118 FERC ¶ 61, 101
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

Erie Boulevard Hydropower, L.P. Project No. 2539-003

ORDER ON OFFER OF SETTLEMENT
AND ISSUING NEW LICENSE

(Issued February 15, 2007)

Introduction

1. On December 23, 1991, Niagara Mohawk Power Corporation (Niagara Mohawk) filed an application for a new license pursuant to sections 4(e) and 15 of the Federal Power Act (FPA)[1] to continue operation and maintenance of the 38.8-megawatt (MW) School Street Project No. 2539. The project is located on the Mohawk River in Albany and Saratoga Counties, New York, and does not occupy any federal lands.[2] On March 9, 2005, Erie Boulevard Hydropower, L.P. (Erie Boulevard), Niagara Mohawk's successor, filed a comprehensive Offer of Settlement.[3] For the reasons discussed below, we approve the Settlement and issue a new license for the project.

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

[2] FPA section 23(b)(1), 16 U.S.C. § 817(1) (2000), requires the project to be licensed because it is located on a navigable waterway of the United States. *See Niagara Mohawk Power Corp. (Niagara Mohawk)*, 41 FPC 772, 773 (1969).

[3] On July 26, 1999, the Commission approved a transfer of the license from Niagara Mohawk to Erie Boulevard. *Niagara Mohawk and Erie Boulevard Hydropower, L.P. (Erie Boulevard)*, 88 FERC ¶ 62,082 (1999).

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Background

2. The School Street Project dam was constructed in 1831. Electric power generation commenced in 1916, and additional generating units were added in 1922 and 1925. The 16-foot-high dam, located about 4,000 feet above Cohoes Falls, impounds a reservoir with a surface area of about 100 acres. Water is diverted at the dam to a power canal, through which it is conveyed to a powerhouse just below Cohoes Falls, and then is returned to the Mohawk River. The Commission issued an original license for the project to Niagara Mohawk on June 11, 1969, with a term expiring on December 31, 1993.[4] Since then, the project has operated under an annual license pending the disposition of the application for a new license. Until very recently, the Commission was unable to act on the pending license application because the New York Department of Environmental Conservation (New York DEC) had not issued a Clean Water Act certification for the project.[5]

3. On February 11, 1993, the Commission issued notice that the School Street relicense application was accepted for filing. The notice established a deadline of April 12, 1993, for the filing of protests, comments, and motions to intervene in the proceeding. Timely motions to intervene were filed by American Whitewater Affiliation, American Rivers, Inc., New York Rivers United, the Natural Heritage Institute, and the National Audubon Society (jointly filed as American Whitewater); R. Pisani and W. Corrigan; the U.S. Department of the Interior (Interior); and Adirondack Mountain Club (Adirondack Mountain).[6] During the next few years, late motions to intervene were filed

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[4] *Niagara Mohawk*, 41 FPC at 773 (1969).

[5] In December 1991, Niagara Mohawk filed applications for new licenses for the School Street Project and nine other projects, the licenses for which all expired in 1993. On November 19, 1992, the New York DEC denied, without prejudice, water quality certification for all ten projects. Under section 401 of the Clean Water Act, 33 U.S.C. § 1341 (2000), a license applicant must obtain state certification or waiver thereof before the Commission can issue a hydropower license. Following the certification denials, Erie Boulevard and other interested parties entered into settlement negotiations with respect to the projects. Settlements were reached and new licenses issued for the first nine projects; the School Street Project is the last of the ten.

[6] The motions were timely and unopposed, and were therefore automatically granted by operation of 18 C.F.R. § 385.214(c)(1) (2006). Although American Whitewater subsequently sought to intervene as a separate party on April 15, 1995, it had already obtained party status as a result of its initial intervention, and therefore was not

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by the City of Cohoes, New York; the New York State Department of Environmental Conservation (New York DEC); the New York State Electric and Gas Corporation; Adirondack Hydro Development Corporation (Adirondack Hydro); and the U.S. Department of Commerce's National Marine Fisheries Service (NOAA Fisheries).[7] The intervenors do not oppose issuance of a new license.

4. On November 16, 1995, the Commission issued public notice that the project was ready for environmental analysis and solicited comments, recommendations, terms and conditions, and prescriptions. In response, comments and recommendations were filed by Interior, NOAA Fisheries, New York DEC, Adirondack Mountain, New York Rivers, and the City of Cohoes.

5. Commission staff issued a draft environmental assessment (EA) on November 20, 1996. Interior, New York DEC, Adirondack Mountain, New York Rivers, and Adirondack Resources Management Associates, LLC, filed comments on the draft EA. Commission staff issued a final EA on September 28, 2001.

6. Nearly three years after issuance of the final EA, on July 19, 2004, Green Island Power Authority (GIPA) filed an application for a preliminary permit for the proposed Cohoes Falls Project No. 12522, to be located downstream of the School Street Project. According to GIPA, construction of the Cohoes Falls Project would inundate the School Street dam and also involve the decommissioning of various other facilities of the School Street Project. We dismissed GIPA's permit application on the grounds that it was barred by the FPA and our regulations.[8] GIPA and some other entities filed late motions to intervene in this proceeding, which the Commission denied as untimely and without good

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required to file a new motion to intervene. We address American Whitewater's comments on the Settlement later in this order.

[7] The Commission issued a notice granting late intervention to the City of Cohoes, New York, on June 23, 1993; to the New York State Electric and Gas Corporation on August 4, 1995; to Adirondack Hydro on March 28, 1997; and to the New York DEC and NOAA Fisheries on August 8, 2006.

[8] *See Green Island Power Authority*, 110 FERC ¶ 61,034 (2005), *aff'd*, 110 FERC ¶ 61,331 (2005), *petition for review dismissed*, *Green Island Power Authority v. FERC*, No. 05-1170 (D.C. Cir. Dec. 14, 2005).

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cause.[9] GIPA further sought, by means of various filings, to put forth a draft license application for the Cohoes Falls Project, which the Commission rejected. These matters are discussed in more detail in our November 16, 2006 Order denying rehearing.[10] GIPA and others also filed comments in this proceeding, either criticizing the School Street Settlement or arguing in favor of the Cohoes Falls proposal as an alternative. As explained in our November 16 Order, the Cohoes Falls proposal is legally barred, and we cannot and do not consider it here as an alternative to relicensing the School Street Project. Comments on the School Street Settlement filed by GIPA and others are addressed later in this order.[11]

7. On March 9, 2005, Erie Boulevard filed with the Commission an Offer of Settlement for the School Street Project.[12] The Settlement includes provisions for project operation, increased power generation, compliance monitoring, fish passage facilities, aesthetic flows over Cohoes Falls, and recreation and cultural resource measures. The Commission issued a notice on March 24, 2005, soliciting comments on the Settlement. In response, comments were filed by the following parties: Interior, Adirondack Mountain, and American Whitewater. Comments were also filed by GIPA, various other

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[9] The Commission denied the motions for late intervention of GIPA and various other entities by notices issued on June 28, 2006, and August 7, 2006, and denied their requests for rehearing of the denials on November 16, 2006. *See Erie Boulevard*, 117 FERC ¶ 61,189 (2006).

[10] *Id.*

[11] On January 5, 2007, GIPA and Adirondack Hydro filed a request that the Commission initiate an inquiry into whether a non-power license should be issued for the School Street Project in this relicensing proceeding. GIPA is not a party to the relicensing proceeding, and thus is not permitted to file such a request. *See* 18 C.F.R. § 385.212 (2006). Although Adirondack Hydro is a party, we deny the motion as moot because, as discussed in this order, we find that the School Street Project as licensed, consistent with the Settlement, is best adapted to a comprehensive plan for improving or developing the Mohawk River for all beneficial public uses. Accordingly, we find no basis for determining that the project should no longer be used for power purposes, which is a necessary condition for issuance of a non-power license.

[12] The Offer of Settlement was signed by Erie Boulevard, the United States Fish and Wildlife Service (FWS), the National Park Service, New York DEC, New York Power Authority, New York Rivers, New York State Conservation Council, and Rensselaer County Conservation Alliance.

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

Project Description

8. The School Street Project includes a 1,280-foot-long, 16-foot-high masonry gravity overflow-type dam that impounds a 100-acre reservoir with a normal maximum water surface elevation of 156.1 feet U.S. Geological Survey (USGS) datum, and an adjacent 375-foot-long, 18-foot-high ice fender. The 206-foot-long upper gatehouse, with nine timber slide gates and three steel Taintor gates, controls flows to a 4,400-foot-long, 150-foot-wide power canal located along the west bank of the river, conveying water to a 152-foot-long lower gatehouse with five steel headgates equipped with 3.1-inch clear bar spaced trashracks, leading to five 190-foot-long penstocks, four 11-foot-diameter, and one 13-foot-diameter, which in turn lead to a powerhouse containing five generating units with a total installed capacity of 38,800 kilowatts (kW). Project power is transmitted to the regional grid by six 350-foot-long transmission lines. The power canal, penstocks, and powerhouse bypass a reach of the Mohawk River that is over 4,500 feet long and includes Cohoes Falls, a 65-foot natural waterfall.

9. A more detailed project description is contained in ordering paragraph (B)(2). The project boundary encloses the project dam, reservoir, canal, and powerhouse.

10. Historically, the School Street Project was operated as a store and release facility[13] in conjunction with the upstream licensed Crescent Project No. 4678 and Vischer Ferry Project No. 4679.[14] In 2000, the licenses for the two upstream projects were amended to require that their respective reservoir surface elevations be maintained within 6 inches below the top of the dam (top of the flashboards during the navigation season).[15] As a result, the School Street Project is now operating more in a run-of-river mode because the

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[13] The project would store water during periods of off-peak power demand and release water for generation during periods of peak demand.

[14] *See Power Authority of the State of New York*, 27 FERC ¶ 61,466 (1984) and 27 FERC ¶ 61,468 (1984) (issuing major licenses for Project Nos. 4678 and 4679, respectively).

[15] *See Power Authority of the State of New York*, 93 FERC ¶ 62,127 (2000) (amending Article 41 of the licenses for Project Nos. 4678 and 4679).

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restrictions on the reservoir elevation at the upstream projects produce a more even daily distribution of flow during periods of off-peak and peak power demand.

11. Consistent with the Settlement, Erie Boulevard proposes to operate the project in a run-of-river mode, and to release minimum flows to the bypassed reach for aquatic habitat and for aesthetic resources. The Settlement would also allow Erie Boulevard to add a new 11-MW turbine generator unit and a powerhouse addition within 5 years of license issuance.

Settlement Agreement

12. The Explanatory Statement and the Settlement set out the background, purpose, use, general provisions, and terms of the Settlement. The Settlement parties request that the Commission incorporate the provisions (environmental mitigation measures) of section 3.0 of the Settlement (attached to this license as appendix B), without material modification, as license conditions. The water quality certification (certification) for the project, issued by the New York DEC under section 401(a)(1) of the Clean Water Act (and attached to this license as appendix A), includes conditions for project operation and incorporates most of the provisions of section 3.0 of the Settlement. The certification conditions are included in this license by ordering paragraph D. The Settlement parties ask that section 4.0 of the Settlement, which addresses funding of recreation measures and participation of nongovernmental organizations in implementing the Settlement measures, as well as conveyance of property interests, not be included in the license.

13. Sections 1.0 and 2.0 introduce the Settlement and provide the general agreements of the parties to the Settlement, its purpose, and definitions of terms.

14. Section 3.0 describes the provisions agreed to by the Settlement parties that are to be included in the license. These are described below.

Daily Impoundment Fluctuation as Part of Normal Operations

15. Under section 3.1 of the Settlement, Erie Boulevard would operate the project in a run-of-river mode and limit impoundment fluctuation to 0.5-foot below the permanent dam crest elevation of 156.1 feet USGS datum; however, only drawdowns below 1.0 foot for 30 minutes or longer would be reported to the Commission. The New York DEC and the U.S. Fish and Wildlife Service (FWS) would be notified whenever the 0.5-foot limit is exceeded for a duration of 30 minutes or longer. These operational requirements are to be implemented within 18 months of license issuance and are included in condition 8 of the certification.

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Aquatic Habitat Flows to be Released to the Bypassed Reach

16. Under sections 3.2.1 and 3.2.2, Erie Boulevard would release interim and permanent instream flows to the bypassed reach. An interim instream flow of 90 cubic feet per second (cfs) would be released into the bypassed reach from a canal gate near the upper gatehouse at the south end of the dam. Erie Boulevard would also maintain permanent seasonal instream flow releases into the bypassed reach from the north and south ends of the dam, as specified in table 3.2.A of the Settlement. The interim flow would be released upon license issuance, and the permanent flow would be released within 18 months of license issuance. The flow releases are included in condition 9 of the certification.

Channel Modifications

17. Under section 3.2.3 of the Settlement, Erie Boulevard would undertake modifications to the river channel in the bypassed reach to optimize the distribution of permanent aquatic habitat flows (section 3.2.2) downstream of the dam. This provision would be implemented within 18 months of license issuance and is included in condition 9 of the certification. The certification requires a design plan to include a survey of the existing channel, proposed channel changes, and erosion and sediment control.

