

FEDERAL ENERGY REGULATORY COMMISSION

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P-12252

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, Linda Breathitt,
and Nora Mead Brownell.

Hudson River-Black River Regulating District Project No. 12252-000

ORDER ISSUING LICENSE

(Issued September 25, 2002)

1. This order issues an original license to the Hudson River-Black River Regulating District (District) for the project dam and reservoir components (Conklingville Dam and Great Sacandaga Lake) of a unit of hydropower development that also includes a powerhouse and generating facilities.¹ The powerhouse and generating facilities at the Conklingville Dam are currently licensed to Erie Boulevard Hydropower, LP (Erie) as the E.J. West Project No. 2318. We are designating the components of the unit of development operated and maintained by the District as the Great Sacandaga Lake Project No. 12252.

2. The District's license application was filed in the context of an Offer of Settlement regarding license applications for several projects on the Sacandaga and Hudson Rivers in New York. In separate orders we are approving the Offer of Settlement² and issuing new licenses for E.J. West and the three other Erie projects covered by the Settlement Offer.³

¹The District is a New York State agency which was organized in 1922 pursuant to Article VII-A of the Conservation Law of the New York State Code (N.Y. Env'tl. Conser. Law § 15-2101 *et seq.*). It is authorized to plan, finance, build, operate and maintain various storage reservoirs in the State, including Conklingville Dam and Great Sacandaga Lake.

²Erie Boulevard Hydropower, LP and Hudson River Black River Regulating District, 101 FERC ¶ _____ (2002).

³Erie Boulevard Hydropower, LP, 101 FERC ¶ _____ (E.J. West); 101 FERC ¶ _____ (Stewarts Bridge Project No. 2047); 101 FERC ¶ _____ (Hudson River Project No. 2482); and 101 FERC ¶ _____ (Feeder Dam Project No. 2554).

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3. This order is in the public interest because it preserves the benefits of hydroelectric generation, will not result in any major, long-term adverse environmental impacts, includes enhancements to the existing aquatic and terrestrial environments, recreation, and cultural resources, and brings under license for the first time all components of the unit of hydropower development that includes Conklingville Dam, Great Sacandaga Lake, and the associated hydroelectric generating facilities, as required by the Federal Power Act (FPA).⁴ We find therefore that issuance of a license for the Great Sacandaga Lake Project, with the conditions attached hereto, will serve the public interest because it is best adapted to the comprehensive development of the Sacandaga River and upper Hudson River Basins.

BACKGROUND

4. Erie's predecessor Niagara Mohawk Power Corporation (Niagara Mohawk) filed applications for new licenses, pursuant to Sections 4(e) and 15 of the FPA,⁵ authorizing the continued operation and maintenance of four projects. Listed in order from upstream to downstream, the projects are:

- o E.J. West, located at River Mile (RM) 6 on the Sacandaga River above its confluence with the Hudson River;⁶
- o Stewart's Bridge Project No. 2047, located at RM 3 on the Sacandaga River;
- o Hudson River Project No. 2482, consisting of the Spier Falls development at RM 212 of the Hudson River and the Sherman Island development at RM 209 of the Hudson River; and

⁴16 U.S.C. §§ 791a-825r, as amended.

⁵16 U.S.C. § 797(e), 808.

⁶The Sacandaga River is a navigable waterway of the United States. See 8 FPC 231 (1949). Therefore, Section 23(b)(1) of the FPA, 16 U.S.C. § 817(1), requires the unit of development that includes the E.J. West Project, Great Sacandaga Lake, and Conklingville Dam to be licensed.

o Feeder Dam Project No. 2554, located at RM 203 on the Hudson River.⁷

5. The District's operation of Great Sacandaga Lake controls flows through the E.J. West generating facilities and the Sacandaga River downstream through its confluence with the Hudson River. The District's operations also impact flows in the Hudson River downstream of its confluence with the Sacandaga River, but to a lesser degree.

6. The original license for E.J. West included only the powerhouse and generating facilities. Niagara Mohawk's new license application initially proposed to license only the facilities already licensed. The Commission however determined that Conklingville Dam and Great Sacandaga Lake are included in the "unit of development" with the E.J. West generating facilities and must therefore be licensed.⁸ On April 14, 1993, Niagara Mohawk filed an amendment to its license application for the E.J. West Project to include Conklingville Dam and Great Sacandaga Lake.

⁷Niagara Mohawk was issued original licenses for Stewarts Bridge in 1950 (9 FPC 896), E.J. West in 1963 (29 FPC 1290), and Hudson River in 1968 (40 FPC 185). Moreau Manufacturing Corporation (Moreau), a subsidiary of Niagara Mohawk, was issued an original license for Feeder Dam in 1968 (40 FPC 201). The original licenses for E.J. West, Hudson River, and Feeder Dam expired on December 31, 1993. Applications for new licenses for these projects were filed on December 13, 18, and 20, 1991, respectively. The original license for Stewarts Bridge expired on July 1, 2000; the application for a new license was filed on June 23, 1998.

⁸See letter to Niagara Mohawk dated August 27, 1992 from the Director, Division of Project Review, Office of Hydropower Licensing. A "project" is defined in section 3(11) of the FPA, 16 U.S.C. § 796(3)(11), as "a complete unit of development, consisting of all dams, powerhouses, impoundments, water rights, and lands which are used in connection with such unit." The complete unit of development must be licensed, but the Commission is not required to place all parts of the unit of development under a single license. For ownership or other reasons, the Commission can license different parts of a complete unit of development in different licenses. See, e.g., *Orange and Rockland Utilities*, 44 FERC ¶ 61,235 n.30 (1988); *Susquehanna Power Co.*, 32 FPC 826 (1964); *Finch, Pruyn, & Co.*, 33 FPC 321 (1965); *Niagara Mohawk Power Co.*, 40 FPC 185 (1968); *Pacific Gas and Electric Company*, 52 FPC 1898 (1974).

7. Public notice of the E.J. West application as amended, requesting comments and motions to intervene, was issued on November 10, 1993.⁹ Many entities filed motions to intervene.¹⁰

8. In 1999, the four Niagara Mohawk projects were transferred to Erie, which became the relicense applicant for the projects.¹¹

9. On April 12, 2000, as amended on July 30, 2001, Erie amended its relicense applications by filing a Settlement Offer dated March 27, 2000 covering all four applications.¹² The Settlement Offer, which is signed by most of the parties to the

⁹58 Fed. Reg. 62,337 (November 26, 1993).

¹⁰Timely motions to intervene were filed by the Adirondack Park Agency; Town of Hadley and County of Saratoga, New York; County of Fulton, New York; Great Sacandaga Lake Association; Great Sacandaga Lake Fisheries Federation, Inc.; New York State Department of Environmental Conservation; Adirondack Mountain Club; U.S. Department of the Interior; New York Rivers United, on behalf of itself and American Whitewater, Natural Heritage Institute, and Trout Unlimited; Sacandaga Marine, Inc.; Adirondack Board Sailing Club; Finch, Pruyn, and Company; the District; Day Country Store; Adirondack Hydro Development Company; New York State Electric and Gas Company; Fort Miller Associates; Curtis Palmer Hydroelectric Company, L.P.; J. Andrews; Frank Wozniak; and Fourth Branch Associates. A timely request to intervene was filed by Mr. Donal O'Leary on March 6, 1992, but the request was not accompanied by a certificate of service, as required by 18 C.F.R. § 385.2010(h). The record does not indicate that Mr. O'Leary subsequently participated in this proceeding. His request to intervene is therefore denied.

¹¹See *Niagara Mohawk Power Corp. and Erie Boulevard Hydropower, LP*, 88 FERC ¶ 62,082 (1999), *aff'd*, 90 FERC ¶ 61,148 (2000). The 1999 order also transferred the license for the Feeder Dam project from Moreau to Niagara Mohawk.

¹²The July 30, 2001 amendment added two tables pertaining to storage operations that had been inadvertently omitted from Section 3, which pertains to operation of Great Sacandaga Lake. Erie's revision was filed after consultation with the District, New York State Department of Environmental Conservation, Saratoga and Fulton Counties, and the Great Sacandaga Lake Fisheries Federation. No party filed comments in response to the revisions.

relicense proceedings,¹³ contains revised and additional environmental measures. Comments on the Settlement Offer were filed by Adirondack Hydro Development Corporation (AHDC) and the Mercer Companies, Inc. (Mercer). Erie filed reply comments to AHDC and Mercer.

10. Also on April 12, 2000, Erie and the District filed an amendment to the E.J. West application to add the District as a co-applicant. The amendment requested issuance of separate licenses under separate project numbers for Erie (the powerhouse and generating facilities) and for the District (Great Sacandaga Lake and Conklingville Dam).¹⁴ This request is being granted and a license is being issued to the District for the Great Sacandaga Lake Project No. 12252.

11. On April 14 and 15, 2000, the Commission issued notices that the four license applications, as amended by the Settlement Offer, were ready for environmental analysis. On May 16, 2001, the Commission issued a Draft Environmental Impact Statement (Draft EIS) on all four applications, including the District's facilities. Comments on the Draft EIS were filed by Erie, the District, the New York Department of Environmental Conservation (NYSDEC), the U.S. Department of the Interior (Interior), the U.S. Environmental Protection Agency (EPA), Adirondack Mountain Club (ADK), Saratoga County, and AHDC.

12. On August 27, 2001, the District filed a notice of withdrawal of its application for a license. The District stated that it supports the Settlement Offer and issuance of a license to Erie for the powerhouse and generating facilities, but does not see a need for the dam and reservoir to be licensed. Many parties timely filed protests.¹⁵ Under our

¹³The signatories to the Settlement Offer are listed in the order approving that agreement. See 101 FERC ¶ _____, n.12.

¹⁴Public notice requesting comments and interventions was issued on May 2, 2001. 66 Fed. Reg. 23,251-252 (May 5, 2001). A timely motion to intervene and protest was filed by Paul Nolan. Mr. Nolan's protest is addressed in the Order Approving Settlement Agreement.

¹⁵Protests were filed by Erie, U.S. Department of the Interior, Adirondack Mountain Club, Curtis/Palmer Hydroelectric Co., L.P., NYDEC, Saratoga County, New York Rivers United, and American Rivers. Comments were also filed by Adirondack Hydro Development Company and the Great Sacandaga Lake Fisheries Federation, Inc. Erie also filed on January 16, 2002, a motion for an order finding Great Sacandaga Lake
(continued...)

regulations, the timely protests render the District's withdrawal ineffective until the Commission issues an order accepting the withdrawal.¹⁶

13. The Final EIS was issued on November 30, 2001. The EIS contains background information, analysis of impacts, and the basis for a finding of no significant impact on the environment. Comments on the final EIS were filed by Adirondack Hydro Development Company (AHDC), New York State Department of Environmental Conservation (NYSDEC), and U.S. Environmental Protection Agency (EPA). These comments have been considered in the preparation of this order.

