UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Hampshire Paper Company, Inc. Project No. 2850-015
New York

NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT

(May 6, 2011)

In accordance with the National Environmental Policy Act of 1969 and the Federal Energy Regulatory Commission's (Commission) regulations, 18 CFR Part 380 (Order No. 486, 52 FR 47897), the Office of Energy Projects has reviewed the application for license for the Emeryville Hydroelectric Project, located on the Oswegatchie River in St. Lawrence County, New York, and has prepared an Environmental Assessment (EA) for the project.

The EA contains the staff's analysis of the potential environmental impacts of the project and concludes that licensing the project, with appropriate environmental protective measures, would not constitute a major federal action that would significantly affect the quality of the human environment.

A copy of the EA is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website at http://www.ferc.gov using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll-free at 1-866-208-3676, or for TTY, (202) 502-8659.

You may also register online at http://www.ferc.gov/docs-filing/esubscription.asp to be notified via email of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

Any comments should be filed within 30 days from the date of this notice. Comments may be filed electronically via the Internet. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission’s website http://www.ferc.gov/docs-filing/efiling.asp. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at http://www.ferc.gov/docs-filing/ecomment.asp. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support. Although the

Commission strongly encourages electronic filing, documents may also be paper-filed. To paper-file, mail an original and seven copies to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426.

For further information, contact John Baummer at (202) 502-6837.

Kimberly D. Bose,
Secretary.

ENVIRONMENTAL ASSESSMENT
FOR
NEW MAJOR HYDROPOWER LICENSE

Emeryville Hydroelectric Project
FERC Project No. 2850-015
New York

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
888 First Street, NE
Washington, DC 20426

May 2011

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ACRONYMS AND ABBREVIATIONS

APE	area of potential effects
Certification	water quality certification
CEII	Critical Energy Infrastructure Information
CFR	Code of Federal Regulations
cfs	cubic feet per second
Commission	Federal Energy Regulatory Commission
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
D2SI	FERC Division of Dam Safety and Inspections
DO	dissolved oxygen
EA	Environmental Assessment
Emeryville Project	Emeryville Hydroelectric Project
ESA	Endangered Species Act
ºF	degrees Fahrenheit
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FWS	U.S. Fish and Wildlife Service
Hampshire Paper	Hampshire Paper Company
Interior	U.S. Department of the Interior
ILP	Integrated Licensing Process
ISMP	Invasive Species Management Plan
mg/l	milligrams per liter
MW	megawatt
MWh	megawatt-hours
National Register	National Register of Historic Places
NERC	North American Electric Reliability Council
New York DEC	New York State Department of Environmental Conservation
New York DOCR	New York Division of Coastal Resources
New York DOT	New York State Department of Transportation
NGVD	National Geodetic Vertical Datum
NOI	Notice of Intent
NPCC	Northeast Power Coordinating Council
NYSCTU	New York State Council of Trout Unlimited
NYISO	New York Independent System Operator
OCMP	Operation Compliance Monitoring Plan
PAD	Pre-Application Document
Project, the	Emeryville Hydroelectric Project
RM	River Mile
RMP	Recreation Management Plan
SD1	Scoping Document 1

ACRONYMS AND ABBREVIATIONS (continued)

Settlement	Settlement Agreement
St. Lawrence Co.	St. Lawrence County
SHPO	State Historic Preservation Officer, New York State Department of Historic Resources
USGS	United States Geological Survey

EXECUTIVE SUMMARY

Proposed Action

On June 17, 2010, Hampshire Paper Company (Hampshire Paper), filed an application for a new license to operate and maintain its 3.5-megawatt (MW) Emeryville Hydroelectric Project. The project is located at river mile 70 on the Oswegatchie River in the town of Fowler, St. Lawrence County, New York. The project does not occupy any federal lands.

Project Description

The project consists of: (1) a 16.7-foot-high, 185-foot-long, concrete-capped timber and earth fill gravity dam with a 17-foot-long concrete spillway equipped with 2.4-foot-high flashboards and a 4-foot-wide rectangular weir with a crest elevation of 584.2 feet National Geodetic Vertical Datum (NGVD); (2) a 35-acre impoundment with a normal water surface elevation of 586.6 feet NGVD; (3) a 140-foot-long by 30-foot-wide reinforced concrete intake and headrace structure equipped with four headgates and trashracks with 5-inch clear bar spacing; (4) a 60-foot-long by 14-foot-diameter steel penstock leading to; (5) a 67-foot-long by 32-foot wide concrete powerhouse containing a single horizontal axial flow turbine with a maximum hydraulic capacity of 1,470 cubic feet per second (cfs) and a net head of 32 feet, directly connected to a horizontal generator unit with a rated capacity of 3,481 kilowatts; (6) an 80-foot-long, 23-kilovolt transmission line; and (7) appurtenant facilities.

The project creates a 229-foot-long bypassed reach. Hampshire Paper operates and maintains recreational facilities at the project, including two parking areas, two boat ramps providing access to the impoundment and tailrace, a canoe portage trail, a picnic area on the south shore of the Oswegatchie River, and signage.

Project Operation

Hampshire Paper operates the project in a run-of-river mode by monitoring the impoundment elevation with a headpond sensor and automatically adjusting turbine discharge to maintain a normal impoundment elevation of 586.6 feet NGVD. A year-round minimum flow of 16 cfs is released into the bypassed reach from a rectangular weir cut into the spillway. Flows between 166 cfs (the project's minimum hydraulic capacity of 150 cfs plus the minimum flow release) and the project's maximum hydraulic capacity (1,470 cfs) are released through four headgates into a concrete power flume. From the power flume, water passes through the trashracks and enters the intake. The intake transfers water via a single steel penstock directly to the powerhouse. Flows above the project's maximum hydraulic capacity are spilled over the crest of the wooden

flashboards into the bypassed reach

After the winter ice-out period, Hampshire Paper annually replaces the wooden struts that support the flashboards. During this procedure, Hampshire Paper lowers the impoundment two feet below the spillway crest (582.2 NGVD), raises the flashboards, and replaces the wooden struts supporting the flashboards. Upon completion, the impoundment is gradually refilled to the normal operating elevation.

Proposed Environmental Measures

To address the environmental effects of the project, Hampshire Paper proposes to implement a resource-specific settlement agreement (Settlement) signed by the New York State Department of Environmental Conservation, New York State Council of Trout Unlimited, U.S. Fish and Wildlife Service, and the New York State Council of Trout Unlimited. The Settlement includes the following measures: (1) maintain the impoundment between elevations 586.6 feet NGVD (top of the 2.4-foot-high wooden flashboards) and 586.3 feet NGVD (0.3 feet below the top of the 2.4-foot-high wooden flashboards); (2) replace the existing spillway minimum flow weir with a new downstream fish passage flume; (3) install a new weir in the bypassed reach to deepen and expand the plunge pool; (4) excavate the bypassed reach to facilitate downstream fish passage; (5) maintain a year-round minimum flow of 20 cfs or inflow, whichever is less, in the bypassed reach; (6) install staff gages or monuments on the spillway, bypassed reach, and the plunge pool; (7) install overlays with 1-inch clear spacing over the full length and height of the existing trashracks from March 15 through November 30 of each year; (8) implement a recreation management plan that includes procedures for operating and maintaining the existing recreational facilities; and (9) develop an Invasive Species Management Plan.