Aesthetic Flows

18. Under section 3.3, Erie Boulevard would release a total of at least 500 cfs into the bypassed reach for flows over Cohoes Falls during the daylight hours on weekends and federal holidays from May 15 to October 31. The aesthetic flows would begin to be released upon license issuance. However, the schedule for aesthetic flows may be altered during the 18 months following license issuance, while channel modifications are being constructed. License article 402 requires the aesthetic flow releases specified in the Settlement.

Flow and Water-Level Monitoring

19. Under section 3.4, Erie Boulevard would develop a stream-flow and water-level monitoring plan in consultation with the Settlement signatories, and file it within six months of license issuance for Commission approval. All release structures, channel modifications, gages and ancillary equipment required by the plan would be made operational and fully calibrated, as appropriate, within 18 months of license issuance. The plan would include: (1) descriptions of the gages, equipment, and/or structures necessary to provide aquatic habitat and aesthetic flows, monitor headpond elevations, and monitor flow in the bypassed reach, through the project powerhouse, through fish

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conveyance structures, and any consumptive water withdrawals; (2) provisions for an appropriate means of independent verification of water levels by the New York DEC and FWS, and installation of binary staff gages at locations visible to the general public; and (3) a plan and schedule for designing, constructing, operating, and maintaining all water release structures and streambed modifications to provide flow releases to the bypassed reach. This plan is required by condition 10 of the certification.

Phase I Fish Protection and Downstream Passage

20. Under section 3.5, Erie Boulevard would prepare a fish passage plan in consultation with the FWS and NOAA Fisheries and file it within one year of license issuance for Commission approval. The plan would require Erie Boulevard to: (1) screen the bypassed flow release mechanism near the upper gatehouse (south end of dam); (2) install an angled bar rack upstream of the lower gatehouse with no more than 4-inch spacing between bars and a seasonal overlay with no greater than 1-inch spacing between bars for the period from April 15 to November 30 annually; and (3) install fish passage pipe(s) and/or flumes near the angled bar rack. The fish protection and passage plan is included in condition 11 of the certification.

Phase II Fish Friendly Turbine Installation

21. Under section 3.6, within five years of license issuance, Erie Boulevard could install and operate a new "fish-friendly" turbine generator unit in a new powerhouse or powerhouse addition adjacent to the south downstream end of the existing powerhouse. Further, a new intake structure would be equipped with an angled bar rack and overlay system comparable to that specified in section 3.5 of the Settlement. This provision is included in condition 12 of the certification.

Fishway Effectiveness Testing

22. Under section 3.7, Erie Boulevard would develop study plans to evaluate the effectiveness of the phase I downstream fish passage facilities described in section 3.5 of the Settlement and the phase II fish friendly turbine described in section 3.6 in consultation with the New York DEC, NOAA Fisheries, and FWS. The plans for the phase I and phase II studies would be submitted to the Commission within one year of license issuance and prior to construction of the phase II turbine unit, respectively. The plans would include: (1) a method of evaluating the guidance and attraction of fish after they have entered the head of the canal during plant operations; (2) specific measures, methods, and schedules to evaluate fish passage efficiency and survival through the fishway bypass and fish friendly turbine; and (3) methods to compare the results between the Phase I fish bypass structure and the Phase II new fish friendly turbine. This

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provision is stipulated in condition 13 of the certification. Article 401 requires Erie Boulevard to file the fishway effectiveness testing plan for Commission approval.

Cultural Resources Measures

23. Under section 3.8, Erie Boulevard would develop a historic properties management plan (HPMP) to protect cultural and historic resources in consultation with the National Park Service; the New York Office of Parks, Recreation and Historic Preservation; and American Indian Nations[16] within six months of license issuance. The plan would include consideration of: (1) continued tribal access to project land; (2) the placement of low-level diversion structures and minor channel modifications near the dam for the purpose of enhancing fish habitat; (3) preservation and rehabilitation of the contributing elements to the Harmony Mills National Historic Landmark District and preservation of the National Register listed and eligible sites in the project area; and (4) protocols for consultation, monitoring, and treatment of any unidentified historic properties discovered during project construction and operation. Article 403 requires Erie Boulevard to file the HPMP for Commission approval.

Recreation Measures

24. Under section 3.9, Erie Boulevard would develop, for Commission approval, a recreation plan in consultation with the Settlement signatories within six months of license issuance for the following recreational enhancements: (1) a new pedestrian footbridge across the power canal; (2) a new footpath to the base of the falls and to the project tailrace; (3) a new trail system on the island between the power canal and Cohoes Falls; (4) a footpath for fishing access near the project tailrace; (5) access for the disabled, and (6) interpretive signage. The Settlement would require that the above recreation measures be provided within 18 months of license issuance. This provision is stipulated in condition 14 of the certification.

Settlement Provisions Not for Inclusion in the License

25. Section 4.0 describes recreation and funding provisions that the signatories do not intend to be included in the license. Under section 4.0, Erie Boulevard would: provide funding to the City of Cohoes to be used in conjunction with enhancements to Overlook Park or any other recreational enhancements near the project; convey its real property

[16] This includes the Mohawk Nations, namely the St. Regis Band of Mohawk Indians, the Mohawk Nation Council of Chiefs and the Mohawk Council of Ahkwesahsne, and the Stockbridge Munsee Mohicans.

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interests in Overlook Park to the City of Cohoes; provide public parking along land adjacent to the penstock intake structure and convey the public parking land to the City of Cohoes; and fund New York Rivers and other nongovernmental organizations that are signatories to the Settlement to allow them to review and comment on draft documents before they are finalized. These provisions are discussed further in the "Other Issues" section of this order.

Water Quality Certification

26. Under Section 401(a)(1) of the Clean Water Act (CWA),[17] the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA[18] provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.

27. On December 20, 1991, Erie Boulevard's predecessor requested certification from the New York DEC. New York DEC denied the request without prejudice on November 19, 1992.[19] The applicant appealed the denial. Following an administrative hearing, the parties commenced settlement negotiations, and on March 7, 2005, New York DEC issued a draft certification. On October 10, 2006, the New York DEC issued certification.[20]

28. The certification contains 7 natural resource permit conditions, 14 specific operation and construction conditions, 6 general conditions, and 4 notification conditions.

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[17] 33 U.S.C. § 1341(a)(1) (2000).

[18] 33 U.S.C. § 1341(d) (2000).

[19] On December 16, 1992, Erie Boulevard's predecessor requested rehearing.

[20] That same day, the Albany County Supreme Court (Supreme Court) issued an order temporarily restraining New York DEC from taking further action regarding the certification. On October 16, 2006, the Supreme Court issued an amended order temporarily restraining New York DEC and Erie Boulevard from taking further action on the certification. On October 23, 2006, Erie Boulevard filed a motion to vacate the temporary restraining orders. On October 31, 2006, Erie Boulevard filed a copy of an order issued by the Appellate Division of the New York Supreme Court (Appellate Division) vacating the two temporary restraining orders.

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These conditions are consistent with the Settlement provisions for project operation, aquatic habitat bypassed flow, flow and water level monitoring, fish protection, fish friendly turbine installation, fishway effectiveness testing, and recreation. The conditions of the certification are set forth in appendix A to this order and are included in the license by ordering paragraph D.

Section 18 Fishway Prescriptions

29. Section 18 of the Federal Power Act, 16 U.S.C. § 811, provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. On February 5, 1997, Commerce filed three section 18 fishway prescriptions.[21] On February 21, 1997, Interior filed eight section 18 fishway prescriptions.[22]

30. Shortly after the parties filed their Settlement, Commerce filed a letter on March 22, 2005, stating its support for the measures included in the Settlement for downstream fish passage, and noting that the measures outlined in section 3 of the Settlement are principally consistent with and adequately meet the goals outlined in its 1997 fishway prescription. Because the 1997 fishway prescription, which provided for installation of louvers, and the Settlement, which provides for an angled bar rack with seasonal overlays, include structurally different fishways, we interpret Commerce's comments as a revision to its 1997 fishway prescription. In a letter filed April 12, 2005, commenting on the notice of Settlement,[23] Interior stated that it was specifically amending its section 18 prescriptions, replacing all prior terms, except for its reservation of authority, with those measures contained in sections 3.5 and 3.7 of the Settlement. Certification conditions 11 and 13, respectively, require the fish passage measures included in section 3.5 and the fishway effectiveness testing specified in section 3.7 of the Settlement. With their prior prescriptions, Interior and Commerce had also requested that the Commission reserve its authority to require such fishways as the agencies may prescribe in the future. Consistent with the Commission's policy, Article 405 of this license reserves the Commission's authority to require fishways that Interior or Commerce may prescribe for the project.

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[21] Commerce filed preliminary fishway prescriptions on January 16, 1996.

[22] Interior filed preliminary fishway prescriptions on February 9, 1996.

[23] *See* Notice of Settlement Agreement Accepted for Filing and Soliciting Comments (issued March 24, 2005).

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Threatened And Endangered Species

31. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)[24] requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

32. By letter filed February 9, 1996, Interior stated that the Karner blue butterfly is not likely to inhabit the project vicinity due to the lack of preferred habitat. Further, Interior noted that, although the bald eagle had been sighted on the Mohawk River during the winter and may forage in open waters downstream of the existing hydropower projects, the School Street Project is not likely to adversely affect this species. Interior concluded that no Biological Assessment or further section 7 consultation was required. Section 2.9 of the Settlement, which Interior signed, states that consultation with New York DEC and FWS has established that, except for some transient individuals, there are no federally listed or state-listed threatened or endangered species in the area of the School Street Project. That being the case, no further ESA coordination or consultation with the FWS is required.

National Historic Preservation Act

33. On July 19, 1996, the Commission executed a multi-project Programmatic Agreement (PA) for 14 hydroelectric projects, including School Street, located in the State of New York. Stipulation II.D of the PA requires that a separate Appendix A for each project be prepared and provided to the signatories for their consideration prior to license issuance. On April 11, 1997, the Commission issued a separate Appendix A for the School Street Project.

34. In response to the filing of the Settlement, by letter dated January 26, 2006, Commission staff prepared and circulated for comment a revised Appendix A to the PA.[25] The New York State Historic Preservation Officer (New York SHPO), the Advisory Council on Historic Preservation (Advisory Council), the Saint Regis Mohawk Tribe, the Mohawk Nation Council of Chiefs, and Erie Boulevard filed comments.

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[24] 16 U.S.C. § 1536(a) (2000).

[25] Staff sent the appendix to the New York SHPO, the Advisory Council, the Stockbridge-Munsee Community - Mohican Nation, the Saint Regis Mohawk Tribe, the Mohawk Council of Akwesasne, and the Mohawk Nation Council of Chiefs.

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35. The Saint Regis Mohawk Tribe stated that Cohoes Falls is a sacred place for the Haudenosaunee people, and that Erie Boulevard's proposal to provide increased flows over the falls for "scenic and aesthetic purposes" does not adequately reflect the cultural importance of the falls. The Tribe added that an uninterrupted flow is needed, and that the transmission lines that span the falls need to be removed. However, the Tribe accepted "as a beginning" the option of making arrangements with Erie Boulevard in advance of a planned visit so the falls could be "turned on."[26] The Mohawk Nation Council of Chiefs stated that it had built a positive relationship with Erie Boulevard, had met with representatives of Erie several times, and was in the process of finalizing an agreement with Erie that fosters the importance of the falls and will be culturally sensitive and educationally beneficial to all. The Mohawk Nation Council of Chiefs also recommended that Cohoes Falls be included in the listing of known historic properties in the Appendix. In response to these comments, staff noted that the Settlement Agreement and Appendix A include proposals that would address project effects on Cohoes Falls and ensure access to the falls, as well as consultation with the Tribes in developing the historic properties management plan (HPMP). Staff revised the listing of historic properties to include Cohoes Falls. Staff also revised Appendix A to more clearly explain that Erie Boulevard will be required to continue consultation with the Tribes, and that this requirement will be included in the HPMP to be filed for Commission approval after license issuance.

36. The Advisory Council expressed concern about the passage of time since execution of the PA in 1996, and recommended that the Commission consult with Indian tribes interested in the project or attaching religious or cultural significance to Cohoes Falls. The Advisory Council also recommended that the Commission consult with the Erie Canalway National Heritage Corridor Commission and adjacent communities. The New York SHPO requested that Appendix A be updated to reflect the current National Register status of all engineering features associated with the School Street Project, as well as the potential for underwater archaeological resources in the power canal, specifically the remnants of the 1825 Erie Canal.[27]

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[26] Letter from Chief James W. Ransom and Sheree Bonaparte, Tribal Historic Preservation Officer, Saint Regis Mohawk Tribe, to Magalie Salas, Commission Secretary (filed March 20, 2006).

[27] The New York SHPO also recommended that GIPA's 2004 Cohoes Falls proposal be considered along with Erie's relicense application. As noted, the Cohoes Fall proposal is legally barred, so we do not consider it as an alternative to Erie Boulevard's relicense application.

