FINAL MULTIPLE PROJECT ENVIRONMENTAL ASSESSMENT FOR HYDROPOWER LICENSES

WEST BRANCH ST. REGIS RIVER PROJECTS

Parishville Project
FERC Project No. 10461-002

Allens Falls Project
FERC Project No. 10462-002

New York

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Environmental and Engineering Review
888 First Street, NE
Washington, D.C. 20426

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ACRONYMS AND ABBREVIATIONS

10(j) (or Section 10(j))	Section 10(j) of the FPA
ADK	Adirondack Mountain Club
AW	American Whitewater
CFR	Code of Federal Regulations
cfs	cubic feet per second
Commission	Federal Energy Regulatory Commission
CRMP	Cultural Resources Management Plan
CZMA	Coastal Zone Management Act
DEA	draft environmental assessment
DO	dissolved oxygen
Erie	Erie Boulevard Hydropower L.P.
ESA	Endangered Species Act
FEA	final environmental assessment
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FWS	U.S. Fish and Wildlife Service
IFIM	instream flow incremental methodology
Interior	U.S. Department of the Interior
kW	kilowatt
kWh	kilowatt-hour
MW	megawatts
MWh	megawatt-hours
National Register	National Register of Historic Places
NERC	North American Electric Reliability Council
NGOs	non-governmental organizations
NGVD	National Geodetic Vertical Datum
NIMO	Niagara Mohawk Power Corporation
NMFS	National Marine Fisheries Service
NPCC	Northeast Power Coordinating Council
NRI	Nationwide Rivers Inventory
NYISO	New York Independent System Operator
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
RM	river mile
Section 10(j) (or 10(j))	Section 10(j) of the FPA
Settlement	West Branch St. Regis River Project Offer of Settlement
SHPO	State Historic Preservation Officer
SRRAC	St. Regis River Advisory Council

staff	Federal Energy Regulatory Commission staff
USGS	U.S. Geological Survey
WQC	Water Quality Certification

Summary

On May 31, 1990, Niagara Mohawk Power Corporation (NIMO),[1] filed applications for original licenses for the existing 2.4-megawatt (MW) Parishville Hydroelectric Project (FERC No. 10461) and the existing 4.4-MW Allens Falls Hydroelectric Project (FERC No. 10462). The projects are located on the West Branch of the St. Regis River in St. Lawrence County in northern New York.

The New York State Department of Environmental Conservation (NYSDEC) received NIMO's requests for Section 401 water quality certification (WQC) for the Parishville and Allens Falls Projects on May 30, 1990. The WQCs for the projects were issued, revoked, and then appealed. Settlement discussions among the NYSDEC, Erie, and various agencies and non-governmental organizations (NGOs) for Parishville and Allens Falls issues culminated in a final settlement document entitled "West Branch St. Regis River Project Offer of Settlement" (Settlement) signed by eleven parties and filed with the Commission on September 13, 2001.[2] Erie adopted the provisions of the Settlement for its license applications for the Parishville and Allens Falls Projects. On November 2, 2001, NYSDEC issued WQCs, consistent with the provisions of the Settlement, for the Parishville and Allens Falls Projects.

The Settlement proposes combining the two projects as one project. The Parishville Project, furthest upstream, discharges into the Allens Falls Project impoundment. The operations of these two projects are currently coordinated and are proposed to continue to be coordinated. Based on these factors, we consider these two projects to comprise a single unit of development as defined in section 3(11) of the Federal Power Act.[3] Hence, in this final environmental assessment (FEA), Parishville and Allens Falls will be referred to as "developments" and the combination of the two as

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[1] On July 26, 1999, the Federal Energy Regulatory Commission (Commission) issued an order approving the substitution of Erie Boulevard, L.P. (Erie), for NIMO as the applicant in the initial licensing proceedings for the Parishville Project (FERC No. 10461) and the Allens Falls Project (FERC No. 10462). 88 FERC ¶ 62,082.

[2] The parties to the agreement are the Adirondack Mountain Club (ADK), American Rivers, American Whitewater, the New York State Conservation Council, NYSDEC, New York Rivers United, Erie, St. Lawrence County, the Town of Parishville, Trout Unlimited, and the U.S. Fish and Wildlife Service (FWS).

[3] See 16 U.S.C. § 796(11).

"West Branch St. Regis River Project" or "project." Furthermore, for the reasons stated above we recommend that any license issued for these two developments combine them as a single project (West Branch St. Regis River Project No. 10461).

This FEA analyzes the effects of the proposed actions and various alternatives, including no-action alternatives, for the West Branch St. Regis River Project. The FEA recommends measures proposed or recommended by Erie, various agencies, non-governmental organizations, and the Commission staff in order to protect and enhance environmental resources. These measures are discussed in sections IV.C. and V., and summarized in section VI. of the FEA.

Overall, these measures along with the standard articles provided in any license issued for the project, would protect and enhance geology and soils, water quality, fisheries, terrestrial, aesthetic, recreation, and cultural resources. In addition, electricity generated from the project would continue to reduce the use of fossil-fueled, electric generating plants; conserve non-renewable energy resources; and reduce atmospheric pollution.

Section 10(j) of the Federal Power Act requires the Commission to include license conditions, based on the recommendations of the federal and state fish and wildlife agencies, for the protection of, mitigation of adverse impacts to, and enhancement of fish and wildlife resources. The U.S. Department of the Interior (Interior) filed section 10(j) recommendations on July 16, 2001. The NYSDEC filed section 10(j) recommendations on July 26, 2001. All recommendations made by Interior and the NYSDEC within the scope of section 10(j) have been incorporated into the Settlement. We recommend adopting the portions of the Settlement that were requested by the Settlement parties to be part of the license. Thus, we have addressed the concerns of the federal and state fish and wildlife agencies and made recommendations consistent with those of the agencies.

Based on our independent review and evaluation of the proposed project, agency recommendations, and the no-action alternative, we recommend issuing an original license for the West Branch St. Regis River Project with our recommended measures. We make these recommendations because: (1) the project's continued operation would have minor environmental effects; (2) our recommended measures would adequately protect and/or enhance geology and soils, water quality, fisheries, terrestrial, aesthetic, recreation, and cultural resources; and (3) about 34,730 megawatt-hours of energy that would be generated annually from a renewable resource would continue to reduce the use of fossil-fueled, stream-electric generating plants, conserve nonrenewable energy resources, and reduce atmospheric pollution.

On the basis of our independent environmental analysis, we conclude in the FEA that issuance of a license order approving the proposed action, with our additional environmental recommendations, would not constitute a major federal action significantly affecting the quality of the human environment.

FINAL MULTIPLE ENVIRONMENTAL ASSESSMENT

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ENERGY PROJECTS
DIVISION OF ENVIRONMENTAL AND ENGINEERING REVIEW

Parishville Hydroelectric Project
(FERC No. 10461-002--New York)

Allens Falls Hydroelectric Project
(FERC No. 10462-002–New York)

I. APPLICATIONS AND NEED FOR ACTIONS

A. Applications

On May 31, 1990, Niagara Mohawk Power Corporation (NIMO),[1] filed applications for original licenses for the existing 2.4-megawatt (MW) Parishville Hydroelectric Project (FERC No. 10461) and the existing 4.4-MW Allens Falls Hydroelectric Project (FERC No. 10462). The projects are located in the town of Parishville on the West Branch of the St. Regis River in St. Lawrence County in northern New York. The Parishville Project is located between river miles (RM; measured from confluence with the mainstem St. Regis River) 23 and 20 and has operated since 1925. The Allens Falls Project is located between RM 20 and 14 and has operated since 1927. The project locations are shown in figures 1 and 2. Neither project occupies any lands of the United States.

During the pending proceedings on the Parishville and Allens Falls Projects, in May 1991, the New York State Department of Environmental Conservation (NYSDEC) had issued water quality certificates (WQCs) for the projects. Then, in August 1991, the NYSDEC subsequently revoked the WQCs for these two projects. NIMO appealed NYSDEC's revocations through the state administrative hearing process beginning in 1991.

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[1]On July 26, 1999, the Federal Energy Regulatory Commission (Commission) issued an order approving the substitution of Erie Boulevard, L.P. (Erie), for NIMO as the applicant in the initial licensing proceedings for the Parishville Project (FERC No. 10461) and the Allens Falls Project (FERC No. 10462). 88 FERC ¶ 62,082.

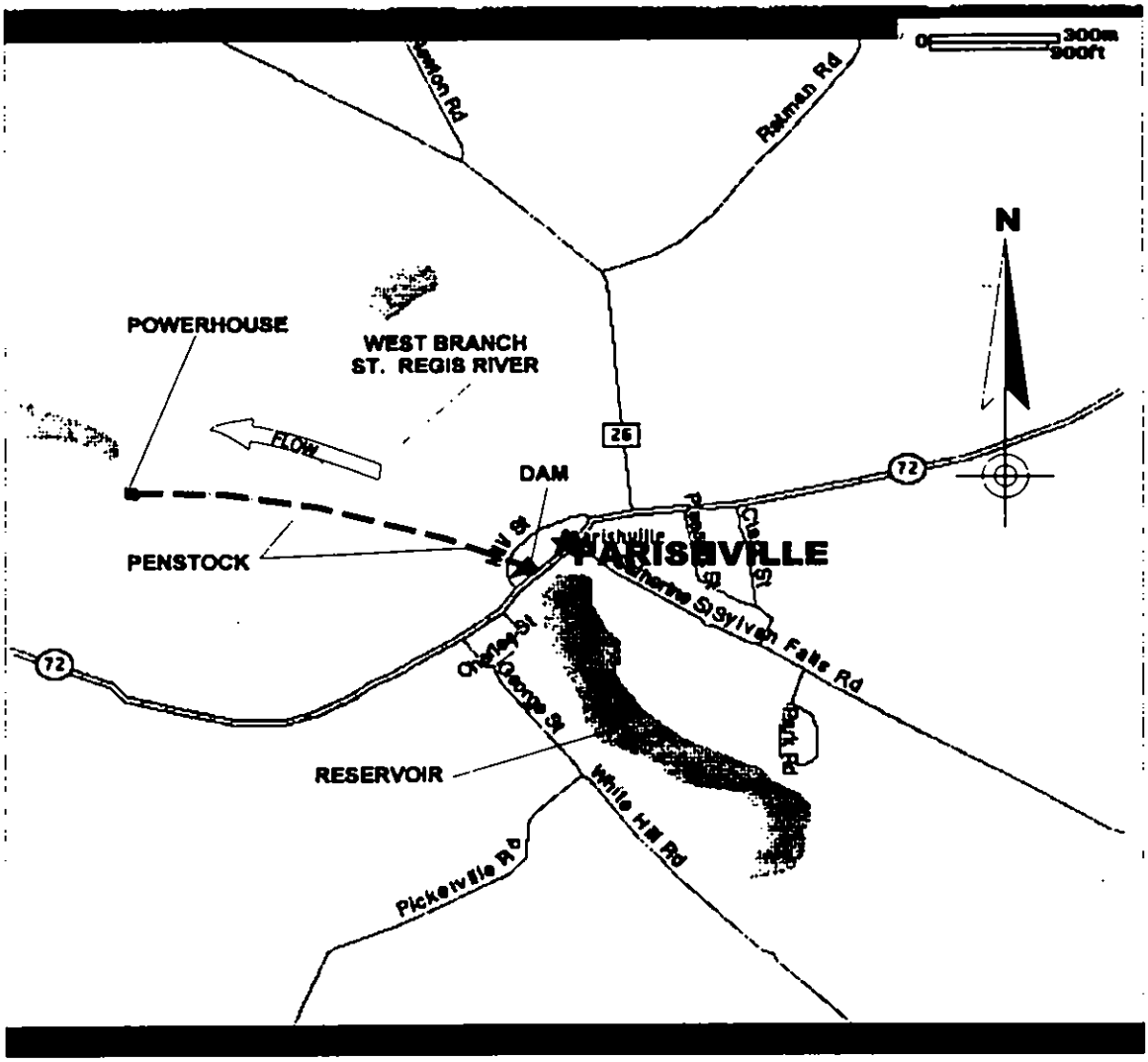

Figure 1. Parishville Development Vicinity Map (Source: Staff).