14. On February 8, 2002, the Commission staff transmitted to the parties draft license articles for the Great Sacandaga Lake Project. A public meeting to discuss the draft articles was held at NYDEC's offices on March 12, 2002. Comments on the draft articles were filed by Erie, NYDEC, and the District on March 4, April 11, and April 12, 2002, respectively. The comments express concerns about certain of the draft articles and request modification or deletion of some of them from any license issued for the Great Sacandaga Lake Project. These comments have also been taken into account in determining the appropriate conditions for the Great Sacandaga Lake license.

PROJECT DESCRIPTION

15. The Conklingville Dam impounds 25,940-acre Great Sacandaga Lake. The dam and lake are located in Saratoga, Fulton, and Hamilton Counties, New York. The dam and lake, which are located entirely within the boundaries of New York's Adirondack State Park, were constructed by New York to provide flood control and summer flow augmentation for communities bordering the Hudson River below the Sacandaga River confluence. Releases from the dam, which was completed in 1930, control inflow to the E.J. West Project No. 2318 powerhouse. The lake contains substantial storage capacity¹⁷ and its operating regime affects, in addition to E.J. West and the natural resources associated with the lake, hydroelectric projects and other industrial facilities, municipalities, and natural resources downstream on the Sacandaga River and below the confluence of the Hudson and Sacandaga Rivers.

¹⁵(...continued)
and Conklingville Dam to be jurisdictional, to which the District responded in opposition on February 14, 2002.

¹⁶18 C.F.R. § 385.216(b)(2).

¹⁷The lake has a gross storage capacity of about 681,000 acre-feet.

16. The Great Sacandaga Lake Project includes: (1) a concrete canal; (2) the 1,100-foot-long- and 100-foot-high earth fill and concrete Conklingville Dam with an outlet consisting of two spillways and spillway weir; and (3) Great Sacandaga Lake. The normal maximum lake elevation level is 768.00 feet National Geodetic Vertical Datum (NGVD).

DISCUSSION

17. As discussed in the Order Approving Settlement Agreement, the Settlement Offer resolves a range of resource use issues and is in the public interest, and we include in the individual licenses articles implementing the appropriate terms of the Settlement Offer, along with provisions that will enable us to ensure compliance with all license conditions. Here we discuss the provisions specific to the Great Sacandaga Lake Project.

18. Section 3 of the Settlement Offer establishes an operating plan based on maintaining certain maximum and minimum elevations for Great Sacandaga Lake and four annual lake level curves that seek to reconcile various goals in addition to flood control: reducing winter drawdowns in Great Sacandaga Lake; providing flows for water quality and fish habitat in the Hudson River; increasing Great Sacandaga Lake elevations for fall recreation, minimizing energy losses to hydroelectric projects, enhancing whitewater recreation on the Sacandaga River, and providing base flows in the Sacandaga River.

19. There are currently no winter drawdown limits. Under the Settlement Offer, minimum winter lake levels of 748, 749, and 750 feet National Geodetic Vertical Datum (NGVD) would apply beginning in 2000, 2010, and 2020, respectively.¹⁸ The District is also required to allocate sufficient daily releases from Great Sacandaga Lake to meet minimum daily average flow requirements on the Hudson River just below its confluence with the Sacandaga River to help meet the Hudson River base flow requirement below Feeder Dam and daily flow targets at the confluence.¹⁹ The specific allocation required

¹⁸Exceptions are provided for maintenance of the dam and to provide additional flow control storage based on a spring snow survey. Reductions below the usual minimum level are, except in emergencies, to be the subject of negotiations among the District, NYSDEC, Erie, and the affected counties. Section 3.3.1.

¹⁹Settlement Offer Section 7.3 provides for Erie to provide a base flow below the Feeder Dam project of 1,500 cubic feet per second.

depends on the level of Great Sacandaga Lake and is adjusted in 2013 in order to accommodate the implementation of base flows at the Stewarts Bridge Project.²⁰

20. A target lake level of 760 feet NGVD through October 15 applies to facilitate fall recreation on Great Sacandaga Lake,²¹ subject to exceptions to maintain base flows and augmentation flows in the Hudson River, base flows in the Sacandaga River,²² and the downstream whitewater demand schedule established in Section 5.5 of the Settlement Offer.²³

21. The District also undertakes in the Settlement Offer to make reasonable efforts to limit water releases from Great Sacandaga Lake in an effort to maintain maximum flows in the Hudson River below the confluence with the Sacandaga for the purpose of minimizing energy losses to downstream hydroelectric projects.²⁴

22. The District will also provide the daily volume of water needed to sustain the whitewater demand flow in the Sacandaga River below Stewarts Bridge if the water is

²⁰Settlement Offer Section 3.4. Section 5.3 establishes a Sacandaga River base flow schedule below Stewarts Bridge for three different periods; license issuance to December 31, 2012, January 1, 2013 to June 1, 2020, and June 2, 2020 to license expiration. Exceptions to the lake level curves are provided for maintenance, emergencies, critical low flows in the Hudson River, and to maintain the navigability of the Champlain Canal, which is supplied with water from the Feeder Canal at the Feeder Canal Dam Project. A consultation requirement also applies to these exceptions. Settlement Offer Section 3.4.3.

²¹The Settlement Offer provides for Erie to construct a canoe portage trail linking Great Sacandaga Lake with the tailwaters of the Stewarts Bridge reservoir (Section 4.2) and a paved scenic overlook adjacent to Conklingville Dam (Section 4.3). Erie has also agreed to install trashrack overlays on the turbine intakes to prevent turbine entrainment and mortality of Great Sacandaga Lake resident fish (Section 4.2). No downstream fish passage facilities are to be provided, in order to help maintain resident fish populations in the lake.

²²The base flow schedule for the Sacandaga River below Stewart's Bridge is in Section 5.3.

²³See Settlement Offer pp. 52-55.

²⁴Section 3.6, pp. 33-35.

available,²⁵ subject to a provision to change flow releases for this purpose in emergency circumstances.²⁶

WATER QUALITY CERTIFICATION

23. Under Section 401(a)(1) of the Clean Water Act (CWA),²⁷ the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency has issued a water quality certification for the project or has waived certification. Section 401(d) of the CWA provides that state certification shall become a condition on any federal license or permit that is issued.²⁸ Only a reviewing court can revise or delete these conditions.²⁹

24. Erie applied for water quality certification covering the E.J. West Project portion of the unit of development. The District did not directly apply for water quality certification, but we construe its joinder of Erie's license application to encompass a request for issuance to it by NYSDEC of water quality certification for the project dam and reservoir, since the District's operation of the dam and reservoir results in a discharge to the Sacandaga River.

25. NYSDEC issued Section 401 water quality certification to the District for the operation of the dam and Great Sacandaga Lake, subject to certain conditions, on February 5, 2002. The conditions are attached as Appendix A to this order.³⁰

²⁵The whitewater program is discussed in the order issuing a license for Stewarts Bridge.

²⁶See Settlement Offer Section 5.5.1.1.

²⁷33 U.S.C. § 1341(a)(1).

²⁸33 U.S.C. § 1341(d).

²⁹See *American Rivers v. FERC*, 229 F.3d 99 (D.C. Cir. 1997).

³⁰NYSDEC also issued water quality certification to Erie for the already licensed powerhouse and generating facilities on February 5, 2002. The conditions of that certification are Appendix A to the order issuing a new license for Project No. 2318.

ENVIRONMENTAL IMPACT STATEMENT

26. The EIS on Erie's and the District's license applications, as amended by the Settlement Offer, includes an examination of water quality, the maintenance of stable minimum flows, fisheries (including fish passage), vegetation and wildlife, geological resources, visual resources, cultural resources, aesthetic resources, and recreation.

27. The Settlement Offer will have many beneficial effects. Water level fluctuations in Great Sacandaga Lake will be moderated, enhancing conditions for fisheries and wetlands and reducing the potential for erosion of the shorelines. The modified releases from Conklingville Dam will have beneficial environmental effects downstream by allowing for the provision of minimum flows downstream of the Feeder Dam Project and base flows downstream of the Stewarts Bridge Project to improve water quality and fish habitat. Benefits of the Settlement Offer in addition to those related to operation of Great Sacandaga Lake include measures to protect against turbine entrainment and fish passage at Stewarts Bridge, Hudson River, and Feeder Dam, and recreational enhancements, including whitewater releases, access trails, campgrounds, canoe/boat take-outs and put-ins, and portage trails.³¹

28. Based on the EIS prepared for all of the license applications, the Commission concludes that issuance of a new license for the Great Sacandaga Lake Project, as conditioned herein, will not result in any major, long-term adverse environmental impacts.

SECTION 18 FISHWAY PRESCRIPTIONS

29. Section 18 of the FPA,³² states that the Commission shall require construction, maintenance, and operation by a licensee of such fishways as the Secretaries of Commerce or the Interior may prescribe. Section 2.3 of the Settlement Offer requests the Commission to include in the new license a reservation of the Secretary of the Interior's authority to require the construction, operation, and maintenance of fishways. Consistent with Commission practice, Article 405 includes the requested reservation.

³¹See EIS Sections V.B.1., V.B.2., and V.B.5.

³²16 U.S.C. § 811.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

30. Section 10(j)(1) of the FPA³³ requires the Commission, when issuing a license, to include conditions based on the recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,³⁴ for the protection and enhancement of fish and wildlife and their habitat affected by the project. The recommendations of the fish and wildlife agencies for the Great Sacandaga Lake Project, as reflected in the Settlement Offer, are included in the license.

THREATENED AND ENDANGERED SPECIES

31. Section 7(a) of the Endangered Species Act (ESA)³⁵ requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat.

32. Only one federally listed species, the threatened bald eagle, is known to occur or could occur in the area of the Great Sacandaga Lake project. The draft EIS included a Biological Assessment (BA) which found that issuing the license for the Great Sacandaga Lake Project would have no effect on bald eagles.³⁶ The FWS service comments on the draft EIS do not discuss the bald eagle.

OTHER ISSUES

Headwater Benefits

33. FPA Section 10(f) provides that when a license is directly benefitted by an upstream hydropower or storage project of another licensee, permittee, or the United States, the licensee must reimburse the owner of the upstream project for a portion of its interest, maintenance, and depreciation costs deemed "equitable" by the Commission. The payees must reimburse the Commission for the cost of making the determination.

³³16 U.S.C. § 803(j)(1).

³⁴16 U.S.C. § 661 *et seq.*

³⁵16 U.S.C. § 1536(a)(2).

³⁶Draft EIS, p. 104.

Similarly, when an unlicensed power project is benefitted by a licensed project or a government project, the Commission must determine a headwater benefit payment to be made to the provider of the benefit.³⁷ Each license includes a standard article implementing Section 10(f).

34. We are including the standard headwater benefits article for original licenses.³⁸ The District noted that the draft article was the standard article for new licenses and requested that the article be deleted. Although there are currently no upstream projects that could create a headwater benefit to the Great Sacandaga Lake Project,³⁹ we cannot assume that this will continue to be the case throughout the term of the license.

Article 401 – Lake Elevation Reports

35. Article 401 requires the District, on a monthly basis, to prepare and publish a report of daily lake elevations, inflows to the lake, and flows of the Hudson River, and to make the report available on the District's website. The District requests that the article be revised to afford it a reasonable period of time to upgrade its website for this purpose. The article has been revised to afford the District six months following issuance of the license in which to do so.