Alternatives Considered

This EA analyzes the effects of continued project operation and recommends conditions for any new license that may be issued for the project. In addition to Hampshire Paper's proposal, we consider two alternatives: (1) Hampshire Paper's proposal with staff modifications (staff alternative); and (2) no action – continued operation with no changes.

Under the staff alternative, the project would include all of Hampshire Paper's proposed measures and the following additional environmental measures recommended by staff: (1) an erosion and sediment control plan; (2) an operation compliance monitoring plan (with procedures for refilling the impoundment following a deviation in run-of-river operations); and (3) notification of the Commission, State Historic Preservation Officer and Indian tribes immediately if previously unidentified archeological or historic properties are discovered during the course of constructing,

maintaining, or developing project works or other facilities at the project.

Public Involvement and Areas of Concern

Before filing its license application with the Commission, Hampshire Paper conducted a pre-filing consultation process in accordance with the Commission's Integrated Licensing Process. The intent of the Commission's pre-filing process is to initiate public involvement early in the project planning process and to encourage citizens, governmental entities, tribes, and other interested parties to identify and resolve issues prior to an application being formally filed with the Commission. As part of the pre-filing process, staff conducted scoping to identify issues and alternatives. Staff distributed a scoping document to stakeholders and other interested entities on July 30, 2007. Scoping meetings were held in Gouverneur, New York on August 28 and August 29, 2007, respectively.

Hampshire Paper filed its preliminary licensing proposal on December 31, 2009, which addressed issues raised by participating agencies, tribes, non-governmental organizations, and the public. Hampshire Paper filed its license application on June 17, 2010. On November 15, 2010, staff requested comments, recommendations, and terms and conditions, in a notice that the license application was ready for environmental analysis.

The primary issues associated with relicensing the project are minimum flows in the bypassed reach, downstream fish passage, fish entrainment and impingement at the project intake, and land use.

Project Effects

Geology and Soils

The applicant's proposal does not address potential erosion and sedimentation associated with fish passage improvements.

Under the staff alternative, the applicant would develop and implement an erosion and sediment control plan that would limit erosion and sedimentation associated with construction activities related to downstream fish passage, including excavation of the bypassed reach and construction and operation of the downstream fish passage flume and plunge pool.

Aquatic Resources

Under the applicant's proposal, aquatic habitat in the impoundment would be protected by continued run-of-river operations with an allowance for a 0.3-foot

fluctuation. Fish mortality due to entrainment would be minimized by installing seasonal trashrack overlays with 1-inch clear spacing. Downstream fish movements would be enhanced compared to existing conditions by releasing the proposed year-round continuous minimum flow of 20 cfs, installing the proposed downstream fish passage flume on the spillway, installing the proposed weir in the bypassed reach to increase the depth and area of the plunge pool, and excavating portions of the bypassed reach to facilitate downstream fish passage.

Under the staff alternative, the applicant would implement all of the proposed measures and develop and implement an operation compliance monitoring plan. This plan would include procedures for maintaining and documenting compliance with run-of-river operations, providing bypassed reach flows, and refilling the impoundment following failure of the flashboards. The operation compliance monitoring plan would minimize misunderstandings about operational compliance and help ensure that aquatic resources at the project are protected.

Terrestrial Resources

Under the applicant's proposal and the staff alternative, Hampshire Paper would develop an Invasive Species Management Plan prior to any construction or long-term maintenance that would minimize the potential for introduction and spread of invasive plant species.

Threatened and Endangered Species

The Indiana bat is the only federally-listed threatened or endangered species with the potential to occur in the project vicinity. However, because there are no known roosting or nesting areas or critical habitat in the project vicinity, Indiana bats are not likely to occur in the project area or be affected by the project. Based on this information, we conclude that relicensing the project would have no effect on Indiana bats.

Recreation

Under the applicant's proposal and the staff alternative, Hampshire Paper would implement the proposed Recreation Management Plan (RMP) which includes operation and maintenance measures for the existing project recreational facilities. Implementation of the RMP would ensure boating and fishing access to the Oswegatchie River above and below Emeryville Dam.

Cultural Resources

The State Historic Preservation Officer (SHPO) concluded that the project would

have "no effect" upon cultural resources in or eligible for inclusion in the National Register of Historic Places.

Under the applicant's proposal, Hampshire Paper would not implement any specific protection, mitigation, or enhancement measures for cultural resources at the project.

Under the staff alternative, Hampshire Paper would be required to notify the Commission, SHPO, and Indian tribes immediately if previously unidentified archeological or historic properties are discovered during the course of constructing, maintaining, or developing project works or other facilities at the project.

No-Action Alternative

Under the no-action alternative, the project would continue to operate as it has in the past. None of the proposed or recommended measures would be implemented and there would be no enhancement of environmental resources.

License Conditions

Staff recommendations for conditions of any new license for the project are based on the analysis presented in this EA. Draft license articles to implement the staff alternative are attached in Appendix A.

Conclusions

Based on our analysis, we recommend licensing the project as proposed by Hampshire Paper, with the staff modifications and additional measures, described above under Alternatives Considered.

In section 4.2 of the EA, we estimate the likely cost of alternative power for each of the three alternatives identified above. Our analysis shows that during the first year of operation under the no-action alternative, project power would cost $171,280, or $9.31 per megawatt-hour (MWh) less than the likely alternative cost of power. Under the proposed action alternative, project power would cost $113,120, or $6.22/MWh less than the likely alternative cost of power. Under the staff alternative, project power would cost $112,590, or $6.19/MWh less than the likely alternative cost of power.

We chose the staff alternative as the preferred alternative because: (1) the project would continue to provide a dependable source of electrical energy for the region (18,193 MWh annually); (2) the 3.5 MW of electric capacity available comes from a renewable resource which does not contribute to atmospheric pollution; and (3) the recommended environmental measures proposed by the Hampshire Paper, as modified by staff would

adequately protect and enhance environmental resources affected by the project. The overall benefits of the staff alternative would be worth the cost of the proposed and recommended environmental measures.

On the basis of our independent analysis, we conclude that issuing a new license for the project, with the environmental measures we recommend would not be a major federal action affecting the quality of the human environment.

ENVIRONMENTAL ASSESSMENT

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
Washington, D.C.

Emeryville Hydroelectric Project
FERC Project No. 2850-015–New York

1. INTRODUCTION

1.1 APPLICATION

On June 17, 2010, Hampshire Paper Company (Hampshire Paper) filed an application for a new major license to operate and maintain the existing 3.5-megawatt (MW) Emeryville Hydroelectric Project. The project is located at river mile (RM) 70 on the Oswegatchie River in the town of Fowler, St. Lawrence County, New York (figures 1 and 2). The project has an estimated annual generation of 18,400 megawatt-hours (MWh). Hampshire Paper proposes to: (1) replace the existing minimum flow weir on the spillway with a new downstream fish passage flume; (2) install a new weir in the bypassed reach to deepen and expand the plunge pool below the flume and; (3) excavate the bypassed reach. No new capacity is proposed and the project does not occupy any federal lands.