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37. In response, staff updated Appendix A to reflect the current National Register status of features of the School Street Project. Staff also revised Appendix A to include, as part of the HPMP, that the Erie Canalway National Heritage Corridor Commission and adjacent communities be consulted in developing the HPMP, that engineering features of the School Street Project be evaluated for their eligibility for the National Register, and that Erie be required to consult with the New York SHPO to determine how to assess the effects of any proposal to modify the power canal on the remnants of the 1825 Erie Canal. After making these changes, staff issued a revised Appendix A on April 28, 2006. Article 403 of the new license requires Erie Boulevard to implement the executed PA, and to file an HPMP for Commission approval. This satisfies the Commission's responsibilities under section 106 of the National Historic Preservation Act.[28]

Recommendations Of Federal And State Fish And Wildlife Agencies

38. Section 10(j)(1) of the FPA[29] requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,[30] to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

39. In response to the November 16, 1995 public notice that the project was ready for environmental analysis, Interior and New York DEC filed section 10(j) recommendations on January 17, 1996, and February 9, 1996, respectively. NOAA Fisheries filed recommendations on February 5, 1997.[31]

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[28] 16 U.S.C. § 470s (2000).

[29] 16 U.S.C. § 803(j)(1) (2000).

[30] 16 U.S.C. §§ 661 *et seq.* (2000).

[31] On January 16, 1996, NOAA Fisheries filed a motion for extension of the comment period. By letter issued February 13, 1996, Commission staff extended the comment period to May 1, 1996. On February 3, 1997, NOAA Fisheries filed recommendations for a minimum flow of 300 cfs, or inflow, in the bypassed reach; run-of-river operation; and a plan to monitor run-of-river operation and minimum flows. Because NOAA Fisheries' recommendations were filed late, they are considered under FPA section 10(a). The new license includes provisions for run-of-river operation and a monitoring plan. As discussed below, we find the flows provided for in the Settlement to

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40. On March 22, 2005, and April 12, 2005, respectively, NOAA Fisheries and Interior filed comments on the notice of Settlement, indicating their support. Further, Interior notes that its previously filed section 10(j) recommendations are replaced with measures contained in sections 3.1, 3.2, and 3.4 of the Settlement. The New York DEC did not file comments. However, because it is a signatory to the Settlement, we construe New York DEC's recommendations filed on February 9, 1996, to be superseded by the measures in the Settlement. Interior and New York DEC's recommendations are consistent with the Settlement, which is set forth in Appendix A to this order and is included in the license by ordering paragraph D.

Other Issues

41. As noted, the parties filed their Offer of Settlement after issuance of the final EA. In this section, we address the measures in section 3.0 of the Settlement that were either not assessed in the final EA or were modified from earlier filed measures.

Aquatic Habitat Flow Release

42. Under sections 3.2.1 and 3.2.2 of the Settlement, upon license issuance, Erie Boulevard would release an interim instream flow of 90 cfs into the bypassed reach from a canal gate near the upper gatehouse at the south end of the dam. Within 18 months of license issuance, Erie Boulevard would provide permanent seasonal instream flow releases into the bypassed reach from the south and north ends of the dam. During the winter season, from December 1 through March 31, Erie Boulevard would release 90 cfs and 30 cfs, respectively, from the south and north release locations, for a total wintertime flow of 120 cfs. Beginning in April, Erie Boulevard would increase flows at the north release location by 15 cfs, resulting in a total flow release of 135 cfs. For the remainder of the year, from April 15 through November 30, which represents the primary period for fish spawning and rearing, Erie Boulevard would increase flows by 110 cfs at the south release location for a total flow of 245 cfs. This increase in flows at the south location coincides with the installation of fish screening facilities, which would be operational during the April 15 through November 30 fish passage season. Due to high debris loads, including river ice conditions associated with spring runoff, the Settlement parties agreed

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be sufficient. Therefore, we do not require a minimum flow of 300 cfs or inflow in the bypassed reach.

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it was practicable and beneficial to increase flow from the north release location first, to be followed by the south release location 2 weeks later. [32]

43. In the final EA, staff found that two factors limit the potential to increase fish habitat in the bypassed reach; the abundance of pool habitat and bedrock substrate. Because about 50 percent of the habitat within the bypassed reach is pools, depths and velocities in the pools would not change much with increases in flow. Therefore, fish habitat within the pools would not change significantly as flow levels change. Second, bedrock represents about 90 percent of the substrate within the bypassed reach. For fish species that prefer alluvial substrates, such as smallmouth bass, walleye, and longnose dace, increases in flow levels would not translate into much increase in habitat. However, moderate increases in habitat with increases in flow were apparent for white sucker fry, and juvenile and adult rock bass.

44. Staff determined in the EA that, although habitat improvements for a few fish species life stages were apparent with increasing flow levels, the primary benefit of providing flows to the bypassed reach would be to enhance benthic macroinvertebrate habitat. Flows that enhance macroinvertebrate production could benefit the lower Mohawk River by increasing food availability for fish in the bypassed reach as well as in downstream areas. Based on the Instream Flow Incremental Methodology (IFIM) study results, benthic macroinvertebrate habitat increases dramatically as flows increase to 200 cfs, with additional minor increases at flows up to 300 cfs.[33]

45. The Settlement's flow schedule was based on a Delphi-type exercise conducted in 2002 and 2003 among Erie Boulevard, FWS, New York DEC and non-governmental organizations (participants) that included an evaluation of flow releases at the north and south release locations. Due to the morphology of the streambed, it was determined that a significant amount of riffle habitat located on the northern side of the bypassed reach could not be wetted solely by use of the south release gate, even at the highest flow releases. Therefore, the participants determined that releases from a north location were needed to enhance the riffle habitat on the northern side of the bypassed reach. The participants found that releasing the flows discussed above through the two release

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[32] Because the Settlement does not specify fish screens for the north release location, the north release location could be operated during periods of high debris loads.

[33] *See* Niagara Mohawk Power Corporation, Instream flow and routing study of the Mohawk River in the vicinity of the School Street Project (1990), prepared by M.E. Connors, J. Homa, Jr., M Stafford-Glase, and L. J. Brandt, Ichthyologocal Associates, Inc., Ithaca, NY.

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locations, in combination with the channel modifications included in the Settlement, would maximize the wetted area in the upper portion of the bypassed reach without adversely affecting the scenic nature of Cohoes Falls.

46. The results of the Delphi exercise performed by the Settlement participants corroborate the IFIM results for the summer period. The 245-cfs minimum flow under the Settlement would provide comparable benefits to flow levels recommended in the final EA for macroinvertebrates and fish during the spawning, growing, and rearing seasons. During the winter period, we would expect the habitat for fish to change little, since most fish would be overwintering in the pools, which are relatively insensitive to changes in flows. On the other hand, some reduction in macroinvertebrate habitat would be expected as flows decrease from the summer level of 245 cfs to the winter season level of 120 cfs, because the majority of the reductions would occur in the shallower riffle areas. However, we would not expect these habitat reductions to have much of an impact on the benthic resources or food supply for fish for several reasons. A flow release of 120 cfs would continue to wet the valuable riffle habitat located at the upper end of the bypassed reach along the northern shore, areas between the two large pools, and the higher gradient areas approaching Cohoes Falls. Any benthic invertebrate habitat that is desiccated during the winter period would be quickly colonized from populations upstream of the bypassed reach once flows are increased in the spring. Also, the reliance of the fish community of the bypassed reach on the benthic population as a food source would be less during the overwintering period due to slower metabolic rates and reduced feeding activity.

47. In addition to the benefits of the seasonal minimum flow provisions to fish and invertebrate habitat, the minimum flows during the summer months would provide more stable water temperatures and dissolved oxygen levels than existing conditions, because the larger volume of water would be less responsive to fluctuations due to atmospheric conditions.

Aesthetic Flows

48. As noted, the project's bypassed reach includes the 65-foot Cohoes Falls. Because there is currently no minimum flow requirement in the bypassed reach, flows over the falls vary depending on the volume of water spilled at the dam, which occurs when inflow exceeds the project's hydraulic capacity of 5,910 cfs. Flows in the bypassed reach range from about 10 cfs (estimated leakage from the dam) during the driest summer months high flows of over 30,000 cfs during the spring. Flows from spill over the dam currently occur on about 113 days in an average year, with the majority of those days being in March and April. However, most of these spill days occur outside of the peak recreation or viewing period of June through October.

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49. Under section 3.3 of the Settlement, Erie Boulevard would release a total of at least 500 cfs into the bypassed reach for flows over Cohoes Falls during the daylight hours on weekends and federal holidays from May 15 to October 31. In the final EA, staff determined that flows of at least 500 cfs create a "full waterfall effect" with the associated sounds and spray necessary to significantly improve the scenic quality of Cohoes Falls. Staff recommended that Erie Boulevard provide 500 cfs through the bypassed reach during prime viewing times, on weekends during daylight hours from May 15 through October 15 and on Memorial Day, Independence Day, and Columbus Day. Compared to the staff recommendation, the Settlement would make additional aesthetic flow releases available. Aesthetic flow releases on weekends would be extended to include all of October, and an additional federal holiday—Labor Day—would be added to the release dates. Article 402 requires the aesthetic flow releases specified under the Settlement.

Fish Protection and Passage

50. Under section 3.5 of the Settlement, within 18 months of license issuance, Erie Boulevard would complete Phase I of its proposed downstream fish protection measures. These would include: (1) screening the bypassed flow release mechanism near the upper gatehouse (south end of dam); (2) installing an angled bar rack upstream of the lower gatehouse, with no more than 4-inch spacing between bars and a seasonal overlay with no greater than 1-inch spacing between bars, for the period April 15 to November 30 annually; and (3) installing fish passage pipe(s) and/or flumes near the angled bar rack with, at a minimum, top and bottom entrances. In addition, section 3.5 specifies attraction flows for the fish conveyance structure, the sequence in which the project turbines would be operated in order to increase fish attraction to the downstream fish conveyance facility, and design specifications for any plunge pools.

51. In the final EA, staff determined that sufficient information exists to conclude that safe downstream fish passage should be provided to assist in the maintenance of the blueback herring population and the maintenance or recovery of the American eel population. The EA concluded that the angled louver/bar rack device, as originally prescribed by Interior and Commerce, would be reasonably effective at diverting blueback herring away from the project intakes, but the effectiveness of guiding American eel was questionable. However, as originally prescribed by Interior, the portals leading to a bypass at the end of the bar rack may provide the necessary egress point to ensure safe and efficient downstream eel passage.[34]

[34] Both Interior's fishway prescription and section 3.5 of the Settlement provide for top and bottom openings at the downstream end of the bar rack to pass fish.

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52. Although staff recommended installation of the originally-prescribed louver system for protection of downstream migrating blueback herring, the Phase I fishway provided in the Settlement should provide comparable protection. Angled bar racks with 1-inch spacing have been installed at a number of hydroelectric projects in the northeast where anadromous fishes are present, including blueback herring.

53. The Phase I facilities under the Settlement should provide better protection for downstream migrating eels than the originally-prescribed louver system. To accommodate American eel passage, section 3.5(B) of the Settlement provides that the lower portion of the bar rack would be solid or have a solid overlay plate equal to 10 percent of the rack's total depth below waterline or 2 feet, whichever is greater.[35] This plate would be installed from August 1 through November 30 during the period when adult eels would be migrating downstream. The distribution in the water column of downstream migrating eels is not well understood, and recently-designed passage devices have included multiple escape routes.[36] The solid plate should help guide eels that are traveling along the bottom of the bar rack structure to the bottom fish passage portal, while eels in the upper portion of the water column would have access to the top entrance.

54. The fish protection/passage provisions of the Settlement are included in condition 11 of the certification.

New Turbine

55. Under section 3.6 of the Settlement, Erie Boulevard would have the option of installing and operating a new 11-MW "fish-friendly" turbine generator unit in a new powerhouse or in a powerhouse addition to the existing powerhouse within 5 years of license issuance. Further, a new intake structure would be equipped with an angled bar rack and overlay structure comparable to that specified in section 3.5(B) of the Settlement. The new unit would not be operated until after completion of the initial effectiveness testing of the downstream fishway stipulated in section 3.5 (Phase I fishway). Erie Boulevard would then compare the effectiveness of the new turbine unit to safely pass fish to the effectiveness of the Phase I fishway. If fish passage through the new turbine unit is found equal to or greater than the Phase I fishway, then Erie Boulevard would operate the unit as its primary means of fish passage. If the new unit is

[35] The Settlement notes that a step or footer on the bottom of the canal could serve in lieu of the overlay plates.

[36] *See FPL Maine, LLC*, 113 FERC ¶ 62,181 at P 22 (2005).

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less effective, Erie Boulevard would install angled bar racks and seasonal overlays over the new unit's intake and operate the Phase I fishway as its primary means of fish passage.

56. In the EA, staff reviewed the initial proposal of Erie Boulevard's predecessor to install and preferentially operate a new 21-MW Kaplan turbine, instead of the existing Francis turbines, and determined that it may result in a slight decrease in blueback herring mortality caused by project operations, because of the reported higher mortality rates for blueback herring passing through Francis turbines compared to Kaplan turbines. Staff also found that the proposal to install a new Kaplan turbine may result in a slight increase in American eel mortality caused by the project, because of higher mortality rates for eels encountering Kaplan turbines (24 to 37 percent) compared to Francis turbines (6 to 18 percent).

57. The provision in the Settlement that would allow Erie Boulevard to install a new 11-MW "fish friendly" turbine should provide considerable improvement to fish passage success over the previously proposed Kaplan unit. Alden Research Laboratory, Inc. and Concepts NREC conducted an 8-year-long study that resulted in the development of a new helical-type turbine design.[37] The results of fish survival studies conducted on a scaled-down version of the turbine were promising. The new design was particularly effective for passing American eel, where total survival exceeded 98 percent. For other fish species tested, survival estimates for fish up to 200 millimeters in length were 94 percent or higher.

