table>
<thead>
<tr>
<th>Exhibit F Drawing</th>
<th>FERC No. 7000-</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet-1</td>
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<td>Project Plan</td>
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<td>Lower Dam Plan and Sections</td>
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<td>Sheet-4</td>
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<td>Lower Powerhouse Plan, Sections, and Elevations</td>
</tr>
<tr>
<td>Sheet-5</td>
<td>1005</td>
<td>Upper Powerhouse Plan, Sections, and Elevations</td>
</tr>
</tbody>
</table>
(3) All of the structures, fixtures, equipment, or facilities used or useful in the operation and maintenance of the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, as approved by the Commission, and all riparian or other rights that are necessary or appropriate in the operation and maintenance of the project.

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

(D) This license is subject to the water quality certification conditions submitted by the New York State Department of Environmental Conservation pursuant to Section 401(a) of the Clean Water Act, as those conditions are set forth in Appendix A to this order.

(E) This license is subject to the Settlement conditions set forth in Appendix B to this order.

(F) This license is subject to the articles set forth in Form L-3 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States," and the following additional articles:

Article 201. The licensee shall pay the United States annual charges, effective as of the first day of the month in which this license is issued, for the purposes of reimbursing the United States for the cost of administration of Part I of the Federal Power Act, as determined in accordance with provisions of the Commission’s Regulations in effect from time to time. The authorized installed capacity for that purpose is 2,220 kilowatts.

Article 202. The licensee shall file, within 45 days of the effective date of the license, three sets of aperture cards of the approved exhibit drawings. The sets must be reproduced on silver or gelatin microfilm and mounted on type D (3 1/4" X 7 3/8") aperture cards.

Prior to microfilming, the FERC Drawing Number (7000-1001 through 7000-1012) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number must be typed on the upper right corner of each aperture card. Additionally the Project Number, FERC exhibit (e.g., F-1, G-1, etc.), Drawing title, and date of this license must be typed on the upper left corner of each aperture card.
Two of the sets shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's New York Regional Office.

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

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

The specified reasonable rate of return used in computing amortization reserves shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly included in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

**Article 301.** Within 6 months after completion of construction of the facilities authorized by this license (e.g., recreational facilities), the licensee shall submit, for Commission approval, revised Exhibits A, F, and G to show those project facilities as built. The licensee shall file six copies with the Commission, one copy with the
Article 302. 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.

Article 401. As required by Section 3.1 of Appendix B of this order, the licensee shall limit Upper Development reservoir fluctuations by January 31, 2006. The licensee shall limit the Lower Development reservoir fluctuations by January 31, 2008. As required by Section 3.2 of Appendix B of this order, a minimum base flow of 100 cfs or inflow, whichever is less, shall be maintained in the Oswegatchie River below the Lower Development.

The licensee may temporarily modify these minimum or reservoir elevation flows if required by operating emergencies by its control, or for short periods upon mutual agreement between the licensee, the New York State Department of Environmental Conservation, and the U.S. Fish and Wildlife Service. If the reservoir elevations are modified pursuant to 3.1 or 3.2 of Appendix B to this order, respectively, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 402. As required by Section 3.3 of Appendix B of this order, the licensee shall develop a streamflow and water level monitoring plan to ensure compliance with the impoundment fluctuations, minimum base flow below the lower development, and fish movement/bypass flows required, respectively, by sections 3.1, 3.2, and 3.2.2 of Appendix B of this order. The plan shall be developed in consultation with the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Fish and Wildlife Service (FWS), and submitted for Commission approval by January 31, 2006. The plan shall detail the mechanisms and structures, including any periodic maintenance and calibration necessary for any installed devices or gages, to ensure that the devices work properly, and shall specify how often reservoir elevations, minimum flows, and operational compliance will be recorded and reported to the NYSDEC and FWS.
The plan shall include, at a minimum, the requirements of Section 3.3 of Appendix B of this order and the following:

(1) measures to monitor instream flow releases from both developments to verify the minimum flow releases to the bypassed reaches and to verify the base flow in the Oswegatchie River below the Lower Development;

(2) measures to monitor headpond and tailwater elevations, as needed for instream flow verification;

(3) measures to provide an appropriate means of independent verification of water levels by the NYSDEC and the FWS;

(4) provisions for the installation of permanent staff gages to provide verification of headpond levels, to the nearest 0.1 foot, and staff gages in the tailrace areas, the location of the gages to be determined in consultation with the NYSDEC and the FWS; the staff gages shall be visible to the general public, with access to the gages provided to the NYSDEC and the FWS; all gages and other equipment shall be operational and fully calibrated by October 31, 2006;

(5) measures to keep accurate and sufficient records of reservoir elevations and instream flows to the satisfaction of the NYSDEC, and make the data available in a format, and at intervals, as requested by the NYSDEC;

(6) provisions to provide to the NYSDEC a seven-day-per-week contact person to provide immediate verification of monitored flows and responses to questions about abnormal or emergency conditions; and

(7) measures to keep accurate and sufficient records of any uncontrollable station outage that causes a reduction in the required instream flows at the Upper and Lower Developments.