1.2 PURPOSE OF ACTION AND NEED FOR POWER

1.2.1 Purpose of Action

The purpose of Emeryville Hydroelectric Project (Emeryville Project) is to continue to provide a source of hydroelectric power. Therefore, under the provisions of the Federal Power Act (FPA), the Commission must decide whether to issue a license to Hampshire Paper for the continued operation of the Emeryville Project and what conditions should be placed on any license issued. In deciding whether to issue a license for a hydroelectric project, the Commission must determine that the project will be best adapted to a comprehensive plan for improving or developing a waterway. In addition to the power and developmental purposes for which licenses are issued (such as flood control, irrigation, or water supply), the Commission must give equal consideration to the purposes of: (1) energy conservation; (2) the protection of, mitigation of damage to, and enhancement of fish and wildlife resources; (3) the protection of recreational opportunities; and (4) the preservation of other aspects of environmental quality.

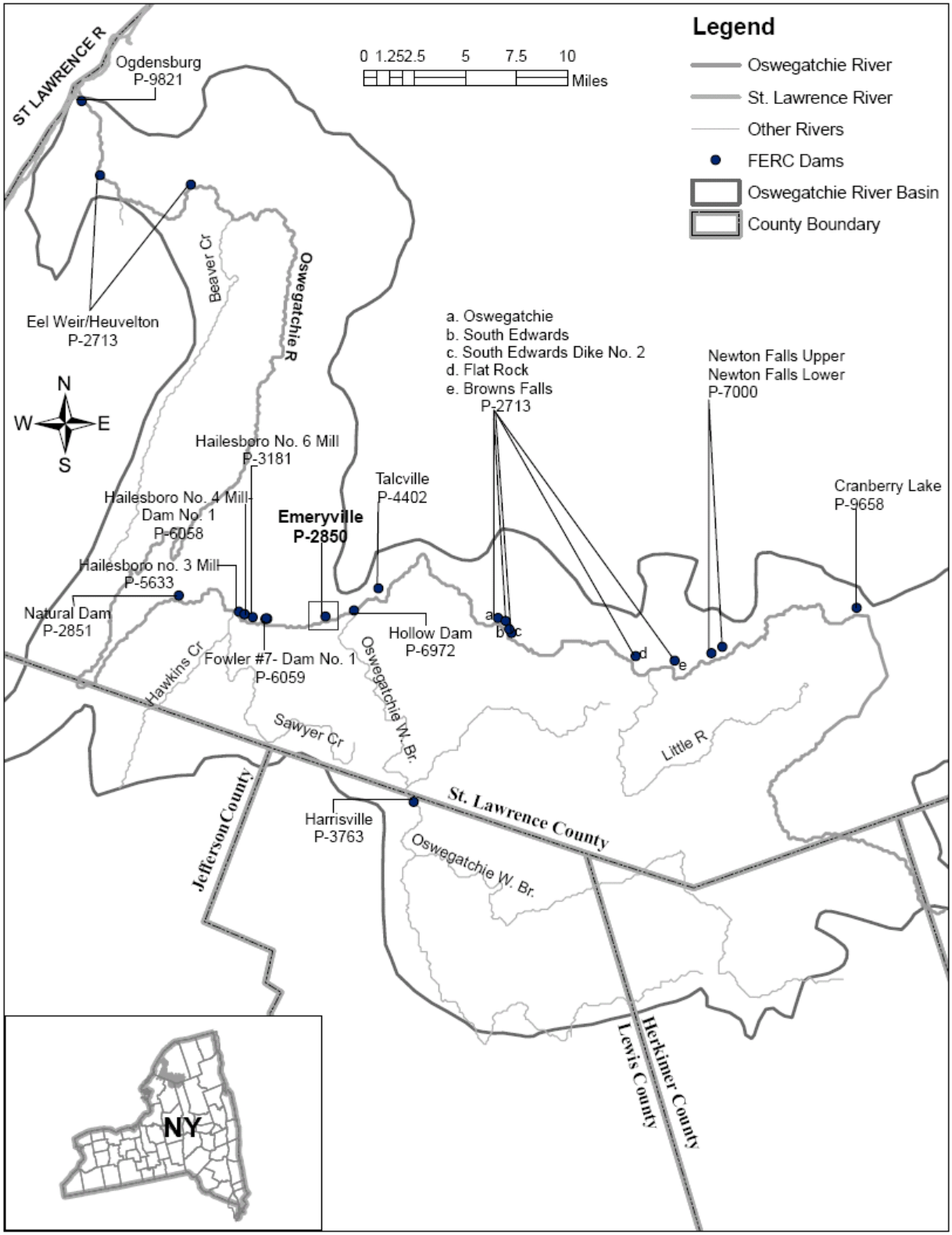

Figure 1. Location of the Emeryville Hydroelectric Project. (Source: staff).