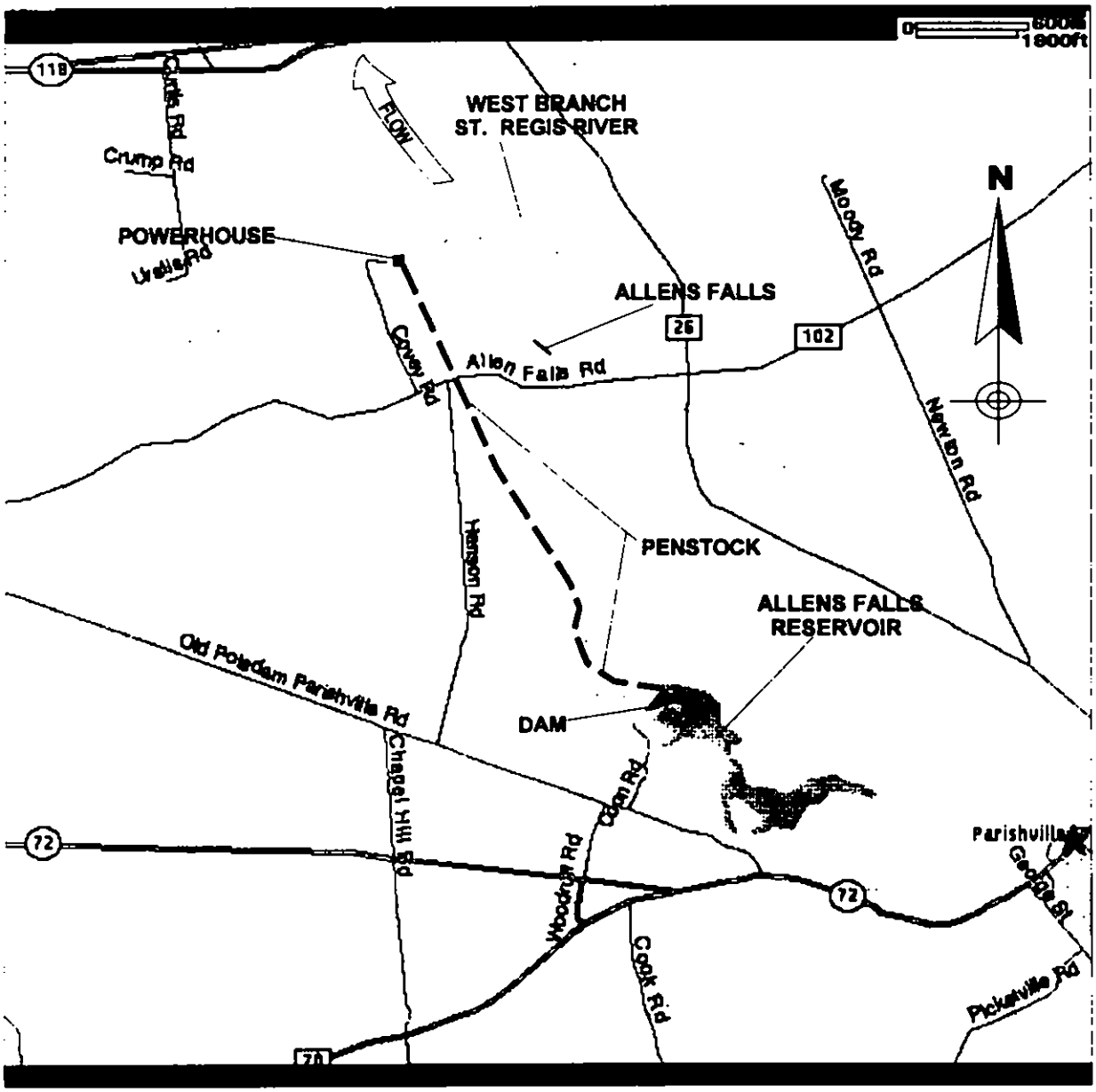

Figure 2. Allens Falls Development Vicinity Map (Source: Staff).

In 1992, the NYSDEC denied WQCs for 9 of NIMO's projects that were due to be relicensed in 1993. In 1997, NIMO and NYSDEC agreed to schedule resolution of the Parishville and Allens Falls Project WQCs after the WQCs for the other 9 projects were resolved.

Although some of those 9 projects were still unresolved, discussions of the Parishville and Allens Falls issues began among Erie, the NYSDEC, and other agencies and non-governmental organizations during the Commission's scoping site visit and scoping meetings on August 16, and 17, 2000.

Settlement discussions for Parishville and Allens Falls issues continued into the summer of 2001 and culminated in a final settlement document entitled "West Branch St. Regis River Project Offer of Settlement" (Settlement) signed by eleven parties and filed with the Commission on September 13, 2001.[2]

Erie adopted the provisions of the Settlement for its license applications for the Parishville and Allens Falls Projects. On November 2, 2001, NYSDEC issued WQCs, consistent with the provisions of the Settlement, for the Parishville and Allens Falls Projects.

We note that the Settlement resolves the outstanding issues identified during the scoping process for the Parishville and Allens Falls Projects. The Settlement resolves the quantity of instream flow releases, the need for and the nature and extent of fish passage facilities, and the type and general location of recreational use and recreational facilities at the projects.

The Settlement proposes recreational enhancements that are slightly different from, but generally consistent with, those originally proposed by NIMO for the Parishville and Allens Falls Projects. Specifically, at the Parishville Project, Erie withdraws its original proposals for formal expansion of recreational facilities at Hamlet Park, and a formal bypassed reach fishing access trail. At the Allens Falls Project, Erie withdraws its proposal for a trail from Allens Falls Road upstream to where the project pipeline (that feeds into the surge tank) crosses the river, including parking for cars; a

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[2]The parties to the agreement are the Adirondack Mountain Club (ADK), American Rivers, American Whitewater, the New York State Conservation Council, NYSDEC, New York Rivers United, Erie, St. Lawrence County, the Town of Parishville, Trout Unlimited, and the U.S. Fish and Wildlife Service.

trail downstream from Allens Falls Road to the Allens Falls waterfall; and a trail extension to a waterfall located upstream of the pipeline crossing.

The Settlement also proposes combining the two projects as one project. The Parishville Project, furthest upstream, discharges into the Allens Falls Project impoundment. The operations of these two projects are currently coordinated and proposed to continue to be coordinated. Based on these factors, we consider these two projects to comprise a unit of development as defined in section 3(11) of the Federal Power Act (FPA). Hence, in this document, Parishville and Allens Falls will be referred to as "developments" and the combination of the two as "West Branch St. Regis River Project" or "project." Furthermore, we recommend issuing a single license for these two developments for the reasons stated above.

B. Need for Power

We assessed the need for power by reviewing the needs of the operating region in which the project is located. Erie sells energy to NIMO and others to meet their customers' needs throughout upstate New York. Erie currently owns a combined total generating capacity of 664 megawatts (MW) of hydropower facilities.

The West Branch St. Regis River Project with its two developments is estimated to produce approximately 34,730 megawatt-hours (MWh) of electricity per year, with a combined installed capacity of 6.8 MW. Operation of these facilities allows Erie to produce inexpensive and reliable power using renewable resources. This makes the energy available to energy suppliers who must maintain a desirable mixture of energy from various fuel sources.

These facilities are operated to maximize net energy, value of energy produced, and voltage support, increase system reliability, and minimize required maintenance. Hydro units are also critical to electrical system restoration following large-scale outages or black-outs because they can be brought on line very quickly.

The project is located in the New York Independent System Operator (NYISO) of the Northeast Power Coordinating Council (NPCC) region of the North American Electric Reliability Council (NERC). NERC annually forecasts electrical supply and demand in the nation and the region for a 10-year period. NERC's most recent report (NERC, 2001) on annual supply and demand projections indicates that, for the period 2001 to 2010, the demand for electric energy in the NPCC region would grow at an average rate of 1.2 percent annually. The project could displace existing and planned

non-renewable fossil-fueled generation. In addition, the hydroelectric generation contributes to the diversification of the generation mix in the NYISO area.

Without these facilities, Erie would not be able to meet its current contracts to provide power and capacity and would be forced to purchase power and capacity on the spot market at prices potentially higher than the cost to produce energy from these facilities. The fuel source for that energy may be fossil-based, contributing to air pollution.

We conclude that present and future use of the power from this project, its displacement of non-renewable fossil-fired generation, and the contribution to a diversified generation mix support a finding that the power from the project would help meet a need for power in the NYISO area in the short- and long- term.

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

1. Project Description

Parishville Development

The Parishville development consists of the following existing facilities: (1) a dam composed of an earthen dike and various concrete structures; (2) an intake structure; (3) a penstock, 2,561 feet long and six to 10 feet in diameter; (4) a powerhouse housing a horizontal Francis turbine and a 2,400-kilowatt (kW) generator; (5) a 400-foot long tailrace; (6) a 4.8-kV transmission line; and (7) appurtenant facilities. The development provides an average annual generation of about 13,590 megawatt-hours (MWh). The development has been generally operated for power generation in a pulsing mode with impoundment fluctuations of about 6 inches.

Allens Falls Development

The Allens Falls development consists of the following existing facilities: (1) a concrete gravity type dam; (2) an intake structure; (3) a pipeline, 9,344 feet long and seven feet in diameter; (4) a differential surge tank; (5) a penstock, 886 feet long and seven feet in diameter; (6) a powerhouse housing a vertical Francis turbine and a 4,400-kW generator; (7) a 450-foot-long tailrace; (8) a 2.4-mile-long 115-kV transmission line; and (9) appurtenant facilities. The development provides an average

annual generation of about 24,877 MWh. The development has been generally operated for power generation in a pulsing mode with impoundment fluctuations of about 6 inches.

2. Proposed Operation

Erie proposes to continue to operate both of the West Branch St. Regis River Project developments in a pulsing mode with fluctuations in the impoundments of up to 6 inches. Erie entered into an instream flow agreement with the Settlement stakeholders, for the West Branch St. Regis River Project. Erie agreed to, and now proposes to, operate the project to release an instantaneous minimum flow to the bypassed reaches of:

Parishville Development:
20 cubic feet per second (cfs) ± 0.2 cfs year round

Allens Falls Development:
30 cfs ± 0.2 cfs October 1 through March 31
50 cfs ± 0.3 cfs April 1 though August 31
40 cfs ± 0.3 cfs September 1 through September 30

2. Proposed Environmental Measures

Parishville Development

To protect and enhance project-related environmental resources, Erie, consistent with the Settlement, proposes the following operational and environmental measures for the Parishville development:

Impoundment Fluctuations: limit normal fluctuations of the Parishville impoundment to no lower than 0.5 feet from the permanent crest of the dam

Instream Flows: release an instantaneous minimum flow from the Parishville dam into the 4,175-foot-long bypassed reach of at least 20 cfs ± 0.2 cfs year round

Monitoring of Streamflows and Headpond Levels: install binary staff gages calibrated to the nearest 0.1 foot in the headwater, tailwater, or bypassed reach to measure the minimum flows releases, measure headpond and tailwater elevations, and provide means of independent verification of water levels by the NYSDEC and the U.S. Fish and Wildlife Service (FWS)

Fish Protection, Passage, and Downstream Movement: install 1-inch clear spacing trashracks when the existing trashracks need to be replaced

Recreation

- allow public access to all lands within the project boundary, with the exception of lands and facilities directly involved with hydroelectric generation where public safety would be a concern

- not preclude informal access to project waters via lands near the Parishville powerhouse

- provide a flow-notification system, via an Internet website, to inform the public of known spillage events that may provide recreational opportunities

- meet with members of the St. Regis Advisory Council to examine further opportunities to develop access to project lands and waters

Allens Falls Development

To protect and enhance project-related environmental resources, Erie, consistent with the Settlement, proposes the following operational and environmental measures for the Allens Falls development:

Impoundment Fluctuations

- during the period from May 16 through October 31, limit normal fluctuations of the Allens Falls impoundment to no lower than 0.5 feet from the permanent crest of the dam, and not lower than 0.8 feet from the permanent crest of the dam in the event that the outflow from Parishville is less than the targeted minimum flows from Allens Falls[3]; and report levels more than 0.5 feet below the dam crest to the NYSDEC and levels more than 0.8 feet below to the Commission

- during the Winter drawdown period from November 1 through May 15, maintain the Allens Falls impoundment pond level at 1.0 foot below the permanent crest of the dam and limit fluctuations to no lower than 1.5 feet from the permanent crest

[3]For example, the targeted minimum flow for the Allens Falls development is 30 cfs ± 0.2 cfs from October 1 through March 31.

of the dam, or no lower than 1.8 feet from the permanent crest of the dam in the event that the outflow from Parishville is less than the targeted minimum flows from Allens Falls; and report levels more than 1.5 feet below the dam crest to the NYSDEC and levels more than 1.8 feet below to the Commission

Instream Flows: release an instantaneous minimum flow from the Allens Falls dam into the 13,700-foot-long bypassed reach of at least:

- 30 cfs ± 0.2 cfs October 1 through March 31
- 50 cfs ± 0.3 cfs April 1 though August 31
- 40 cfs ± 0.3 cfs September 1 through September 30

Monitoring of Streamflows and Headpond Levels: install binary staff gages calibrated to the nearest 0.1 foot in the headwater, tailwater, or bypassed reach to measure the minimum flows releases, measure headpond and tailwater elevations, and provide means of independent verification of water levels by the NYSDEC and the FWS

Fish Protection, Passage, and Downstream Movement: install 1-inch clear spacing trashracks when the existing trashracks need to be replaced

Recreation

- allow public access to all lands within the project boundary, with the exception of lands directly involved with hydroelectric generation where public safety would be a concern
- not preclude existing informal access to the bypassed reach at Allens Falls Road Bridge
- provide enhanced public access to the bypassed reach and tailrace as follows: designate an informal access point near the Allens Falls powerhouse; designate an informal parking area on Covey road; provide an unimproved trail near the Allen Falls powerhouse; and install boat barriers in the tailrace for safety purposes
- install parking availability signage at an informal parking area and boat launch located at the end of Coon Road

- provide a flow-notification system, via an Internet website, to inform the public of known spillage events that may provide recreational opportunities

- meet with members of the St. Regis Advisory Council to examine further opportunities to develop access to project lands and waters

B. Alternatives to the Proposed Action

1. Proposed Action with Additional Staff-recommended Measures

An alternative to licensing the project proposed by Erie is to license it with additional staff-recommended measures for resource protection and enhancement. In addition to Erie's environmental measures, we recommend the following:

Parishville Development

- none

Allens Falls Development

- incorporate erosion and sediment control measures in the development of the powerhouse access trail

2. No-Action

We use the no-action alternative to establish baseline environmental conditions for comparison with other alternatives. Under the no-action alternative the Parishville and Allens Falls developments would continue to operate as they do currently, and no new environmental protection, mitigation, or enhancement measures would be implemented at either development.