The plan shall include provisions consistent with the emergency notification requirements for project operation and the instream flows required by this license. In addition, should impoundment elevations or instream flows, as measured according to the approved monitoring plan, fall below the levels required by this license, the plan shall include a provision whereby the licensee files with the Commission a report of the incident within 30 days of the incident.
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The report shall, to the extent possible, identify the cause, severity, and duration of the incident, and any observed or reported adverse environmental impacts resulting from the incident. The report also shall include:

(1) operational data necessary to determine compliance with this article;

(2) a description of any corrective measures implemented at the time of the occurrence and the measures implemented or proposed to ensure that similar incidents do not recur; and

(3) comments or correspondence, if any, received from the NYSDEC and FWS regarding the incident.

Based on the report and the Commission's evaluation of the incident, the Commission reserves the right to require modifications to project facilities and operations to ensure future compliance.

The licensee shall include with the streamflow and water level monitoring plan documentation of consultation with NYSDEC and FWS, copies of comments and recommendations on the completed plan after it has been prepared and provided to the NYSDEC and FWS, and specific descriptions of how the NYSDEC and FWS's comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the NYSDEC and the FWS to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 403. As required by Section 3.4 of Appendix B of this order, the licensee shall, by January 31, 2008, replace or modify the trashracks at the Upper and Lower Developments to provide bar racks with 1-inch clear spacing between the bars. The trashracks shall be installed either permanently or seasonally (from May 1 through November 15) by using overlays. At least six months before replacing the trashracks, the licensee shall file, for Commission approval, a plan to replace the trashracks. The plan shall, at a minimum, include functional design drawings showing the specifications of the permanent or seasonal trashracks and a schedule for the installation.
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The licensee shall prepare the drawings in consultation with the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Fish and Wildlife Service (FWS). The licensee shall include with the drawings documentation of consultation with the NYSDEC and FWS, copies of comments and recommendations on the drawings after they have been prepared and provided to the NYSDEC and FWS, and specific descriptions of how the NYSDEC and FWS's comments are accommodated by the drawings. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the drawings 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 drawings. Upon Commission approval, the licensee shall construct the trashracks, including any changes required by the Commission.

The licensee may temporarily modify the installation of the trashracks if required by operating emergencies beyond its control, or for short periods upon mutual agreement between the licensee, the NYSDEC, and FWS. If the installation is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 404. As required by Section 3.4 of Appendix B of this order, the licensee shall provide downstream fish movement facilities at the Upper and Lower Developments. The downstream movement facilities shall consist of plunge pools, smooth transitions, channel modifications, etc., and the routes shall consist of the spillway, sluiceway and gates at the Upper Development and the spillway and gates at the Lower Development. The downstream fish movement facilities shall be completed by January 31, 2006 at the Upper Development and by January 31, 2008 at the Lower Development.

The licensee shall also provide a minimum flow of 20 cfs, or inflow, whichever is less, to the Upper Development bypassed reach by January 31, 2006, and a minimum flow of 20 cfs, or inflow, whichever is less, to the Lower Development bypassed reach by January 31, 2008. The minimum flow at each development shall be released through each development's respective downstream fish movement facilities.

At least six months before constructing the downstream fish movement facilities, the licensee shall file for Commission approval functional design drawings of the facilities. Also, the licensee shall provide a schedule for completing the installation of the downstream fish movement facilities.
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The licensee shall prepare the drawings in consultation with the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Fish and Wildlife Service (FWS). The licensee shall include with the drawings documentation of agency consultation with the NYSDEC and FWS, copies of comments and recommendations on the completed drawings after they have been prepared and provided to the NYSDEC and FWS, and specific descriptions of how the NYSDEC and FWS's comments are accommodated by the drawings. The licensee shall allow a minimum of 30 days for the NYSDEC and FWS to comment and to make recommendations prior to filing the drawings 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 drawings. Upon Commission approval, the licensee shall construct the downstream movement facilities, including any changes required by the Commission.

The licensee may temporarily modify the operation of the downstream fish movement facilities if required by operating emergencies beyond its control, or for short periods upon mutual agreement between the licensee, the NYSDEC and FWS. If the minimum flows or the downstream fish movement facilities are so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 405. The Commission reserves the authority to require the licensee to construct, operate, and maintain or to provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of Interior under Section 18 of the Federal Power Act.

Article 406. Within one year after the effective date of the license, the licensee shall file for Commission approval a recreation plan to implement the requirements of Section 3.5.1 of Appendix B to this order. The plan, at a minimum, shall include the requirements of Section 3.5.1 and the following:

(1) Description of measures, including final design drawings and construction schedule, to: (a) construct one new car-top boat launch just west of the town beach, including a gravel parking area, a picnic table, and appropriate signage; (b) improve with gravel and provide appropriate signage at the existing car-top boat launch located about 1 mile east of the town beach; and (c) provide a canoe portage route, designed in consultation with Adirondack Mountain Club (ADK), including a take-out on the right side of the Upper Development's reservoir about 300 feet upstream of the dam, the use of existing roadways improved for the
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portage, a put-in at the Lower development's reservoir about 150 feet downstream of the bridge, and a take-out on the left side of the Lower Development's reservoir just upstream of the Lower Development dam with a put-in about 450 feet downstream of the Lower Development dam;