58. Article 301 authorizes Erie Boulevard to start construction of the new powerhouse or powerhouse addition to the existing powerhouse within two years of license issuance and, if it elects to construct these facilities, requires the licensee to complete construction within five years of license issuance. Article 301 also provides that this authorization expires if the licensee does not commence construction of the new powerhouse or powerhouse addition within two years. Articles 302 through 304 require Erie Boulevard to provide the Commission's Division of Dam Safety and Inspection New York Regional Office with contract plans and specifications, cofferdam construction drawings, and as-built drawings.

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[37] Hecker, George E., and T.C. Cook. 2005. Development and Evaluation of a New Helical Fish Friendly Hydro-Turbine. ASCE Journal of Hydraulic Engineering. 131 (10): 1-20.

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Sediment Removal

59. GIPA, Alliance for Economic Renewal, Capital District Working Families Party, and Solidarity Committee of the Capital District filed comments raising concerns about the effect of excavating contaminated sediment from the power canal for the addition of the new turbine unit on local water supplies. In the EA, staff concluded that the proposed deepening of the power canal to allow for the addition of a sixth generating unit may disturb sediments and release polychlorinated biphenyls (PCBs) into the water. However, staff also noted that test results showed that PCB levels from water supplies, surface sediments, and sediment cores were below the threshold level that would be necessary for remediation.

60. According to Erie Boulevard, installation of the fish friendly turbine specified in the Settlement would require excavation of 30 to 40 percent less material from the power canal than what would have been necessary for the originally-proposed larger powerhouse addition. In addition, the certification conditions included in this license require a comprehensive bedrock excavation and sediment removal plan (condition 15), a pollution and prevention plan (condition 16), and erosion control measures (condition 17). In particular, the bedrock excavation and sediment removal plan includes provisions for sediment testing and for the temporary or permanent relocation of the City of Cohoes water intake during the time that the power canal would be dewatered and excavated.

Recreational Resources

61. Under section 3.9, Erie Boulevard would develop a recreation plan that would provide the following recreation facilities: (1) a new pedestrian footbridge across the power canal; (2) a new footpath to the base of the falls and to the project tailrace; (3) a new trail system on the island between the power canal and Cohoes Falls; (4) a footpath for fishing access near the project tailrace; and (5) access for the disabled. In addition, Erie Boulevard, in consultation with the City of Cohoes, Hudson-Mohawk State Heritage Area (RiverSpark), and Erie Canalway Heritage Corridor, would install and maintain signage on the geology of Cohoes Falls, its role as a scenic attraction, navigation around the falls, and waterpower and industrial development.

62. In the EA, staff recommended a recreation plan that would include an impoundment fishing/picnic area, and fishing access and a falls viewing site in the project tailwater. The recreation facilities included in section 3.9 of the Settlement would provide increased and improved access to the project area, with the central focus on the enjoyment of viewing Cohoes Falls and the surrounding area. The interpretative program would educate the public on the area's natural environment and history.

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63. In comments on the Settlement, American Whitewater suggests that a whitewater park be provided just downstream of Cohoes Falls. However, it appears that the sort of facility that American Whitewater envisions would not be compatible with the existing School Street Project, as the comments refer to tailwater exit designs and flow regimes in the context of a "different project" and access to such a facility through the existing School Street project facilities "once they are decommissioned."[38] Therefore, we do not adopt this recommendation. Certification condition 14 requires the licensee to develop the recreational access and facilities provided for in section 3.9 of the Settlement. Article 404 requires Erie Boulevard to file a recreation plan for Commission approval that would be consistent with section 3.9 of the Settlement and would include additional measures for interpretive signage, a monitoring report to be filed every 6 years concurrent with its Form 80 filing, and, as discussed below, a parking area along School Street adjacent to Erie Boulevard's lands adjacent to the project's penstock.

Settlement Provisions Not for Inclusion in the License

64. Under section 4.0 of the Settlement, Erie Boulevard would provide funding to the City of Cohoes in conjunction with any enhancements to Overlook Park or any other recreational enhancements near the project; convey real property interests in Overlook Park to the City of Cohoes; provide public parking along land adjacent to the penstock intake structure and convey the public parking land to the City of Cohoes; and fund the participation of New York Rivers and other nongovernmental organizations that are signatories to the Settlement, to allow them to review and comment on draft documents before they are finalized. Overlook Park is not located within the project boundary and the park is not used to access project lands and waters for recreational purposes. Providing funding for enhancement of the park or other recreational enhancements near the project, providing funding to New York Rivers and other nongovernmental organizations, and conveying real property interests in the park to the City of Cohoes are not project related. Therefore, we agree that those provisions should not be a condition of this license, and we do not include them.

65. The public parking area that would be adjacent to the project's penstock intake is located within the project boundary. The facility would provide parking for users of the recreational facilities that Erie Boulevard would provide, as described in section 3.9 of the Settlement. The recreation facilities described in section 3.9 and the parking area would provide public access to the project area for recreational purposes and are project related. Therefore, Article 404 requires that Erie Boulevard construct and maintain the parking area located adjacent to the penstock intake as part of the recreation plan.

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[38] Comments of American Whitewater at 10-11 (filed April 15, 2005).

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Comments Opposing the Settlement

66. Two parties to the relicensing proceeding, Interior and NOAA Fisheries, filed comments in support of the Settlement. Two other parties, American Whitewater and the Adirondack Mountain Club, filed comments in opposition to the Settlement. In addition, a number of other entities filed comments either opposing the Settlement or supporting the Cohoes Falls proposal as an alternative.[39] Some of these comments, such as those raising concerns about contaminated sediments or the need for whitewater recreation opportunities, are addressed elsewhere in this order. In this section, we address all other comments that relate to the merits of the School Street Settlement. Because, as we have noted, the Cohoes Falls proposal is legally barred, we do not discuss the comments supporting it as an alternative in this order.

67. Adirondack Mountain Club requests that the Commission reopen the Settlement to provide for restoration of Cohoes Falls by providing full flows more frequently than the Settlement would provide. Consistent with the Settlement, and as discussed earlier in this order, the new license provides for an appropriate level of increased aesthetic flows over the falls.

68. American Whitewater maintains that the Settlement does not provide mitigation for the effect of project facilities on scenic resources. It is particularly concerned about the visual effect of "the power lines that entangle the view" of Cohoes Falls.[40] American

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[39] The following entities filed comments urging the Commission to evaluate all alternatives, including the Cohoes Falls proposal, but did not support it over the School Street Settlement: New York State Office of Parks, Recreation, and Historic Preservation; Parks and Trails New York; and Rensselaer Public Institute. The following entities filed comments either opposing the Settlement or supporting the Cohoes Falls proposal as a better alternative: GIPA; Capital District Working Families Party; Alliance for Economic Renewal; Solidarity Committee of the Capital District; Hudson River Valley Greenway; Preservation League of New York State, Inc.; Riverkeeper; the Audubon Society of New York State, Inc.; Mohawk Towpath Scenic Byway Coalition, Inc.; Public Utility Law Project; New York Bicycling Coalition; City of Watervliet; Town of Green Island; Village of Green Island; Capital District Regional Planning Commission; Friends of the Falls; Scenic Hudson, New York Association of Public Power; and RiverSpark. Some of these comments were limited to support of the Cohoes Falls proposal and were included in late motions to intervene, which the Commission denied. In addition, approximately 50 private individuals filed comments in support of the Cohoes Falls proposal.

[40] Comments of American Whitewater at 8 (filed April 15, 2005).

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Whitewater indicates it would support a project that "undergrounds" all of the project facilities.[41] American Whitewater has not provided substantial evidence to demonstrate that there are significant adverse visual impacts from the School Street Project that would justify requiring the extremely expensive measures of burying the project's facilities. There are power lines in the project vicinity that cross the river and intrude on views of Cohoes Falls. However, the most prominent power lines in this area are part of the regional transmission system and are not part of the School Street Project. Because the project's transmission lines are short and do not cross the Mohawk River, burying them would do little to improve views of Cohoes Falls.

69. GIPA, American Whitewater, Audubon Society, Alliance for Economic Recovery, and Solidarity Committee of the Capital District maintain that the School Street Settlement perpetuates degradation of Cohoes Falls and the bypassed reach of the Mohawk River by providing inadequate flows. They maintain that the School Street Project does not meet the comprehensive development standard of FPA section 10(a)(1) because it is not the best adapted project.

70. The new license includes provisions for project operation, increased power generation, compliance monitoring, fish passage facilities, aesthetic flows to protect the scenic and cultural values of Cohoes Falls, minimum flows to protect fishery resources in the bypassed reach, and recreational and cultural resource measures. As discussed below, we find that the School Street Project, as licensed in this order consistent with the Settlement, is best adapted to a comprehensive plan for developing and improving the Mohawk River.

71. Scenic Hudson argues that we should examine whether Erie Boulevard is willing to provide the same or equivalent benefits as those that were included in the Cohoes Falls proposal. This is nothing more than yet another attempt to resurrect the legally barred Cohoes Falls proposal, and we reject it.

72. GIPA, Audubon Society, Alliance for Environmental Renewal, and Solidarity Committee of the Capital District criticize the School Street Project for not fully developing the power potential of the Mohawk River. As discussed below in the comprehensive development section, flows exceed the hydraulic capacity of the existing School Street Project about 31 percent of the time, or 113 days annually. With the new turbine installed, the project would have a maximum hydraulic capacity of 7,510 cfs, and flows would exceed the project's hydraulic capacity about 21 percent of the time, or about 77 days. The capacity of a run-of-river hydroelectric project is typically designed

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[41] *Id.*

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to correspond to average annual flows on the duration curve ranging between 15 and 30 percent exceedance. Therefore, the School Street Project is properly sized to utilize available water resources.

73. GIPA maintains that the Settlement does not properly address the religious and cultural significance of Cohoes Falls. As discussed above in the section on historic preservation, Appendix A to the Programmatic Agreement for the School Street Project has been revised to include information on the religious and cultural importance of the falls to the Tribes, and to require continued consultation with them in preparing the HPMP for the project.

74. GIPA, American Whitewater, Alliance for Economic Renewal, and Solidarity Committee of the Capital District argue that the EA should be updated to include new information, including the Cohoes Falls project as an alternative. As noted earlier, the Cohoes Falls proposal is legally barred from consideration under the FPA; accordingly, it is not a reasonable alternative under NEPA and we need not consider it as an alternative to relicensing the School Street Project. In addition, as discussed above, we have included in this order new information and analysis to address the measures in section 3.0 of the Settlement that were either not assessed in the final EA or were modified from earlier-filed measures. Accordingly, there is no need to update the information in the final EA.

75. American Whitewater expresses concern about the structural and hydraulic strength of the power canal wall and berm. It contends that a substantial release of water from the power canal would put both people and equipment at risk. The School Street Project is subject to periodic inspection by staff of the Commission's New York Regional Office, the most recent of which occurred on June 29, 2005. The inspection found that the licensee is operating and maintaining the project adequately, and identified no structural deficiencies. In addition, the inspection report indicates that there are no residences or structures in the vicinity of the project that would be impacted should the dam or any other project structure fail. American Whitewater's concern therefore appears unfounded.

76. GIPA, American Whitewater, Alliance for Economic Renewal, Solidarity Committee of the Capital District, and Capital District Working Families Party express concerns about the settlement process, claiming that discussions were not open to all interested entities and that GIPA and some others were not informed about some aspects of the settlement negotiations. As far as we can tell from the record, the Settlement discussions began among all entities who were then party to the School Street proceeding. If indeed the settling parties subsequently declined to include later comers in the discussions, that was a matter for the settling parties to decide. The Commission issued notice of the Settlement and invited public comments, so that all interested entities

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had the opportunity to review and comment on the Settlement. Moreover, the Settlement is supported by the applicant, federal and state agencies, and non-governmental organizations. We find nothing in the record to suggest that the settlement process was unfair, or that the Settlement should be rejected on procedural grounds.

77. Finally, GIPA, American Whitewater, Alliance for Economic Renewal, Solidarity Committee of the Capital District, and Capital District Working Families Party argue that there are several options available to the Commission that would allow it to permit development of the Cohoes Falls proposal in lieu of relicensing the School Street Project. Specifically, they assert that the Commission may: (1) deny the relicense application for the School Street Project and require that the project be decommissioned; (2) issue a non-power license to Erie Boulevard or to GIPA to provide for the orderly decommissioning of the School Street Project; or (3) license the School Street Project with conditions that would allow the Commission to require that the project be decommissioned in the future, in response to an application for a "better adapted" project that would more fully utilize the water resources of the Mohawk River. These are not viable options in the context of this relicensing proceeding. They are nothing more than a renewed attempt to promote the development of the Cohoes Falls proposal in lieu of the School Street Project. There is nothing in the record before us that would support either license denial and decommissioning, or issuance of a non-power license for the School Street Project. Moreover, as we have found, the School Street Project adequately utilizes the available water resources, so we find no basis for including the requested license conditions, which would simply be an invitation to reargue the matter of project decommissioning shortly after license issuance. The net effect would be to allow GIPA or some other applicant to take over the School Street Project via an untimely competing application, a result that we have found is legally barred. This would be fundamentally unfair, and we are both unable and unwilling to countenance it.