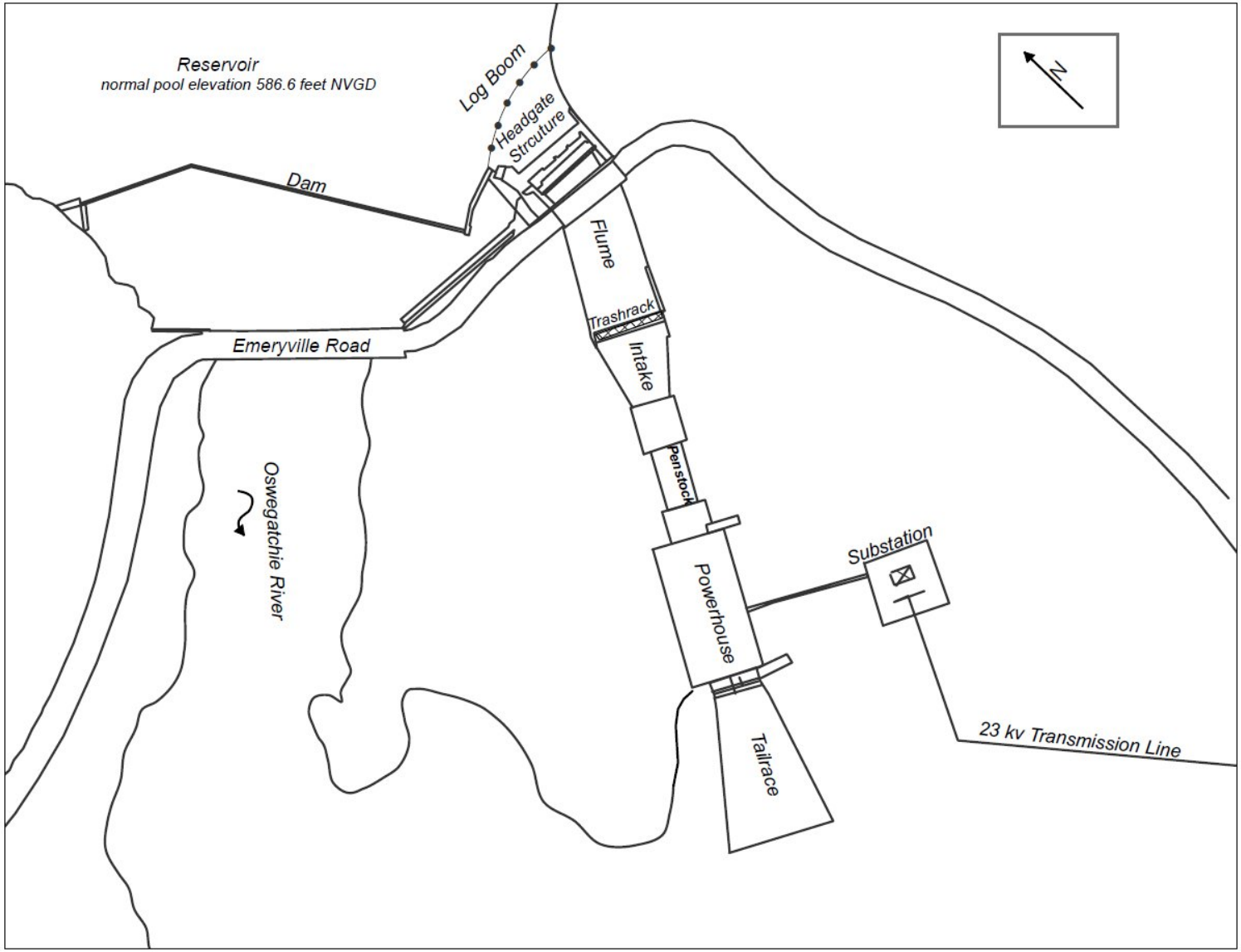

Figure 2. Existing Emeryville Hydroelectric Project. (Source: Staff).

Issuing a new license for the Emeryville Hydroelectric Project would allow Hampshire Paper to generate electricity at the project for the term of a new license, making electric power from a renewable resource available to its customers.

This environmental assessment (EA), assesses the effects associated with continued operation of the project, evaluates alternatives to the proposed project, and makes recommendations to the Commission on whether to issue a new license, and if so, recommends terms and conditions to become a part of any license issued.

In this EA, we assess the environmental and economic effects of operating and maintaining the project: (1) as proposed by Hampshire Paper, which includes the settlement agreement (Settlement); (2) as proposed by Hampshire Paper with staff modifications (staff alternative) and section 10(j) recommendations issued by the U.S. Department of the Interior (Interior); and (3) no action-continued operation with no changes. The important issues addressed by this EA include, minimum flows in the bypassed reach, downstream fish passage, fish entrainment and impingement at the project intakes, and land use.

1.2.2 Need for Power

To assess the need for project power, we reviewed the licensee's present and anticipated future use of project power, together with that of the operating region in which the project is located. Historically, the Emeryville Project generated an average of 18,400 MWh annually; as proposed the estimated average annual generation would be about 18,193 MWh. The power generated is sold to the New York State Independent Service Operator (NYISO) market.

The North American Electric Reliability Council (NERC) annually forecasts electrical supply and demand nationally and regionally for a 10-year period. The project is located in the Northeast Power Coordinating Council, Inc. (NPCC) region of the NERC. According to NERC's 2010 forecast (NERC, 2010), summer peak demand in the NPCC region is projected to grow at a rate of 5.7 percent from 2010 through 2019.

The 3.5 MW Emeryville Project is a clean, renewable source of power generation that does not contribute to atmospheric pollution. The project also provides power that contributes to a diverse generation portfolio in order to help meet the power needs of the NPCC region. Loss of all, or part of, the project's capacity or generation would need to be replaced by power purchased from NYISO. We conclude that power from the Emeryville Project would help meet a need for power in the NPCC region in both the short and long term.

1.3 STATUTORY AND REGULATORY REQUIREMENTS

A new license for the Emeryville Project is subject to numerous requirements under the FPA and other applicable statutes. The major regulatory and statutory requirements are summarized in table 1 and described below.

Table 1. Major Statutory and Regulatory Requirements for the Emeryville Hydroelectric Project**.** (Source: staff).

Requirement	Agency	Status
Section 18 of the FPA - fishway prescriptions	Interior	Interior requested reservation of authority to prescribe fishways, filed on January 11, 2011.
Section 10(j) of the FPA	Interior	Interior filed section 10(j) conditions on January 11, 2011.
Section 401 of the Clean Water Act—water quality certification	New York Department of Environmental Conservation (New York DEC)	Application for certification received on June 2, 2010; due by June 2, 2011.
Endangered Species Act (ESA)	Interior	Section 3.3.4 of the EA discusses potential effects on Indiana bat and concludes that relicensing the project would have “no effect”.
Coastal Zone Management Act Consistency (CZMA)	New York State Department of State, Division of Coastal Resources (New York DOCR)	Consistency documented May 3, 2010, by Hampshire Paper via personal communication with New York DOCR.
Section 106 of the National Historic Preservation Act	New York State Historic Preservation Office (SHPO)	The SHPO concluded there would be no effect on cultural resources in a letter filed February 12, 2007.

1.3.1 Federal Power Act

1.3.1.1 Section 18 Fishway Prescriptions

Section 18 of the FPA states that the Commission is to require construction, operation, and maintenance by a licensee of such fishways as may be prescribed by the Secretaries of Commerce or the Interior. Interior, by letter filed January 11, 2011, requests that a reservation of authority to prescribe fishways under section 18 be included in any license issued for the project.

1.3.1.2 Section 10(j) Recommendations

Under section 10(j) of the FPA, each hydroelectric license issued by the Commission must include conditions based on recommendations provided by federal and state fish and wildlife agencies for the protection, mitigation, or enhancement of fish and wildlife resources affected by the project. The Commission is required to include these conditions unless it determines that they are inconsistent with the purposes and requirements of the FPA or other applicable law. Before rejecting or modifying an agency recommendation, the Commission is required to attempt to resolve any such inconsistency with the agency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agency.

Interior, on January 11, 2011, filed recommendations under section 10(j). These recommendations are summarized in Table 11 and discussed in section 5.4.

1.3.2 Clean Water Act

Under section 401(a)(1) of the Clean Water Act (CWA), a license applicant must obtain either certification from the appropriate state pollution control agency verifying that any discharge from a project would comply with applicable provisions of the CWA, or a waiver of certification by the appropriate state agency.

On May 20, 2010, Hampshire Paper applied to the New York DEC for a 401 water quality certification (Certification) for the project. The New York DEC received the application for certification on June 2, 2010. The New York DEC has not yet acted on the application. The certification is due by June 2, 2011.

1.3.3 Endangered Species Act

Section 7 of the ESA requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of endangered species or result in the destruction or adverse modification of the critical habitat of such species.