(2) measures for soil erosion and sedimentation control during the construction of the recreational facilities;

(3) measures to provide permanent recreational easements for the duration of the projects license to ensure recreational access for the two boat launches and canoe take-out and portage from the upper reservoir;

(4) provisions to allow public access to all licensee owned lands within the project boundary at the Upper and Lower Developments. The licensee shall limit public access to lands and facilities specifically related to hydroelectric generation including, but not necessarily limited to, dams, dikes, gates, intake structures, water conveyance structures, powerhouses, substations, transmission lines, and certain access roads leading to such facilities;

(5) measures to monitor the use of project recreational facilities consistent with the requirements of the FERC Form 80 reporting;

(6) measures to manage the facilities over the term of any new license issued;

(7) a schedule for consulting with the parties of the Settlement to examine further opportunities to develop access to project lands. The licensee shall file the summary of the consultation and any proposed action with the Commission; and

(8) a discussion of how the needs of the disabled were considered in the planning and design of each recreation facility.

The licensee shall prepare the recreation plan after consultation with the New York State Department of Environmental Conservation (NYSDEC) and the ADK to ensure that the facilities provided best meet recreation needs and are coordinated with other initiatives in the region. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the NYSDEC and ADK, and specific descriptions of how the NYSDEC and ADK comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the NYSDEC and ADK to comment and make recommendations prior to filing the plan with the Commission for approval. If the
licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No ground-disturbing or land-clearing activities for new recreation facilities shall begin until the licensee is notified by the Commission that the recreation plan is approved. Upon approval, the licensee shall implement the plan, including any changes required by the Commission.

The licensee may temporarily modify the recreation measures if required by operating emergencies beyond its control, or for short periods upon mutual agreement between the licensee and the NYSDEC. If the recreation measures are so modified, the licensee shall notify the Commission and the NYSDEC as soon as possible, but no later than 10 days after each such incident.

Article 407. Within two years after the effective date of the license, the licensee shall file, for Commission approval, eight copies of the revised Exhibit G drawings denoting the revised project boundary. The licensee shall submit six copies to the Commission, one copy to the Commission's New York Regional Director, and one copy to the Director, Division of Hydropower Administration and Compliance, Office of Energy Projects. The project boundary shall be modified to include: all lands up to elevation 1,424 feet NGVD (3 feet above spillway crest) for the Upper Development and up to elevation 1,375.5 feet NGVD (3 feet above spillway crest) for the Lower Development; and recreational facilities associated with the project, including the two boat launch areas and the canoe put-in and take-out at the Upper Development that are currently outside of the project boundary.

Article 408. The licensee, before starting any land-clearing or land-disturbing activities within the project boundaries, other than those specifically authorized in this license, shall consult with the New York State Historic Preservation Officer (SHPO). If the licensee discovers previously unidentified archeological or historic properties during project operation, during the course of constructing or developing project works or other facilities at the project, or during the course of shoreline erosion monitoring, the licensee shall consult with SHPO.

Moreover, within 6 months after the effective date of the license, the licensee shall consult with the SHPO and file for Commission approval a shoreline erosion monitoring plan. With the filing, the licensee shall include the SHPO's comments and recommendations on the shoreline erosion monitoring plan, and specific descriptions of how the SHPO's comments are accommodated by the plan. The licensee shall allow a
minimum of 30 days for the SHPO to comment and to make recommendations prior to filing the plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing shall include the licensee’s reasons, based on project-specific information.

The shoreline erosion monitoring plan, at a minimum, shall include the following provisions:

(1) initial reconnaissance of portions of the Upper Development’s reservoir shoreline to establish a baseline to compare future erosion conditions in areas of concern identified by the SHPO, which are the flat areas adjacent to the upper end of the Upper Development reservoir;

(2) follow-up comparative reconnaissance monitoring of the Upper Development’s reservoir shoreline area following the occurrence of an extreme flow event (Upper Development’s reservoir elevations greater than 1,424 feet NGVD); and

(3) reconnaissance and monitoring of the area of concern by responsible personnel of the licensee as defined by the SHPO.

In the event significant signs of erosion are discovered, the licensee shall, within 30 days of the discovery, consult further with the SHPO to determine what further actions and/or investigations, if any, are needed, and file the results of this consultation (e.g., any supplemental plan developed in consultation with the SHPO, the SHPO’s comments on any such plan, the licensee’s response to the SHPO’s comments). The licensee shall take no further action that may foreclose the Commission’s opportunity to direct changes to the filing until notified by the Commission that the filing is approved.

Article 409. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a
permitted use and occupancy violates any condition of this article or any other condition
imposed by the licensee for protection and enhancement of the project's scenic,
recreational, or other environmental values, or if a covenant of a conveyance made under
the authority of this article is violated, the licensee shall take any lawful action necessary
to correct the violation. For a permitted use or occupancy, that action includes, if
necessary, canceling the permission to use and occupy the project lands and waters and
requiring the removal of any non-complying structures and facilities.