Article 402 – Operating Objectives for Great Sacandaga Lake

36. Erie states that Article 402, subsection (c) should be modified to include Figures A-C of the Settlement Offer, which illustrate the level curves for the three different time periods over which they differ, and Appendix E to the Settlement Offer, lookup tables that show the relationship between lake Level Curves and NGVD datum for Great Sacandaga Lake elevations. It states that inclusion of these figures and tables will clarify and facilitate compliance with the terms of the new license. These items were omitted

³⁷The rules implementing Section 10(f) are at 18 C.F.R. Part 11, Subpart B.

³⁸Article 202.

³⁹There are two projects upstream from Conklingville Dam on the Sacandaga River, the 663 kilowatt (kW) Lake Algonquin Project No. 7274 and the 725 kW Christine Falls Project No. 4639. Neither of these less-than-one MW projects however has any storage capability and both operate run-of-river. They therefore provide no headwater benefit to any downstream project.

from the draft article only because they could not readily be reproduced. They are instead incorporated into Article 402 by reference.⁴⁰

37. Subsection (c) defines Level Curve 3 as the "annual Guide Curve the licensee shall follow over the course of any given year, subject to balancing inflow to Great Sacandaga Lake with other operating constraints." Erie suggests that the definition would be more clear and consistent with the intent of the Settlement Offer, if the words "such as targeted minimum and maximum flows" were inserted at the end of the sentence. Erie's request is reasonable and no party has objected. The revision will therefore be made.

38. Erie also states that subsection (d) of Article 402 omits language from Section 3.3 of the Settlement Offer stating that prior notice to NYSDEC of drawdowns below the target elevation for winter drawdown is not required in emergencies. This language however is included in the third paragraph of that subsection.

39. Erie states that subsection (f) of Article 402 omits language from Settlement Offer Section 3.4.1 indicating that drawdowns below Level Curve 1 will be for the minimum duration necessary. That omission has been remedied.

40. NYSDEC notes that the last sentence of Article 402, subsection (h), stated that the licensee is "not required to notify or consult with NYSDEC prior to lowering Great Sacandaga Lake below the targeted elevation for maximum winter drawdown for flow augmentation as described in this article." NYSDEC states that the sentence should be corrected to reflect the provisions of Paragraph 3.3.1 of the Settlement Offer. The provisions of Paragraph 3.3.1 are reflected in subsection (d). The last sentence in subsection (h) was erroneously included and has been deleted.

41. Subsection (k) of Article 402 requires the District to operate the project so as to provide the daily volume of water necessary, if it is available, to sustain the whitewater demand flow in the Sacandaga River below Stewarts Bridge as provided for in the Stewarts Bridge license. Subsection (l) requires the District to provide flows sufficient to

⁴⁰Erie also recommends that the entirety of Section 3 and other sections of the Settlement Offer should be made an appendix to the Great Sacandaga Lake license. The license articles were carefully crafted to capture the agreement of the parties as reflected in the Settlement Offer, except to the extent the Settlement Offer may be inconsistent with the FPA or important Commission policies. Because the Settlement Offer is incorporated into the license by dint of water quality certificate condition A.1., Erie need not be concerned that the Settlement Offer will not be captured by the license.

facilitate the release of an instantaneous base flow, beginning in 2013, to the Sacandaga River below Stewarts Bridge as described in the Stewarts Bridge license. Erie states that tables showing the whitewater demand and base flow schedules for Stewarts Bridge, which Erie is required to meet, should be included in the Great Sacandaga Lake license directly rather than simply referenced in order to facilitate the District's compliance with its own requirements and the Commission's oversight, particularly because Stewarts Bridge is subject to maximum daily fluctuation requirements and has very little ability to reregulate discharges from the Lake.

42. The District's license obligations as described in Article 402 would not change as a result of including the tables nor do we see any particular advantage with respect to license compliance of including directly, rather than referencing, these tables. The District however has not objected to Erie's request and the request is not unreasonable. We will therefore include these tables in Article 402 as requested.

Article 403 – Erosion and Sedimentation Control

43. About 60 percent of the reservoir shoreline is developed for recreation and commercial uses, including 4,200 private camps, 110 beach clubs or associations, and over 75 commercial operations, including 20 marinas. Access of all of these entities to the reservoir shoreline is authorized under permits issued by the District. Over the years these permittees have removed the natural shoreline armor (cobble, boulders, and vegetation) to encourage the development of beaches and to install docks and other support facilities. This practice, along with other factors,⁴¹ has contributed to shoreline erosion in these areas. Power generation does not appear to contribute to shoreline erosion, as it involves less than one inch of water level fluctuation per day.⁴² Of the undeveloped shoreline, about 25 percent is susceptible to moderate erosion and four percent to severe erosion. The remaining undeveloped shoreline has only slight erosion potential. The District has had for over 60 years a practice of reinforcing those shoreline areas prone to erosion with rip-rap.⁴³

⁴¹In general, erosion results from waves, wind, and ice-scouring.

⁴²EIS, p. 58. Saratoga disagrees that hydroelectric operations do cause contribute to erosion, but does not explain how one-inch daily fluctuations could materially contribute to erosion.

⁴³Rip-rap is a permanent, erosion-resistant ground cover composed of large, loose stones underlain by a filter fabric or granular materials.

44. The only operational feature potentially contributing to shoreline erosion that will materially change under the Settlement Offer is the advent of reservoir operation for "aggressive storage."⁴⁴ The reservoir storage capacity between elevations 768 feet and 777 feet NGVD has traditionally been used as a buffer zone to absorb unexpected high flow events. Under the terms of the Settlement Offer this storage capacity could be used for aggressive storage, in which water in excess of the targeted maximum flows in the Hudson and Sacandaga Rivers is stored for later release to enable more efficient use of available flows by downstream hydroelectric projects.⁴⁵ As a result, the shoreline above 768 feet NGVD may be more frequently exposed to erosive forces associated with wave action and more frequent soil inundation. This would occur only during rare occasions when lake levels are at the highest point, typically during June and July. In its comments filed September 14, 2001 on the draft EIS, Saratoga County questioned the absence of a recommendation for soil erosion monitoring and control requirements for Great Sacandaga Lake. Saratoga County expressed particularly concern about additional shoreline erosion attributable to aggressive use of storage. ⁴⁶

⁴⁴One positive aspect of the Settlement Offer in this regard is a reduction in the depth of winter drawdown, from 23 feet currently to about 18 feet by 2020. This should reduce shoreline erosion from ice scouring to the extent that under-ice drawdown is a contributing factor.

⁴⁵See Settlement Offer Tables D, E, and F and EIS Table 2. The downstream projects most affected by aggressive storage include (in order from upstream to downstream) Stewarts Bridge, Curtis/Palmer Project No. 2609, Hudson River, Feeder Dam, Glens Falls Project No. 2385, South Glens Falls Project No. 5461, and Hudson Falls Project No. 5276. The effect of the Settlement Offer on the downstream projects is discussed at EIS Section VI.

⁴⁶Saratoga comments on draft EIS, filed July 2, 2001, p. 2. Saratoga County also suggested the District should be made to compensate property owners for erosion. We reject this suggestion. Nothing in the record of this proceeding indicates that shoreline erosion from project operations is occurring on property that does not belong to the District, which maintains a buffer zone above the high water mark around the entire reservoir. To the extent that project-related erosion may damage the property of others in the future, the preventive and remedial measures required by Article 403 notwithstanding, the remedy would lie in a state court action seeking damages. The Commission has no authority to award damages. See *South Carolina Public Service Authority v. FERC*, 850 F.2d 788 (D.C. Cir. 1988); *P.U.D. No. 1 of Pend Oreille County*, 11 FPC 786 at 788 (1952).

45. The EIS recommends that the District develop a plan to monitor shoreline erosion, establish its primary cause, and identify the entity responsible for minimizing or remediating it, in particular with respect to operation of the Great Sacandaga Lake Project under the terms of the Settlement Offer.⁴⁷ Article 403 would establish such a requirement. The draft article included a requirement to consult Saratoga and Fulton Counties and the New York State Office of Parks, Recreation, and Historic Preservation (SHPO) in the development of the plan.

46. Erie states that the shoreline monitoring measures and plan are inconsistent with the Settlement Offer, unnecessary, and redundant of the District's existing programs and policies that have been in effect since the 1930's. Erie also opposes specifically a provision of the article that would require Fulton and Saratoga Counties to be consulted in the preparation of the plan. Erie states that Saratoga's expression of interest in this issue is non-specific and it has not shown that it has any relevant regulatory authority. Erie states that if the Commission does not exclude this article, it should at least delete from it any requirement to consult the two counties. Erie adds that it is redundant to include consultation with the New York State Office of Parks, Recreation, and Historic Preservation (SHPO) because the SHPO's principal interest, cultural resources, is covered by other license articles.⁴⁸ The District concurs with Erie's comments, and adds that the draft article should be either deleted entirely or amended to adopt the District's existing erosion control program as a condition of the license. On March 14, 2002, Saratoga filed a letter stating that soil erosion control issues can be adequately addressed through the District's existing program and the provisions of NYSDEC's Clean Water Act Section 401 water quality certification for the project.

47. Although the record does not indicate that existing hydroelectric operations are causing shoreline erosion, there are other public interest considerations leading us to conclude that Article 403 is appropriate for inclusion in this license. First, our public interest inquiry is not limited to impacts of project operation directly attributable to generation of electricity. FPA Section 10(a)(1) provides that project purposes include all purposes for which the project is operated in the context of the river basin, including flood control, control of erosion and sedimentation, water quality within and downstream of the project, navigation, recreation, cultural resources, fish and wildlife, and others.

⁴⁷EIS p. 167.

⁴⁸Erie Comments on Draft License Articles, pp. 2-3. Erie does not explicitly state its interest in this issue, but it appears to be concerned that implementation of the requirement to have an approved plan will result in costs that downstream licensees, including Erie, will have to bear under existing agreements with the District.

Erosion from whatever cause may affect such recreation, water quality, and various other resources.

48. Second, the purpose of license articles is to ensure that our decisions with respect to specific aspects of the public interest are defined and enforceable. The District's existing erosion control practices, while not evidently deficient, are ill-defined. The state rules applicable to the District's operation of the reservoir are codified in Title 6, Part 606 of the New York Code of Rules and Regulations (NYCRR Part 606).⁴⁹ The NYCRR Part 606 regulations contain no rules with respect to control of erosion and sedimentation. The District's Handbook for permit holders merely states that the District "undertakes shoreline stabilization wherever erosion threatens private land or public facilities. However, the District will not halt an eroding embankment or restore a washed-out beach simply to maintain or improve the recreational characteristics of a permit area."⁵⁰ Nothing therein establishes an obligation on the part of the District could be enforced through the license. Third, the advent of aggressive storage may cause erosion attributable to project operations. This has the potential to adversely affect adjacent property owners and cultural resources.