Administrative Conditions

Annual Charges

78. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for this purpose.

Exhibit F Drawings

79. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. The exhibit F drawings filed with the license application are approved and made part of this license. Article 202 requires the filing of these drawings.

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Exhibit G Drawing

80. The exhibit G drawing that was filed with the license application does not meet the Commission's current requirements for a project boundary map. A project boundary map must: (1) show the project boundary with three known referenced points; (2) provide the project boundary data in a geo-referenced electronic format; and; (3) be stamped by a registered land surveyor. The revised exhibit G drawing must also include the recreational measures identified in section 3.9 of the Settlement, and the six primary transmission lines. Article 203 requires Erie Boulevard to file a revised exhibit G drawing. The exhibit G drawing filed on December 23, 1991, is not approved and is not made part of the license (see ordering paragraph (C)).

Amortization Reserve

81. Pursuant to section 10(d) of the FPA, 16 U.S.C. § 803(d), the Commission requires that for new major licenses, licensees must set up and maintain an amortization reserve account upon license issuance. Article 204 requires the establishment of this account.

Headwater Benefits

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

Use and Occupancy of Project Lands and Waters

83. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 405 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for minor activities such as landscape planting. Such use must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

Review of Final Plans and Specifications

84. Consistent with the Settlement, this license authorizes Erie Boulevard to install a new fish-friendly turbine generator unit in a new powerhouse or powerhouse addition to the existing powerhouse. It also requires Erie Boulevard to screen the bypass flow release mechanism and to install new angled bar racks and fish passage pipe(s) or a flume. Article 301 authorizes the licensee to start construction of the powerhouse or

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powerhouse addition within two years from now and, if it does so, requires it to complete construction within five years from now.

85. Article 302 requires the licensee to provide the Commission's Division of Dam Safety and Inspections, New York Regional Office (D2SI-NYRO), with final contract plans and specifications – together with a supporting design report consistent with the Commission's engineering guidelines.

86. Article 303 requires to the licensee to provide the Commission's D2SI-NYRO with cofferdam construction drawings.

87. Where new construction or modifications to the project are involved, the Commission requires a licensee to file revised drawings of the project features as built. Article 304 provides for the filing of these drawings.

State And Federal Comprehensive Plans

88. Section 10(a)(2)(A) of the FPA [42] 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. In the final EA, staff identified and reviewed three federal and three state comprehensive plans that address resources relevant to the School Street Project, and two other plans not filed under section 10(a)(2) of the FPA.[43] No inconsistencies were found, and we adopt staff's finding.

89. On December 8, 2006, GIPA and Adirondack Hydro filed comments listing what they assert are 24 additional relevant comprehensive plans, beyond those evaluated in the final EA, which "should have been identified and analyzed by the School Street Project applicant during the course of the relicensing proceeding."[44] They request that Erie Boulevard be directed to supplement its School Street Project license application with an analysis of these plans, and to provide copies of these plans to the Commission.

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[42] 16 U.S.C. § 803(a)(2)(A) (2000).

[43] These plans are evaluated in section IX of the final EA for the project. The list of applicable plans can be found in section XI of the final EA.

[44] Responsive Comments of GIPA and Adirondack Hydro at 4 (filed Dec. 8, 2006).

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90. Under our regulations, a comprehensive plan must be a federal or state plan that: (1) is a comprehensive study of one or more of the beneficial uses of a waterway; (2) includes a description of the standards applied, data relied on, and methodology used in preparing it; and (3) is filed with the Secretary of the Commission.[45] GIPA and Adirondack Hydro have simply provided a listing of plans that they allege should be considered, without demonstrating that the plans qualify as comprehensive plans under the Commission's regulations.

91. We have reviewed the proffered list and find that three of these plans are considered comprehensive plans under FPA section 10(a)(2).[46] They are a state plan for the Hudson River Basin[47] and two federal fishery management plans, one for shad and river herring,[48] and the other for the American eel.[49]

92. The state plan for the Hudson River Basin identifies the water needs for the Hudson River Basin for a 20-year outlook and provides recommendations for water management. The plan does not make recommendations for specific hydroelectric projects, but states that it is most desirable to generate as much power as is consistent with maintaining sufficient water for other uses. The document considers a time frame from 1979 to 1999, making it somewhat out-of-date for our current consideration of the

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[45] *See* 18 C.F.R. § 2.19(b) (2006).

[46] *See* List of Comprehensive Plans (revised September 2006), available at http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf.

[47] New York State Department of Environmental Conservation, Hudson River Basin water and related land resources: Level B study report and environmental impact statement (Albany, New York: September 1979, 148 pp. and map).

[48] National Marine Fisheries Service, Fishery Management Report No. 35 of the Atlantic States Marine Fisheries Commission: shad and river herring [includes alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), Alabama shad (*Alosa alabamae*), American shad (*Alosa sapidissima*), and Hickory shad (*Alosa mediocris*)] – Amendment 1 to the Interstate Fishery Management Plan for shad and river herring (April 1999, 77 pages).

[49] National Marine Fisheries Service, Fishery Management Report No. 36 of the Atlantic States Marine Fisheries Commission: Interstate Fishery Management Plan for American eel (*Anguilla rostrata*). Prepared by the American Eel Plan Development Team (April 2000, 78 pages).

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School Street Project. Nevertheless, because the project as conditioned in this license, consistent with the Settlement, would provide a balance among competing uses, we find it consistent with this comprehensive plan.

93. The federal plan for shad and river herring addresses concerns over declining stocks of shad and river herring and provides the Atlantic states with management recommendations for commercial and recreational fisheries, along with recommended habitat conservation and restoration techniques. The stated goal of Amendment 1 of the plan is to protect, enhance, and restore east coast migratory spawning stocks of American shad, hickory shad, and river herring in order to achieve stock restoration and maintain sustainable levels of spawning stock biomass. The plan mentions blockages of spawning reaches by dams and other impediments as one factor contributing to the decline. The new license as conditioned, consistent with the Settlement, includes provisions for operation of bar racks that would guide migrating blueback herring around the existing turbines, as well as the possible installation of a fish friendly turbine unit. Thus, we find that the School Street Project is consistent with this plan.

94. The federal plan for the American eel is a working document that describes goals and objectives for the species, its current status, ecological challenges affecting the species, and management options and actions needed to reach and maintain the goals. One of its stated goals, protection of habitat, is considered critical to the survival of American eel. Regarding downstream fish passage, the plan recommends consideration of changes in turbine design and continuation of efforts aimed at directing eels away from turbine passage to other higher survival passage opportunities. The new license as conditioned, consistent with the Settlement, includes provisions for operation of bar racks that would guide migrating eels to passage portals around the existing turbines, as well as the possible installation of a fish friendly turbine unit. Thus, we find that the School Street Project is consistent with this plan.

Applicant's Plans And Capabilities

95. In accordance with sections 10(a)(2)(c) and 15(a) of the FPA,[50] staff evaluated Erie Boulevard's record as licensee with respect to the following: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission service; (G) cost effectiveness of plans; and (H) actions affecting the public. We accept the staff's findings in each of the following areas.

[50] 16 U.S.C. §§ 803(a)(2)(C) and 808(a) (2000).

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Conservation Efforts

96. Section 10(A)(2)(c) of the FPA[51] requires the Commission to consider the applicant's electricity consumption improvement program, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Erie Boulevard sells project power through the New York Independent System Operator (New York ISO). The New York ISO is charged with operating New York State's bulk electric transmission system, a network that spans more than 11,000 miles.[52] The New York ISO's mission is to ensure the reliable, safe, and efficient operation of the state's major transmission system and to administer an open, competitive, and nondiscriminatory wholesale market for electricity in New York State.

97. Staff concludes that, given the limits of its ability to influence users of the electricity generated by the project, Erie Boulevard complies with section 10(A)(2)(c) of the FPA.

Compliance History and Ability to Comply with the New License

98. Based on a review of Erie Boulevard's compliance with the terms and conditions of the existing license, staff finds that Erie Boulevard's overall record of making timely filings and of compliance with its license is satisfactory.

Safe Management, Operation, and Maintenance of the Project

99. Staff reviewed Erie Boulevard's management, operation, and maintenance of the School Street Project and the project's operation reports. Staff concludes that the dam and other project works are safe, and finds that there is no reason to believe that Erie Boulevard cannot continue to safely manage, operate, and maintain these facilities under a new license.

Ability to Provide Efficient and Reliable Electric Service

100. Staff reviewed Erie Boulevard's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Staff

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[51] 16 U.S.C. § 803(A)(2)(c) (2000).

[52] See http://www.nyiso.com/public/company/about_us/index.jsp.

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finds that Erie Boulevard has been operating the project in an efficient manner within the constraints of the existing license and is likely to continue to do so under a new license.

Need for Power

101. The School Street Project is located in the Northeast Power Coordinating Council (NPCC) region of the North American Electric Reliability Council (NERC). According to NERC, a 1.0 percent annual growth rate is expected over the 2004 to 2013 period, with a summer peak demand growth rate of 1.2 percent in the New York area (NERC, 2004). Staff concludes that the project's power, low cost, displacement of nonrenewable fossil-fired generation, and contribution to the region's diversified generation mix will help meet the need for power in the region.

Transmission Services

102. The School Street Project includes six, 350-foot-long, 13.2-kilovolt primary transmission lines that carry electric power generated from the project to the regional grid. A new transformer would be added to handle additional power produced from the proposed turbine generating unit for transmission to the regional grid. Therefore, the proposed additional capacity would not affect the project's ability to connect to the regional grid and continue to deliver power to the region.

Cost Effectiveness of Plans

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

Actions Affecting the Public

104. Erie Boulevard provided extensive opportunity for public involvement in the development of its application for a new license for the School Street Project. During the previous license period, Erie Boulevard provided employment opportunities and attracted those interested in various forms of recreation. Erie Boulevard uses the project to help meet regional power needs, and it pays taxes that help cover the cost of public services provided by local government.

Project Economics

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

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economics of hydropower projects, as articulated in *Mead*,[53] the Commission uses current costs to compare the costs of the project and likely alternative power, with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. This estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

106. As proposed by Erie Boulevard, consistent with the Settlement and with the mandatory and certification conditions and as licensed herein, the annual cost of operating the School Street Project is $6,729,960, or $35.70/MWh. The proposed project would generate an estimated average of 188,500 MWh of energy annually. When we multiply our estimate of average annual generation by the alternative power cost of $54.42/MWh,[54] we get a total value of the project's power of $10,258,170 in 2006 dollars. To determine whether the proposed project is currently economically beneficial, we subtract the project's cost from the value of the project's power. Therefore, in the first year of operation, the project would cost $3,528,210, or $18.72/MWh, less than the likely alternative cost of power.

107. Erie Boulevard's proposal to increase generation at the project would result in a reduced annual net benefit.[55] Although our analysis shows that the project as licensed herein would reduce the annual net benefit of the project, it is the applicant who must decide whether to add new capacity and to accept this license and any financial risk that entails.

108. Although staff does not explicitly account for the effects inflation may have on the future cost of electricity, the fact that hydropower generation is relatively insensitive to inflation compared to fossil-fueled generators is an important economic consideration for

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[53] *Mead Corp.*, 72 FERC ¶ 61,027 (1995).

[54] The alternative power cost is based on information in Energy Information Administration, Annual Energy Outlook 2006.

[55] Constructing, operating, and maintaining the new 11-MW capacity facilities would reduce the annual net benefit by about $894,800/MWh. If the new fish friendly turbine is proven to be equal to or greater than the Phase I fishway, and operated as a primary means of fish passage, the fishway entrance attraction bypassed flow would no longer be necessary. The estimated cost savings of not releasing the bypassed attraction flow is about $161,080 annually.

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power producers and the consumers they serve. This is one reason project economics is only one of the many public interest factors the Commission considers in determining whether or not, and under what conditions, to issue a license.

Comprehensive Development

109. Sections 4(e) and 10(a)(1) of the FPA,[56] respectively, require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

110. The existing School Street Project has a maximum hydraulic capacity of 5,910 cfs. The maximum hydraulic capacity plotted on the annual flow duration curve[57] shows that flows exceed the project's hydraulic capacity about 31 percent of the time, or 113 days annually. The proposed project would have a maximum hydraulic capacity of 7,510 cfs, and flows would exceed the project's hydraulic capacity about 21 percent of the time, or about 77 days. High flows occur primarily during spring run off, and excess flows above the maximum hydraulic turbine capacity would pass through the bypassed reach. The capacity of a run-of-river hydroelectric project is typically designed to correspond to average annual flows on the duration curve ranging between 15 and 30 percent exceedance.[58] The School Street Project would be operated in a run-of-river mode; therefore, the hydraulic capacity of the existing and proposed turbines is properly sized to help meet daily base load electrical demand. Installation of the proposed fish-friendly turbine would have the added benefit of serving as the primary fish passage facility, should it be found that fish attraction to and survival through the new turbine is equal or greater than that observed for the phase I fishway. Flows that would otherwise be needed

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[56] 16 U.S.C. § 797(e) and 803(a)(1) (2000).

[57] An annual flow duration curve is a graphical representation of the natural streamflow of a river in order of magnitude and the percent of time flow is equaled or exceeded.