Relicensing the Emeryville Project, as proposed with staff-recommended measures, would have no effect on the Indiana bat (*Myotis sodalis*) because there are no known roost sites or hibernating sites in the project area and any individuals that could be found in the area are likely to be occasional transients

1.3.4 Coastal Zone Management Act

Under section 307(c)(3)(A) of the CZMA, 16 U.S.C. § 1456(3)(A), the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

The Emeryville Project is not located within New York's coastal boundary and does not require certification of consistency (personal communication between Hampshire Paper and New York DOCR, May 3, 2010).

1.3.5 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to "take into account" how its undertakings could affect historic properties. Historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register of Historic Places (National Register).

The Commission designated Hampshire Paper as its non-federal representative for the purposes of conducting section 106 consultation under the NHPA on July 30, 2007. Pursuant to section 106, and as the Commission's designated non-federal representative, Hampshire Paper consulted with the SHPO and affected Indian tribes to locate, determine National Register eligibility, and assess potential adverse effects to historic properties associated with the project. In a letter dated February 7, 2007, the SHPO concluded that Hampshire Paper's proposal would have "no effect" upon properties in or eligible for inclusion in the National Register of Historic Places.

1.4 PUBLIC REVIEW AND COMMENT

The Commission's regulations (18 CFR, sections 5.1 to 5.16) require applicants to consult with appropriate resource agencies, tribes, and other entities before filing an application for a license. This consultation is the first step in complying with the Fish and Wildlife Coordination Act, the ESA, the NHPA, and other federal statutes. Pre-filing consultation must be complete and documented according to the Commission's regulations.

Relicensing of the Emeryville Project was formally initiated May 30, 2007, when Hampshire Paper filed with the Commission a Pre-Application Document (PAD) and a Notice of Intent (NOI) to license the Emeryville Project using the Integrated Licensing Process (ILP). The Commission issued a Notice of Commencement of Proceeding on July 30, 2007.

1.4.1 Scoping

During the pre-filing consultation process, scoping meetings were held to determine what issues and alternatives should be addressed in the EA. Scoping Document 1 (SD1) was issued on July 30, 2007. Scoping meetings were held in Gouverneur, New York on August 28 and August 29, 2007, respectively, to request comments on the project. A court reporter recorded all comments and statements made at the scoping meetings, and these are part of the Commission's public record for the project. Participants visited the project on August 28, 2007.

In addition to comments provided at the scoping meetings, the following entities provided written comments pertaining to SD1, the PAD, and additional study needs:

Commenting Entity	Date Filed
New York Rivers United	September 7, 2007
U.S. Fish and Wildlife Service (FWS)	September 11, 2007
New York DEC	September 28, 2007
Adirondack Mountain Club	October 2, 2007[1]

1.4.2 Interventions

On November 15, 2010, the Commission issued a public notice accepting the application to relicense the Emeryville Hydroelectric Project and soliciting motions to intervene and protests. This notice set January 14, 2011, as the deadline for filing protests and motions to intervene. The following entities intervened.

Intervening Entity	Date Filed
Hydro Development Group, Inc.	March 9, 2010
St. Lawrence County (St. Lawrence Co.)	January 6, 2011
Interior	January 13, 2011
New York DEC[2]	January 18, 2011

[1] Comments and study requests were filed beyond the 60-day period specified in the Commission's Notice of Commencement of Proceeding.

[2] Late intervention granted on February 23, 2011.

Hampshire Paper filed a memorandum and opposition to St. Lawrence County's motion to intervene on January 25, 2011.

1.4.3 Comments on the Application

On November 15, 2010, the Commission issued a public notice stating that the application was ready for environmental analysis and requested comments, terms and conditions, and prescriptions. The filing deadline was January 14, 2011. The following entities filed comments and recommendations:

Commenting Entity	Date Filed
Interior	January 11, 2011
New York DEC	January 14, 2011

Hampshire Paper did not file reply comments.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 NO-ACTION ALTERNATIVE

Under the no-action alternative, the project would continue to operate under the terms and conditions of the existing license, and no new environmental protection, mitigation, or enhancement measures would be implemented. We use this alternative as the baseline environmental condition for comparison with other alternatives.

2.1.1 Existing Project Facilities

The Emeryville Project is located on the Oswegatchie River at RM 70 in the town of Fowler, New York and is the ninth hydroelectric development located upstream from the confluence with the St. Lawrence River.

The project consist of: (1) a 16.7-foot-high, 185-foot-long, concrete-capped timber and earth fill gravity dam with a 17-foot-long concrete spillway equipped with 2.4-foot-high flashboards and a 4-foot-wide rectangular weir with a crest elevation of 584.2 feet National Geodetic Vertical Datum (NGVD); (2) a 35-acre impoundment with a normal water surface elevation of 586.6 feet NGVD; (3) a 140-foot-long by 30-foot-wide reinforced concrete intake and headrace structure equipped with four headgates and trashracks with 5-inch clear bar spacing; (4) a 60-foot-long by 14-foot-diameter steel penstock leading to; (5) a 67-foot-long by 32-foot wide concrete powerhouse containing a horizontal axial flow turbine with a maximum hydraulic capacity of 1,470 cubic feet per

second (cfs) and a net head of 32 feet, directly connected to a horizontal generator unit with a rated capacity of 3,481 kilowatts; (6) an 80-foot-long, 23-kilovolt transmission line; and (7) appurtenant facilities.

The project boundary includes 45.86 acres and extends approximately 1-mile upstream of the dam. Downstream of the project dam, the project boundary includes the bypassed reach and tailrace section of the river to a point approximately 360 feet downstream of the powerhouse (figure 2). In the license application, Hampshire Paper proposes to modify the original project boundary to include recreational features upstream and downstream of the project and the proposed excavation of the bypassed reach. Approximately 0.6 acres of Hampshire Paper owned land would be added to the project boundary as a result the proposed modifications. The proposed project boundary does not appear to include lands up to the maximum water surface elevation of 586.6 feet NGVD.[3]

The project creates a 229-foot-long bypassed reach. Hampshire Paper operates and maintains recreational facilities at the project, including two parking lots, two boat ramps that provide access to the impoundment and tailrace, a canoe portage trail, a picnic area, and signage.

2.1.2 Project Safety

The project has been operating for more than 28 years under the existing license. During this time, Commission staff has conducted operational inspections focusing on the continued safety of the structures, identification of unauthorized modifications, efficiency and safety of operations, compliance with the terms of the license, and proper maintenance.

2.1.3 Existing Project Operation

Hampshire Paper operates the project in a run-of-river mode by monitoring the impoundment elevation with a headpond sensor and automatically adjusting turbine discharge to maintain a normal impoundment elevation of 586.6 feet NGVD. A year-round minimum flow of 16 cfs is released into the bypassed reach from a rectangular weir cut into the spillway. Flows between 166 cfs (the project's minimum hydraulic capacity of 150 cfs plus the minimum flow release) and the project's maximum hydraulic capacity (1,470 cfs) are released through four headgates into a concrete power flume. From the power flume, water passes through the trashracks and enters the intake. The intake transfers water via a single steel penstock directly to the powerhouse. Flows

[3] Exhibit G, sheet 2 notes that the project boundary follows the spillway elevation of [584.2] feet NGVD.

above the project's maximum hydraulic capacity are spilled over the crest of the wooden flashboards into the bypassed reach.