49. The provisions of the water quality certification with respect to erosion control are also not a substitute for a Commission approved erosion control plan.⁵¹ The water quality

⁴⁹ A copy of NYCRR Part 606 is attached to the District's comments on the draft license articles. The NYCRR Part 606 rules pertain for the most part to access, including permitting, maintenance costs and responsibilities, structures, and fees. The District also included a copy of its handbook for permit holders, which provides more specific information on the obligations attached to a permit.

⁵⁰ Handbook, p. 17. The District states in its comments on the draft license articles that Niagara Mohawk described the District's erosion control program in Niagara Mohawk's April 14, 1993 amendment to the E.J. West application to include the reservoir, but the District states that it has not reviewed that description and offers only to provide a description of its program following the issuance of the license.

⁵¹ See, e.g., Great Northern Paper, Inc., 77 FERC ¶ 61,068 (1996), order on reh'g, 85 FERC ¶ 61,316 (1998), aff'd, Conservation Law Foundation v. FERC, 216 F.3d 41 (D.C. Cir. 2000) (state or local zoning ordinances inadequate substitute for a Commission-approved buffer zone plan); Public Service Company of New Hampshire, 75 FERC ¶ 61,111 n.65 (1996) (rejecting licensee proposal to substitute adherence to state land use regulations for buffer zone); Greenwood County, S.C., 94 FERC ¶ 61,033 (2001) (continued...)

certification moreover includes no provisions for monitoring or any effort to identify causes of erosion, but only for control of erosion during maintenance and construction activities.⁵²

50. We also think it is appropriate for Fulton and Saratoga Counties to be consulted in the preparation of the plan. The project is located within these counties and even if they have no regulatory authority with respect to the reservoir operations, the recreational use of the reservoir has a direct and substantial impact on the local economy. Although Saratoga County states that it no longer wishes to be consulted, the license is being issued for a term of 40 years, during which many changes of circumstance are likely to occur. Article 403 will reserve Saratoga County's right to consultation, which it may decline to exercise in response to any request from the District.

51. We agree that including the SHPO in the consultation requirements for this plan would be redundant of the requirement in Article 404 to consult with the SHPO to develop a Cultural Resources Management Plan, and have amended Article 403 accordingly.

Article 404 – Cultural Resources Management Plan

52. A Multiple Programmatic Agreement (PA) was executed by Niagara Mohawk in 1996 for 14 New York projects, including the E.J. West powerhouse and generating facilities, but not Conklingville Dam or Great Sacandaga Lake.⁵³ The PA requires the licensee to prepare a Cultural Resources Management Plan (CRMP) for each project within one year of license issuance. A review of the files of the New York State Historic Preservation Officer (SHPO) shows that two mapped native American cultural sites may

⁵¹ (...continued)

(refusing licensee's request to use the county shoreline permitting program in whole or part as its own shoreline permitting program).

⁵² See Appendix A.

⁵³ See "Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and the New York State Historic Preservation Officer for Managing Historic Properties That may be Affected by a License Issuing to Niagara Mohawk Power Corporation, Beebe Island Corporation, or Moreau Manufacturing Company for the Continued Operation of 14 Hydroelectric Projects in Upstate New York," executed on July 19, 1996 and filed with the Commission July 23, 1996.

be in proximity to the shoreline of Great Sacandaga Lake. Article 404 therefore requires the District, pursuant to Section 106 of the National Historic Preservation Act⁵⁴ and its implementing regulations⁵⁵ to develop a CRMP in consultation with the SHPO and other appropriate entities to protect any cultural properties associated with the dam and reservoir.⁵⁶

53. The District states that the Settlement Offer does not obligate it to prepare a detailed CRMP and that it is not a party to the PA under which Erie agreed to prepare a CRMP for the E.J. West generating facilities. The District also states that only two of twelve site areas⁵⁷ within or along the reservoir shoreline are subject to possible erosion⁵⁸ from reservoir operations, and that Erie, not the District, agreed to contact the SHPO to identify the precise location of the sites within the two relevant site areas to determine if they are actually subject to erosion. The District states that these facts indicate that preparation of a complete CRMP is unnecessary and, to the extent any CRMP is required, the funding should be a requirement of Erie's license for E.J. West.

54. Licensing of both the dam and reservoir is required under the FPA. The Commission cannot dispense with its obligations under NHPA Section 106 regarding the project dam and reservoir merely because the complexities of the Upper Hudson relicensing proceedings resulted in a PA being executed prior to the Settlement Offer that did not cover facilities that are required to be licensed, or because the parties to the Settlement Offer elected not to address cultural resources in that document. The CRMP required by Article 404 follows the same guidelines and requirements applicable to the other projects covered by the PA.

Article 408 – Standard Uses and Conveyances Article

55. Article 408 is the standard uses and occupancy article included in every license issued by the Commission. This article establishes the conditions under which licensees

⁵⁴16 U.S.C. § 470f.

⁵⁵36 C.F.R. Part 800.

⁵⁶See Article 404.

⁵⁷A "site area" is a one-mile diameter circle within which an archeological site is located.

⁵⁸See EIS p. 131.

many grant permission for certain types of use and occupancy of project lands and waters, such as non-commercial piers, landings, and boat docks, and may convey certain minor interests in project lands and waters without prior Commission approval.

56. The District objects to the inclusion of this standard article on the basis that it is inconsistent with the State of New York's existing program for the annual issuance of temporary, renewable permits for the use of lands in and around the reservoir, and may be inconsistent with the New York Constitution. The District states that NYCRR Part 606 comprehensively addresses the use of the reservoir's water and buffer zone lands for the purpose of protecting the reservoir's aesthetic, environmental, and scenic qualities, and that in some respects they exceed the requirements of the standard use and occupancy article. The District adds that while many aspects of the New York regulations are not inconsistent with the standard article, there may be some conflicts, such as a requirement for agency consultation prior to annual reissuance of use permits, or that the District would be required to obtain prior authorization from the Commission before permitting the operation of a commercial marina that can accommodate more than ten watercraft. The District concludes by requesting that in lieu of Article 408, the Commission should substitute an article providing for the District to continue managing the state-owned land in and around the reservoir pursuant to the existing New York Regulations, incorporate these regulations into the license, and require the District to notify the Commission in the event of any changes to those regulations.

57. We decline to exclude the standard uses and occupancy article from the license. The purpose of this article is to establish uniform standards for the uses of project lands and waters that a licensee may permit without obtaining prior Commission authorization. These uses and occupancies do not require prior Commission authorization because, as a class, they do not have significant environmental impacts. The license article does not require a licensee to issue permits for any of the uses and occupancies permitted therein. It simply allows the licensee to issue such permits without prior Commission authorization.

58. For other uses and occupancies, the Commission has made a policy determination that they are potentially of significant impact and therefore require public notice and opportunity for comment prior to Commission review and approval. To the extent that state regulations would permit the licensee to authorize such uses and occupancies

without prior Commission authorization, those regulations must yield to the federal regulations.⁵⁹

59. We have reviewed the provisions of Title 6, Part 606, of the NYCRR and find that they may reasonably be considered a land and water management plan of the kind licensees are ordinarily required to submit for Commission approval. Thus, to the extent these provisions do not conflict with Article 408 or any other provisions of the license, we will approve them as a land and water management plan under the license.⁶⁰ It would moreover be impractical and is unnecessary to review all of the uses and occupancies the District has previously permitted. We will therefore grandfather those uses and occupancies existing as of the issuance date of this license.⁶¹

60. We also note that the District's concern that subsection (d) requires agency consultation and 60 days' prior notice to the Commission for the annual reissuance of any permit authorized by that subsection are unfounded.⁶² This subsection requires 60 days

⁵⁹See *California v. FERC*, 495 U.S. 490 (1990). The District also suggests that the uses and occupancy article may conflict with Article XIV of the New York Constitution, which provides, in pertinent part:

The lands of the state . . . constituting the forest preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, or sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed, or destroyed.

The District states that because the entirety of the reservoir and its buffer zone lie within the "forest preserve" as defined by New York law, Article 408 may put the District's management of the shoreline lands in conflict with the state constitution. The District however identifies no specific conflict and we see none in Article 408. Nothing in the article requires the licensee to issue a permit for any use or occupancy. It merely states that the licensee is able to do so without prior Commission authorization under specified circumstances.

⁶⁰See Article 407.

⁶¹See Ordering Paragraph (E).

⁶²This subsection permits the licensee to convey fee title to, easements or rights-of-way across, or leases of project lands for various developmental projects such as: roads and bridges; sewer lines; pipelines that do not discharge into project waters; transmission

(continued...)

prior notice to the Commission's Office of Energy Projects, including a description of the project lands to be conveyed, the nature of the proposed use, and the identity of any agencies consulted and approvals required. If the Commission does not, within 45 days of the filing date require the licensee to file an application for prior approval, the licensee may convey the interest at the end of that period. The prior notice requirement applies only to the initial conveyance.

61. The foregoing clarifications should allay the District's concerns, yet the District appears to object to any requirement to obtain prior Commission authorization of future uses and occupancies that are not authorized by this article on the ground that such authorizations would require "a full blown license amendment application."⁶³ Indeed, all revisions to a license, no matter how small, are by definition amendments, although the procedural and substantive requirements for the amendment application will vary according to the nature of the amendment.⁶⁴ An application to amend the Conklingville Dam license would be a non-capacity related amendment.⁶⁵ Such applications very rarely involve a broad reexamination of the spectrum of public interest issues involved in a license application, but must only contain "those exhibits that require revision in light of the nature of the proposed amendments."⁶⁶ The Commission's regulations encourage licensees who are contemplating such an amendment application to consult with Commission staff prior to filing to determine what supporting information is required in the circumstances of the particular application.⁶⁷

⁶²(...continued)

lines; marinas accommodating no more than 10 watercraft at a time; recreational development consistent with a Commission-approved plan; and other uses occupying five acres or less that are 75 feet or more horizontally from the normal surface water elevation, where no more than 50 acres of project lands are conveyed in any calendar year.

⁶³District comments on draft license articles, p. 6.

⁶⁴Consumers Energy Company and The Detroit Edison Company, 87 FERC ¶ 61,150 (1999); Citizens Utility Company, 68 FERC ¶ 61,310 at 62,286 (1994).

⁶⁵This assumes the District does not amend the license to install generating capacity additional to that authorized by Erie's license for E.J. West.

⁶⁶18 C.F.R. § 4.201(c).

⁶⁷18 C.F.R. § 4.201(d)(2).

Consultation Requirements

62. AHDC states that not all entities that receive benefits from operation of the Great Sacandaga Lake Project in the form of flood control and flow augmentation ("statutory beneficiaries") are hydroelectric projects and may therefore not have an interest in the full range of issues considered in the settlement discussions. AHDC urges the Commission to include in the license an article requiring the District to consult broadly with all statutory beneficiaries on matters concerning operation of the Project.⁶⁸ We decline to do so. All of the statutory beneficiaries have had the opportunity to participate in the license proceeding and settlement discussions. The license includes numerous requirements for consultation based on the Settlement Offer or generally applicable Commission policies. Any significant changes in project operations during the term of the license will require a license amendment application, in which interested entities will have an opportunity to participate in the ordinary course. Under these circumstances, we see no reason to burden the District with an open-ended consultation requirement which no other entity seeks.⁶⁹

COMPREHENSIVE PLANS

63. Section 10(a)(2)(A) of the FPA⁷⁰ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.⁷¹ Federal and state agencies filed 29 qualifying comprehensive plans, of which we identified three

⁶⁸ AHDC Supplemental Comments on Final EIS, filed April 25, 2002, p. 2.