3. Alternatives Considered but Eliminated from Detailed Study

We considered several other alternatives to Erie's licensing proposal but eliminated them from detailed study because they are not reasonable in the circumstances of these proceedings. They are: (1) federal takeover and operation of any of the developments; (2) issuing a nonpower license for any of the developments; and (3) retirement of any of the developments.

Federal takeover is not applicable because the project is not yet licensed.

A nonpower license is a temporary license which the Commission would terminate whenever it determines that another governmental agency would assume regulatory authority and supervision over the lands and facilities covered by the nonpower license. In these proceedings, no agency has suggested its willingness or ability to do so. No party has sought a nonpower license for either development, and since the power is needed, we have no basis for concluding that the developments should no longer be used to produce power, as long as it is economically beneficial to do so. Thus, nonpower licenses are not a realistic alternative to licensing in these circumstances.

Project retirement could be accomplished with or without dam removal, but either alternative would involve denial of the license applications. No participant has suggested that dam removal at either development would be appropriate, and we have found no adequate basis for recommending it at this time. The current project developments and reservoirs provide recreational opportunities and fish and wildlife habitat. Thus, dam removal is not a reasonable alternative to licensing the project with appropriate protection and enhancement measures.

The second retirement strategy would involve retaining the dams and disabling or removing equipment used to generate power. Project works would remain in place and could be used for historic or other purposes. Another governmental agency would have to assume regulatory control and supervision of the dam and remaining facilities. As with the dam removal alternative, project capacity and energy would have to be replaced. No participant has advocated this alternative.

III. CONSULTATION AND COMPLIANCE

A. Agency Consultation

The Commission's regulations require that applicants consult with appropriate state and federal resource agencies and the public before filing a license application. This consultation is required to comply with the Fish and Wildlife Coordination Act, the Endangered Species Act (ESA), the National Historic Preservation Act, and other federal statutes. Pre-filing consultation must be complete and documented in accordance with the Commission's regulations.

Before preparing the draft environmental assessment (EA), we conducted a scoping process to determine what issues and alternatives should be addressed. Scoping Document 1 was issued on July 26, 2000, to interested agencies and others. Scoping meetings were held on August 16, and 17, 2000, in Parishville, New York. A site visit was conducted, in conjunction with the meetings on August 16, 2000. The scoping

meetings were recorded by a court reporter, and all statements (oral and written) made at the meetings are included in the transcripts of the meetings. These transcripts are part of the Commission's public record for the projects. A revised Scoping Document 2, addressing the comments made during scoping, was issued March 27, 2001.

The Commission issued two public notices on March 27, 2001, saying that the applications were ready for environmental assessment.[4] The following entities responded with comments:

Commenting Entity	Date of Letter (project)
U.S. Department of the Interior	July 13, 2001 (Parishville Project)
U.S. Department of the Interior	July 13, 2001 (Allens Falls Project)
Adirondack Mountain Club	July 24, 2001 (both projects)
New York State Department of Environmental Conservation	July 25, 2001 (Parishville Project)

[4]The Commission issued public notices on February 9, and February 19, 1993, saying that the applications for the Parishville and Allens Falls Projects, respectively, were ready for environmental assessment. Comments on the Parishville Project were filed by the U.S. Department of the Interior (Interior), the FWS, the National Marine Fisheries Service (NMFS), and the NYSDEC. NIMO filed replies to Interior's comments. Comments on the Allens Falls Project were filed by the ADK, Interior, the NMFS, and the NYSDEC. However, because NYSDEC's processing for the Parishville and Allens Falls Projects were scheduled to take place after resolution of WQCs for 9 other NIMO hydroelectric projects (see section I.A.), continuing the Commission NEPA process at that time was premature due to the uncertainty of requirements that the NYSDEC would include in any WQCs issued. We resumed the NEPA process by initiating the scoping process in the Summer of 2000, and reissued the ready-for-environmental-assessment public notices in March 2001. All letters filed in response to those March 2001 public notices recommended incorporating the pertinent provisions of the Settlement in the project licenses.

New York State Department of Environmental Conservation	July 25, 2001 (Allens Falls Project)

B. Interventions

Besides providing comments, organizations and individuals may petition to intervene and become a party to any subsequent proceedings. Motions to intervene in the proceedings on the applications were filed prior to our decision to treat the two projects as one project with two developments.

Parishville Project

There were no timely-filed motions to intervene on the Parishville Project application.

The U.S. Department of the Interior filed an untimely motion to intervene in opposition to the Parishville Project on January 14, 1991; this motion was denied on February 21, 1991. The U.S. Department of the Interior filed a second untimely motion to intervene (not in opposition) on April 12, 1993.

Allens Falls Project

The following entities filed timely motions to intervene on the Allens Falls Project, one in opposition:[5]

Intervening Entity	Date of Motion
New York State Department of Environmental Conservation	January 9, 1991
U.S. Department of Interior (opposition)	February 4, 1991

[5]The Settlement signed by U.S. Fish and Wildlife Service, and the comment letter from the U.S. Department of the Interior dated July 13, 2001, supporting licensing the Allens Falls Project in accordance with the Settlement, supercede the opposition to the project stated by the U.S. Department of the Interior in its February 4, 1991, motion to intervene. Thus we consider the intervention to no longer be in opposition.

C. Comments on the Draft Environmental Assessment

On March 22, 2002, the Commission staff (staff) issued a draft environmental assessment (DEA) for the proposed licensing actions. The following entities filed written comments on the DEA.

Commenting Entity	Date of Letter
New York State Department of Environmental Conservation	April 12, 2002
Erie Boulevard Hydropower LP	April 19, 2002
Adirondack Mountain Club	April 19, 2002

The DEA was revised as a result of our consideration of those comments. Appendix A summarizes the comments that were filed and includes our responses to them.

D. Water Quality Certifications

Under Section 401(a)(1) of the Clean Water Act,[6] the Commission may not issue a license for a project unless either the license applicant obtains water quality certification from the certifying agency of the state in which the project discharge will originate, or the certifying agency waives certification. Section 401(a)(1) states that certification is deemed waived if the certifying agency fails to act on a water quality certification request within a reasonable period of time, not to exceed 1 year.

The NYSDEC received NIMO's requests for Section 401 water quality certification for the Parishville and Allens Falls Projects on May 30, 1990. On May 29, 1991, the NYSDEC had issued WQCs for the projects. Then, on August 30, 1991, the DEC revoked the WQCs for these two projects. NIMO appealed NYSDEC's revocations through the state administrative hearing process beginning in 1991.

Discussions of Parishville and Allens Falls Project issues began among Erie, the NYSDEC, and other agencies and non-governmental organizations during the Commission's scoping site visit and scoping meetings on August 16, and 17, 2000.

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[6] 16 U.S.C. § 1341(a)(1).

Settlement discussions for Parishville and Allens Falls issues continued into the Summer of 2001 and culminated in a final Settlement document.

The NYSDEC issued WQCs for the Parishville and Allens Falls Projects on November 2, 2001.

The WQCs specify that Erie meet all the terms and conditions of the Settlement relating to water quality, as well as NYSDEC general and special conditions for the protection of water quality under state regulations implementing section 401. These conditions deal with the following: (1) WQC compliance inspections; (2) continued pertinency of previous NYSDEC orders and determinations; (3) applications for WQC renewals or modifications; (4) conditions under which the NYSDEC would reserve the right to modify, suspend, or revoke the WQC; (5) future removal or alteration of structures or other authorized works that the NYSDEC deems to cause obstruction to free navigation, flood flows; endanger human health, safety, or welfare; or cause loss or destruction of natural resources; (6) non-liability of the State of New York for damage or injury to project structures or works resulting from future operations by the State for conservation or improvement of navigation or other purposes; (7) continued responsibility of Erie to obtain any other required governmental permission, consent, or approval; (8) taking necessary precautions to preclude contamination of any wetland or waterway by environmentally deleterious materials associated with the project; (9) avoiding damage to navigable channels or banks of a waterway during project-related dredging; (10) non-authorization of any unreasonable interference with navigation; (11) removal of any unfinished structure or fill, and site restoration in the event of expiration or revocation of the WQC; (12) non-contravention of effluent limitations and standards provided all other WQC conditions are met; (13) strict conformance with any approved plans submitted as part of the WQC application; (14) procedures that would apply to activities conducted at the Projects in response to emergencies; (15) installing and maintaining appropriate turbidity control structures when conducting maintenance dredging in the project intake/forebay areas; (16) testing any sediments to be removed from project waters for contaminants, and prior NYSDEC approval of disposal or interim locations of any sediments; (17) erosion and sediment/contaminant control measures to be adhered to during routine project maintenance and construction (including maintenance dredging); (18) placement of cofferdams, construction of temporary access roads or ramps, or other temporary structures which encroach upon the bed or banks of the West Branch St. Regis River or project reservoirs; (19) maintenance of adequate flows immediately downstream of work sites during project construction and/or maintenance activities; (20) rates at which the reservoirs would be drawn down and then be allowed to rise when construction and/or maintenance activities require the project reservoirs to be lowered; (21) monitoring potential turbidity during any construction activity and taking corrective action when

turbidity occurs; (22) notifying NYSDEC at least 2 weeks prior to any maintenance or construction-related work performed under the WQC. The WQC also contains a special condition for providing public access and recreational opportunities in conformance with the Settlement.

E. Section 18 Fishway Prescriptions

Section 18 of the FPA provides the Secretary of the U.S. Department of the Interior (Interior) the authority to prescribe fishways.[7] By letters dated July 13, 2001, the Secretary requested that reservation of authority to prescribe the construction, operation, and maintenance of appropriate upstream and downstream fishways be included in any license issued for the Parishville and Allens Falls Projects.

F. Coastal Zone Management Act

Under Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. § 1456(c)(3)(A), the Commission cannot issue a license for a hydropower project within or affecting a state's coastal zone, unless the state CZMA agency concurs with the license applicant's certification of consistency with th state's Coastal Zone Management Program. The West Branch St. Regis River Project is located outside New York's coastal zone management boundary. By letter to Erie dated May 28, 2002, the New York Department of State's Division of Coastal Resources determined that the project would not affect land and water uses and natural resources within the State's coastal areas. Therefore, a coastal zone consistency certification is not needed.

G. Endangered Species Act

Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536(a), requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of such species. In a letter dated May 15, 2001, Interior states that except for occasional transient individuals, no Federally-listed or proposed endangered or threatened species are known to exist in the West Branch St. Regis River Hydroelectric Project impact area. In addition, no habitat in the project's

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[7]Section 18 of the FPA states: "The Commission shall require the construction, maintenance, and operation by a licensee at its own expense of ... such fishways as may be prescribed by the Secretary of Commerce or the Secretary of the Interior, as appropriate." 16 U.S.C. § 811.

impact area is currently designated or proposed "critical habitat." Interior concludes that no Biological Assessment or further Section 7 consultation under the Endangered Species Act is required.

IV. ENVIRONMENTAL ANALYSIS

A. General Description of the Locale (sources: Niagara Mohawk Power Corporation, 1990a & 1990b, applications, exhibits E).