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

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

of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed. If no conveyance was made during the prior calendar year, the licensee shall so inform the Commission and the Regional Director in writing no later than January 31 of each year.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 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 Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, 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 SHPO.
(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

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

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

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K 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 or K drawings would be filed for approval for other purposes.

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

(G) The licensee shall serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.
Project No. 7000-015

(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

New York State Department of Environmental Conservation
Certification Under Section 401 of the Federal Power Act

Department of Environmental Conservation.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of
Environmental Conservation of the State of New York, its representatives, employees,
and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable
to the permittee's acts or omissions in connection with the permittee's undertaking of
activities in connection with, or operation and maintenance of, the facility or facilities
authorized by the permit whether in compliance or not in compliance with the terms and
conditions of the permit. This indemnification does not extend to any claims, suits,
actions, or damages to the extent attributable to DEC's own negligent or intentional acts
or omissions, or to any claims, suits, or actions naming the DEC and arising under article
78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights
provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees,
agents and assigns of their responsibility to comply with this permit, including all special
conditions while acting as the permittee's agent with respect to the permitted activities,
and such persons shall be subject to the same sanctions for violations of the
Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands,
easements and rights-of-way that may be required to carry out the activities that are
authorized by this permit.
Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

GENERAL CONDITIONS

General Condition 1: Facility Inspection by the Department

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 7 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative (luring an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

General Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

General Condition 3: Applications for Permit Renewals or Modifications

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.
Project No. 7000-015

The permittee must submit a renewal application at least:

a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (Alt) and Solid Waste Management Facilities (SWMF), and

b) 30 days before expiration of all other permit types. Submission of applications for permit renewal or modification are to be submitted to:
NYSDEC Chief Permit Administrator
625 Broadway
Albany, NY 12233-1750
Telephone (518)402-9167

General Condition 4: Permit Modifications, Suspensions and Revocations by the Department

The Department reserves the right to modify, suspend or revoke this permit in accordance with 6 NYCRR Part 621. The grounds for modification, suspension or revocation include:

a) materially false or inaccurate statements in the permit application or supporting papers;

b) failure by the permittee to comply with any terms or conditions of the permit;

c) exceeding the scope of the project as described in the permit application;

d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;

e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.
CERTIFICATION

1. The New York State Department of Environmental Conservation ("Department" or "NYS DEC") hereby certifies:

$ the Department has reviewed the certificate holder's Application for Federal Hydroelectric License (hereafter referred to as "the Application") and all other available pertinent information, including the Offer of Settlement filed with the Federal Energy Regulatory Commission (FERC) in July 2002;

$ the project will comply with Sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act as amended and as implemented by the limitations, standards and criteria of the state statutory and regulatory requirements set forth in 6NYCRR Section 608.9(a); and

$ the project will comply with applicable New York State effluent limitations, water quality standards and thermal discharge criteria set forth in 6NYCRR Parts 700-706.

This Water Quality Certification is issued pursuant to Section 401 of the Federal Water Pollution Control Act (33 USC 1341).

CONTACTS: Except as otherwise specified, all contacts with the Department concerning this certificate shall be addressed to:

New York State Department of Environmental Conservation
Regional Permit Administrator
317 Washington Street, Watertown, NY 13601

Written submissions to the Department must include five (5) complete copies of the submission.

SPECIAL CONDITIONS

A. ADMINISTRATION

1. This certificate includes and incorporates the Newton Falls Hydroelectric Project Offer of Settlement' ("Settlement") dated May, 2002.
2. **Inspections:** The project, including relevant records, is subject to inspection at reasonable hours and intervals, upon reasonable notice to the certificate holder, by an authorized representative of the Department to determine whether the applicant is complying with this certification. A copy of this certification, including the Settlement dated May, 2002, as well as the FERC license and all pertinent maps, drawings and special conditions must be available for inspection by Department staff during such inspections at the project.

3. **Emergencies:** With the exception of emergency provisions described in the Settlement (see subsections 3.1, 3.2.3, 3.4 and 3.5.1g), the following procedures shall apply to activities conducted at the Project in response to an emergency:

   Prior to commencement of emergency activities, the NYSDEC must be notified and must determine whether to grant approval. If circumstances require that emergency activities be taken immediately such that prior notice to the NYSDEC is not possible, then the NYSDEC must be notified by the Certificate Holder(s) within 24 hours of commencement of the emergency activities. In either case, notification must be by certified mail, telegram, or other written form of communication, including fax and electronic mail. This notification must be followed within 3 weeks by submission of the following information:

   (1) a description of the action;

   (2) location map and plan of the proposed action;

   (3) reasons why the situation is an emergency

   All notifications, requests for emergency authorizations and information submitted to support such requests shall be sent to the Regional Permit Administrator at the address listed above.

4. **Modifications and Revocations:** The DEC reserves the right to modify or revoke this certificate when:

   1) the scope of the authorized activity is exceeded or a violation of any condition of this certificate or provisions of the ECL and pertinent regulation is found;

   2) the certificate was obtained by misrepresentation or failure to disclose relevant facts;
Project No. 7000-015

3) new material information is discovered;

4) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the certificate was issued.