⁶⁹ We note as well that nothing in this license relieves the District of any consultation or procedural requirements with respect to the interests of statutory beneficiaries that apply under the New York State Environmental Conservation Law.

⁷⁰ 16 U.S.C. § 803(a)(2).

⁷¹ Comprehensive plans are defined at 18 CFR 2.19 (2000).

federal and six state comprehensive plans that are applicable.⁷² We did not find any inconsistencies.

ECONOMIC BENEFITS OF PROJECT POWER

64. 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.

65. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corp.,⁷³ 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 basis 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 estimates helps to support an informed decision

⁷²(1) Fish and Wildlife and Canadian Wildlife Service, North American Waterfowl Management Plan: A Strategy for Cooperation, U.S. Department of the Interior and Environment Canada, Washington, D.C., 1986; (2) Fish and Wildlife: Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service, Washington, D.C., undated; (3) Adirondack Park Agency, Adirondack Park State Land Master Plan, Ray Brook, New York, January 1985; (4) Adirondack Park Agency, New York State wild, scenic, and recreational rivers system field investigation summaries, Albany, New York, 21 reports, undated; (5) New York State Wild, Scenic, and Recreational River System Act, Albany, New York, March 1985; (6) New York State Executive Law, Article 27 - Adirondack Park Agency Act, Albany, New York, July 1, 1981; (7) New York Department of Environmental Conservation, Regulation for Administration and Management of the Wild, Scenic, and Recreational River Systems in New York State excepting Adirondack Park, Albany, New York, March 26, 1986; (8) New York State Parks, Recreation, and Historic Preservation, State Comprehensive Outdoor Recreation Plan, 1994; (9) New York State Department of Environmental Conservation. 1979. Hudson River Basin Water and Related Land Resources; Level B Study Report and Environmental Impact Statement. Albany, New York. September 1979; (10) New York State Office of Parks, Recreation, and Historic Preservation. 1983. People, Resources, Recreation. Albany, New York. March 1983; (11) State of New York Hudson River Regulating District. 1923. General Plan for the Regulation of the Flow of the Hudson River and Certain of its Tributaries. Albany, New York. June 7, 1923.

⁷³ 72 FERC ¶ 61,207 (1995).

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.

66. Staff considered the Great Sacandaga Lake and E.J. West Projects together for purposes of this analysis because they comprise a single unit of development. Based on the Settlement Offer, the E.J. West portion of the unit of development would produce an average of 70.2 gigawatt-hours (GWh) of energy annually at an annual cost of about \$2.9 million, or 32.65 mills per kilowatt-hour (mills/kWh). This is about \$905,000, or 12.89 mills/KWh, less than the current cost of alternative power.

PROJECT SAFETY

67. Conklingville dam is classified as a high hazard potential structure.⁷⁴ As such, it is subject to Part 12, Subpart D of the Commission's regulations, which requires licensees to submit periodically to the Commission's Division of Dam Safety and Inspections (D2SI) within the Office of Energy Projects a report prepared by an independent consultant approved by the Commission.⁷⁵ A dam stability evaluation in a recent independent consultant's report on Conklingville Dam determined that the existing embankment dam meets the Commission's FERC dam safety criteria. The same report also determined that the probable maximum flood (PMF) at Conklingville Dam would overtop the downstream Stewarts Bridge embankment dam by about 1.2 feet and potentially cause the failure of that dam.⁷⁶

68. D2SI requested Niagara Mohawk, the then-Licensee for E.J. West and Stewarts Bridge, to submit a plan and schedule to address the inadequate spillway capacity at

⁷⁴A high hazard dam is a dam the failure of which might endanger life or cause significant property damage, or which meets the criteria for high hazard potential as defined by the U.S. Army Corps of Engineers. See 18 C.F.R. § 12.31(b).

⁷⁵18 C.F.R. Part D.

⁷⁶It was initially believed that the side channel spillway at Conklingville Dam has unacceptable factors of safety at flood flows. A subsequent independent consultant's report, submitted on February 21, 2002, concluded that the side channel spillway exceeds the Commission's factor of safety values and is stable under all loading conditions. By letter dated April 12, 2002, D2SI concurred with this conclusions and determined that no remedial measures are needed.

Stewarts Bridge. A physical model study of the E. J. West outlet works was performed to document its operational capacities. Based on the study, Niagara Mohawk proposed to raise the side channel spillway crest at E.J. West by two feet, install a spillway crest gate, and revise project operations during extreme floods. This would increase the level of Great Sacandaga Lake 1.4 feet to elevation 788.0 feet during the PMF event, and thereby reduce the PMF outflow from 52,000 cfs to 40,000 cfs. The study determined that this would have negligible impacts to lake front property.

69. D2SI accepted the results of the physical model study and directed the licensee (which by this time had become Erie) to submit a plan and schedule for resolving the inadequate spillway capacity at Stewarts Bridge. As a result, Erie submitted a report including a proposal to post-tension of the E.J. West spillway and raise the retaining walls, and proposed modifications to the E.J. West outlet works. D2SI accepted the findings and recommendations in the report. Erie and the District are negotiating a Memorandum of Understanding (MOU) to implement the recommendations.

70. D2SI has directed that the inadequate spillway capacity problem at Stewarts Bridge Dam must be resolved no later than November 30, 2003.⁷⁷ If the District and Erie are not able to conclude an MOU, Erie will be required to make appropriate modifications to the Stewarts Bridge dam. In light of this, Erie has submitted a proposal to re-evaluate the PMF at Conklingville Dam and to do a feasibility study of increasing the flood discharge capacity at the Stewarts Bridge penstock. These proposals are currently under Commission review.

LICENSE TERM

71. Pursuant to FPA Section 6,⁷⁸ original license terms shall not exceed 50 years from the date on which the license is issued. Pursuant to FPA Section 15(c)⁷⁹ new license terms shall not be less than 30 years nor more than 50 years. Our general policy, applicable to both original and new licenses, is to establish license terms of 30, 40, or 50-

⁷⁷This directive is included in Article 303 of the new license for Stewarts Bridge.

⁷⁸16 U.S.C. § 796.

⁷⁹16 U.S.C. § 808(c).

years for projects with little, moderate, or extensive redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures, respectively.⁸⁰

72. The Settlement Offer contemplates 40-year license terms for all of the licenses. Because the term of the licenses was likely an important element in the negotiations that led to the Settlement Offer, because the applicants propose moderate environmental mitigation and enhancement measures, and because it is appropriate for purposes of a comprehensive cumulative environmental impact analysis when the licenses expire,⁸¹ we are issuing this license for the Great Sacandaga Lake Project for a term of 40 years..

SUMMARY OF FINDINGS

73. The EIS includes background information, analysis of impacts, discussion of enhancement measures, and support for related license articles. The project, with the required measures contained in this license, will not result in any major, long-term adverse environmental impacts.

74. The design of this project is consistent with the engineering standards governing dam safety. The project will be safe if operated and maintained in accordance with the requirements of this license.

75. Based on our review of the agency and public comments, and our evaluation of the environmental and economic effects of the proposed project and its alternatives pursuant to FPA Section 10(a)(1), we find that the Great Sacandaga Lake Project, with the conditions attached thereto, will be best adapted to the comprehensive development of the Sacandaga and Upper Hudson River Basins for all beneficial public purposes.

⁸⁰Many original licenses are issued for projects at existing dams. Such licenses seldom encompass the kind of extensive developmental or environmental investment to qualify for a 50-year license.

⁸¹Our policy is to "coordinate the expiration dates of licenses to the maximum extent possible, to maximize future considerations of cumulative impacts . . . in contemporaneous proceedings at relicensing." Policy Statement on Use of Reserved Authority in Hydropower Licenses to Ameliorate Cumulative Impacts, 59 Fed. Reg. 66,714 (Dec. 28, 1994), FERC Stats. & Regs., Reg. Preambles ¶ 31,010 at 31,219 (Dec. 14, 1994); 18 C.F.R. § 2.23.

The Commission orders:

(A) This license is issued to the Hudson River-Black River Regulating District (Licensee) for a period of 40 years, effective the first day of the month in which the license is issued, to operate and maintain the Great Sacandaga Lake Project No. 12252. 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) The following features: (a) a 25,950-acre Great Sacandaga Lake impoundment with a total gross storage of 681,000 acre-feet; (b) an 1,100-foot-long, 100-foot-high earth fill and concrete dam; (c) an outlet structure including two 8 feet by 18 feet siphon spillways and three 8 feet in diameter Dow valves electric motor and manually operated; (d) a 400-foot-long spillway weir; (e) an 8-inch-thick concrete lined, 20-foot-wide concrete canal delivering water from the reservoir to the forebay; and (f) a control house.

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

(3) The exhibits A, F, and G shall be filed according to the requirements of Article 201 and made part of the license upon their approval.

(C) This license is subject to the water quality certification conditions submitted by the New York Department of Environmental Conservation pursuant to Section 401(a)(1) of the Clean Water Act. The water quality certificate is Appendix A to this order.

(D) This license is subject to the articles set forth in Form L-3, 54 FPC 1817 (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. Within 120 days of the date of issuance of the license, the licensee shall file three original sets of Exhibits A, F and G for Commission approval.

Article 202. If the licensee's project is directly benefitted by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed. The benefits will be assessed in accordance with Subpart B of the Commission's regulations.

Article 301. Within 90 days of completion of construction of the facilities directed by any article of this license (trashracks, fish passage, recreation facilities, etc.), the licensee shall file for Commission approval revised Exhibits F and G as appropriate, to show those project facilities as built.

Article 302. (a) Within one year from the date of issuance of this license, the licensee shall file for Commission approval a plan to consult with the holder(s) of the licenses for South Glens Falls Project No. 5461, Hudson Falls Project No. 5276, Northumberland Project No. 4244, and Waterford Project No. 10648 concerning means for determining whether operation of the Great Sacandaga Lake Project reduces generation at those projects. The licensee shall prepare the plan in consultation with the licensee for said projects and Erie Boulevard Hydropower, L.P.

(b) 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 consulted entities, and specific descriptions of how the consulted entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the consulted entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons.

(c) 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 304. Within six months from the date of issuance of this order, the Licensee shall file, for approval, Exhibits A, F, and G in accordance with Ordering Paragraph (C) of the order issuing this license.

Article 401. Lake Elevation Reports. The licensee shall, on a monthly basis, prepare and publish a report of daily Great Sacandaga Lake elevations, inflows to Great Sacandaga Lake, and flows of the Hudson River. The report shall be made available on the Licensee's web site no later than six months from the date of license issuance. The licensee shall notify the New York State Department of Environmental Conservation,

New York Rivers United, licensees of Commission-licensed hydroelectric projects on the Sacandaga and Hudson Rivers, and the Commission if United States Geological Survey gage number 01327750 (Fort Edward gage) fails to operate properly for any period longer than two weeks.