The West Branch St. Regis River originates at about elevation 1,616 National Geodetic Vertical Datum (NGVD) in the northwest Adirondack Mountains of New York. The river flows west, northwest, and then northeast for 38 miles to its confluence with the mainstem of the St. Regis River at Winthrop, New York, at about elevation 300 feet NGVD. From there, the mainstem flows 22 miles northeast to the St. Lawrence River (about elevation 150 NGVD) near the Quebec - New York State border. The drainage area of the West Branch St. Regis River basin is about 269 square miles.

The topography in the Adirondacks in the southern part of the basin is characterized by hills, mountains, and ridges with many lakes, ponds, and swampy areas. From the project area northward, the topography becomes one of rather flat areas with many small rounded hills and ridges reaching heights of up to 400 feet above incising streams. Annual precipitation for the basin ranges from about 39 inches in the higher elevations to about 35 inches in the project area and other lower elevations. Average temperatures in the basin range from about 41 degrees Fahrenheit in the mountains to about 42 degrees in the project area.

The basin is rural, and except for small areas of residential development at the Hamlet of Parishville and at the Allens Falls reservoir, is predominantly classified as forestland and brushland. There are no consumptive, industrial, steam-electric, major irrigation, or other specialized water uses in the basin. Portions of the river flow through agricultural lands, and these waters may be used for agricultural purposes. Water is used for firefighting, and camps along the river may use the water for domestic purposes.

The Parishville reservoir is at about 884.5 feet NGVD. The Allens Falls reservoir (and the Parishville powerhouse - tailrace) are at about 742 feet NGVD. The Allens Falls reservoir backs up to the tailrace of the Parishville development. At the Parishville development, located between RM 23 and 20, the river drains about 177 square miles. At the Allens Falls development, located between RM 20 to 14, the river drains about 200 square miles.

B. Scope of the Environmental Assessment

Our geographic scope of analysis for cumulatively affected resources is defined by the physical limits or boundaries of: (1) the proposed actions' effect on the resources, and (2) contributing effects from other hydropower and non-hydropower activities within the West Branch St. Regis River Basin.

The West Branch St. Regis River drains an area of 269 square miles. The Parishville and Allens Falls developments are the only two hydro developments on the West Branch St. Regis River. We choose the West Branch St. Regis River Basin as our geographic area for evaluation of cumulative effects because ongoing activities throughout the basin, such as industry, agriculture, recreational development, and hydropower development, could potentially cumulatively affect water quality and quantity, fishery resources, and recreation.

As part of our environmental analysis, we examined all resource areas--geological resources, fish and wildlife, water resources, cultural, recreation, land use, and socioeconomics--in regard to how the project would affect them. We have identified water quality, fisheries, and public access as areas that merit consideration for cumulative effects in this FEA. These considerations are discussed in section IV.C., Environmental Resources. We do not discuss socioeconomics and air quality because those resources would be largely unaffected by the licensing of the project.

We conclude that there would be no significant adverse cumulative effects associated with issuing an original license for the West Branch St. Regis River Project.

C. Proposed Action

1. Geology and Soils

a. Affected Environment: The project area is underlain by hard, pre-Cambrian metamorphic rocks, including granitic gneiss, quartzite, quartz schist, and metasedimentary rocks. These rocks are overlain by a hard Cambrian-age sandstone (called the Potsdam sandstone) along the southwest edge of the Allens Falls reservoir, the southern section of the Allens Falls dam site, the lower section of the Allens Falls penstock, and the Allens Falls powerhouse.

The soils in the project area have developed on a variety of deposits, including undifferentiated glacial till, stratified sands and gravels deposited by glacial meltwater, sand dunes, deltaic sands, rock outcrops and detached boulders, and river flood plain

sands and gravels. Depending on the parent material, the soils include dune sands, fine sandy loams, sandy loams, gravelly loams, and rocky loams.

b. Environmental Effects and Recommendations: The activities proposed in the Settlement would have no effect on the existing geology of the project area. The only project-related effects on soils would be a potential for minor, localized erosion due to development and use of the proposed unimproved trail and access near the Allens Falls powerhouse.

Our Analysis

The Settlement doesn't propose any measures to control potential erosion and sedimentation during development and use of the Allens Falls powerhouse access. Therefore, we recommend that development of the trail and access incorporate appropriate erosion and sediment control measures to be developed and implemented in consultation with the NYSDEC.

c. Cumulative Effects: None.

d. Unavoidable Adverse Effects: Minor, short-term localized erosion and sedimentation would occur during development of the Allens Falls powerhouse access.

2. Water Resources

a. Affected Environment: The West Branch St. Regis River is a typical Adirondack drainage stream, the waters are oligotrophic, low in pH and stained with humic acids. The stream typically has a low sediment load in the early spring and a minimal sediment load into the summer. Occasional short term increases in sediment load occur during summer rain events. There are no water withdrawals for industry or domestic use in the basin.

The applicant conducted water quality studies and found that the lakes are what would be expected high in the Adirondack mountains. The waters are oligotrophic, low in pH and stained with humic acids. The reservoirs typically have high dissolved oxygen (DO) levels at or close to saturation and do not stratify.

Water Quantity

Flow data has been collected at two different locations during different time periods on the St. Regis River by the United States Geological Survey (USGS).[8] Using the flow data from the Brasher Center gaging station (04269000) on the mainstem St. Regis River and the Parishville Gage (04268800) on the West Branch St. Regis River, our calculations estimate that the average annual discharge at the Parishville dam is between 193 and 284 cfs with a 10-year frequency lowest flow over a 7-day period (7Q10) between 44.5 and 51 cfs. Likewise, we estimate that the average annual flow at the Allens Falls dam is between 219 and 310 cfs and the 7Q10 flow is between 50.3 and 57.5 cfs. The increased flow at Allens Falls dam is due to the added drainage area providing flows from several small tributaries in the Parishville bypassed reach.

Erie does not currently release a minimum flow at either dam.

Water Quality

The NYSDEC classifies streams using an N, AA, A, B, C, rating system.[9] The reach above Parishville is class B, between Parishville and Allens Falls is a C, below Allens Falls is also class C changing to Class B further downstream. The NYSDEC classifications state that "(t)he best usages of Class B waters are primary and secondary contact recreation and fishing. These waters shall be suitable for fish propagation and survival," and that "(t)he best usage of Class C waters is fishing. These waters shall be suitable for fish propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes."

The applicant collected a limited amount of water quality data for the West Branch St. Regis River in and near the project. Their water quality sampling data indicate that the impoundments do not stratify according to temperature or DO, and maintain DO

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[8]The USGS operated the Parishville gage from October 1958 to September 1968, and from June 1991 to the present. The Brasher Center gage was used to calculate the flow duration curves in the license application.

[9]See also *Water Quality Regulations: Surface Water and Groundwater Classifications and Standards*, 6NYCRR Parts 700-706, effective August 4, 1999, NYSDEC, Albany, New York. http://www.dec.state.ny.us/website/dow/305b00.pdf

levels close to saturation. The bypassed reaches are rough bottom channels which maintain high DO concentrations with cooler water temperatures than the impoundments.

b. Environmental Effects and Recommendations:

Water Quality

i. DO and Water Temperature

The Settlement did not include proposed measures regarding minimum or maximum DO concentration or water temperature. Water quality studies conducted by Erie show that the project does not and would not adversely affect water temperature or DO concentrations in the West Branch St. Regis River.

ii. Sediments

In their discussion of the West Branch St. Regis River projects, when determining the conditions of the WQCs for the projects, NYSDEC stated that Erie should prevent the disturbance of sediments and take actions to prevent erosion and sediment suspension at the projects during any construction or repairs.

Our Analysis

The documentation included with the WQCs from the NYSDEC stated that operation of the West Branch St. Regis River Project developments has had little or no influence on water quality in the West Branch St. Regis River. The West Branch St. Regis is a typical Adirondack stream with a low sediment load. Under existing operational conditions at the project at the range of normal stream flows the sediments in the reservoir are at equilibrium with the river's sediment load. The normal project operation does not lower the reservoirs to the point that sediments are appreciably resuspended in the reservoirs. Typically, sediments that would move past the project would do so primarily during high flow events. During such high flow events any sediments picked up in the reservoirs would be diluted by large volumes of water and combined with other sediments from upstream areas. There is no indication that the operation of the project would have a negative effect on sediments in the river basin.

c. Unavoidable Adverse Effects: None, the project would continue to operate with less fluctuation than under the 2-foot winter drawdown range. Thus, the project as proposed would cause no adverse effects on water quality.

3. Fishery Resources

a. Affected Environment:

i. Habitat

The Parishville impoundment drains about 177 square miles, has a surface area of 70 acres, with a gross storage capacity of 289 acre-feet at normal water surface elevation of 884.5 NGVD and an operational storage capacity of 35 acre-feet. The area around the reservoir is undeveloped, or developed as public recreational facilities. The shoreline is mostly forested and devoid of emergent aquatic vegetation. The 4,175-foot-long bypassed reach is composed of a series of riffle, run, chute, cascade, waterfall, and pool habitat. The substrate is cobble, boulder, or bedrock, with finer materials gathered in small pockets and pools. The entire length of the bypassed reach is forested with a few small seasonal homes set back from the river.

The last 400 feet of the Parishville tailrace flows into the headwaters of the Allens Falls impoundment, which also provides some back water effect to this lowest portion of the bypassed reach. The shoreline of the tailrace is steep-sloped, heavily vegetated, and contains many overhanging trees which could provide fish cover. The tailrace substrate consists of boulder and cobble.

The Allen Falls impoundment has a drainage area of about 200 square miles, a surface area of 130 acres, with a gross storage capacity of 1,780 acre-feet at normal water surface elevation of 742 NGVD, and an operational storage capacity of 661 acre-feet. The impoundment is ringed by seasonal and year-round houses and has some emergent vegetation forming small pockets of restricted wetlands in the backs of small coves. The emergent wetland vegetation found in the project area include cattail, burreed, horsetail, arrowhead, yellow pond lily, iris, and bulrush. Some submergent vegetation can also be found in the project ponds, typically bladderwort and stonewort.

The 13,700-foot-long bypassed reach is a series of riffle, run, chute, cascade, waterfall, and pool habitat. The substrate is cobble, bolder, or bedrock, with finer materials gathered in small pockets and pools. This bypassed reach is also forested with several small seasonal and possibly year-round homes set back from the river.

Invertebrates found in the ponds and bypassed reaches include freshwater sponge, bryozoa, crayfish and freshwater mussels. Aquatic insect larvae in these reaches include representatives of the insect orders Ephemeroptera (mayfly) Plecoptera (stonefly), Trichoptera (caddis fly), and Odonata (dragonfly) larvae. Other insect larvae found in the

streams include several families within the order Diptera, including the Simuliidae (blackfly) and Tipulidae (cranefly). Members of the Hemiptera (true bugs) are also found in the project area.

ii. Fish Community

The Pleistocene continental glaciation of the region limited the native Adirondack stream fish community to a dozen or so species. Because the project is located between the downstream St. Lawrence River-influenced coolwater community and the upstream Adirondack coldwater fish community, fish species that might be found in the project area can come from both communities. Human introductions have also increased the number of fish species found in the project area.

The fisheries community in the project area generally consists of species typically found in coldwater, Adirondack rivers and warmer Adirondack ponds. The applicant compiled the data from several sampling efforts that have occurred in the river basin. The data indicates that the following fish species have been found in the various impoundments and bypassed reaches.

Fish	Allens Falls		Parishville	
	pond	bypassed reach	pond	bypassed reach
brook trout	Y			Y
brown trout	Y	Y	Y	Y
smallmouth bass	Y	Y		Y
rock bass	Y	Y	Y	Y
pumpkinseed sunfish	Y	Y	Y	
yellow perch	Y		Y	
fantail darter		Y		
longnose sucker		Y		
white sucker	Y	Y	Y	Y
culips minnow		Y	Y	Y
bluntnose minnow			Y	
fallfish	Y	Y	Y	Y

Fish	Allens Falls		Parishville	
	pond	bypassed reach	pond	bypassed reach
longnose dace		Y		Y
blacknose dace				Y
golden shiner	Y		Y	Y
common shiner	Y		Y	Y
creek chub			Y	
lake chub			Y	
brown bullhead	Y	Y	Y	Y

The project area has several water falls that represent the natural boundaries of migration between the coldwater Adirondack fish communities and the coolwater fisheries of the St. Lawrence River Lowlands.

b. Environmental Effects and Recommendations: The aspects of project operations that could affect the aquatic habitat of the fish communities in the project area include reservoir fluctuations, pulsing operation, and minimum flow releases. In addition, operation of the project has a possible direct impact on the fish populations of the project through fish entrainment and possible mortality.

i. Reservoir Fluctuations

The applicant submitted the Settlement agreement with provisions to limit the reservoir fluctuations as follows

Parishville: Operation would allow for normal impoundment fluctuations not lower than 0.5 feet from the permanent crest of the dam.