After the winter ice-out period, Hampshire Paper annually replaces the wooden struts that support the flashboards. During this procedure, Hampshire Paper lowers the impoundment two feet below the spillway crest (582.2 NGVD), raises the flashboards, and replaces the wooden struts supporting the flashboards. Upon completion, the impoundment is gradually refilled to the normal operating elevation.

2.1.4 Existing Environmental Measures

The current license[4] requires Hampshire Paper to: (1) release 16 cfs into the bypassed reach; (2) operate the project in an instantaneous run-of-river mode such that discharge from the project approximates the instantaneous inflow to the project (Article 37); and (3) prepare an erosion control and spoil disposal plan to prevent project-induced water quality degradation (Article 36).

The project includes the following recreational facilities: (1) two parking lots; (2) two boat ramps providing access to the impoundment and tailrace; (3) a canoe portage trail and; (4) a picnic area; and (5) signage..

2.2 APPLICANTS PROPOSAL

2.2.1 Proposed Project Facilities

Hampshire Paper proposes to replace the existing bypass minimum flow weir on the spillway with a downstream fish passage flume and install overlays with 1-inch clear spacing on the trashracks from March 15 through November 30 of each year. Hampshire Paper also proposes to install a weir across the bypassed reach approximately 50 feet downstream from the spillway to increase plunge pool depth and area.

Hampshire Paper does not propose to add any additional generating capacity or to make any major modifications to the project.

2.2.2 Proposed Project Operation

The project would continued to be operated in a run-of-river mode such that instantaneous outflow equals instantaneous inflow. Hampshire Paper proposes to maintain the impoundment between elevations 586.6 feet NGVD (top of the wooden

[4] The current license issued June 17, 1982 (19 FERC¶62,491) was amended September 10, 1985 (32 FERC¶62,565) to increase generation.

flashboards) and 586.3 feet NGVD (0.3 feet below the top of the wooden flashboards) during normal project operations.

Hampshire Paper also proposes to provide a year-round flow of 20 cfs or inflow, whichever is less, to the bypassed reach.

2.2.3 Proposed Environmental Measures

Hampshire Paper proposes to implement environmental measures that were filed with an explanatory statement and a signed resource-specific settlement agreement (Settlement) May 18, 2010.[5] Hampshire Paper proposes to:

Aquatic Resources

- Maintain the impoundment between elevations 586.6 feet NGVD (top of the flashboards) and 586.3 feet NGVD (0.3 feet below the top of the flashboards; section 3.1 of the Settlement).

- Maintain a year round minimum flow in the bypassed reach of 20 cfs or inflow to the project, whichever is less (section 3.2 of the Settlement).

- Replace the existing spillway weir with a new downstream fish passage flume designed to enhance downstream fish passage as well as release the minimum flow; increase the size and depth of the existing plunge pool by installing a new weir across the bypassed reach approximately 50 feet downstream of the existing spillway; and excavate the bypassed reach to enhance downstream fish passage (section 3.2 and 3.3 of the Settlement)

- Install overlays with 1-inch clear spacing on the trashracks from March 15 through November 30 of each year. After the first 5 years of the license term, the need for permanent trashracks would be evaluated (section 3.3 of the Settlement).

- Install staff gages or concrete benchmarks (in the impoundment, plunge pool, and the bypassed reach downstream of the plunge pool weir), to monitor the impoundment elevation, bypassed reach flow and ensure run-of-river operation and compliance with a minimum impoundment level of 586.3 feet NGVD (section 3.4 of the Settlement).

[5] In addition to Hampshire Paper, other signatories to the Settlement are Interior, FWS, New York DEC, and New York State Council of Trout Unlimited.

Terrestrial Resources

- Develop an Invasive Species Management Plan (ISMP) with measures to prevent the introduction or spread of invasive species (section 2.9 of the Settlement).

Recreation

- Implement the proposed Recreation Management Plan (RMP) which includes operation and maintenance measures for the existing project recreational facilities, including: two parking areas, two boat ramps to access to impoundment and tailrace, a canoe portage trail (from take-out to put-in), a picnic area, and signage (section 3.5 of the Settlement).

2.2.4 Mandatory Conditions

Section 18 Prescriptions

Interior requests that any license issued for the project include a reservation of authority to prescribe fishways under section 18 of the FPA.

2.3 STAFF ALTERNATIVE

Under the staff alternative, the project license would include Hampshire Paper's proposed measures as well as the following measures identified and recommended by staff: (1) an erosion and sediment control plan; (2) an operation compliance monitoring plan; and (3) notification of the Commission, SHPO, and Indian tribes immediately if previously unidentified archeological or historic properties are discovered during the course of constructing, maintaining, or developing project works or other facilities at the project. Proposed and recommended measures are discussed under the appropriate resource sections and summarized in section 5 of the EA.

The staff alternative also includes fish and wildlife recommendations made by Interior under section 10(j) of the FPA.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

We considered several alternatives to the applicant's proposal, but eliminated them from further analysis because they are not reasonable in the circumstances of this case. They are: (1) issuing a non-power license; (2) Federal Government takeover of the project; and (3) retiring the project.

2.4.1 Issuing a Non-power License

A non-power license is a temporary license that the Commission will terminate when it determines that another government agency will assume regulatory authority and supervision over the lands and facilities covered by the non-power license. At this point, no agency has suggested a willingness or ability to do so. No party has sought a non-power license and we have no basis for concluding that the project should no longer be used to produce power. Thus, we do not consider issuing a non-power license a realistic alternative to relicensing in this circumstance.

2.4.2 Federal Government Takeover

We do not consider federal takeover to be a reasonable alternative. Federal takeover and operation of the project would require Congressional approval. While that fact alone would not preclude further consideration of this alternative, there is currently no evidence to indicate federal takeover should be recommended by Congress. No party has suggested federal takeover would be appropriate, and no federal agency has expressed an interest in operating the project.

2.4.3 Retiring the Project

Project retirement could be accomplished with or without dam removal. Either alternative would involve denial of the relicense application and surrender or termination of the existing license with appropriate conditions.

No participant has suggested that dam removal would be appropriate in this case, and we have no basis for recommending it. The power generated by the Emeryville Hydroelectric Project is an important resource, and is relied upon to provide clean, renewable energy. This source of power would be lost if the project were retired, and replacement power would need to be found. There would be significant costs associated with retiring the project's powerhouse and appurtenant facilities. Thus, dam removal is not a reasonable alternative to relicensing the project with appropriate protection, mitigation and enhancement measures.