Article 402. Operating Objectives for Great Sacandaga Lake. (a) The licensee shall operate the Great Sacandaga Lake to achieve the following objectives while maintaining the goal of controlling floods on the Hudson River:

- o Maintaining the lake at the targeted elevations during the late winter consistent with the use of storage for flow augmentation;
- o Providing flows in the Hudson River to maintain water quality and fish habitat;
- o Targeting higher than current lake elevations to enhance fall lake recreation;
- o Minimizing energy losses to affected hydroelectric projects by the aggressive use of storage while maintaining other objectives;
- o Enhancing whitewater recreation on the Sacandaga River;
- o Providing base flows in the Sacandaga River.

(b) When the licensee is releasing flows from Great Sacandaga Lake, it shall ensure that releases shall allow the licensee for Stewart's Bridge Project No. 2047 to provide a base flow and whitewater flows below Project No. 2047, a minimum average daily flow below the confluence of the Hudson and Sacandaga Rivers, and a base flow below the Feeder Dam Project No. 2554.

(c) Lake elevations of Great Sacandaga Lake shall be constrained in accordance with the following annual guide level curves:

Level Curve 1 -- Elevation 756 feet National Geodetic Vertical Datum (NGVD) From May 1 through Labor Day, then linearly interpolated to 740 feet NGVD on October 15 and maintained at 740 feet NGVD through March 31 of the following year, then linearly interpolated back to 756 feet NGVD on May 1. Level Curve 1 is considered the bottom of available storage and Great Sacandaga Lake may be drawn below this Level Curve 1 only under the circumstances described in this article.

Level Curve 2 -- represents the top of buffer storage; buffer storage between Level Curves 1 and 2 is primarily reserved to augment flows on the Hudson and Sacandaga Rivers for water quality, and to provide whitewater flows in the Sacandaga River.

Level Curve 3 -- represents the annual Guide Curve the licensee shall follow over the course of any given year, subject to balancing inflow to Great Sacandaga Lake with other operating constraints, such as targeted minimum and maximum flows. Level Curve 3 represents the top of conservation storage. Storage between Level Curves 2 and 3 is used to augment flows on the Hudson and Sacandaga Rivers for water quality and power generation, as well as to provide whitewater flows in the Sacandaga River.

Level Curve 4 -- This represents the top of the flood pool and is set at 773 feet NGVD throughout the year. Lake levels shall approach this elevation only in accordance with the licensee's responsibility to utilize the storage capacity of the lake to control flooding on the Hudson River.

The targeted elevation of maximum winter drawdown in Level Curve 3 shall be 748 feet NGVD from the date of license issuance through June 1, 2010, 749 feet NGVD from June 2, 2010 to June 1, 2020, and 750 feet NGVD from June 2, 2020 through the date of license expiration. Figures A through C of the Settlement Offer filed on April 14, 2000, as modified on July 30, 2000 in Project Nos. 2047, et al., which illustrates this transition, and Appendix E thereof, which shows the relationship between lake level curves and U.S. Geological Survey datum for Great Sacandaga Lake elements, are hereby incorporated by reference.

(d) *Winter Drawdowns.* The licensee may operate Great Sacandaga Lake below the targeted elevation for maximum winter drawdown established in subsection (c) above following consultation with the New York State Department of Environmental Conservation (NYSDEC) pursuant to subsection (e) for:

- (1) Maintenance, repair, or reconstruction of the Conklingville Dam; for which the licensee shall obtain prior NYSDEC approval; and
- (2) Provision of additional storage for flood control purposes, as indicated by the existence of a water equivalent of 8.6 inches at the first March snow survey. The licensee shall consult with the NYSDEC Regional Director for Region 5 in advance of drawing the lake below the target winter elevation.

Prior to drawing the lake down below the targeted elevations for maximum winter drawdown as provided for in subsection (d), the licensee shall: (1) consult with NYSDEC

Region 5 staff, Fulton and Saratoga Counties, and Erie Boulevard Hydropower, L.P. (Erie) or any successor licensee regarding the need for drawdowns for flood protection purposes, describing the need for the drawdown, the approximate drawdown level needed, and the approximate duration of the drawdown. NYSDEC is expected to notify the U.S. Fish and Wildlife Service and Adirondack Park Agency of the licensee's request. The purpose of consultation is to seek a consensus of these parties on the need to draw the lake down below the targeted elevations for maximum winter drawdown. The licensee shall document its consultation, maintain a copy of the documentation on file, and provide copies to Erie and the Counties within 30 days of the conclusion of consultation. If consensus is not achieved, the licensee shall determine the drawdown level in consultation with NYSDEC.

The licensee may draw the lake below the target elevation for winter drawdown without prior notification of NYSDEC in the case of an emergency related to dam safety, protection of human life and property, or rescue activities. The licensee shall notify NYSDEC, Fulton and Saratoga Counties, Erie, and the Commission's New York Regional Office within 24 hours of the commencement of any drawdown and the related emergency. This notification shall be followed within the subsequent 24 hours by submission to NYSDEC of a description of the need for an emergency drawdown and any related emergency actions. The licensee shall maintain documentation of the notification on file, and provide a copy of such documentation to Erie and Fulton and Saratoga Counties within 30 days of the occurrence.

All drawdowns below the targeted elevation for maximum winter drawdown shall be for the minimum duration necessary and the lake elevation shall be restored above the target level as soon as possible after the circumstances requiring the drawdown have passed.

(e) *Flow Augmentation.* The licensee shall allocate sufficient daily water volume releases from Great Sacandaga Lake to meet minimum daily flow requirements on the Hudson River just below the confluence with the Sacandaga River and to help meet the 1,500 cubic foot per second (cfs) instantaneous Hudson River base flow requirement below Feeder Dam Project. No. 2554. For this purpose, the licensee shall use the minimum average daily flows shown on the following table, as adjusted in subsection (g), to help meet these objectives.

Operation of Great Sacandaga Lake to Target Flow Augmentation Needs on the Hudson River Just Below the Confluence with the Sacandaga River	
Great Sacandaga Lake Level Curve	Minimum Average Daily Flow Target on the Hudson River Just Below the Confluence with the Sacandaga River (in cubic feet per second)
From Date of License Issuance through June 1, 2013	
1.00 - 1.19 [a]	1,500 [d]
1.20 - 1.50 [b,c]	1,760
2.50 - 3.00 [c]	2,250
3.50 [c]	3,000
4.00 [c]	4,000
From June 2, 2013 to License Expiration	
1.00 - 1.19 [a]	1,500 [d]
1.20 - 2.50 [c]	1,760
3.00 [c]	2,000
3.50 [c]	3,000
4.00 [c]	4,000

[a] The licensee shall confer with the New York State Department of Environmental Conservation in accordance with subsection (g) below to determine the appropriate flow that shall be provided below Level Curve 1.00.

[b] For Levels above 1.50, the corresponding minimum daily average flow targets on the Hudson River exceed the 1,760 cfs required for water quality. The flow targets are designed to increase hydroelectric operating efficiency at Hudson River hydroelectric projects (*i.e.*, generation).

[c] Flows between specified ranges are to be interpolated.

[d] See exception below in subsection (g).

(f) *Drawdown exceptions to Level Curve 1.* The licensee shall draw Great Sacandaga Lake below Level Curve 1 only in accordance with the exceptions specified below. In all cases, drawdowns below Level Curve 1 will be for the minimum duration necessary and the lake elevation will be restored above Level Curve 1 as soon as possible after the circumstances requiring drawdown have passed. As soon as Great Sacandaga Lake rises above Level 1, Hudson River flows shall be restored per the table in subsection (e) and subsection (g), as applicable. Reasons for drawing below Level Curve 1 may include, but not necessarily be limited to the following:

- o Maintenance, repair or reconstruction of the Conklingville Dam;
- o Any emergency situations related to dam safety, human life and property, or rescue activities;
- o The need for flow augmentation because of critical low flows in the Hudson River which adversely affect water quality conditions (see subsection (h) below for consultation procedures for drawdowns below Level Curve 1 for flow augmentation).

(g) *Drawdown Exceptions during the Champlain Canal Navigation Season.* During the Champlain Canal Navigation Season (approximately May 1 through mid-November), if the elevation of Great Sacandaga Lake drops below Level 1.2 (interpolated between Level Curves 1 and 2) and an interim minimum average daily flow has not been invoked per subsection (h), the minimum average daily flow on the Hudson River just below the confluence with the Sacandaga River shall be increased by the flow being diverted from the Hudson River to the Feeder Canal. The resulting minimum average daily flow shall remain in effect until either Great Sacandaga Lake rises above Level 1.2 or an interim minimum average daily flow is established per subsection (h).

(h) *Consultation on Drawdown Exceptions for Flow Augmentation.* If the elevation of Great Sacandaga Lake reaches Level 1.2 (interpolated between Level Curves 1 and 2) at any time and the lake elevation is continuing to drop, the licensee shall, within 48 hours of the lake reaching Level 1.2, notify the NYSDEC. At any time between Memorial Day and Labor day, the licensee shall also provide general, public notification in the event an emergency drawdown occurs that shall require Great Sacandaga Lake to be drawn below Level 1.2. Notification shall be provided within 48 hours following the commencement of the emergency drawdown. Within seven working days of the lake reaching Level 1.2, the licensee shall consult with NYSDEC, Erie Boulevard Hydropower, LP, the U.S. Fish and Wildlife Service, the Adirondack Part Agency, and Fulton and Saratoga Counties to establish an interim minimum average daily flow that

shall be invoked should the lake actually reach Level 1.0. To the extent possible, the decision on an interim minimum average daily flow shall be determined by consensus among the participants. In the absence of consensus, the licensee will, in consultation with NYSDEC, within the seven day period described above, make the final determination on the minimum average daily flow that shall be invoked should the lake actually reach Level 1.0. As soon as the lake rises above Level 1.0, the minimum average daily flow shall be restored as per the table in subsection (e).

The licensee shall consider the following factors, in consultation with NYSDEC and the consulted entities, in establishing an interim minimum average daily flow:

- o The goal of minimizing the extent and duration of lake drawdown below Level Curve 1.
- o Water quality conditions on the Hudson River at the time;
- o Natural inflow into Great Sacandaga Lake
- o Natural flow in the Hudson River above Hadley
- o Minimum base flow in the Sacandaga River;
- o The quantity of flow being diverted from the Hudson River to the Feeder Canal; and
- o Other meteorological circumstances, such as precipitation and temperature.

In the event an interim minimum average daily flow is implemented that may take Great Sacandaga Lake below Level Curve 1, the licensee shall periodically consult with NYSDEC to determine whether changes in conditions warrant raising or lowering the interim minimum average daily flow. Consultation shall continue until Great Sacandaga Lake is restored to above Level 1.2.