[58] *See* U.S. Army Corps of Engineers, Engineering and Design Hydropower, Engineering Manual No. 1110-2-1701 (1985).

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for attraction and fish passage under operation of the phase I fishway would now provide for both increased generation and fish passage.

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

112. Based on our independent review and evaluation of the School Street Project, recommendations from resource agencies, the Settlement and certification conditions, and the no-action alternative, as documented in the final EA, we have selected the Settlement with modifications, as discussed herein, as the preferred alternative, which we conclude is best adapted to a comprehensive plan for developing the Mohawk River.

113. We have selected this alternative because: (1) issuance of the new license will serve to maintain a beneficial, dependable, and inexpensive source of electric energy; (2) the required environmental measures will protect fish and wildlife resources, water quality, recreational resources, and historic properties; and (3) the 49.8 MW of electric energy generated from this renewable resource would continue to offset the use of fossil-fueled generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

License Term

114. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures. This license authorizes a moderate amount of environmental mitigation and enhancement measures. Therefore, we will issue this license for a term of 40 years.

The Commission orders:

(A) This license is issued to Erie Boulevard Hydropower, L.P. (licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to construct, operate and maintain the School Street Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and is subject to the regulations the Commission issues under the provisions of the FPA.

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(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by the exhibit G drawing filed on February 24, 1993:

Exhibit G Drawings	FERC No. 2539-	Description
1	1001	Project Boundary and Location Map

(2) Project works consisting of: (1) a 1,280-foot-long, 16-foot-high masonry gravity overflow-type dam; (2) a 100-acre reservoir with a normal maximum water surface elevation of 156.1 USGS datum; (3) a 375-foot-long, 18-foot-high ice fender and skimmer; (4) a 206-foot-long upper gatehouse with nine timber slide gates and three steel Taintor gates; (5) a 4,400-foot-long, 150-foot-wide power canal; (6) a 152-foot-long lower gatehouse with five steel headgates equipped with 3.1-inch clear bar spaced trashracks; (7) five 190-foot-long penstocks, four 11-foot-diameter, and one 13-foot-diameter; (8) a powerhouse containing five generating units with a total installed capacity of 38,800 kW; (9) a new powerhouse or powerhouse addition containing an 11,000 kW generating unit; (10) six 350-foot-long, 13.2-kilovolt transmission lines; and (11) appurtenant facilities.

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

Exhibit A: Pages A-1 through A-8, including figure A-1 filed on December 23, 1991.

The following exhibit F drawings filed on February 24, 1993:

Exhibit F Drawings	FERC No. 2539-	Description
1	1002	General Plan and Details of Dam
2	1003	Upper Gate House, Canal, and Headworks Plan, Elevations and Section

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Exhibit F Drawings	FERC No. 2539-	Description
3	1004	Forebay, Lower Gate House, Penstocks, Powerhouse, Ice Chute and Proposed Unit No. 6 Plan and Sections
4	1005	Penstocks, Powerhouse and Proposed Unit No. 6 Typical Sections

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

(C) The exhibits A and F described above are approved and made part of the license. The exhibit G drawing filed on February 24, 1993, does not conform to Commission regulations and is not approved.

(D) This license is subject to the conditions submitted by the New York State Department of Environmental Conservation under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1431(a)(1), as those conditions are set forth in appendix A to this order.

(E) Sections 3.0 and 4.0 of the School Street Project Settlement are attached as appendix B for clarity and information.

(F) The license is subject to the conditions set forth in sections 3.5 and 3.7 of the School Street Project Settlement, which constitute the U.S. Department of the Interior's fishway prescriptions under section 18 of the Federal Power Act, 16 U.S.C. § 811 (2000).

(G) This license is subject to the articles set forth in Form L-3 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters" (*see* 54 FPC 1799 *et seq*.), and the following additional articles:

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

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United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 38,800 kilowatts, until the date of commencement of construction of the new capacity authorized by this license, after which the authorized installed capacity is 49,800 kilowatts.

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

a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project Drawing Number (*i.e.*, P-1234-#### through P-1234-####) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (*i.e.*, F-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

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

b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections New York Regional Office. Exhibit F drawings must be identified as critical energy infrastructure information (CEII) material under 18 CFR §388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-1234-####, F-1, Description, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

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

Article 203. *Exhibit G Drawing*. Within 60 days of the date of issuance of this license, the licensee shall file, for Commission approval, a revised exhibit G drawing enclosing within the project boundary all principal project works necessary for operation and maintenance of the project, including the recreational facilities identified in section

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3.9 of the Settlement, and the six primary transmission lines. The exhibit G drawing shall comply with sections 4.39 and 4.41 of the Commission's regulations, 18 C.F.R. §§ 4.39 and 4.41 (2006).

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

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

Article 205. *Headwater Benefits*. If the licensee's project was directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license. The benefits will be assessed in accordance with Part 11, Subpart B, of the Commission's regulations.

Article 301. *Start of Construction*. The licensee is authorized to commence construction of the new powerhouse or powerhouse addition to the existing powerhouse within two years from the issuance date of the license and, if it commences construction,

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shall complete construction of the powerhouse within five years from the issuance date of the license. This authorization expires if the licensee does not commence construction of the new powerhouse or powerhouse addition within two years.

Article 302. *Contract Plans and Specifications*. At least 60 days prior to the start of construction, including bypassed reach channel modification and power canal excavation and sediment removal, the licensee shall submit one copy of its plans and specifications design document to the Commission's Division of Dam Safety and Inspections - New York Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections). The submittal to the Regional Engineer must include a supporting design report for pertinent features of the project, such as water retention structures, powerhouse and/or powerhouse addition, and water conveyance structures. The supporting design report shall be consistent with the Commission's Engineering Guidelines. The submittal must also include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and Soil Erosion and Sediment Control Plan. The licensee shall not begin construction until the Regional Engineer has approved in writing the plans and specifications and determined that all preconstruction requirements have been satisfied.

Article 303. *Cofferdam Construction Drawings*. Before starting construction, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections - New York Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Director, Division of Dam Safety and Inspections), of the approved cofferdam construction drawings and specifications and the letters of approval.

Article 304. *As-built Drawings*. Within 90 days of completion of construction of the facilities authorized by this license, the licensee shall file for Commission approval revised exhibits A, F, and G, as applicable, to describe and show those project facilities as built. A courtesy copy shall be filed with the Commission's Division of Dam Safety and Inspections - New York Regional Engineer, the Director, Division of Dam Safety and Inspections, and the Director, Division of Hydropower Administration and Compliance.

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Article 401. *Commission Approval and Reporting.*

(a) Requirement to File Design Plans and Other Plans for Commission Approval

The New York State Department of Environmental Conservation (New York DEC) water quality certification, issued and filed on October 10, 2006, requires the licensee to develop certain design of structures and other plans without prior Commission approval. The plans shall be submitted to the Commission for approval. The plans are listed below.

New York DEC Certification Condition No. (appendix A of this license order)	Settlement (filed March 9, 2005) Section No. (appendix B of this license order)	Plan Name	Due Date
9(b)	3.2.2	Permanent Bypassed Reach Flow Release Structure Design	Within 14 months of license issuance
9(c)	3.2.3	Bypassed Reach Channel Modification Design	Within 14 months of license issuance
13	3.7	Fishway Effectiveness Testing Plan	Within 1 year of license issuance
15		Power Canal Excavation and Sediment Removal Plan	Within 14 months of license issuance
16		Pollution Prevention Plan	60 days before commencing construction at the existing or new powerhouse

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New York DEC Certification Condition No. (appendix A of this license order)	Settlement (filed March 9, 2005) Section No. (appendix B of this license order)	Plan Name	Due Date
17		Erosion and Sediment Control Plan	60 days before commencing any ground-disturbing activities other than at the powerhouses

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan submitted. Upon Commission approval the plan becomes a requirement of the license, and the licensee shall implement the plan or changes in project operations or facilities, including any changes required by the Commission.

Article 402. *Aesthetic Flows*. The licensee shall release a total of at least 500 cubic feet per second into the bypassed reach to provide aesthetic flows over Cohoes Falls during daylight hours on weekends and federal holidays from May 15 to October 31. The schedule for aesthetic flows may be altered during the 18 months following license issuance while channel modifications are being constructed.

Aesthetic flows released to the bypassed reach may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon agreement between the licensee and the New York Department of Environmental Conservation and U.S. Fish and Wildlife Service. If the flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 403. *Historic Properties.* The licensee shall implement the "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 Licenses Issuing to Niagara Mohawk Power Corporation for the Continued Operation of Fourteen

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Hydroelectric Power Projects in Upstate New York," executed on July 19, 1996, the Historic Properties Management Plan (HPMP), and the final Appendix A issued April 28, 2006, for the project. Pursuant to the requirements of this Programmatic Agreement (PA), the licensee shall file, for Commission approval, an HPMP consistent with section 3.8 of the Settlement (appendix B) within one year of issuance of this order. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the PA is terminated prior to Commission approval of the HPMP, the licensee shall obtain approval from the Commission and the New York State Historic Preservation Officer before engaging in any ground-disturbing activities or taking any other action that may affect any historic properties within the project's area of potential effect.

Article 404. *Recreation Plan.* Within six months of the date of issuance of this license, the licensee shall file for Commission approval a recreation plan consistent with the requirements of section 3.9 of the Settlement (attachment B), including the additional provisions set forth below.

The plan shall include, at minimum:

(1) a provision for an interpretive sign(s) at the Cohoes Falls viewing area that informs the visitor of the annual schedule for aesthetic flow releases and historical information about the hydroelectric facilities that are visible at the site, as well as a description of how the facilities are operated;

(2) a provision for a parking area along the section of School Street adjacent to the licensee's lands adjacent to the project's penstock intake that would include removing the existing metal storage shed adjacent to the powerhouse on School Street and landscaping the parking lot;

(3) a monitoring report to be filed every 6 years during the term of the license concurrent with its Form 80 filing, that includes, at a minimum:

(a) annual recreation use figures;
(b) a discussion of whether recreation needs are being met at the project;
(c) a description of the methodology used to collect all data;
(d) a proposal to provide additional recreation facilities at the project if the monitoring results indicate such a need;
(e) documentation of agency consultation and agency comments on the report after it has been prepared and provided to the agencies; and

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(f) specific descriptions of how the agencies' comments are accommodated by the report.

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 Settlement signatories, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific information.

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

Article 405. *Reservation of Authority to Prescribe Fishways*. Pursuant to section 18 of the Federal Power Act, authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or provide for the construction, operation, and maintenance, of such fishways as may be prescribed by the Secretaries of the Interior or Commerce.

Article 406. *Use and Occupancy*. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies, for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article.

If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, such action includes, as necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

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(b) The types of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement.

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

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

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

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

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the

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prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article: (1) before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer; (2) before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value; (3) the instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in

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a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters; and (4) the Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G drawings would be filed for approval for other purposes.

(H) 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.

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

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

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APPENDIX A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CERTIFICATION UNDER SECTION 401 OF THE
FEDERAL CLEAN WATER ACT ISSUED OCTOBER 10, 2006

NATURAL RESOURCE PERMIT CONDITIONS – Apply to the Following Permits: WATER QUALITY CERTIFICATION

1. **Conformance with Plans**. All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or his agent as part of the permit application and licensing Settlement Agreement.

2. **State Not Liable for Damage**. The State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.

3. **Precautions Against Contamination of Waters**. All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project.

4. **No Interference with Navigation**. There shall be no unreasonable interference with navigation by the work herein authorized.

5. **State May Require Site Restoration**. If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may with appropriate authority require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.

6. **Notification Requirements for Emergencies**. The following procedures shall apply to all activities conducted at the project in response to an emergency:

Prior to commencement of emergency activities, Certificate Holder must notify NYSDEC and receive approval in advance of the work commencing. If circumstances require that emergency activities be taken immediately such that prior notice to the

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NYSDEC is not possible, then the NYSDEC must be notified by the Certificate Holder within 24 hours of commencement of the emergency activities. In either case, notification must be by certified mail or other written form of communication, including fax and electronic mail. This notification must be followed within 24 hours by submission of the following information:

a. a description of the action;
b. location map and plan of the proposed -action;
c. 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 contacts listed in Special Condition.

7. **Settlement Agreement**. This Certificate includes and incorporates the School Street Project Settlement Agreement dated March 7, 2005 and submitted to the Federal Energy Regulatory Commission (FERC) on March 8, 2005.

OPERATIONS

8. **Run of River Operations**. Within 18 months of the issuance of the FERC operating license for this project the Certificate Holder shall operate the project in a run-of-river mode in accordance with the Settlement Agreement, in particular section 3.1.

9. **Aquatic Habitat Flows to be Released to Bypassed Reach**. The Certificate Holder shall provide aquatic habitat flows to the bypassed reach in accordance with-the following;

a) Interim Flow. On the date FERC issues a new operating license for the project the Certificate Holder shall provide an interim flow of 90 cfs to be released into the bypassed reach from a canal gate near the upper gatehouse at the south end of the dam and in accordance with the Settlement Agreement, in particular section 3.2.1.

b) Permanent Flows. Within one year of issuance of the FERC operating license the certificate holder shall provide to the Department for review and approval the final design of the structures to be constructed and operated to provide permanent flows to the bypassed reach as referenced in the Settlement Agreement, in particular section 3.2.2.