Allens Falls: Operation would allow for normal impoundment fluctuations not lower than 0.5 feet from the permanent crest of the dam, and not lower than 0.8 feet from the permanent crest of the dam in the event that the outflow from Parishville is less than the targeted minimum flows from Allens Falls. The applicant would have to report levels less than 0.5 feet to NYSDEC and levels below 0.8 feet to the Commission.

Allens Falls: Winter drawdown period (November 1 through May 15) operation would allow for the pond to be maintained at 1.0 foot below the permanent crest of the dam. Normal impoundment fluctuations would not be lower than 1.5 feet from the permanent crest of the dam or not lower than 1.8 feet from the permanent crest of the dam in the event that the outflow from Parishville is less than the targeted minimum flows from Allens Falls. The applicant must report levels less than 1.5 feet to NYSDEC and levels below 1.8 feet to the Commission.

The daily and seasonal impoundment fluctuations proposed are intended to preserve the existing shallow water littoral and wetland habitats. The proposed fluctuation restrictions should provide benefits to adjacent land owners while protecting the aquatic resources of the West Branch St. Regis River. This management system reduces any negative effects associated with potential discontinuity of instream flows between Allens Falls and Parishville, and continues the historic seasonal lowering of the Allens Falls impoundment during the winter months to limit ice damage to private docks.

Agency recommendations

The FWS and NYSDEC were parties to the Settlement agreement. The NYSDEC'S 401 WQCs accepted the Settlement in full.

Our Analysis

The Settlement identifies the potential for discontinuity of instream flows between Allens Falls and Parishville, and the continuation of the historic seasonal lowering of the impoundment during the winter months to limit ice damage to private docks. The additional 0.3 feet of permitted drawdown is only available for the maintenance of the minimum flows to the bypassed reach. We assess that an intermittent use of the 0.3 feet would not adversely affect shallow water littoral and wetland habitats.

We analyzed the use of the storage volume that is present in the additional 0.3 feet of drawdown allowed in the Allens Falls development (about 36 acre feet). This storage would allow the applicant to sustain a 50 cfs minimum flow in the Allens Falls bypassed reach for 14 hours. If the inflow to Parishville were 51cfs (the 7Q10 flow), while the Parishville impoundment is at 0.5 feet from the crest of the dam, and releasing the proposed 20 cfs minimum flow, the Parishville impoundment would begin spilling all inflows above the 20 cfs minimum flow to the bypassed reach in about 13 hours. Based on the flow duration curve for the Parishville development 50 cfs is the 96 percent exceedance flow for the month of August and more than 100 percent for the other eleven

months of the year. The inflows to Parishville should be consistently high enough to ensure that this reservoir fluctuation plan allows the applicant to maintain the minimum flows in the Allens Falls bypassed reach.

ii. Minimum Flows

As part of the Settlement agreement Erie would provide the following minimum flows from the project:

Parishville:
20 cfs ± 0.2 cfs year round.

Allens Falls:
30 cfs ± 0.2 cfs, October 1 through March 31
50 cfs ± 0.3 cfs, April 1 though August 31
40 cfs ± 0.3 cfs, September 1 through September 30

In the rare instance that it appears that inflows would be insufficient for Erie to meet minimum flow and reservoir requirements, Erie is to consult with the FWS and the NYSDEC to determine priority. Such deviations must be reported to the Commission within 10 days. This is consistent with Settlement item 3.2.

The applicant would derive appropriate gate settings to ensure the correct minimum flow release at a point where the pond is drawn down 3 inches below the permanent fixed crest of the dam (15 inches for the Allens Falls development during the winter drawdown).

The flows were derived from field studies performed in September and October 2000. The studies were used to assess and prioritize management goal objectives under a series of test releases. The Parishville study evaluated: habitat gains for fish community, benthic invertebrate and forage fish community production, fish movement, fishing opportunities, riparian vegetation, wetland and wildlife resources, reduction of fish poaching. The Allens Falls study additionally evaluated: baseflow needs within the West Branch St. Regis River and the potential for the introduction of Atlantic salmon to the river below the last waterfall in the bypassed reach.

Flows from leakage to 75 cfs were observed in both bypassed reaches, flows of 100 and 125 cfs were also observed in the Parishville bypassed reach. Special consideration was given to the section of the bypassed reach below Allens Falls waterfall which is considered the first barrier to upstream fish movement on the West Branch St.

Regis River. Biologically justifiable flows were found for each bypassed reach, and these flows were then analyzed relative to the flow duration curves spillage records and energy costs.

The Parishville bypassed reach is normally wetted by spillage during the high spring flows and is periodically wetted by spillage after heavy rain events. The agreed-upon minimum flows are intended to restore the bypassed reach to a functional year round river reach. In combination with periodic spillage the flows attain a higher level of the NYSDEC management objectives for all life stages of brook trout, longnose dace, and the benthic macro-invertebrate community. The consistent bypassed reach flow may also enhance fish movement, fishing opportunities, and riparian wildlife and vegetation.

The Allens Falls bypassed reach is also normally wetted by spillage during the high spring flows, and is periodically wetted by spillage after heavy rain events. The agreed upon minimum flows could provide a major enhancement of the aquatic habitat for all life stages of brook trout depending on ambient stream temperatures and the benthic macro-invertebrate community. The flows also provide some enhancement for Atlantic salmon spawning incubation and juvenile habitat. The flows also provide for habitat enhancements for longnose dace, fallfish, and white sucker, and minor improvements for rainbow and brown trout given ambient stream temperatures. The consistent bypassed reach flow may also enhance fish movement, fishing opportunities, and riparian wildlife and vegetation.

Agency recommendations

The FWS and NYSDEC were parties to the Settlement agreement. The NYSDEC'S 401 WQCs accepted the Settlement in full.

Our Analysis

Commission staff participated in the year 2000 flow study of the bypassed reaches. The Parishville bypassed reach has diverse habitat for juvenile and adult fish, but very limited habitat for spawning and fry rearing. The fish community in this reach is only supported through downstream movements of fish. The available habitat does not appear to be adequate for a self-sustaining fish community to become established.

The Allens Falls bypassed reach has diverse habitat for juvenile and adult fish, and also for spawning and fry rearing. The lowest portion of the reach also has a high potential for rearing Atlantic salmon. At the proposed seasonal minimum flow levels the lower bypassed reach could possibly support a restoration effort for Atlantic salmon.

c. Unavoidable Adverse Effects: None, the applicant would modify project operation to ensure that reservoir elevation levels are maintained in a more consistent manner, and the minimum flows are consistently maintained in both bypassed reaches. This operational change could reduce current adverse effects on aquatic resources due to fluctuating reservoir elevations, flow volume changes, and lower bypassed reach minimum flows.

iii. Fish Entrainment and Turbine Mortality

The Settlement agreement indicates that fish mortality is not a major issue at the project. The State of New York's fisheries management goal considers that the impoundments are home to warmwater fish communities, and the management goal is not to encourage additional movement above what already may exist. The Settlement agreement proposed that when the project trashracks require replacement the applicant would replace them with 1-inch clear bar racks.

The project has trashracks at both developments, the Parishville racks are 1 5/16 inch clear spacing with a 1.25 fps approach velocity. The Allens Falls trashracks are 1 3/4 inch clear spacing with a 1.5 fps approach velocity. During project operation, juvenile resident fish may be drawn through the project turbines, however most adult fish are precluded from entrainment. The juvenile fish either suffer turbine-related mortalities or survive and contribute to the fish populations below the project. The project doesn't have upstream passage facilities.

Agency Recommendations

The FWS and NYSDEC were parties to the Settlement agreement. The NYSDEC'S 401 WQCs accepted the Settlement in full.

Our Analysis

The existing trashracks provide some level of protection for the fish communities of the two reservoirs. The current management position of the NYSDEC is to contain these warmwater communities in their respective reservoirs, while promoting the bypassed reaches for the coldwater fish community native to the region. This management principle would provide a diverse selection of fishing opportunities and protect the two divergent fish communities. The smaller spaced racks, when provided, may provide higher fish retention in the respective reservoirs and reduce turbine mortality. We recommend replacement of the trashracks, when needed, with 1-inch clear

bar racks to increase the protection of the fish in the reservoir from turbine entrainment and to further the NYSDEC's management goals to separate the two fish communities.

c. Unavoidable Adverse Effects: None, the proposal would decrease the spacing in the trashrack and increase the level of protection for the reservoir fish communities from turbine entrainment and impingement.

iv. Cumulative Effects to Fishery Resources

Fisheries resources are a focus of this summary because of the regional and local importance of resident gamefish to recreational fishing, and the potential for cumulative adverse effects on these species and non-game species. The resident fish community described in the Environmental Analysis section is similar throughout the cumulative impact discussion area.

The two developments are currently unlicensed and were formerly operated in modified peaking modes, and the bypassed reaches received no more than leakage flow from the dam. Prior to the license application process the applicant began releasing a minimum flow of 20 cfs to the bypassed reaches. These hydropower developments potentially could continue to contribute to adverse effects on the aquatic resources of the West Branch St. Regis River in a number of ways: 1) fluctuating reservoir levels can affect fish spawning and nursery habitats in near shore areas; 2) project operation causes some fish entrainment and mortality losses ; and 3) reduced flows occurring on a cyclical basis in the river below peaking projects can strand fish, damage forage resources, and limit useable habitat areas.

The analysis of the proposed project shows that the applicant, through the Settlement, has proposed measures to lessen the effects of the existing operations. Enhancement measures the applicant proposes would improve the aquatic resources subject to cumulative effects and guard against future degradation from continued operation of the West Branch St. Regis River Project developments. Further, the lack of any other human-induced influence on the aquatic environment limits the cumulative effects to those of this project.

v. Monitoring of Streamflows and Headpond Levels

The Settlement included provisions for the applicant to install binary staff gages, calibrated to the nearest 0.1 foot and visible to the general public, in the headwater, tailwater, or bypassed reach. The applicant would rate the bypassed reach staff gages, that show the project's compliance with the target minimum flows, every two years. The

Settlement also included a provision that the applicant would develop a plan, in consultation with the agencies, to continuously monitor reservoir elevations.

Our Analysis

Monitoring the operational compliance of the project with the license requirements would help the licensee document their management of the project's operation. The Settlement includes many changes to current project operations, and issuance of the license brings with it a need to have information available to demonstrate the operation of the project. With the proposed adjustments to the minimum flow requirements and the 0.5-foot reservoir elevation fluctuation restriction, consistent monitoring of the flow conditions would assist the licensee's efforts to meet the requirements of a hydropower license.

4. Terrestrial Resources

a. Affected Environment: This part of New York is known as Adirondack low-elevation boreal biome and is a major ecological community of plants and animals that are associated with several north-flowing rivers, including the St. Regis, St. Regis West Branch, the Jordan and the Raquette River. The entire low elevation boreal biome of the Adirondacks is about 250,000 acres in size and contains flora and fauna characteristic of the circumpolar coniferous forest biome known as taiga. Characteristic species in this area include evergreen species like spruce, fir and white pine; and hardwood species like sugar maple, beech and birch. The low-elevation boreal biome of the Adirondacks contains unique and highly important features of both regional and global importance.

However, the West Branch St. Regis River Project area is rural in nature. The general area around the project is classified as 63% agricultural lands, developed lands, or successional fields. About 34% of the area is classified as forested land or rock outcrop vegetation, and less than 3% of the land is classified as wetlands.

A flora species of note is the rugulose grape fern, Botrychium rugulosum. This fern is regarded as rare by the New York Heritage program and NYSDEC and known to exist in the project vicinity. However, it has not been observed within the project boundary.

The project area supports a diverse assemblage of wildlife species common to the rural areas. Wildlife characteristic of the area include opossum, deer, and fox. Birds include raptors (Osprey) waterbirds (ducks), and grassland and woodland species (sparrows, wrens and chickadees).

b. Environmental Recommendations: The resource agencies, when considering the Settlement, had no substantive comments on resource effects to terrestrial communities. In addition, the Settlement, does not include any environmental recommendations for terrestrial resources.

Our Analysis

Staff concludes that clearing activities for the proposed recreational improvements may cause minor disturbances to some of the common vegetation and wildlife communities. Staff finds that the continued operation of the two developments would have no long term demonstrable effects to terrestrial resources. Staff, concludes there are no environmental recommendations needed for terrestrial resources.

c. Unavoidable Adverse Effects: None.

d. Cumulative Effects: None.