(i) *Operation for Fall Recreation.* To facilitate recreation through Columbus Day, the licensee shall regulate Great Sacandaga Lake in accordance with Level Curve 3. A minimum lake elevation of 760 feet NGVD on October 15 is considered a target elevation, and the licensee may operate Great Sacandaga Lake below elevation 760 feet NGVD to:

- o Maintain flow augmentation needs on the Hudson River as a daily average of 1,760 cfs below Feeder Dam and an instantaneous flow of no less than 1,500 cfs below Feeder Dam using the target flows shown on the table in subsection (e) and the provisions of subsection (g) above;
- o Maintain Sacandaga River Base Flows;
- o Maintain the whitewater demand schedule (see subsection (k) below); and
- o Address other conditions as requested by NYSDEC.

(j) *Operation for Aggressive Use of Storage.* (1) For the purpose of minimizing energy losses to affected downstream hydroelectric projects, the licensee shall make every reasonable attempt to limit water releases from the Great Sacandaga Lake to not exceed the target maximum flows in the Hudson River below its confluence with the Sacandaga River, based on the relationship shown in the following Tables A and B. The Licensee shall make every reasonable attempt to limit water releases from the Great Sacandaga Lake below E.J. West, as shown in Table C.

Table A Targeted Maximum Hudson River Flow Below the Confluence with the Sacandaga River	
Great Sacandaga Lake Elevation (feet NGVD)	Targeted Maximum Flow (cfs)
735.00 - 755.00	6,000
755.01 - 769.00	8,000
769.99	10,000
770.00	20,000
773.00	26,000
776.00 and above	32,000
Note: For those GSL elevations not shown above, the targeted maximum allowable flow should be linearly interpolated.	

Table B Targeted Maximum Hudson River Flow Below the Confluence with the Sacandaga River	
Great Sacandaga Lake Level	Targeted Maximum Flow (cfs)
1.00-1.19	4,000
1.20	6,200
1.50	6,500
2.50-3.00	7,500
3.50	8,500
4.00	28,500
Note: For those GSL elevations not shown above, the targeted maximum allowable flow should be linearly interpolated.	

Table C Targeted Maximum Flows Below E.J. West [1]	
Great Sacandaga Lake Elevation (feet NGVD)	Maximum Average Daily Flow Target below E.J. West (cfs)
735.00 - 745.00	2,000
745.01 - 765.00	4,000
768.00	5,400
771.00	8,000
772.00	10,000
774.00	14,000
777.00	25,800
Note: For those GSL elevations not shown above, the targeted maximum allowable flow should be linearly interpolated.	

[1] Tables A and B and the table in subsection (e) on flow augmentation take precedence over Table C.

(2) In cases where exceedance of the target maximum daily average flow targets shown in Tables A, B, or C, respectively, is needed, the Licensee shall restore the respective river to below the applicable maximum average daily flow target as soon as possible after circumstances requiring the exceedance have passed. Reasons for exceeding the maximum flows shown in Tables A, B, or C include, but are not limited to, the following:

- o Maintenance, repair, or reconstruction of the Conklingville Dam;
- o Observation of lake elevations rising above elevation 771 feet NGVD and anticipation of unusual meteorological conditions that may result in flooding around Great Sacandaga Lake above Level Curve 4;
- o Any emergency situations related to dam safety, human life and property, or rescue activities.

(3) The following notification and consultation provisions for exceedance of target maximum flows in the Hudson River shall be undertaken as circumstances warrant:

- o The licensee shall consult with appropriate NYSDEC Region 5 staff, Fulton and Saratoga Counties, and downstream hydroelectric project owners and municipalities regarding the need to exceed the maximum flows shown on the table in subsection (j)(1) above. Consultation shall include the need for the exceedance, estimation of the consequences to downstream properties and hydroelectric facilities as a result of the exceedance, and an estimation of the approximate duration of the exceedance. The licensee shall maintain on file documentation of the consultation, and copies shall be provided to NYSDEC, Fulton and Saratoga Counties, Erie, and affected downstream entities within 30 days following the end of the exceedance.
- o Consultation with NYSDEC, Fulton and Saratoga Counties, and downstream hydroelectric project owners and municipalities shall not be deemed necessary where consultation would impair the licensee's ability to address immediate dangers relating to dam safety, human life and property, or rescue activities. However, the licensee shall notify NYSDEC, Fulton and Saratoga Counties, and affected downstream entities as soon as possible of the emergency situation and its expected duration. In such emergency

circumstances, the licensee shall prepare a report discussing the rationale and circumstances for exceeding the target flows. The report shall be maintained on file and copies shall be provided to NYSDEC, Fulton and Saratoga Counties, Erie, affected downstream hydroelectric project owners and municipalities, the Commission within 30 days of the occurrence. Two copies shall be sent to the Commission; one to the New York Regional Office, and the other to the Director, Division of Hydropower Compliance and Administration.

(k) *Operation for Whitewater Recreation.* For the purpose of enhancing whitewater recreation, the licensee shall operate the Great Sacandaga Lake to provide the daily volume of water, if available, needed to sustain the whitewater demand flow in the Sacandaga River below Stewarts Bridge dam as provided for in the license for the Stewarts Bridge Project No. 2047. The whitewater demand schedule is shown on the following table.

Sacandaga River Whitewater Demand Schedule (as established in the license for Stewarts Bridge Project No. 2047, 101 FERC ¶ ____)					
June 1 - June 22 Weekends Only		June 23 - September 8 Daily		September 9 - September 23 Weekends Only	
GSL Level and Elevations	WW Hrs.	GSL Level and Elevations	WW Hrs.	GSL Level and Elevations	WW Hrs.
1.00 - 1.19	None	1.00 - 1.19	None	1.00 - 1.19	None
1.20	4 hours	1.20	5 hours	1.20	3 hours
2.00	5 hours	2.00	7 hours	2.35	3 hours
2.75 and above	6 hours	2.35 and above	8 hours	3.00 and above	6 hours

The licensee shall have the right to change flow releases for whitewater recreation under emergency circumstances.

(l) *Operation for Base Flows in the Sacandaga River.* The licensee shall provide sufficient flow volumes to facilitate the release of an instantaneous base flow, beginning in 2013, to the Sacandaga River below the Stewarts Bridge Project No. 2047 as described

in Article 405 of the license for that project. In the event neither of the turbine/generator units at the E.J. West Project No. 2318 are operating, the licensee shall cooperate with the licensee for Project No. 2318 to ensure that base flows are maintained in the Sacandaga River without violating impoundment fluctuation restrictions in the license for Project No. 2047. The base flow schedule is shown on the following table:

Base Flow Schedule for Stewarts Bridge Project No. 2047 (as established in the license for Stewarts Bridge Project No. 2047, 101 FERC ¶ ____)	
Great Sacandaga Lake Elevation	Base Flow (cfs)
01/01/13 to 06/01/20	
Greater than or equal to elevation 752	350 (349-351)
Between elevation 749 and 752	300 (299-301)
Less than or equal to elevation 749	300 (299-301) cfs or inflow (n.1), whichever is less
06/02/20 to License Expiration	
Greater than or equal to elevation 752	350 (349-351)
Between elevation 750 and 752	300 (299-301)
Less than or equal to elevation 750	300 (299-300) cfs or inflow (n.1), whichever is less
Other Conditions: If the Hudson River flow below the Sacandaga River confluence is greater than 25,000 cfs, then the base flow that must be achieved by release is 200 cfs.	
n.1. Inflow is measured at the Hope USGS gage and adjusted for drainage area only. The drainage area factor is equivalent to the drainage area at Conklingville Dam outlet (1,044 square miles) divided by the drainage area at the Hope gage (491 square miles) or 2.13. Inflow shall not be adjusted for lake evaporation.	

Article 403. Erosion and Slope Stability. Within one year from the date of issuance of this license, the licensee shall file for Commission approval a plan to monitor erosion and slope stability and to identify, minimize, and remediate any erosion or sedimentation resulting from project construction and operation.

The plan shall be based on geological, soil, and groundwater conditions at the Project site and on project design and operation, and shall include, at a minimum, the

following items: (1) a description of the actual site conditions; (2) procedures for the licensee's monitoring of shoreline erosion throughout the term of the license, including the frequency of monitoring; (3) the method to be used to determine the extent to which observed erosion is related to project operations; (4) measures proposed to control project-induced erosion, to prevent slope instability, and to minimize the quantity of sediment resulting from project construction and operation; (5) a description of any measures proposed to be taken by the licensee to stabilize the shoreline at locations where erosion is determined not to be caused by project operations; (6) procedures to prevent or minimize harm to archeological sites at or near the shoreline; (7) detailed descriptions, functional design drawings, and specific topographical locations of all control measures; and (8) a specific implementation schedule and details for erosion monitoring and measures to control erosion.

The licensee shall prepare the plan after consultation with the New York State Department of Environmental Conservation and Saratoga and Fulton Counties, New York.

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 consulted entities, and specific descriptions of how the consulted entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the consulted entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on geological, soil, and groundwater conditions at the site.

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

Article 40. *Development of Cultural Resources Management Plan.* (a) Within one year of the date of issuance of this license, the Licensee shall file for Commission approval a Cultural Resources Management Plan (CRMP) specifying how Historic Properties shall be managed in the Great Sacandaga Lake Project's area of potential effect, as defined in 36 C.F.R. Section 800.2(c), during the term of the license. The Licensee shall prepare the CRMP in consultation with the New York State Historic Preservation Officer (SHPO), Erie Boulevard Hydropower L.L.C., Indian Tribes, including the St. Regis Mohawk Tribe, and interested persons, as defined in 36 C.F.R. § 800.1(c)(2). The Licensee shall seek the SHPO's concurrence in the CRMP.

The Licensee shall ensure that the CRMP is consistent with "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines" (48 Fed. Reg. 44,716-740 (September 29, 1983) (Secretary's Standards), and shall take the following standards and documents into account: (1) U.S. Department of the Interior, 1990, "The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings"; (2) U.S. Department of the Interior, 1991, National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation"; (3) U.S. Department of the Interior, 1991, National Register Bulletin 16A, "How to Complete the National Register Registration Form"; (4) U.S. Department of the Interior, 1991, National Register Bulletin 16B, "How to Complete the National Register Multiple Property Documentation Form"; (5) U.S. Department of the Interior, 1993, National Register Bulletin 36, "Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts"; (6) Duncan Hay, 1991, *Hydroelectric Development in the United States 1880-1946*, Edison Electric Institute, Washington, D.C. (two volumes); (7) Duncan Hay, 1991, *A History of Hydroelectric Power in New York State*, prepared for Niagara Mohawk Power Corporation, by the New York State Museum, Albany, New York; and (8) Duncan Hay, 1990, *New York State Hydroelectric Inventory*, prepared for Niagara Mohawk Power Corporation, by the New York State Museum, Albany, New York (13 volumes). The CRMP shall be developed by or under the direct supervision of a person or persons who meet, at a minimum, the professional qualifications standards for architectural history and archeology in the Secretary's Standards (48 Fed. Reg. 44738-739).