The second project retirement alternative would involve retaining the dam and disabling or removing equipment used to generate power. Project works would remain in place and could be used for historic or other purposes. This would require us to identify another government agency with authority to assume regulatory control and supervision of the remaining facilities. No agency has stepped forward, and no participant has advocated this alternative. Nor have we any basis for recommending it. Because the

power supplied by the project is needed, a source of replacement power would have to be identified. In these circumstances, we don't consider removal of electric generating equipment to be a reasonable alternative.

3.0 ENVIRONMENTAL ANALYSIS

This section includes: (1) a general description of the project vicinity; (2) an explanation of the scope of cumulative effects analysis; and (3) our analysis of the proposed action and recommended environmental measures. Sections are organized by resource area (aquatic recreation, etc). Historic and current conditions are described under each resource area. The existing condition is the baseline against which the environmental effects of the proposed action and alternatives are compared including an assessment of the effects of the proposed mitigation, protection and enhancement measures, and any cumulative effects of the proposed action and alternatives. Staff conclusions and recommendations are discussed in section 5.2 of the EA, *Comprehensive Development and Recommended Alternative*.[6]

3.1 General Description of the Oswegatchie River Basin

The Oswegatchie River is a tributary to the St. Lawrence River. The headwaters of the Oswegatchie River are located within the northwestern Adirondack Mountains. The main stem of the Oswegatchie River generally flows in a westerly direction until it reaches the St. Lawrence/Jefferson County line where it turns in a more north-easterly direction until emptying into the St. Lawrence River in Ogdensburg, New York. The Oswegatchie River is navigable from Cranberry Lake downstream to the St. Lawrence River.

The Oswegatchie River is approximately 132 miles in length with a total drainage area of 1,034 square miles. The Oswegatchie watershed contains 1,344 miles of streams, 82,814 acres of wetlands, and encompasses portions of five counties (St. Lawrence, Jefferson, Lewis, Herkimer, and Hamilton), but is predominantly located in St. Lawrence County. The Indian, Black, Raquette, and Grass River watershed also border the Oswegatchie River and drain into the St. Lawrence River. The Oswegatchie River is characterized as a sixth order stream from the confluence with the West Branch (RM 70) to the confluence with the Indian River (RM 6.3), where it becomes a seventh order stream.

The Oswegatchie River flows through four ecological zones: the central Adirondacks upstream of Newton Falls; Western Adirondack foothills, the Transition

[6] Unless noted otherwise, the source of our information is the license application (Hampshire Paper, 2010).

Zone from Newton Falls to Gouverneur; and the St. Lawrence Plan from Gouverneur to the St. Lawrence River. The topography of the watershed is characterized by mountains to the east, and areas of small hills with exposed bedrock to the west as elevations decrease to the St. Lawrence River (FERC, 2011).

The Emeryville Hydroelectric Project is one of 20 hydroelectric developments located from the headwaters to the mouth of the river. The Emeryville project is the ninth Commission-licensed project dam located upstream from the confluence with the St. Lawrence River.

3.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

According to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (40 CFR § 1508.7 2008), an action may cause cumulative effects on the environment if its impacts overlap in time and/or space with the impacts of other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

In our scoping document, we initially identified water quality and aquatic resources (including Atlantic sturgeon and American eel) as having the potential to be cumulatively affected by continued operation of the Emeryville Project. However, based on our review of the license application and agency and public comments, we have determined that only resident aquatic resources and habitat have the potential to be cumulatively affected by the continued operation of the project, in combination with other past, present, and future activities. Resident aquatic resources and habitat were selected because the Emeryville Project, in combination with 19 other hydroelectric developments in the Oswegatchie River basin may cumulatively affect these resources in the Oswegatchie River through cumulative changes in flow.

3.2.1 Geographic Scope

The geographic scope of the cumulative analysis defines the physical limits or boundaries of the proposed action's effect on the resources. We have identified the scope for resident aquatic resources and habitat to include the entire Oswegatchie River Basin because the Emeryville Project is one of 20 hydroelectric developments located from the headwaters to the mouth of the river that may cumulatively affect aquatic resources of the basin.

3.2.2 Temporal Scope

The temporal scope of our cumulative effects analysis includes a discussion of

past, present, and future actions and their effects on aquatic habitat. Based on the potential new license term, the temporal scope looks 30 to 50 years into the future, concentrating on the effects on the resources from reasonably foreseeable future actions.

3.3 PROPOSED ACTION AND ACTION ALTERNATIVES

In this section, we discuss the project-specific effects of the project alternatives on environmental resources. For each resource, we first describe the affected environment, which is the existing condition and baseline against which we measure effects. We then discuss and analyze the specific cumulative and site-specific environmental issues.

Only the resources that would be affected, or about which comments have been received, are addressed in detail in this EA. Based on this, we have determined that water quality and quantity, aquatic, terrestrial, threatened and endangered species, recreation, and cultural resources may be affected by the proposed action and alternatives. We have not identified any substantive issues related to socioeconomics and aesthetics associated with the proposed action, and therefore, these resources are not addressed in the EA. Land use is addressed in both the terrestrial and recreation sections. We present our recommendations in section 5.2, *Comprehensive Development and Recommended Alternative*.

3.3.1 Geology and Soils

3.3.1.1 Affected Environment

The geology of the project area consists of metamorphic rocks of sedimentary origin and primarily includes biotite-quartz-plagioclase paragneiss, amphibolite, and related migmatite.

Soils in the project area consist of rock outcrop and medium textured well drained soil with varying slopes and primarily includes, insula-rock outcrop complex and salmon very fine sandy loam.

3.3.1.2 Environmental Effects

Hampshire Paper proposes several construction activities for improving the project's bypassed reach. These activities include: (1) excavating approximately 20 cubic yards of sediment and gravel from the bypassed reach to facilitate downstream fish passage; (2) constructing an approximately 50-foot-long concrete weir across the bypassed reach to create a plunge pool to facilitate downstream fish passage and flow measurement; and (3) constructing a downstream fish passage flume by replacing approximately 4.5 linear feet of the existing wooden flashboards with a concrete overflow chute. Hampshire Paper does not propose any measures to control erosion and

sedimentation during excavation of the bypassed channel and construction of the proposed downstream fish passage flume and plunge pool. The settlement also did not include and Interior did not recommend any erosion control measures.

Staff Analysis

Substrate in the bypassed channel consists primarily of solid bedrock. Therefore, significant sedimentation due to erosion is not expected to occur during excavation of the bypassed channel. However, sediments from construction materials and equipment could be released into the river downstream of the dam and during excavation and construction of the downstream fish passage flume. Sediments can clog stream channels, cover fish spawning grounds, and degrade downstream water quality. Further, the movement of equipment and personnel in and out of the bypassed reach would likely result in localized short-term shoreline erosion and sedimentation.

Hampshire Paper's proposal for improving the project's bypassed reach lacks detail regarding the actual site conditions, specific implementation schedule, and any necessary monitoring or maintenance programs. The proposal also does not include any site-specific measures for limiting potential sedimentation during channel excavation and construction activities involved with the proposed downstream fish passage facility. Development of a detailed erosion and sediment control plan, in consultation with the agencies, would include these additional details and measures and would ensure that any adverse effects on soils and water resources from erosion and sedimentation would be minimized during project construction and operation.