5. Recreational Resources

a. Affected Environment:

We identified public access as a resource that may be affected in a cumulative manner by the West Branch St. Regis River Project in combination with other activities in the West Branch St. Regis River Basin.

i. Public Access

Parishville Development

The majority of the land surrounding the reservoir is privately owned, and no formal access to the reservoir, bypassed reach, or tailrace exists within the project boundary. Outside the boundary, the public may access the reservoir through the informal boat launch at the Donald W. Young Park. The park is maintained by the Town of Parishville. Informal trails to the bypassed reach near the dam and below the tailrace are also available near Hamlet Park and the powerhouse, respectively. These trails are currently unimproved and not formally maintained. Access to the middle of the bypassed reach is difficult because of a steep canyon section.

Allens Falls Development

Most of the reservoir shoreline is privately owned; though reservoir access is available via the three informal launch sites (see below). Access to the bypassed reach is available from the Allens Falls Road, but the area is quite steep and accessible only by foot. No other formal access to the development exists.

ii. Existing Recreational Facilities

Parishville

No formal recreational facilities exist within the project boundary. However, adjacent to the east shore of the reservoir within the Donald W. Young Park, there is a developed beach with a supervised swimming area and an informal cartop boat/canoe launch. Other facilities include a bathhouse, a pavilion with a capacity of 48 people, two table shelters, a playing field, and picnic areas. The park also contains an ice skating rink. Immediately downstream of the reservoir is the one-acre Hamlet Park, which was developed in cooperation between Erie and the Town.

Allens Falls

No formal recreational facilities are located within the project boundary. Outside of the boundary, most of the waterfront property is privately owned, though three informal boat launches provide public access to the reservoir. The South Shore launch site, located near the dam at the end of Coon Road, is the most popular of the three sites. The launch area is easily accessible, free of obstacles, and can accommodate both cartop and trailer boat launches. Parking is available for six vehicles. The second access is via the road to the Parishville powerhouse, and provides for cartop launches. The Alder Meadow Brook cartop launch site is located on the South side of the reservoir near the Potsdam-Parishville Road. The site is unimproved and lacks formal parking, and is probably used by boaters not familiar with the area since it is the only launch site visible from the road.

iii. Whitewater Boating

As part of a system-wide whitewater recreation plan developed in 1991, Erie consulted with whitewater interest groups to identify sites within the Erie hydroelectric system with whitewater recreation potential. On the West Branch of the St. Regis River, the entire lengths of the Parishville and Allens Falls bypassed reaches were identified as potential whitewater boating areas.

Under high flow conditions the Parishville bypassed reach provides Class III - V[10] whitewater conditions. The upper half of the reach is characterized by a deep gorge below the dam with waterfalls and chutes over exposed bedrock. The lower half splits into two channels, which rejoin 900 feet upstream of the tailrace.

In the Allens Falls bypassed reach, Class II-IV whitewater is available under high flow conditions. The bypassed reach is characterized by a mix of high gradient and moderate gradient sections, and many runs and riffles. Exposed bedrock is typically found in the high grade sections, while the moderate grades contain cobbles, boulders, and gravel. Also two waterfalls are present, a 20-foot waterfall at the head of the bypassed reach and a 60-foot waterfall in the downstream section (includes a steep 20-foot-high riffle as the head of the waterfall).

b. Environmental Effects and Recommendations

We identified opportunities for enhancing public access by providing informal access points to the project's lands and waters as a resource that could be cumulatively affected in the West Branch of the St. Regis River Basin. The public access resource issue and other proposals in the Proposed Settlement Document are discussed below.

i. Public Access

As a result of the Settlement discussions, Erie proposes to increase public access and enhance the project's recreational resources by permitting all lands within the project boundaries to be accessible to the public, with the exception to lands and facilities directly involved with the hydroelectric generation where public safety would be a concern. To monitor recreational activity and facilities Erie proposes to submit FERC Form 80 documentation, as required by 18 CFR, subchapter B Part 8.11. To monitor the project's future needs, Erie proposes to work with members of the St. Regis River Advisory Council (SRRAC) to examine further opportunities to develop access to project lands and waters.

Parishville

Prior to the Settlement, in order to provide public and fishing access to the public, Erie had proposed formal expansion of recreation facilities including a riverfront walking

[10]International Scale of Difficulty

trail, site maintenance, picnic facilities, trail overlook points, parking for six cars, and a formal bypassed reach fishing access trail to expand and improve the present facilities at Hamlet Park. Signs were also proposed along the trail to highlight the mills ruins which are remnants of 19th century industry of the area.

As a result of the Settlement, in agreement with the agencies and NGOs, for the Parishville development, Erie proposes as part of the licensing action to enhance public access by allowing informal public access to project waters via lands near the Parishville powerhouse, with the exception of areas where public safety is an issue.

As a commitment to be separate from a license, Erie and the agencies and NGOs agree under the Settlement that Erie would cooperate with the Town to ensure continued public access to the Parishville reservoir and Hamlet Park by permitting the Town to delineate and maintain a footpath that crosses project lands and passes near the mill ruins in a wooded area within the project boundary. Erie would also cooperate with the Town to develop an educational display commemorating the mill ruins at the Town Museum.

Allens Falls

Prior to the Settlement, Erie had proposed to develop and maintain a hiking trail along the bypassed reach, extending upstream from the Allens Fall Road to a point where the existing pipeline crossed the bypassed reach to provide access for both anglers and the public to lands and waters. Parking for five cars was also planned in the area adjacent to the bridge on Allens Falls Road.

As a result of the Settlement, in agreement with the agencies and NGOs, for the Allens Falls development, Erie proposes as part of the licensing action to designate an informal access point near the Allens Falls powerhouse, provide informal parking near the surge tank on Covey Road, and provide an unimproved trail in the vicinity of the Allens Falls powerhouse to provide access to the tailrace for boaters. Boat barriers would be installed in the tailrace for safety purposes.

Also, as part of the licensing action, Erie proposes to not preclude access to the bypassed reach at the Allens Falls Road Bridge and would install signs designating the extent of parking available at an informal parking area and boat launch at the end of Coon Road. Coon Road provides access to both the reservoir and bypassed reach.

As a commitment to be separate from a license, Erie and the agencies and NGOs agree under the Settlement that Erie would not preclude access to the confluence of Alder

Meadow Brook with the southern shore of the Allens Falls reservoir and would not improve the site beyond its current level.

Our Analysis

We concur with Erie's proposals and the agencies' and NGO's recommendations under the Settlement to improve access to the project lands and waters as stated in the Settlement. The proposed actions would result in beneficial long-term recreational access, and enhance opportunities for the public, anglers, and paddling recreationists to use the reservoirs and project lands.

Also, we believe that the proposed, and recommended, consultation with the SRRAC would provide the means to develop public access to project lands and waters to meet future demands. However, the Settlement does not contain a schedule for when Erie would consult with the SRRAC. Therefore, over the term of the license, we recommend that the Erie consult with the SRRAC up to a year prior to submitting FERC Form 80. Erie should then file with the Commission the meeting summary in conjunction with that recreational form.

Parishville

Continued access to the reservoir would allow paddlers to effectively use the project's waters. Informal access to project waters near the Parishville powerhouse and the development of a footpath would also increase accessibility to the bypassed reach.

As a commitment to be separate from the licensing action, Erie has agreed to allow the Town to delineate and maintain a footpath at Hamlet Park that would enhance day use recreational opportunities, such as hiking and picnicking. Such a non-intrusive footpath would be best suited for the area rather than the waterfront trail originally proposed by Erie which would have increased the risk of vandalism to the mill ruins.

Allens Falls

We believe the licensing action proposals for the Allens Falls development contained in the Settlement would enhance day use activities in the region. The informal access point, parking, and trail near the powerhouse would provide increased opportunities for boaters to use the tailrace area. Also the trail would provide access to the tailrace for anglers. To ensure that the most appropriate route is developed, we recommend that Erie consult with the Town and NYSDEC.

ii. Whitewater Recreation

Erie proposes to maintain a flow notification system for the purpose of providing information on known spillage events at both developments. The information would be provided on the company's internet website. The Parties in the Settlement agree that the Licensee should not be required to supply whitewater releases on the West Branch of the St. Regis River, and that canoe portages would be neither practical nor necessary at the project (Erie Boulevard, 2001).

Our Analysis

We agree with Erie and the other Parties in the Settlement that Erie should not be required to provide physical measures to enhance whitewater recreation.

In response to Commission staff requests to determine the range of streamflows needed to maintain viable whitewater paddling, Erie ran three recreational curves using the Instream Flow Incremental Methodology (IFIM). Flows in the range of 300-600 cfs appeared to be viable for whitewater paddling (NIMO, 1992c). Thus, because both reservoirs are small and shallow, flows needed for whitewater paddling would require drawdowns that would adversely affect aquatic habitat and reservoir recreation.

Based on the IFIM information and historic flows from June 1991 to September 1999, Erie estimated that navigable whitewater flows occurred from 17 to 44 days per season at Parishville and from 13 to 33 days per season at Allens Falls. However, during that eight-year period, Erie was unaware of whitewater activity at the project (letter from Jerry Sabattis, Erie Boulevard, Liverpool, New York, September 26, 2000).

The Parishville and Allens Falls bypassed reaches are rarely used by whitewater enthusiasts. Both contain hazards that pose substantial risks to paddlers. Even under high flows, Parishville contains exposed bedrock and waterfalls, and Allens Falls contains exposed bedrock, boulders, and a 60-foot-high waterfall. These hazards require frequent take-outs, and since bypassed reaches are infrequently used, portage development cannot be justified. In addition, Erie surveyed paddlers and found that when flow conditions are adequate, they generally prefer the Raquette River over the St. Regis (NIMO, 1991).

In response to a Commission staff request to describe the existing and potential future use of the Allens Falls bypassed reach by whitewater recreationists, Erie consulted with American Whitewater (AW). AW was unable to determine current use or predict future use. The AW stated that the section is relatively short, in an isolated spot, and the waterfall would be an obstacle for most paddlers. Erie also determined that, under similar

flow conditions, many whitewater recreationists travel to other whitewater sites rather than paddle the two bypassed reaches (NIMO, 1992c).

Also, we believe that no whitewater releases should be provided for either development. The project is proposed to be managed for fisheries, and the minimum flows needed for whitewater would adversely affect fisheries habitat and fish movement. Further, high flows would limit fishing opportunities and potentially create hazardous conditions for wading anglers.

It should be noted, however, that Erie is not prohibiting whitewater recreationists from using the bypassed reaches. Thus, we agree with Erie's proposal to provide a flow notification system for the project. The major problem for whitewater recreationists is knowing when flows are high enough to warrant paddling in the bypassed reach. Erie's proposed system would ensure that information is provided on the timing and amount of known spillage events.

iii. Reservoir boating access

Prior to the Settlement, Erie did not propose enhanced public boat access for the Parishville and Allens Falls reservoirs because it believed the current boat access was adequate for the area, and did not propose any new boat launch sites. The Settlement contains no reservoir boating access enhancement proposals, either.

In response to a Commission staff request for estimated existing and potential boating use, Erie estimated that fewer than 15 launches per summer occur from the launch site at the Donald W. Young Park, which provides free public access to the Parishville reservoir. Further, the Town anticipates that the existing launch site at the park should be able to accommodate future use, and thus does not plan to expand the existing facilities (NIMO, 1992a).

For Allens Falls, Erie reported that existing use of the three launch sites by waterfront property owners is estimated to be moderate, while public use is considered low. Although unable to estimate future use, Erie believed the launch sites were adequate given the limited population growth of the area.

Our Analysis

We agree that the existing boat launches at the Parishville and Allens Falls reservoirs sufficiently accommodate public demand and no other launch sites are required. The area is sparsely populated, and the launch site use is not anticipated to

exceed capacity. In addition, most of the shoreline around the reservoirs is privately owned, limiting Erie's ability to develop launch sites.

Further, both reservoirs are small and have several shallow areas, thus limiting use to small boats and canoes. Development of launch sites for larger, motorized boats would prove hazardous. These restrictions, and the close proximity to launching facilities on the Raquette River contribute to the low utilization by the public.

c. Unavoidable Adverse Effects: None.

d. Cumulative Effects: The proposed actions would result in beneficial long-term recreational access, and enhance opportunities for the public, anglers, and paddling recreationists to use the reservoirs and project lands.

6. Land Uses

a. Affected Environment:

Parishville

The Parishville development is located within the immediate vicinity of the Town of Parishville. Land use within the project area includes forest land, brushland, commercial/industrial, and public and outdoor recreation. With the exception of the Donald W. Young Park, the east shore of the reservoir is primarily undeveloped brushland. Residential housing dominates the shoreline near the dam, while the south shore of the reservoir is a mixture of brushland, commercial /industrial, and low density residential housing. The bypassed reach is undeveloped and characterized by deciduous trees, evergreens, and brush.

Most of the land surrounding the Parishville development is privately owned. However, Erie does regulate the development of piers, docks, boat landing, and other shoreline facilities on project lands and waters.