(b) *CRMP Contents.* The CRMP shall, at a minimum, include principles and procedures to address the following: (1) completion, if necessary, of identification of Historic Properties within the Projects' areas of potential effect; (2) continued use and maintenance of Historic Properties; (3) protection of Historic Properties threatened by shoreline erosion, other project-related ground-disturbing activities, and vandalism; (4) mitigation of unavoidable adverse effects on Historic Properties; (5) treatment and disposition of any human remains that may be discovered, taking into account any applicable state laws and the Advisory Council on Historic Preservation's "Policy Statement Regarding Treatment of Human Remains and Grave Goods" (September 27, 1988, Gallup, NM); (6) compliance with the Native American Graves Protection and Repatriation Act (25 U.S.C. Section 3001), if Tribal or Federal lands are within any of the project areas; (7) discovery of previously unidentified Historic Properties during project operations; (8) public interpretation of the historic and archeological values of the Project; and (9) coordination with the SHPO and interested persons during implementation of the CRMP.

(c) *CRMP Review and Implementation.* The Licensee shall submit the CRMP, along with documentation of the views of the SHPO and interested persons, to the

Commission for review and approval. If the SHPO has concurred in the CRMP, and the Commission determines that the CRMP is adequate, the Commission shall forward a copy of the CRMP to the Advisory Council on Historic Preservation (Advisory Council), which shall have 30 days to review the CRMP. If the Advisory Council does not object to the CRMP, the Commission shall proceed to ensure that the Licensee implements the CRMP.

If the Advisory Council objects to the CRMP, the Commission shall consult with the Advisory Council in an effort to reach agreement on the CRMP. If agreement cannot be reached, the Commission shall request that the Advisory Council's comments as follows: If the Commission determines that the objection cannot be resolved, the Commission shall forward all documentation relevant to the dispute to the Advisory Council and request that the Advisory Council comment. Within 30 days after receiving all pertinent documentation, the Advisory Council shall either: (1) provide the Commission with recommendations, which the Commission shall take into account in reaching a final decision regarding the dispute; or (2) notify the Commission that it shall comment pursuant to 38 C.F.R. § 800.6(b) and Section 110(1) of the National Historic Preservation Act, and proceed to comment.

If the SHPO has not concurred in the CRMP, or the Commission finds the CRMP inadequate, the Commission shall consult with the Licensee and the SHPO to seek agreement on the CRMP. If concurrence is not reached within 30 days, the Commission shall request that the Advisory Council enter into consultation to seek agreement on the CRMP. If agreement is reached on the CRMP, the Commission shall forward a copy of the revised CRMP to the Advisory Council for review as follows: If the SHPO has concurred in the CRMP, and the Commission determines that the CRMP is adequate, the Commission shall forward a copy of the CRMP to the Advisory Council, which shall have 30 days to review the CRMP. If the Advisory Council does not object to the CRMP, the Commission shall proceed to ensure that the Licensee implements the CRMP. If the Advisory Council objects to the CRMP, the Commission shall consult with the Advisory Council in an effort to reach agreement on the CRMP. If agreement cannot be reached, the Commission shall request that the Advisory Council comment pursuant to the procedures stated in the previous paragraph.

If agreement on the CRMP cannot be reached among the Commission, the SHPO, the Licensee, and the Advisory Council, the Commission or the SHPO shall request that the Advisory Council comment pursuant to the procedures set forth two paragraphs prior to this paragraph, or the Advisory Council may terminate consultation and comment sub sponte.

(d) *Annual Report.* The Licensee will, on every anniversary of the license issuing following Commission approval of the CRMP, file a report with the Commission and the SHPO of activities conducted under the implemented CRMP. This obligation shall terminate in the year when all activities conducted under the implemented CRMP have been completed.

(e) *Interim Treatment of Historic Properties.* Pending review and implementation of the CRMP the Licensee shall consult with the SHPO and interested persons regarding the effect of the following: (1) all activities, including recreational developments, that require ground-disturbance; (2) new construction, demolition, or rehabilitation of project facilities; and (3) active erosion of archeological sites due to project operations. Consultation shall be in accordance with 36 C.F.R. §§ 800.4 and 800.5(a)-(c), with the Licensee acting as the Agency Official. If the Licensee and the SHPO agree that the activity shall not adversely effect Historic Properties, the Licensee may proceed in accordance with any agreed-upon treatment measures or conditions.

If either the Licensee or the SHPO determines that the activity shall have an adverse effect, and the affected property is a National Historic Landmark, the Licensee shall submit the matter to the Commission, which shall initiate the process set forth at 36 C.F.R. § 800.5(e). Otherwise, the Licensee and the SHPO shall consult to develop a strategy for avoiding or mitigating such adverse effects. If the Licensee and the SHPO can reach agreement, the Licensee shall implement the agreed-upon strategy. If they disagree, the Licensee shall submit the matter to the Commission, which shall initiate the process set forth at 36 C.F.R. § 800.5(e).

Article 405. Authority is reserved by the Commission to require the licensee to construct, operate, and maintain, or to provide for construction, operation, and maintenance of, such fish passage facilities as may be prescribed by the Secretary of the Interior under Section 18 of the Federal Power Act.

Article 406. Procedural Requirements. The licensee shall comply with the procedural requirements found in Section 2.5 (Dispute Resolution), 2.6 (Reopeners), and 2.7 (License Amendments) of the Settlement Offer filed April 12, 2000, as amended July 30, 2001, and approved at 101 FERC ¶ _____ (2002).

Article 407. (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 and 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 water for which the licensee may grant permission without prior Commission approval are:

- (1) landscape plantings;
- (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single family type dwellings;
- (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and
- (4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall:

- (1) inspect the site of the proposed construction;
- (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and

- (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of the 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 right-of-way across, or leases of, project lands for:
 - (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;
 - (2) storm drains and water mains;
 - (3) sewers that do not discharge into project waters;
 - (4) minor access roads;
 - (5) telephone, gas, and electric utility distribution lines;
 - (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;
 - (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69 kV or less); and
 - (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

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

- (d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:
- (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;
 - (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;
 - (3) other pipelines that cross project lands or waters but do not discharge into project waters;
 - (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained.
 - (5) private or public marines 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 map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

- (e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:
- (1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.
 - (2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.
 - (3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands shall occur in a manner that shall 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 change to exclude land conveyed under this article only upon approval of revised Exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article shall be excluded 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, proposal to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

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

Article 408. The provisions of Title 6, Part 606 of the New York Code or Rules and Regulations are hereby incorporated into this license as the licensee's land and water management plan to the extent they do not conflict with any provision of this license. The licensee shall notify the Commission of any change in these regulations.

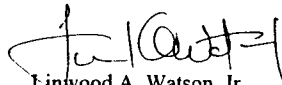
(E) The uses and occupancies of Great Sacandaga Lake existing as of the date of issuance of this license and permitted by the licensee are hereby approved by the Commission.

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

(G) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the Federal Power Act. 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 license.

By the Commission.

(S E A L)


Linwood A. Watson, Jr.,
Deputy Secretary.

Appendix A

Great Sacandaga Lake Project No. 12252 New York Water Quality Certification Conditions

A. ADMINISTRATION

1. This certificate includes and incorporates the **Settlement** [filed April 12, 2000, including Technical Corrections filed on July 30 ,2000].
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 [of Environmental Conservation] to determine whether the applicant is complying with this certification. A copy of this certification, including the **Settlement** as well as the FERC license and all pertinent maps, drawings and special conditions must be available for inspection by the Department staff during such inspections at the project.
3. **Emergencies:** With the exception of emergency provisions described in the Settlement (see subsection 2.8), the following procedures shall apply to activities conducted at the Project in response to an emergency:

Prior to commencement of emergency activities, the NYS DEC 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 NYS DEC is not possible, then the NYS DEC must be notified by the certificate holder(s) within 24 hours of commencement of emergency activities. In either case, notification must be made 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:

New York State Department of Environmental Conservation

Regional Permit Administrator
232 Hudson Street, P.O. Box 220
Warrensburg, N.Y. 12885

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 [Environmental Conservation Law] and pertinent regulations is found;
 - 2) the certificate was obtained by misrepresentation or failure to disclose relevant facts;
 - 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. Project Operation: Project Operation shall be in accordance with the **Settlement**, in particular, section 3.0.
6. Project Monitoring: Flow and water level monitoring shall be conducted in accordance with the **Settlement**, in particular, Section 2.13.

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
232 Hudson Street, P.O. Box 220
Warrensburg, N.Y. 12885

7. Maintenance Dredging: The certificate holder shall install and maintain appropriate turbidity control structures while conducting any maintenance dredging activities in the Great Sacandaga Lake and contiguous canal or river.
8. 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.

9. Erosion and Sediment Control: The certificate holder shall ensure that the following erosion and sediment control measures, at minimum, are adhered to during routine maintenance and construction that may result in sediments and/or contaminants entering Great Sacandaga Lake or the waters immediately downstream of Conklingville Dam.
- a. 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 Great Sacandaga Lake and the waters immediately downstream of Conklingville Dam.
 - b. Prohibit heavy construction equipment from operating below the mean high water level of Great Sacandaga Lake and the waters immediately downstream of Conklingville Dam until the work area is protected by an appropriate turbidity control structure.
 - c. Minimize soil disturbance, grade so as to prevent or minimize erosion and provide temporary and permanent stabilization of all disturbed areas and stockpiles to minimize the potential for erosion and subsequent sedimentation within Great Sacandaga Lake and the waters immediately downstream of Conklingville Dam.
 - d. Protect all waters from contamination by deleterious materials such as wet concrete, gasoline, solvents, epoxy resins or other materials used in construction, maintenance and operations of the Project.
 - e. Install and maintain erosion control structures on the down slope of all disturbed areas to prevent eroded material from entering Great Sacandaga Lake and/or the waters immediately downstream of Conklingville Dam. 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.
 - f. Ensure complete removal of all dredged/excavated material and construction debris from the bed and banks of Great Sacandaga Lake and the waters immediately downstream of Conklingville Dam.

- g. Ensure that all temporary fill and other materials placed in the waters of Great Sacandaga Lake or the waters immediately downstream of Conklingville Dam are completely removed, immediately upon completion of construction, unless otherwise directed by the Department.
- 10. Placement of cofferdams, construction of temporary access roads or ramps, or other temporary structures which encroach upon the bed or banks of Great Sacandaga Lake or the waters immediately downstream of Conklingville Dam. The design of all such structures must be approved by the Department prior to installation.
- 11. Construction Drawdowns: Whenever construction and/or maintenance activities require lowering the water level of the Project's impoundments below normal operating limits, the water level 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 one foot per hour.
- 12. River Flow: During any period of maintenance and/or construction activity, the certificate holder shall continuously maintain adequate flows immediately downstream of work sites as provided for in this certificate.
- 13. Turbidity Monitoring: During maintenance or construction-related activities in or near Great Sacandaga Lake or the waters immediately downstream of Conklingville Dam, the certificate holder will monitor the turbidity of project waters. The certificate holder specifically agrees that if, at any time, turbidity measurements exceed background, all related construction on the project will cease until turbidity is returned to a pre-construction condition.
- 14. Notifications: The Regional Permit Administrator must be notified in writing at least two weeks prior to commencing any work performed under the authority of this certificate.