B. OPERATING CONDITIONS

5. Instream Flows: The certificate holder shall maintain instream flows in accordance with the Settlement, in particular, Section 3.2.

6. Flow Monitoring: The certificate holder shall develop a stream flow and water level monitoring plan consistent with the Settlement in particular Section 3.3.

7. Impoundment Fluctuations: The Upper and Lower Reservoirs (project reservoirs) shall be operated in accordance with the Settlement (see subsection 3.1). Alternate impoundment operating plans must be reviewed and approved by NYS DEC prior to being implemented. Emergencies shall be dealt with in accordance with Special Condition #3 of this Certificate.

8. Fish Protection and Downstream Fish Movement: Fish protection provisions and downstream fish movement provisions shall be provided in accordance with the Settlement (see section 3.4).

C. PROJECT MAINTENANCE AND CONSTRUCTION

note: All matters pertaining to "Project Maintenance and Construction" shall be addressed to:

Regional Permit Administrator
New York State Department of Environmental Conservation
317 Washington Street
Watertown, NY 13601

9. Maintenance Dredging: The certificate holder shall install and maintain appropriate turbidity control structures while conducting any maintenance dredging activities in the intake/forebay area of the Project.

10. Sediment Analysis and Disposal: The certificate holder must sample any sediments to be disturbed or removed from the project waters and test them for contaminants. Sampling and testing shall be accomplished according to a protocol submitted to and approved by the Department prior to sampling.
Prior to dredging or other excavation, the certificate holder must secure Department approval for all disposal or interim holding locations for any sediments to be removed from the project waters.

11. **Erosion and Sediment Control**: The certificate holder shall ensure that the following erosion and sediment/contaminant control measures, at a minimum, are adhered to during routine maintenance and construction that may result in sediments/contaminants entering the project reservoirs or the Oswegatchie River.

1. Isolate in-stream work from the flow of water and prevent discolored (turbid) discharges and sediments caused by excavation, dewatering and construction activities from entering the waters of the Oswegatchie River.

2. Prohibit heavy construction equipment from operating below the mean high water level of project reservoirs and the Oswegatchie River until the work area is protected by a watertight structure and dewatered.

3. Minimize soil disturbance, grade so as to prevent or minimize erosion and provide temporary and/or permanent stabilization of all disturbed areas and stockpiles to minimize the potential for erosion and subsequent sedimentation within project reservoirs or the Oswegatchie River.

4. Protect all waters from contamination by deleterious materials such as wet concrete, gasoline, solvents, epoxy resins or other materials used in construction, maintenance and operation of the project.

5. Install and maintain erosion control structures on the down slope of all disturbed areas to prevent eroded material from entering project reservoirs or the Oswegatchie River. Erosion control structures must be installed before commencing any activities involving soil disturbance and all erosion control structures must be maintained in a fully functional condition.

6. Ensure complete removal of all dredged/excavated material and construction debris from the bed and banks of project reservoirs/Oswegatchie River in the vicinity of the Project.

7. Ensure that all temporary fill and other materials placed in the waters of the river are completely removed, immediately upon completion of construction, unless otherwise directed by the Department.
12. Placement of cofferdams, construction of temporary access roads or ramps, or other temporary structures which encroach upon the bed or banks of the Oswegatchie River or project reservoirs: The design of all such structures must be approved by the Department prior to installation.

13. River Flow: During any period of maintenance and/or construction activity, the certificate holder shall continuously maintain adequate flows immediately downstream of work sites consistent with the provisions of this certificate.

14. Construction Drawdowns: Whenever construction and/or maintenance activities require that the water level of project reservoirs be lowered, it shall not be drawn down more than 1 foot per hour. During refill, the water level of the impoundment shall not be allowed to rise more than 1 foot per hour.

15. Turbidity Monitoring: During maintenance or construction-related activities in or near the Oswegatchie River or project reservoirs, the certificate holder will monitor the turbidity or project waters at a point immediately upstream of the work area and at a point no more than 100 feet downstream from the work area. The certificate holder specifically agrees that if, at any time, turbidity measurements from the downstream locations exceed the measurements from the upstream locations, all related construction on the project will cease until the source of the turbidity is discovered and the situation is corrected.

16. Notifications: The Regional Permit Administrator must be notified in writing at least two weeks prior to commencing any project maintenance or construction work performed under the authority of this certificate.

D. PUBLIC ACCESS AND RECREATION

17. Public access and recreational opportunities shall be provided in conformance with the Settlement.
APPENDIX B
“SECTIONS 1.0, 1.9, AND 3.0 OF THE SETTLEMENT.”

1.0 INTRODUCTION

The Agreement and The Parties

This agreement (the Offer of Settlement) dated as of May 2002, is made and entered into pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (FERC) (18 C.F.R. § 385.602) by and among the following entities who shall, except as otherwise noted, be referred hereafter to as a Party and collectively as ‘Parties’:

- Licensee
- Adirondack Mountain Club (ADK)
- Adirondack Park Agency (APA)
- American Rivers
- New York Rivers United (NYRU)
- New York State Department of Environmental Conservation (NYSDEC)
- U.S. Department of the Interior (DOI), U.S. Fish and Wildlife Service (USFWS)
- New York State Conservation Council (NYSCC)
- Adirondack Council
- Newton Falls Holdings, L.L.C., its successors or assigns

1.9 Conventions and Definitions

The Parties agree that the following conventions and definitions should have the meanings so noted throughout this Offer of Settlement.