Within 18 months of issuance of the FERC operating license the Certificate Holder shall begin to release the aquatic habitat flow to the bypassed reach of the Mohawk River in accordance with the approved design and the Settlement Agreement, in particular section 3.2.2, including Table 3.2.A.

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c) Channel Modifications. Within one year of issuance of the FERC operating license the certificate holder shall submit to the Department and U.S. Fish and Wildlife Service for review and approval a design for channel modifications to the river's bottom in the bypassed reach. The design must be consistent with the requirements of the Settlement Agreement, in particular section 3.2.3, including Figure 2. The design plans must include a survey of the existing channel and plan of the proposed changes. The plan shall also include details regarding erosion and sediment control during the channel modifications. The plan must demonstrate that work in the channel will comply with the goals and performance standards set forth in paragraph 21 below and applicable state water quality standards.

10. **Flow and Water Level Monitoring**. In accordance with the Settlement Agreement, in particular section 3.4, the Certificate Holder must submit to FERC a Stream Flow and Water Level Monitoring Plan within 6 months of issuance of the FERC operating license. The plan must be developed in consultation with all settlement signatories. The plan must include the information referenced in section 3.4 of the Settlement Agreement. All release structures, channel modifications, and ancillary equipment required by the Settlement Agreement shall be made operational and fully calibrated, as appropriate, within 18 months of issuance of the FERC operating license.

11. **Fish Protection/Passage**. Within 18 months of issuance of the FERC operating license the certificate holder shall complete the Phase I Fish Protection and Downstream Passage measures described in the settlement, particularly section 3.5. All portions of the construction of the Phase I Fish Protection and Downstream Passage measures located in the power canal shall be completed in conjunction with and in compliance with the pertinent provisions of construction requirements paragraph 15 below.

12. **"Fish Friendly" Turbine Installation**. Within 5 years of issuance of the FERC operating license the certificate holder is permitted to install a new "fish friendly" turbine and powerhouse to provide alternative Phase II fish protection and downstream passage measures described in the settlement, particularly section 3.6.

13**.** **Fishway Effectiveness Testing**. The Certificate Holder shall develop a plan for fishway effectiveness testing in accordance with the Settlement Agreement, in particular section 3.7. The plan must be approved by US Fish and Wildlife Service, NOAA Fisheries and the Department.

14. **Recreational Access and Usage**. Within 18 months of issuance of the FERC operating license the Certificate Holder shall develop recreational access and facilities at the project, as provided for in the Settlement Agreement, in particular section 3.9, including public access trails, signage, and fishing access.

CONSTRUCTION REQUIREMENTS

15. **Power Canal Excavation/Sediment Removal**. The Certificate Holder proposes to increase the hydraulic capacity of the power canal. Within 1 year of the issuance of the FERC operating license the Certificate Holder shall submit to the Department for review and approval a comprehensive bedrock excavation and sediment removal plan for the power canal that meets the goals and performance standards set forth in paragraph 18 below and that includes the following information;

a) details regarding the temporary, or if appropriate, the permanent relocation of the City of Cohoes water intake during the period of time the power canal will be dewatered and excavated;

b) a bedrock excavation, sediment removal plan including existing and proposed grades and contours. The final quantity of bedrock and sediment to be removed and the final grades to be reached must be provided. The plan must also include all details regarding bank modifications and stabilization measures required or proposed as part of the excavation;

c) details regarding the methods for dewatering the power canal prior to commencing construction, including, but not limited to the following; initial dewatering using the gatehouse, the management of water entering the canal after dewatering has taken place and work has commenced (i.e., stormwater outfalls to the canal and direct precipitation);

d) a sampling protocol for characterizing the testing of the sediment to be removed that is consistent with the Department's Technical and Operations Guidance 5.1.9 or applicable guidelines/regulations. The sampling protocol should indicate that sampling results need to be submitted to the Department 30 days prior to the commencement of work in the power canal;

e) a disposal protocol specifying the proposed final disposition of the material removed from the power canal. The disposal protocol must recognize that disposal options will be based on analytical sediment sampling results and current applicable regulations/guidelines. The protocol must state that the Department has final approval authority of disposal locations;

f) an erosion and sediment control plan, prepared in accordance with applicable state standards, addressing the management of stormwater from all activities related to the bedrock excavation and sediment removal, including but not limited to, temporary storage areas and any final onsite disposal areas.

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For all maintenance dredging/sediment removal during the remainder of the permit term the Certificate Holder shall submit a plan conforming with the requirements provided in paragraph 18 at least 90 days prior to the commencement of work.

The above plan and all work covered by the plan must meet the goals and performance standards set forth in paragraph 18 below.

16. **Powerhouse Construction**. Prior to any work at the powerhouse, including the installation of fish protection and passage measures and new generator/turbine, that requires the disturbance of soil or bedrock, the Certificate Holder shall submit to the Department for review and approval a pollution prevention plan that provides details of the following;

a) a dewatering plan for the work area, including how the work area will be isolated so that work may be completed in the dry. This includes details of cofferdams or similar structures both above the powerhouse and in the tailrace;

b) a pollution prevention plan addressing construction erosion and control measures and post construction stormwater discharges from all disturbed areas, including temporary and permanently disturbed areas.

The above plan and all work covered by the plan must meet the goals and performance standards set forth in paragraph 18 below.

17. **Other Construction Activities**. At least 30 days prior to commencing any other activities within the project boundary, including but not limited to the recreation enhancement measures referenced in section 3.9 of the Settlement Agreement, which could adversely affect water quality, the Certificate Holder must submit to the Department for review and approval an erosion and sediment control plan. The erosion control plan and the work covered by the plan must meet the goals and performance standards set forth in paragraph 18 below. If future maintenance dredging is planned conditions in paragraph 15 above shall apply.

18. **Goals and Performance Standards**. At minimum, the certificate holder must accomplish the following objectives:

a) Isolate in-stream work from the flow of water and prevent discolored (turbid) discharges and sediments from entering the waters of the river due to excavation, dewatering and construction activities;

b) Exclude the use of heavy construction equipment below the mean high water line until the work area is protected by an approved structure and dewatered, except where an emergency response requires immediate action;

c) Stabilize any disturbed banks by grading to an appropriate slope, followed by armoring or vegetating as appropriate, to prevent erosion and sedimentation into the waterbody;

d) Minimize soil disturbance, provide appropriate grading and temporary and permanent re-vegetation of stockpiles and other disturbed areas to minimize erosion/ sedimentation potential;

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

f) Install effective erosion control measures on the downslope of all disturbed areas and maintain them in a fully functional condition. These erosion control measures are to be installed before commencing any other activities involving soil disturbance;

g) Ensure complete removal of all dredged and excavated material, debris or excess materials from construction, from the bed and banks of all water areas to an approved upland disposal site;

h) Ensure that all temporary fill and other materials placed in the waters of the river are completely removed, immediately upon completion of construction, unless otherwise directed by the Department.

19. **Turbidity Monitoring During Construction**. During construction related activities, the Certificate Holder will monitor the waters of the river at a point immediately upstream of project activities and at a second point no more than 100 feet downstream from any discharge point or other potential source of turbidity. The Certificate Holder specifically agrees that if, at any time, turbidity measurements from the downstream locations exceed the measurements from the locations upstream of the work areas, all related construction on the project will cease until the source of the turbidity is discovered and the situation is corrected.

20. **Maintenance of River Flows**. During all periods of construction, flows immediately downstream of work sites shall be maintained in accordance with condition 8 of this certificate (Run of River Operations).

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21. **Stormwater SPDES**. All activities at the project requiring the disturbance of greater than one acre must obtain coverage under the SPDES General Permit for Stormwater Discharges from Construction Activities (GP-02-01).

WATER QUALITY CERTIFICATION SPECIFIC CONDITIONS

1. **Water Quality Certification**. The NYS Department of Environmental Conservation hereby certifies that the subject project will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306 and 307 of the Clean Water Act of 1977 (PL 95-217) provided that all of the conditions listed herein are met.

GENERAL CONDITIONS – Apply to ALL Authorized Permits:

1. **Facility Inspection by the Department**. The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the Certificate Holder is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The Certificate Holder shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

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

2. **Relationship of this Permit to Other Department Orders and Determinations**. Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. **Applications for Permit Renewals or Modifications**. The Certificate Holder must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

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4. **Department Contacts**. All contacts with the concerning this certificate, including submission of the information required by the above Natural Resource Permit Conditions and all applications for permit modification or renewal are to be submitted to:

NYSDEC - Headquarters
Chief Permit Administrator,
Division of Environmental Permits 625 Broadway
Albany NY 12233-1750

5. **Permit Modifications, Suspensions and Revocations by the Department**. The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

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

b. failure by the Certificate Holder to comply with any terms or conditions of the permit;

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

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

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

6. **Permit Transfers**. Permits are transferable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER CERTIFICATE HOLDER OBLIGATIONS

Item A: Certificate Holder Accepts Legal Responsibility and Agrees to Indemnification. The Certificate Holder expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ('DEC") for all claims, suits, actions, and damages, to the extent attributable to the Certificate Holder's acts or omissions in connection with the Certificate Holder's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in

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compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

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

Item C: Certificate Holder Responsible for Obtaining Other Required Permits. The Certificate Holder is responsible for obtaining any other permits, approvals, lands, casements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights. This permit does not convey to the Certificate Holder any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

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APPENDIX B

SECTION 3.0 OF THE SETTLEMENT AGREEMENT FOR THE SCHOOL STREET PROJECT FILED ON MARCH 9, 2005

3.1 Run-of-River Operations

Within 18 months of new license issuance, the Licensee shall operate the project in a run- of-river (ROR) mode whereby total inflow to the impoundment is equal to the sum of all flows passing into the bypassed portion of the Mohawk River, through the project powerhouse(s), through fish conveyance structures, and any consumptive water withdrawals.

For the purpose of this Settlement and for the term of the new license, the following shall serve as the criterion for, and evidence of, operating in this mode. The Licensee shall limit impoundment fluctuations as part of run-of-river operations to 0.5 feet below the permanent dam crest elevation of 156.1 feet USGS. For FERC compliance purposes, only events where the impoundment falls 1.0 feet below crest for a duration of 30 minutes or longer will be reported to FERC by the Licensee. However, the NYSDEC and USFWS will be notified whenever the 0.5 foot limit is exceeded for a duration of 30 minutes or longer and what factors were involved.

Impoundment fluctuation limitations may be curtailed or suspended if required by operating emergencies beyond the control of the Licensee, including security, and for short periods upon prior mutual agreement between the Licensee and the NYSDEC and USFWS. If an emergency situation or other condition exists where prior notification is not possible, the NYSDEC and USFWS will be notified as soon as possible thereafter. If the limitations are curtailed or suspended, the Licensee shall notify the FERC as soon as possible, but no later than ten (10) business days alter each such incident.

Between license issuance and completion of Phase I construction activities at the project, the Licensee will make every reasonable effort to maintain run-of-river operation, within the constraints of river flow and the mechanical limitations on providing flows.

3.2 Aquatic Habitat Flows to be Released to Bypassed Reach

3.2.1 Interim Flows

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Upon new license issuance an interim flow of 90 cfs shall be released into the bypassed reach from a canal gate near the upper gatehouse at south (right) end of dam. Interim flows may be interrupted and/or altered, or temporary flow release mechanism may be required during channel modification work in the bypassed reach. These measures shall be coordinated with NYSDEC and USFWS.

3.2.2 Permanent Flows

Within 18 months of new license issuance, the Licensee shall begin to release the aquatic habitat flow to the bypassed reach of the Mohawk River located immediately downstream of the project dam and ending at the tailrace as shown in Table 3.2.A.

Table 3.2.A. Aquatic Habitat Flows to be Released to the Bypass Reach within Eighteen Months of License Issuance

	Release Location		
Time Period	Release at North/Left End of Dam (cfs)	Release at South/Right End of Dam (cfs)	Total (cfs)
December 1 to March 31	30	90	120
April 1 to April 14	45	90	135
April 15 to November 30	45	200	245

The flow capacities of the bypass flow release structures shall be calculated based on a headpond elevation of 0.5 ft below dam crest.

That portion of flows released to the bypass at the north (left) end of the project dam shall be discharged from a structure designed, operated and maintained to provide the flows defined in the table above.

That portion of flows released to the bypass at the south (right) end of the project dam shall be discharged from a canal gate near the upper gatehouse and through a structure designed, operated and maintained to provide flows defined in the table above.

Both interim and permanent aquatic habitat flows released to the bypass may be curtailed or suspended if required by operating emergencies beyond the control of the Licensee, including for security and public safety concerns, and for short periods upon prior mutual agreement between the Licensee, NYSDEC, and USFWS. If an emergency situation or other condition exists where prior notification is not possible, the NYSDEC and USFWS will notified as soon as possible thereafter. If the flows are so modified, the

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Licensee shall notify the FERC as soon as possible, but no later than ten (10) business days after each such incident.

3.2.3 Channel Modifications

Within 18 months of new license issuance, river conditions permitting, the Licensee shall undertake modifications to the river's bottom in the bypass reach in order to optimize the distribution of the permanent aquatic habitat flows into the existing channel downstream of the dam. Such modifications will be made in proximity to the dam. No streambed modifications are to be made at or near Cohoes Falls in order to maintain its visual integrity. The attached Figure 2 in Attachment A shows a conceptual location of proposed channel modifications.