Allens Falls

Downstream (north) of the Town of Parishville is the Allens Falls development. Land within the project area is primarily undeveloped with forest land, brushland, agricultural, and public outdoor recreation as the primary land uses. The reservoir shoreline is a mixture of deciduous and coniferous tress and wood shrubs, with private homes scattered more prominently along the western shoreline. Private camps are also

dispersed among forests bordering the shoreline. The bypassed reach is predominantly bordered by forests, with small concentrations of brush and shrubs near the headwaters of the river segment.

Erie has flowage rights on the impoundment, but the majority of the land surrounding the project is privately owned. Erie does regulate the development of piers, docks, boat landings, and other shoreline facilities on project lands and waters.

i. Allens Falls Overlook Parcel

The Allens Falls Overlook Parcel is a triangular parcel which serves as an informal overlook from which the public can view the falls. Approximately six acres, the overlook is located on the east bank of the bypassed reach and north of Allens Falls Road. As a commitment under the Settlement not to be included in the license, Erie would transfer the parcel to the Town of Parishville. The area intended to be transferred also includes the island within the river, adjacent to where the parcel meets the bypassed reach.

ii. National Rivers Inventory (Source: National Park Service, 1982)

Although the waters within the project boundary have not been designated as Wild and Scenic, two river segments in the vicinity of the project were included in the Nationwide Rivers Inventory (NRI). The NRI lists those river segments which meet the criteria for further study and/or potential inclusion in the National Wild and Scenic Rivers System.

Outstanding scenic and fishery values have been bestowed on the 42 mile river segment between Parishville and the river's headwaters at Little Fish Pond. Scenic values are evaluated on the quality and distinction of the landscape elements of landform, vegetation, water, color, and related factors result in notable or exemplary visual features and/or attractions. When analyzing scenic values, additional factors -- such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed -- may be considered. Scenery and visual attractions may be highly diverse over the majority of the river or river segment.

Fish values may be judged on the relative merits of either fish populations, habitat, or a combination of these river-related conditions. Populations -- the river is nationally or regionally an important producer of resident and/or anadromous fish species. Of particular significance is the presence of wild stocks and/or federal or state-listed (or candidate) threatened, endangered or sensitive species. Diversity of species is an

important consideration and could, in itself, lead to a determination of "outstandingly remarkable." Habitat -- the river provides exceptionally high quality habitat for fish species indigenous to the region of comparison. Of particular significance is habitat for wild stocks and/or federal or state listed (or candidate) threatened, endangered or sensitive species. Diversity of habitats is an important consideration and could, in itself, lead to a determination of "outstandingly remarkable."

The 17-mile river segment from the confluence with the main branch at Winthrop to the Allens Falls Reservoir has been placed in the NRI list because of the reach's "other values." While no specific national evaluation guidelines have been developed for the "other values" category, assessments of additional outstanding river-related values consistent with the foregoing guidance may be developed -- including, but not limited to, hydrology, paleontology, and botany resources.

b. Environmental Effects and Recommendations: As a commitment under the Settlement not to be included in the license, Erie would transfer ownership of the Allens Falls Overlook Parcel to the Town of Parishville. Also, river segments of the West Branch of the St. Regis River are included in the NRI. Continued project operations may affect the values for which the segments are listed in the NRI.

We identify Erie's plan to transfer ownership of the Allens Falls Overlook Parcel to the Town of Parishville as an issue that may affect the potential land use of the area. Also, river segments of the West Branch of the St. Regis River are included in the NRI. Continued Parishville operations may affect the outstanding scenic and fishery values for the river segment between Parishville and the headwaters at Little Fish Pond. Project operations at Allens Falls may affect the listing of "other values" for the river segment between the confluence with the main branch at Winthrop to the Allens Falls Reservoir.

i. Allens Falls Overlook

Erie proposes to transfer the ownership of the Allens Falls Overlook from Erie to the Town of Parishville. Upon transfer, the parcel would be outside of the project boundary, and management of the area would be granted to the Town. By transferring the ownership to the Town, Erie would no longer be liable for that section of land.

Our Analysis

We have no objection to the transfer of land because the Town does not plan to alter the current land use. The Town is interested in maintaining the land as an informal overlook of the falls, and to prevent the development of commercial ventures. Also, Erie

wants to reduce their liability risk, and the Town has agreed to assume the liability risk of the area. Because the land would be outside the project boundary, the parties must recognize that the Commission would no longer have jurisdiction over it.

ii. Nationwide Rivers Inventory

The Settlement document does not contain a proposal that specifically addresses the NRI. However, there are proposals that do affect NRI values. For both developments, Erie proposes to maintain normal daily and seasonal impoundment fluctuations, and to provide instream flows that provides continuous wetting in the bypassed reaches. See section IV.C.3.b.i. and ii. for further discussion of these proposals.

Our Analysis

We believe the proposals would have a beneficial effect on the NRI values for both developments. Currently, the bypassed reaches for both developments are periodically dewatered, which limits angling opportunities and is not optimum for fisheries management. For both developments, the proposed instream flows would enhance fish habitat, fish movement, and angling opportunities.

The flows would also improve scenic values of the project. Water would flow continuously over the falls in the Allens Falls bypassed reach, and the riparian vegetation and wildlife would be enhanced at both developments. In addition, the proposed daily and seasonal impoundment fluctuations at the Allens Falls reservoir would preserve the existing shallow water littoral and wetland habitat (Erie Boulevard, 2001).

c. Unavoidable Adverse Effects: None.

d. Cumulative effects: A cumulative beneficial effect would occur as a result of the proposed access to project lands and waters. With increased access to project lands and waters, recreationists would have more opportunities within the region for activities such as fishing, boating, picnicking, and hiking.

7. Cultural Resources

a. Affected Environment: Although the developments were built during the 1920s, due to maintenance and upgrades, none of the project features are eligible for inclusion in the National Register of Historic Places (National Register). There are no known pre-

historic resources at either development. Therefore, there are no historic or prehistoric resources present at the Allens Falls development.

The only historic resources in either development's project area that are potentially eligible for National Register inclusion are some 18th century mill foundation remnant ruins near the Parishville dam.

b. Environmental Effects and Recommendations:

i. Mill Ruins

Based on a Stage 1B Cultural Resources Report on the mill ruins and on Erie's specific plans to avoid the site, the New York State Historic Preservation Officer's (SHPO's) office stated its opinion that the proposed Parishville Project would have "no effect" upon cultural resources in or eligible for inclusion in the Rational Register (letter to John Kuhn from Julia S. Stokes, Deputy Commissioner for Historic Preservation, New York State Office of Parks, Recreation, and Historic Preservation, Albany, New York, March 16, 1992).

ii. Undiscovered Properties

There is the possibility that there could be significant undiscovered historic properties in the project area that could be adversely affected by future changes in project operation or future project-related land-clearing or ground-disturbing activities.

Our Analysis

Pursuant to the Settlement, Erie proposes to prepare a cultural resources management plan (CRMP) for the project. We believe that implementation of such a CRMP, prepared in consultation with the SHPO, would ensure that project operation and other project-related actions would avoid, or minimize and appropriately mitigate any adverse effects to the mill ruins. We also believe that any significant previously unidentified historic properties could be accommodated by the CRMP.

We therefore recommend that, in consultation with the SHPO, Erie prepare and file for Commission approval, and upon approval implement, a CRMP for the project that, at a minimum, includes principles and procedures to address the following: 1) avoiding, or minimizing and appropriately mitigating any adverse effects to the mill ruins; and 2) avoiding, or minimizing and appropriately mitigating any adverse effects to

previously unidentified historic properties that may be discovered during project operation and future project-related land-clearing or ground-disturbing activities.

c. Unavoidable Adverse Effects: None.

d. Cumulative Effects: None.

V. DEVELOPMENTAL ANALYSIS

In this section, we analyze the project's use of the water resources of the West Branch St. Regis River to generate hydropower, estimate the economic benefits of the project, and estimate the cost of various environmental measures and the effects of these measures on project economics. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corporation, Publishing Paper Division,[11] the Commission employs an analysis that uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The Commission's economic analysis provides a general estimate of the potential power benefits and costs of a project and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

For our economic analysis of the alternatives, we use the assumptions shown in table 1. The replacement energy and capacity values were provided by Erie.[12]

Table 1. Staff's assumptions for economic analysis of the project (Source: Staff)

Assumption	Value
Period of analysis	30 years
Term of financing	20 years
Escalation rate	0 percent

The project, made-up of Parishville and Allens Falls developments, with an installed capacity of 6.8 MW, generates an average of 38.47 GWh annually. We use this

[11] 72 FERC ¶ 61,027 (July 13, 1995).

[12] E-mail communication on January 16, and February 5, 2002, and telephone communication on January 25, 2002, between FERC staff and Erie.

generation as the basis for our analysis of the project's economic benefits. Table 2 shows the costs and values that we used.

Table 2. Cost data for the West Branch St. Regis River Project (Source: Erie)

Cost Item	Value (2002 dollars)
Net investment:	
Parishville development	$1,700,000
Allens Falls development	$342,000
O&M expenses (annual):	
Parishville development	$183,000
Allens Falls development	$263,000
Licensing expenses (total):	
Parishville development	$75,000
Allens Falls development	$75,000
Interest/discount rate	7.5 percent
Power value (mills/kWh)	32.18
Capacity value (per kW-yr)	$12
Dependable capacity:	
Parishville development	900 kW
Allens Falls development	1,400 kW

For the project analyzed here, we consider three alternatives: (1) the proposed project; (2) the staff recommended alternative; and (3) the no-action alternative.

A. Power and Economic Benefits of the Proposed Action

The Settlement provides for several enhancement, mitigation, and protection measures for the project. Table 3 lists the environmental measures that will carry a cost for the applicant. We use these costs in our analysis.

The proposed action consists of the operation of the project with Erie's proposed environmental measures as outlined in the Settlement.

Table 3. Summary of costs of proposed environmental measures for the West Branch St. Regis River Project (Source: Erie)

Environmental measures	Capital cost (2002 dollars)	O&M (2002 dollars)	Annual cost (2002 dollars)
Instream flow releases:			
Parishville development	$0	$0	$29,100
Allens Falls development	$0	$0	$91,250
Stream gage			
Allens Falls development	$2,500	$3,000	$3,350
Reservoir gage:			
Parishville development	$2,500	$3,000	$3,350
Allens Falls development	$2,500	$3,000	$3,350
Enhance access to Allens Falls bypassed reach and tailrace	$3,275	$500	$950
Install signs at Allens Falls impoundment boat launch area and parking lot	$1,775	$0	$200

Based on the assumptions in table 1, the cost data in table 2, and the cost of proposed measures shown in table 3, we estimate that the annual cost of Erie's proposed project would be about $967,300 (27.85 mills/kWh), or about $177,900 (5.12 mills/kWh) less than the annual power value of $1,145,200 (32.97 mills/kWh).

B. Proposed Action with Additional Staff-recommended Measures

The staff recommends additional environmental measures beyond the ones agreed to by all parties in the Settlement, but these measures carry no appreciable costs. Therefore, the project's power benefits for this alternative would be the same as for the proposed project.

C. No-action

With no-action, the project would continue to operate under its current mode of operation, and no new environmental measures would be implemented. Erie would provide no minimum flows and thus the project generation would be higher (38,467 MWh) than that for the proposed project (34,730 MWh).

Based on the assumptions in table 1 and the cost data in table 2, we estimate that the annual cost of Erie's existing project would be about $955,500 (24.84 mills/kWh), or about $310,000 (8.06 mills/kWh) less than the annual power value of $1,265,500 (32.90 mills/kWh).

D. Economic Comparison of the Alternatives

Table 4 shows a summary of the annual net benefits for the proposed action and the no-action alternatives for the project.

Table 4. Summary of the annual net benefits for the two alternatives analyzed in this FEA (Source: Staff)

	Proposed action	No action
Annual power benefit:		
(thousands $)	$1,145.00	$1,266.00
(mills/kWh)	32.97	32.90
Annual cost:		
(thousands $)	$967.30	$955.50
(mills/kWh)	27.85	24.84
Annual net benefit:		
(thousands $)	$177.90	$310.00
(mills/kWh)	5.12	8.06

The additional measures proposed by Erie for the project would decrease the annual net benefits by $131,550 (total of annual costs from table 3).

VI. COMPREHENSIVE DEVELOPMENT AND RECOMMENDED ALTERNATIVE

Sections 4(e) and 10(a) of the Federal Power Act (FPA) require the Commission to give equal consideration to all uses of the waterway on which a project is located. When the Commission reviews a hydropower project, the recreation, fish and wildlife, and other nondevelopmental values of the waterway are considered equally with its electric energy and other developmental values. In deciding whether and under what conditions to issue a hydropower license, the Commission must weigh various economic and environmental tradeoffs.