**Base Flow**: The instream flow intentionally and continuously released below the project.

**Bypass Flow**: The instream flow intentionally and continuously released into a bypass reach.

**Bypass Reach**: The portion of original river bed fully or partially dewatered as a result of the diversion of water.

**Elevation**: Vertical distance, measured in feet, above mean sea level using USGS datum.

**Impoundment Fluctuation**: Defined within this agreement as a specific range of impoundment elevations associated with normal project operation which is measured in the downward direction from a specific reference point (top of flashboards).

**Left/Right Bank**: The left or right river bank as seen looking downstream.
License Issuance and Acceptance: For purposes of this Offer of Settlement, "License Issuance and Acceptance" means that the FERC issues a final license consistent with the terms of the Offer of Settlement relative to the particular enhancement being considered.

Licensee: Newton Falls Holdings, L.L.C., its successors or assigns.

Normal Operation: The daily operation of the Upper and Lower developments of the Newton Falls Project which may involve utilization of allowable impoundment fluctuations as needed to produce energy.

3.0 MEASURES WHICH THE LICENSEE WILL UNDERTAKE WITH RESPECT TO LICENSE CONDITIONS AND OTHER NON-LICENSE PROVISIONS OF SETTLEMENT

3.1 Impoundment Fluctuations and Flashboard Heights

By January 2006, the Licensee shall limit impoundment fluctuations within the Upper and Lower developments as specified in Table 3-1.

<table>
<thead>
<tr>
<th>Development</th>
<th>Permanent Spillway Crest of Dam (USGS)</th>
<th>Flashboards</th>
<th>Normal Impoundment Fluctuations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>1421.0</td>
<td>2.3 feet(2)</td>
<td>1.0 feet(1) feet measured in downward direction from top of flashboards July 16—April 30. 0.5 feet measured in downward direction from top of flashboards May 1—July 15.</td>
</tr>
<tr>
<td>Lower</td>
<td>1372.5</td>
<td>1.5 feet</td>
<td>Run-of-river with limited fluctuation (0.3 feet below top of flashboards).</td>
</tr>
</tbody>
</table>

(1) The Licensee may conduct post-licensing impoundment fluctuation studies to determine the potential of changing the fluctuation limit in consultation with the Parties during the term of the new license.

(2) The Licensee may conduct post-licensing studies to determine the potential for changing the impoundment level in consultation with the Parties during the term of the license.
Normal impoundment fluctuations specified in Table 3-1 shall be defined as the maximum drawdown limit associated with the operating range necessary to achieve normal operation. The normal impoundment fluctuation limit shall be measured in the downward direction from the top of flashboards of each dam. Water surface elevations higher than the elevation from which any downward fluctuation is measured are considered outside of the normal impoundment fluctuation zone, and variations of same are not considered as a utilization of the normal impoundment fluctuation.

The Licensee may curtail or suspend these impoundment limitations if required by operating emergencies beyond its control and for short periods upon mutual agreement between the Licensee and the USFWS and NYSDEC. If the limitations are so modified, the Licensee shall notify the FERC as soon as possible, but no later than ten days after each such incident.

The Licensee may conduct post-licensing studies to determine the potential of changing the normal impoundment fluctuations and/or changing the Upper Impoundment level during the term of the new license. The design of such studies and any changes in normal impoundment fluctuations or levels are subject to the approval of the Parties.

3.1.1 Justification for Impoundment Fluctuations Limitations

Upper Impoundment

In the absence of extensive impoundment fluctuation studies, the Parties agreed that a 1.0-foot daily fluctuation would have minimal impacts on the shallow littoral and wetland habitats surrounding the Upper Impoundment. A seasonal reduction to 0.5 feet from May 1 through July 15 will reduce impacts to centrarchids, northern pike, and other fish spawning in the impoundment, as well as to birds nesting along the shoreline.

Lower Impoundment

The Lower Impoundment essentially operates in a run-of-river regime, following the releases from the Upper Impoundment. Fluctuations in the impoundment from the Licensee’s operations will be minimal (0 to 0.3 feet below top of flashboards), generally maintaining the level at or near the top of flashboards.
3.2 Instream Flows

3.2.1 Minimum Base Flow Below Lower Development

A minimum base flow of 100 cfs or inflow, whichever is less, shall be maintained in the Oswegatchie River below the Lower Development. This minimum base flow can be comprised of discharges through the turbine at the Lower Development, discharges at the Lower Dam, and the fish movement/bypass flows specified in Section 3.2.2. This minimum flow requirement is a continuation of a requirement under the current FERC license for the project.

3.2.2 Fish Movement/Bypass Flows

The Licensee shall release the minimum bypass flows specified in Table 3-2 (or inflow to the project, whichever is less) from a point located at the respective dam of each development. The specified bypass flows are to be released through the proposed downstream fish movement facilities and are independent of any leakage through gates, etc. at the dam. The Parties agree that these flows provide adequate conveyance flows for the proposed downstream fish movement facilities, as well as habitat protection and fish movement flows for the bypassed reaches.