3.3 Aesthetic Flows

Upon new license issuance, the Licensee shall release a total of at least 500 cfs into the bypass reach to provide aesthetic flows over Cohoes Falls during daylight hours on weekends and Federal holidays from May 15 to October 31. The schedule for aesthetic flows may be altered during the 18 months following license issuance while channel modifications are being constructed (see section 3.2.1).

Aesthetic flows released to the bypass may be curtailed or suspended if required by operating emergencies beyond the control of the Licensee, including for security and public safety concerns, and for short periods upon prior mutual agreement between the Licensee, and NYSDEC. If an emergency or other condition exists where prior notification is not possible, the NYSDEC and USFWS will be notified as soon as possible thereafter. If the flows are so modified, the Licensee shall notify the FERC as soon as possible, but no later than ten (10) business days after each such incident.

3.4 Flow and Water Level Monitoring

Within six months of license issuance, the Licensee shall submit a Stream Flow and Water Level Monitoring Plan (plan) to FERC for approval. This plan shall be developed in consultation with the settlement signatories. All release structures, channel modifications, gages and ancillary equipment required by the plan shall be made operational and fully calibrated, as appropriate, within 18 months of license issuance. The plan shall include:

- A description of gages, equipment or calculations to monitor headpond elevations;

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- Description of structures and mechanisms to provide all aquatic habitat and aesthetic flows;
- Description of gages, equipment or calculations to monitor or determine the quantity of flows passing into the bypassed portion of the Mohawk River, through the project powerhouse(s), through fish conveyance structures, and any consumptive water withdrawals;
- Provisions for an appropriate means of access to, and independent verification of, headpond level gages by the NYSDEC, USFWS, or their authorized representatives;
- Provisions for the installation of binary staff gages at appropriate locations visible to the general public to permit independent verification of headpond water levels; and
- Plan and schedule for designing, constructing, operating and maintaining all water release structures and streambed modifications to provide flow releases to the bypassed reach.

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

3.5 Phase I Fish Protection and Downstream Passage

Within 18 months of the issuance of a new license, the Licensee shall complete the downstream fish protection devices and institute the passage measures described below. The Licensee shall maintain and operate them thereafter during the term of the license. The attached Figure 3 in Attachment A shows the conceptual layout of fish protection and downstream passage measures discussed below and in Section 3.7.

(A) Screening of the bypass flow release mechanism in the project canal (right end of dam. The aquatic habitat and aesthetic flow release structure near the upper gatehouse will be screened to exclude fish. This screening structure may be removed from the water release structure from November 30 to April 15 in order to reduce

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potential ice damage. The north (left) release structure does not need to be screened or designed to prevent fish from entering the structure.

(B) Angled Bar Rack. In order to reduce turbine entrainment while guiding fish to a downstream bypass (see (C) below), new angled bar racks will be installed upstream of the existing lower gatehouse as follows:

1. Racks shall have no more than four-inch clear spacing between bars.
2. Rack overlays with clear spacing of no greater than one inch shall be in place from April 15 to November 30 annually.
3. The rack structure shall be as close to 45 degrees from the upstream face of the existing Lower gatehouse (and approaching flow) as practicable.
4. Approach velocities, as measured 1 foot upstream of, and normal to, the bar rack, shall not exceed two feet per second.
5. To provide for the passage of American eel, the lower portion of the rack shall be solid or have a solid overlay plate which is equal to 10 % of the rack's total depth below waterline or two feet, whichever is greater. This plate may be seasonally applied from August 1 through November 30. Alternatively, a permanent eel barrier, such as a step or footer on the bottom of the canal could serve in lieu of overlay plates.

(C) Fish Conveyance Structure. In order to safely convey fish from the forebay, around the existing powerhouse and turbines, and back into the Mohawk River downstream of the project, the licensee shall install fish passage pipe(s) and/or flumes near the right end of the new angled bar rack subject to the following conditions:

1. The fish passage device shall have two intake portals. The first shall be located as close to the downstream (right) end of the Phase I angled bar rack as practicable. The second shall be located to the right of the existing ice sluice, or otherwise as determined in the final plans approved by USFWS, NYSDEC and FERC.
2. The fish passage intake shall be a multi-level device with at least a top and bottom entrance.
3. Attraction flow to the fishway entrance(s) shall be two to five percent of the total plant hydraulic capacity of up to 8,200 cfs. The optimum attraction flow will be determined during pre-construction designs and post-construction monitoring of the effectiveness of the fishway.
4. The portion of the attraction flow that is not needed for fish conveyance may be cycled back into the project forebay or into a penstock.
5. The project turbines shall be sequentially operated in order to increase fish attraction to the downstream fish conveyance facility. Specifically,

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the available turbine nearest to the fish conveyance structure should be brought on line first, and the operator will proceed to bring adjacent available units on line (from right to left when looking downstream). Turbines shall be taken off line is reverse sequence.

6. If a pipe or other closed conduit is utilized as the fish conveyance structure, its downstream end shall discharge horizontally and not be submerged during high flow conditions.
7. If a pipe or other closed conduit is utilized as the fish conveyance structure, the pool at the discharge end of this conveyance should be a minimum of 20 feet deep. A series of several plunge pools of lesser depths may be considered as an acceptable alternative.
8. The licensee shall operate the fish passage conveyance and provide attraction flow from April 15 through November 30.

No later than one year after license issuance, the Licensee shall file with FERC a final fish passage plan and schedule, including functional design drawings, for implementing paragraphs (A) through (C) above. This plan may include the use of computational fluid dynamic models for the forebay, project intakes and fish passage facilities. This plan will be developed in consultation with settlement signatories. The fish passage plan and schedule must be approved by the USFWS and NOAA Fisheries. Final design drawings will be submitted to USFWS and NOAA Fisheries for approval prior to filing the contract drawings and specifications with FERC for approval.

3.6 Phase II "Fish Friendly" Turbine Installation

Within five years of the issuance of a new license, the Licensee may install and begin operation of a new sixth turbine/generator unit at the School Street Project. The proposed new unit would utilize a "next generation" "fish-friendly" turbine following the design concepts of Alden Research Laboratory, Inc. and Concepts NREC and be located in a new powerhouse or powerhouse addition adjacent to the south (downstream) end of the existing powerhouse. A new intake and penstock would be constructed in the vicinity of the existing south ice chute. A new ice chute would be built at the south end of the forebay. See Figure 3 in Attachment A for a conceptual layout of the "fish friendly" turbine location.

The new unit's intake shall be equipped for the installation of an angled bar rack and overlay system, comparable to that specified in section 3.5(B) above. This new unit shall not operate within the fish passage season (April 15 through November 30) until the initial testing of the Phase I fishway is completed (see Section 3.7). After the new unit is in operation, upon completion of the Phase I flshway testing, the new unit will be tested for fish passage effectiveness, as outlined in section 3.7 below. The new unit's overall

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rate of fish attraction and survival will then be compared to that of the Phase I fishway. If passage effectiveness via the new unit, as determined by USFWS, NYSDEC in consultation with Licensee (see Section 3.7) proves to be equal to or greater than that of the Phase I fishway, the Licensee will be permitted to operate the new unit as its primary means of fish passage. If the new unit proves to be less effective at safely passing fish than the Phase I fishway, the Licensee shall install racks and seasonal overlays across the new unit's intake and shall operate the Phase I fishway as the primary means of fish passage. Even if the new unit becomes the primary means of fish passage, the Phase I fishway shall be maintained, and operated for fish passage during any planned outages of the new unit during fish passage season.

3.7 Fishway Effectiveness Testing

No later than one year after license issuance the Licensee shall submit to FERC a plan and schedule for evaluating the effectiveness of the Phase I downstream fish passage facilities described in Section 3.5, above. The plan for effectiveness study of these downstream fish passage facilities must be developed in consultation with all settlement signatories, and approved by the USFWS, NOAA Fisheries and the NYSDEC prior to filing with FERC.

Before submitting final construction plans and requesting permission from FERC to begin construction of the new Phase I unit, the licensee shall consult with USFWS and NYSDEC to develop a plan and schedule for monitoring and evaluating effectiveness of fish passage via the new Phase II turbine described in section 3.6, above. The fish passage effectiveness plan and schedule must be approved by the USFWS, NOAA Fisheries, and the NYSDEC and shall be filed with FERC with the final construction plans and request for permission to begin construction of the new unit.

These plans shall include:

- A method of evaluating the guidance and attraction of fish after they have entered the head of the canal during power plant operations.
- Specific measures, methods, and schedules to evaluate fish passage efficiency and fishway survival/mortalities for passage through both the fishway bypass and the fish friendly turbine as appropriate.
- Methods that will allow a rigorous statistical comparison of the results between the Phase I fish bypass structure and the Phase II new "fish friendly" turbine.

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3.8 Cultural Resource Measures

On July 19, 1996, FERC, the Advisory Council for Historic Preservation (ACHP), and the New York State Historic Preservation Officer (SHPO) executed a comprehensive Programmatic Agreement (PA) for a number of hydroelectric projects, including School Street. The Licensee concurred in the PA. On April 11, 1997, the Licensee submitted a project-specific Appendix A for the School Street Project. Attachment C to this Settlement Agreement contains a proposed Revised Appendix A to replace the 1997 document with one that reflects changes in regulations and in the proposed plans for project enhancements. The License shall implement the revised Programmatic Agreement.

Within six months of license issuance, the Licensee shall develop a Historic Properties Management Plan (HPMP) in consultation with the National Park Service, the New York Office of Parks, Recreation and Historic Preservation and American Indian Nations.[59] The HPMP will consider the following matters:

1. Ensuring continued access to Licensee lands in the project vicinity by members of the Haudenosaunee (Iroquois) Confederacy for ceremonial purposes, including commemoration of the Peacemaker's journey and related events at Cohoes Falls.
2. Special consideration will be given to the placement of low-level diversion structures and minor channel modifications specified in Section 3.2.3 because Cohoes Falls is considered to be a sacred site by native peoples of the Haudenosaunee (Iroquois) Confederacy. These will only be used in the immediate vicinity of the dam, well upstream of Cohoes Falls, and beyond the view-shed of the lands used by members of the Confederacy for ceremonial purposes.
3. The preservation and rehabilitation of the Cohoes Company Dam, Upper Gatehouse, Canal, and Conboy Avenue iron bridge, which are listed as contributing elements to the Harmony Mills National Historic Landmark (NHL) District, and preservation of the National Register listed School Street powerhouse through continued use.
4. Protection of the two National Register eligible sites on the island between

[59] This includes the Mohawk Nations, namely the St. Regis Band of Mohawk Indians, the Mohawk Nation Council of Chiefs and the Mohawk Council of Ahkwesabsne, and the Stockbridge Munsee Mohicans, among others.

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the power canal and river (Younglove Mill Site and I.D.F. Lansing House Site), which were identified during Phase I archaeological reconnaissance studies undertaken by the Licensee in 2003.

5. Any new project construction, including the rack structure and raking device, fish passage intake(s) and conduit(s), new powerhouse, and related penstock and intake structure, should be designed to be unobtrusive within the Harmony Mills NHL District.
6. Procedures and protocols for consultation, monitoring, and treatment of any previously unidentified historic properties discovered during Project operation and construction.

3.9 Recreational Enhancement Measures

(A) Within six months of license issuance, the Licensee shall submit a Recreation Plan to FERC for approval. The plan will be developed in consultation with settlement signatories and shall include provisions for the following recreational enhancements.

(B) Within 18 months of license issuance, the licensee shall develop recreational access and facilities at the project as listed below and shown in the attached Figure 4 in Attachment A. These will be "carry-in/carry-out" facilities and trash receptacles will not be provided.

1. Construct a new pedestrian footbridge across the power canal upstream of the powerhouse. The new bridge will be designed to minimize visual intrusion into the Harmony Mills NHL District. Final configuration and location are dependent on completion of additional engineering studies.
2. Construct an ADA compliant vehicular drop off area along North Mohawk Street near the new bridge.
3. Install a public, ADA compliant Cohoes Falls viewing area on the island formed between the power canal and the river, near the terminus of the new footbridge to the island. This viewing area (as well as the new pedestrian footbridge) will be closed during winter months.
4. Construct a footpath to the base of the falls, and a second viewing area and fishing access near the base of the falls.
5. Provide a separate footpath to fishing access near the project tailrace.
6. Develop a trail system on the island, beginning at the terminus of the new footbridge, to facilitate daytime recreational use such as bird watching, sightseeing, and fishing above the falls. The design of the trail system will take into account public safety, site security concerns, and protection of archaeological properties. This trail system, which connects items 4, 5 and

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6, will be open to the public during daylight hours from May 1 through November 1 annually.

(C) Based on consultation with the City of Cohoes, Hudson-Mohawk State Heritage Area (RiverSpark), and Erie Canalway National Heritage Corridor, the Licensee shall fabricate, install, and maintain signs and exhibits on project lands and in the vicinity that deal with:

1. The geology of Cohoes Falls
2. Their role as a scenic attraction
3. Navigation around the falls
4. Waterpower and industrial development by the Cohoes Company and Harmony Mills
5. Hydroelectricity