We considered the applicant's proposed projects, agency recommendations, our recommended measures, and the no-action alternatives under Sections 4(e) and 10(a) of the FPA. From our independent analysis of the environmental and economic effects of the alternatives, we selected the applicant's proposed projects, combined as a single unit of development, with our additional staff-recommended measures (staff's alternative) as the preferred alternative (see applicant's proposed measures in section II.A.2 and staff's recommended measures in section II.B.1).

Implementation of these measures would improve water quality, fisheries, wildlife, and recreation resources; increase access to the river; and provide for the best use of the waterway. The costs of some of these measures would, however, reduce the net benefits of the project.

VII. RECOMMENDATIONS OF FISH AND WILDLIFE AGENCIES

Under the provisions of Section 10(j) of the FPA, each hydroelectric license issued by the Commission shall include conditions based on recommendations provided by federal and state fish and wildlife agencies for the protection, mitigation, and enhancement of fish and wildlife resources affected by the project.

Section 10(j) of the FPA states that whenever the Commission believes that any fish and wildlife agency recommendation is inconsistent with the purposes and the requirements of the FPA or other applicable law, the Commission and the agency shall attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of the agency.

For the Parishville and Allens Falls Projects, both the NYSDEC and Interior have provided recommendations, and all recommendations are evaluated and discussed in the aquatic, terrestrial, and recreational resources sections of this FEA.

Interior filed terms and conditions under Section 10(j) on July 16, 2001. The NYSDEC filed a recommendation for all the Settlement items on July 26, 2001 . We consider the Settlement's fish and wildlife items to be NYSDEC's recommendations filed under 10(j).

Tables 5 and 6 summarize the agencies' recommendations for the Parishville and Allens Falls Projects, respectively, show if they are within the scope of Section 10(j), and indicate whether we recommend adopting the measures under the proposed action of issuing one license for the combined West Branch St. Regis River Project with additional staff-recommended measures.

Table 5. Analysis of fish and wildlife agency recommendations for the Parishville Project submitted pursuant to Section 10(j) of the FPA (Source: Staff).

	Recommendation	Agency	Within Scope of 10(j)	Annual Cost	Recommend Adoption?
1	limit normal fluctuations of the Parishville impoundment to no lower than 0.5 feet from the permanent crest of the dam	Interior, NYSDEC	Yes	$0	Yes
2	release an instantaneous minimum flow from the Parishville dam into the bypassed reach of at least 20 cfs ± 0.2 cfs year round	Interior, NYSDEC	Yes	$29,100	Yes
3	develop a stream flow and water level monitoring (to include installing binary staff gages calibrated to the nearest 0.1 foot in the headwater, tailwater, or bypassed reach) to determine the minimum flows releases, determine headpond and tailwater elevations, and provide means of independent verification of water levels by the NYSDEC and the FWS	Interior, NYSDEC	Yes	$3,350	Yes
4	install 1-inch maximum clear spacing trashracks when the existing trashracks need to be replaced	Interior, NYSDEC	Yes	$0	Yes

Table 6. Analysis of fish and wildlife agency recommendations for the Allens Falls Project submitted pursuant to Section 10(j) of the FPA (Source: Staff).

	Recommendation	Agency	Within Scope of 10(j)	Annual Cost	Recommend Adoption?
1	during the period from May 16 through October 31, limit normal fluctuations of the Allens Falls impoundment to no lower than 0.5 feet from the permanent crest of the dam, and not lower than 0.8 feet from the permanent crest of the dam in the event that the outflow from Parishville is less than the required minimum flows from Allens Falls; and during the Winter drawdown period from November 1 through May 15, maintain the Allens Falls impoundment pond level at 1.0 foot below the permanent crest of the dam and limit fluctuations to no lower than 1.5 feet from the permanent crest of the dam, or no lower than 1.8 feet from the permanent crest of the dam in the event that the outflow from Parishville is less than the required minimum flows from Allens Falls	Interior, NYSDEC	Yes	$0	Yes

Table 6. Analysis of fish and wildlife agency recommendations for the Allens Falls Project submitted pursuant to Section 10(j) of the FPA (Source: Staff).

	Recommendation	Agency	Within Scope of 10(j)	Annual Cost	Recommend Adoption?
2	release an instantaneous minimum flow from the Allens Falls dam into the bypassed reach of at least: 30 cfs ± 0.2 cfs October 1 through March 31; 50 cfs ± 0.3 cfs April 1 though August 31; and 40 cfs ± 0.3 cfs September 1 through September 30	Interior, NYSDEC	Yes	$91,250	Yes
3	develop a stream flow and water level monitoring (to include installing binary staff gages calibrated to the nearest 0.1 foot in the headwater, tailwater, or bypassed reach) to determine the minimum flows releases, determine headpond and tailwater elevations, and provide means of independent verification of water levels by the NYSDEC and the FWS	Interior, NYSDEC	Yes	$7,650	Yes
4	install 1-inch clear spacing trashracks when the existing trashracks need to be replaced	Interior, NYSDEC	Yes	$0	Yes

Pursuant to Section 10(j) of the FPA, we are making a preliminary determination that all 8 Section 10(j) fish and wildlife recommendations filed by Interior are within the scope of Section 10(j) and are consistent with the purposes and requirements of Part I of the FPA or other applicable laws.

VIII. CONSISTENCY WITH COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA 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.

Under Section 10(a)(2), federal and state agencies filed a total of 35 qualifying comprehensive plans for New York. Of those, we determined 5 New York plans, and 3 United States plan, to be applicable. Comprehensive plans relevant to the project are listed in section XI, Comprehensive Plans. Based on our review of the comprehensive plans that are relevant to the project, we conclude that the project with our recommended measures would be consistent with all of these plans.

IX. FINDINGS OF NO SIGNIFICANT IMPACT

We conclude that none of the resources we studied would experience significant adverse effects under the proposed action or any of the action alternatives considered in this FEA.

On the basis of our independent analysis in this FEA, we conclude that issuing an original license for the West Branch St. Regis River Project, consisting of the Parishville and Allens Falls developments as proposed by Erie, plus the measures that we recommend, would not constitute a major federal action significantly affecting the quality of the human environment. For this reason and pursuant to Commission regulations, no Environmental Impact Statement is required.

X. LITERATURE CITED

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XII. LIST OF PREPARERS

Peter Leitzke - Project Coordinator Geological Resources and Cultural Resources (Geologist; M.A., Geological Sciences; 28 years' experience in assessing environmental impacts associated with hydroelectric power projects).

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APPENDIX A
STAFF RESPONSES TO COMMENTS ON THE DEA

The Commission issued the Draft Environmental Assessment (DEA) for the proposed licensing of the Parishville and Allens Falls Projects on March 22, 2002. The Commission requested that comments be filed within 30 days from the issuance date (by April 22, 2002). The following entities filed comments pertaining to the DEA. In this appendix, we summarize the comments received, provide responses to those comments, and indicate where we have modified the text of the FEA. We list the comments generally by their occurrence within the FEA for convenience.

Commenting Entity	Date of Letter
New York State Department of Environmental Conservation	April 12, 2002
Erie Boulevard LP	April 19, 2002
Adirondack Mountain Club (ADK)	April 19, 2002

Comment: Erie and ADK comment that the parties to the Settlement determined that the combination of the two projects into one project would ensure that the measures emanating from the Settlement would be implemented in an effective manner. Erie and ADK recommend that staff analyze the consolidated projects as one.

Response: The EA has been modified to analyze the combination of the Parishville and Allens Falls developments as one project, the West Branch St. Regis River Project, as proposed by the parties to the Settlement.

Comment: Erie provides updated information that it currently owns 664 MW of generating capacity due to a recent merger of Orion Power New York and Reliant Energy (section I.B. - Need for Power).

Response: The updated information is in the FEA.

Comment: Erie comments that we inaccurately state (section II.A.1. of the DEA) that the project generation is operated in a pulsing mode with impoundment levels of up to 6 inches. Erie notes that although there are no required impoundment fluctuation limits at

this time because the projects are not licensed, Erie attempts to maintain impoundment elevations as close as possible to the top of the permanent dam crests.

Response: We recognize that there are no existing impoundment fluctuation limits. We were characterizing the current operations as described in exhibits A of the license applications.

Comment: Regarding monitoring of stream flows and headpond levels (section II.A.2.), Erie clarifies that proposed binary staff gauges would "measure" rather than "determine" releases or elevations.

Response: The FEA text is changed to reflect this correction.

Comment: Erie comments that our recommendation (section IV.C.1.b. of the DEA) that the development of the proposed unimproved trail and access near the Allens Falls powerhouse incorporate erosion and sediment control measures to be developed and implemented in consultation with the NYSDEC is not needed because no ground-disturbing activities would be undertaken, and the 401 WQC special condition no. 11,item 5 would cover any instances where erosion and sediment control may be of concern. However, NYSDEC agrees with staff's recommendation, and says there should be an erosion control plan for the Allens Falls powerhouse access.

Response: Our intention is not that there be an erosion control plan, but that during preparation of the recreation plan, whatever appropriate control measures might be necessary be developed so that they can be implemented at the access. Consultation with the NYSDEC would already be taking place as part of development of the access, so whatever appropriate measures that might be necessary can simply be identified at that time. The FEA is revised to include the word "appropriate".

Comment: Erie notes that our statements (section IV.C.2. of the DEA under heading "Water Quality"; and section IV.C.3.b.iv. of the DEA) that there are current instantaneous minimum flow releases of 20 cfs plus any spillage of flows above the capacity of the plants at both dams are inaccurate and not consistent with the negotiating base of the Settlement. Erie notes that although some leakage was observed during several site visits during the scoping process and during other studies, but that the amount was difficult to estimate and regarded as minimal.

Response: The FEA is modified to reflect that Erie does not currently release an instantaneous minimum flow at either dam.

Comment: Erie clarifies that although there was historical siting of the rugulose grape fern in the project vicinity, it was not within the project boundary as indicated in section IV.C.4.a. of the DEA.

Response: The FEA is modified to reflect that the fern has not been observed within the project boundary.

Comment: Erie and ADK note that there are no picnic facilities at Hamlet Park as indicated in the DEA (section IV.C.5.a.ii.). Erie explains that although it supplied and maintained such facilities in the past, there are none now, nor are any planned or advocated by Erie or the Town of Parishville because of the consistent vandalism that occurred when picnic tables were burned, smashed, or stolen shortly after each time they were reinstalled.

Response: The reference to picnic facilities at Hamlet Park is deleted from the FEA.

Comment: ADK clarifies existing public boating access opportunities at the Allens Falls impoundment (section IV.C.5.a.ii.).

Response: The FEA is modified to reflect ADK's information.

Comment: ADK provides corrected values for the heights of the waterfalls in the Allens Falls bypassed reach discussed in section IV.C.4.a.iii. of the DEA.

Response: We have modified the FEA to include a steep,20-foot-high riffle as part of the waterfall.

Comment: ADK suggests (section IV.C.4.b.ii.) inserting "physical" to describe the word "measures" so that the text reads "Erie should not be required to provide physical measures to enhance whitewater recreation", as was intended by the parties to the Settlement.

Response: The FEA has been changed to include the term "physical".

Comment: ADK recommends deleting the sentence (section IV.C.4.b.ii.) that relates the practicality of whitewater paddling in the bypassed reaches to the lengths of the reaches.

Response: The sentence is deleted from the FEA.

Comment: ADK notes that the "American Whitewater Affiliation" has changed its name to "American Whitewater".

Response: The FEA is changed to include the new name.

Comment: ADK recommends clarifying that the island in the Allens Falls bypassed reach is currently within the project boundary (section IV.C.6.a.i.).

Response: The FEA includes the recommended clarification.

Comment: ADK notes that the Settlement recommends a 40-year license term rather than the 30-year term indicated in the DEA in the Table 1 economic analysis.

Response: We are recommending a 40-year term consistent with the Settlement. The Commission's approach to analyzing hydropower project economics[13] is to analyze a project's economics for a period of 30 years regardless of the length of the license being issued.

Comment: ADK recommends that the economic analysis include capital costs associated with designing, building, and installing flow release structures.

Response: As referenced in section V. (Developmental Analysis), staff communicated with Erie on January 25, and February 5, 2002, regarding several cost items, one of which dealt with the cost of all the environmental measures. Erie did not list the flow release structures as a cost-carrying measure.

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[13] See Mead Corporation, Publishing Paper Division, 72 FERC ¶ 61,027 (1995).

Comment: ADK clarifies the date of the Nationwide Rivers Inventory.

Response: The Commission's current list of comprehensive plans (revised April 2002) includes the 1982 version, but not the 1995 revision.

Comment: Erie and ADK also notes minor typos.

Response: The typos are corrected in the FEA.