<table>
<thead>
<tr>
<th>Development</th>
<th>Flow Magnitude</th>
<th>Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>20 cfs</td>
<td>January 2006</td>
</tr>
<tr>
<td>Lower</td>
<td>20 cfs</td>
<td>January 2008</td>
</tr>
</tbody>
</table>

The Licensee shall derive appropriate gate settings, or other agreed upon measures, for the provision of the bypass flow at each development. The Licensee shall release each bypass flow from a point located at the dam of each development.

3.2.2.1 Justification for Fish Movement/Bypass Flows

Upper Development

A Demonstration Flow Study was performed to assess the appropriate flows for the bypassed reach. Limited habitat for smallmouth bass spawning or fallfish was
available at any flow. All other target organisms exhibited increased habitat with increasing flows up to 30 cfs. No improvements were seen as flows were increased above 30 cfs. Smallmouth bass adult and juvenile habitat demonstrated moderate increases when flows were increased from 20 cfs to 30 cfs.

The primary use of this bypassed reach is to provide forage. Both macroinvertebrate habitat and habitat for riffle-dwelling species (represented by longnose dace) showed significant increases with increasing flow from leakage to 30 cfs. Fish movement was limited at leakage, but maximized at flows of 20 cfs and higher.

The USFWS’ engineering guidelines for downstream fish movement require a minimum conveyance flow of 20 cfs. This flow will provide adequate habitat to meet the management objectives of the bypassed reach. Since the flow through the fish movement structure is discharged to the bypassed reach, the bypassed reach will always receive at least 20 cfs plus leakage.

**Lower Development**

The USFWS’ engineering guidelines for downstream fish movement require a minimum conveyance flow of 20 cfs. Although conditions did not permit observations of a variety of flows through this bypassed reach, the Parties concluded, based in part on videotapes of 20 cfs, that the 20 cfs fish conveyance flow would be adequate for this relatively short bypassed reach. This flow will allow fish movement throughout the bypassed reach, while increasing macroinvertebrate habitat and forage fish habitat.

**3.2.3 Emergency Exceptions**

The Licensee may curtail or suspend the instream flow requirements of Sections 3.2.1 and 3.2.2, if required by operating emergencies beyond the control of the Licensee, and for short periods upon mutual agreement between the Licensee, USFWS and NYSDEC. If the flows are so modified, the Licensee shall notify the FERC as soon as possible, but no later than ten days after each such incident.

**3.3 Flow and Water Level Monitoring**

The Licensee shall develop a stream-flow and water-level monitoring plan in consultation with the NYSDEC and the USFWS by January 2006. The monitoring plan shall include all necessary gages and/or equipment to:

- Determine the instream flow releases of the Upper and Lower developments of
the Newton Falls Project at appropriate locations.

- Determine headpond elevations as needed for instream flow verification.
- Provide an appropriate means of independent verification of water levels by the NYSDEC and USFWS.

All gaging and ancillary equipment required by the monitoring, including headpond gages, shall be made operational and fully calibrated by October 2006.

The dates provided in this section will not be extended without prior consultation with all Parties.

The monitoring plan will contain provisions for the installation of staff gages at appropriate locations to permit independent verification of headpond levels to the nearest 0.1-foot. These locations will be selected in consultation with the USFWS and NYSDEC. The Licensee will make reasonable efforts to install the staff gages where they will be visible to the general public. Access to staff gages shall be provided to the NYSDEC, the USFWS, and/or their authorized representatives.

The Licensee shall keep accurate and sufficient records of the impoundment elevations and instream flows to the satisfaction of the NYSDEC and shall provide such data in a format and at intervals as required by the NYSDEC. All records will be made available for inspection at the Licensee’s principal business office within New York State within five (5) business days or will be provided in written form within 30 days of the Licensee’s receipt of a written request for such records by the NYSDEC. Furthermore, the Licensee will provide to the NYSDEC a seven-day-per-week contact person to provide immediate verification of monitored flows and responses to questions about abnormal or emergency conditions.

The Licensee shall keep accurate and sufficient records of any uncontrollable station outage that causes a reduction in the required instream flows at the Upper and Lower developments. The Licensee will consult with the NYSDEC to develop a plan for reporting these types of incidents. The reporting plan shall be finalized by January 2006.

3.4 Fish Protection and Downstream Movement

The existing trashracks at each development shall be replaced or modified with fish-protection measures specified in Table 3-3 and in accordance with the schedule proposed in Table 3-3.
### Table 3-3 Newton Falls Hydroelectric Project Downstream Fish Movement and Protection Measures

<table>
<thead>
<tr>
<th>Development</th>
<th>Protection(^{(1)}) Measure/Schedule</th>
<th>Downstream Movement Routes</th>
<th>Conveyance System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>1-inch clear spacing trashracks installed by January 2008</td>
<td>Spillway, sluiceway, and gates.</td>
<td>Plunge pools, smooth transitions, channel modifications, etc.</td>
</tr>
<tr>
<td>Lower</td>
<td>1-inch clear spacing trashracks installed by January 2008</td>
<td>Spillway and gates.</td>
<td>Plunge pools, smooth transitions, channel modifications, etc.</td>
</tr>
</tbody>
</table>

\(^{(1)}\) 1-inch clear opening trashracks may be permanent or overlays installed seasonally (May 1 through November 15)

The Licensee shall provide downstream fish movement facilities in consultation with NYSDEC and USFWS by January 2006 at the Upper Dam and January 2008 at the Lower Dam. A minimum conveyance flow of 20 cfs (see Section 3.2.2) is to be provided for the downstream fish movement facilities at both the Upper and Lower Dams.

For the term of the new license, the Licensee shall not be required to (1) test the effectiveness of any, or all, components of existing and future protection or fish movement measures and/or structures, (2) make qualitative or quantitative determinations of fish entrainment and/or mortality, (3) provide compensation for any fish entrainment and/or mortality, or (4) provide upstream fish passage facilities, except as provided in the next paragraph.

The Licensee shall not be required to increase the level of protection and movement as agreed to by this Offer of Settlement for the term of the license, unless prescribed by the U.S. Department of the Interior under Section 18 of the Federal Power Act (see Section 2.7).

The Licensee may curtail or suspend the requirements of this commitment if required by operating emergencies beyond the control of the Licensee, and for short periods upon mutual agreement between the Licensee, USFWS and NYSDEC. If the requirements of this commitment are so modified, the Licensee shall notify the FERC, USFWS, and NYSDEC as soon as possible, but no later than ten days after each such
Project No. 7000-015

6.1 Incident

3.4.1 Justification

The existing trashracks at the Upper Development have 2 inch clear spacing between vertical bars and its location does not create an area of high velocity in front of the intake (maximum approach velocities estimated at 1.8 fps). The existing trashracks at the Lower Development have 2 inch clear spacing between vertical bars and its location does not create an area of high velocity in front of the intake (maximum approach velocities estimated at 2.0 fps).

When the existing trashracks at each development are replaced, or modified, either on a permanent or seasonal (May 1-November 15) basis, they will be replaced/modified with trashracks having 1.0 inch clear spacing, which will deter most adult game fish from entering the intake. These devices may also behaviorally deter smaller fish that generally have a higher survival rate during turbine passage.

3.5 Recreation

The recreational opportunities provided by this Offer of Settlement supplement the existing recreational opportunities in the Newton Falls Project area, and will provide public access to, and use of, the impoundments, and some adjacent lands associated with the Upper and Lower developments.

3.5.1 Recreational Enhancement Commitments To be Included in the License

By January 2006, the Licensee shall implement all recreation enhancements specified below.

(a) Car-top Boat Launches: The Licensee shall construct a small, gravel car top boat launch just west of the town beach along with a gravel parking area to accommodate 5-6 cars adjacent to the boat launch with appropriate signage, including a 10 HP motor limitation sign. A picnic table will be provided at this access area. Additionally, an informal car-top boat launch, currently existing about one mile east of the town beach, shall be improved with gravel and the Licensee shall install appropriate signage, including a 10 HP motor limitation sign. Roadside parking immediately east of the boat launch currently exists.

(b) Canoe Portage: Licensee shall provide a canoe portage route commencing at a take-out in the upper impoundment. The take-out shall be located on the right side of the upper
impoundment approximately 300 feet upstream of the dam. The portage shall utilize existing roadways, improved for the portage, to the put-in into the lower impoundment, approximately 150 feet downstream of the bridge. Recreationists can traverse the lower impoundment to the take-out on the left side, just upstream of the dam. For continuation of the canoe route, recreationists shall put-in, approximately 150 yards downstream of the lower dam, just downstream of the confluence of the tailrace with the bypassed reach. Licensee to continue to consult with ADK on the design and location of the portage trail.

(c) Public Access: The Licensee shall allow public access to all lands within the FERC project boundary associated with each development covered by this Offer of Settlement, with the exception of those lands and facilities specifically related to hydroelectric generation where public safety would be a concern. Lands and facilities where public access will be precluded may include, but are not necessarily limited to, dams, dikes, gates, intake structures, water conveyance structures, powerhouses, substations, transmission lines, and certain access roads leading to such facilities.

(d) Future Recreational Opportunities: The Licensee shall work with signatories to this Offer of Settlement to examine further reasonable opportunities to develop access to project lands or waters when, and if, the need arises.

(e) Whitewater Opportunities: The Parties agree that the Licensee shall not be required by this Offer of Settlement, or articles of license, to supply whitewater releases downstream of the Newton Falls Project.

(f) Recreation Monitoring: The Licensee shall not be required to monitor the use of recreational facilities included in this Offer of Settlement beyond the requirements of the FERC’s Form 80 reporting.

(g) Operating Emergencies: The Licensee may curtail or suspend recreation measures if required to by operating emergencies beyond the control of the Licensee, and for short periods upon mutual agreement between the Licensee and the NYSDEC. If such suspension of measures occurs under emergency conditions, the Licensee shall notify the NYSDEC as soon as possible, but no later than ten days after each such incident.