3.3.2 Aquatic Resources

3.3.2.1 Affected Environment

Water Quantity

The drainage area at the project is approximately 603 square miles. The United States Geological Survey (USGS) operates streamflow gaging stations on the Oswegatchie River approximately 35 miles upstream of the project and approximately 60 miles downstream of the project. To estimate the streamflow at the project, the flow data for USGS Gage Nos. 0426200 and 0426300 (upstream and downstream from the project, respectively) were adjusted to account for the intermediate drainage area of the Oswegatchie River at the project compared to the gage locations.

The 5 percent, 50 percent (median) and 95 percent exceedance flows at the project are 3,996 cfs, 1,052 cfs, and 301 cfs, respectively. Monthly median flows range from a low of 517 cfs for August to a high of 2,812 cfs for April. The total hydraulic capacity of the project is 1,470 cfs, which is equaled or exceeded approximately 34 percent of the

time on an annual basis. The seven day average low flow, with a 10-year return period (7Q10) is a statistical measure of the magnitude and frequency of low streamflow in a river. The estimated 7Q10 of the Oswegatchie River at the project is 261 cfs.

The Oswegatchie River has 20 hydroelectric developments along its mainstem and tributaries. Some upstream hydroelectric developments are operated in a peaking mode, and can affect inflows into the project impoundment.

Water Quality Standards

New York DEC designates the Oswegatchie River upstream and downstream of the project as Class A. Class A waters are suitable for fish propagation and survival. New York DEC lists the best uses of Class A waters as source of water as supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. Numeric water quality standards that pertain to Class A waters include: pH between 6.5 and 8.5, minimum daily average dissolved oxygen (DO) concentration of not less than 6.0 milligrams per liter (mg/l), and an instantaneous minimum DO concentration of 5.0 mg/l.

Water Quality

Hampshire Paper performed water quality monitoring from May through August 2008, which included continuous monitoring of temperature, DO, and pH in the impoundment and tailrace. The results of the monitoring demonstrated that water quality conditions throughout the project area on the dates of sampling were in compliance with state water quality standards. Temperature and pH were essentially the same upstream and downstream of the project and DO was generally about 0.2 mg/l higher in the tailrace than at the impoundment sampling site.

Fisheries Resources

The fishery of the Oswegatchie River in the project vicinity consists of a mix of warm and coolwater species. Hampshire Paper conducted fish surveys in May and August, 2008, using gillnets, boat and backpack electrofishing, and seining. The most abundant species captured during the surveys were blacknose dace, yellow perch, lake chub, and pumpkinseed. Table 2 shows the fish species captured during the surveys. All fish were collected from the tailrace or the impoundment. Although the bypassed reach was sampled with backpack electrofishing gear, no fish were observed or collected from the bypassed reach.

Table 2. Fish species collected from the project vicinity. (Source: staff with survey data from application).

Common Name	Downstream	Upstream
Pumpkinseed	X	X
Brown bullhead	X	X
Fallfish	X	X
Creek chub	X	X
Lake chub	X	X
Longnose dace	X	X
Blacknose dace		X
Northern pike		X
Channel catfish		X
Rock bass	X	X
Smallmouth bass	X	X
Common shiner		X
Fathead minnow		X
Banded killifish		X
White sucker	X	X
Yellow perch		X
Walleye		X

3.3.2.2 Environmental Effects

Project Operations

Hampshire Paper currently operates the project in a run-of-river mode. The applicant's proposal is to continue to operate in a run-of-river mode with a tolerance of no more than 0.3 feet below the crest of the flashboards. The crest elevation of the flashboards is 586.6 feet NGVD; therefore, the minimum allowable impoundment elevation during normal operations would be 586.3 feet NGVD. Section 3.1 of the Settlement is consistent with this proposal and Interior's recommendation #1 filed under section 10(j) of the FPA.

Under section 10(j) of the FPA Interior recommended (recommendation #2) that, following any failures to maintain compliance with run-of-river operations, "the licensee shall restore the impoundment with gradual changes and in a manner that does not adversely impact fish passage or water quality standards." This language is generally consistent with the language in section 3.1 of the Settlement which states that "the process of restoring the impoundment elevation to the target set point should be done with gradual changes to maintain a minimum outflow as determined by consultation with New York DEC." Interior's recommendation and the Settlement suggest the need to

develop an impoundment refilling protocol that would be implemented following failure of the flashboards or other event which would cause run-of-river operation to be interrupted.

Staff Analysis

Because the project already operates in a run-of-river mode, minimal changes to aquatic habitat are expected in the impoundment or below the project tailrace by continuing this mode of operation. A stable impoundment would continue to protect near-shore habitat, including submerged aquatic vegetation beds and shallow areas near the banks that are preferred for spawning by species such as rock bass, pumpkinseed sunfish, and smallmouth bass (Kraft et al., 2006). Downstream of the tailrace, the project would continue to release flows equal to impoundment inflow; therefore, river flow in the project area would be unaffected by project operations.

Interior's impoundment refilling recommendation and the language in the Settlement regarding impoundment refilling procedures are not identical. However, both appear to place a priority on providing flows to the bypassed reach during impoundment refilling in order to optimize fish passage effectiveness and maintain water quality in the bypassed reach. Establishing a protocol for impoundment refilling would minimize misunderstandings about agency resource protection priorities. For example, if flashboard failure occurred during the late spring/early summer spawning season for sunfish and bass, the priority may be to refill the impoundment as quickly as possible to protect shallow spawning areas. If, however, flashboard failure occurred during a period when fish are moving through the project area (e.g. early spring), then the priority may be to ensure that flows are maintained through the downstream fish passage flume and into the bypassed reach. We discuss this further in the operations and flow compliance discussion below.

Flows in the Bypassed Reach

Hampshire Paper proposes to release a minimum year-round flow of 20 cfs to the bypassed reach. This flow would be released through the downstream fish passage flume (discussed below under "downstream fish passage"). This proposal is consistent with sections 3.2 and 3.3 of the Settlement and Interior's recommendations #4 and #6 filed under section 10(j) of the FPA.

Staff Analysis

The existing license for the Emeryville Project requires Hampshire Paper to release a year-round minimum flow of 16 cfs into the bypassed reach. Additional flows spill into the bypassed reach when inflow to the impoundment exceeds the project's hydraulic capacity of 1,470 cfs (34 percent of the time) or when inflows are below 166

cfs (the project's minimum hydraulic capacity of 150 cfs plus the 16 cfs minimum flow). In 2008, Hampshire Paper conducted a flow study, using the demonstration flow methodology (modified Delphi flow study)[7] with flows ranging from 15 to 80 cfs, in order to determine the potential benefits of increased minimum flows in the bypassed reach. A team of biologists from Hampshire Paper, FWS, and New York DEC visually evaluated habitat and fish passage conditions under the range of flows. Habitat was scored by the team for several species and life stages of fish, macroinvertebrates, and downstream fish movement.

The study results indicate that flows above 20 cfs would provide insignificant habitat improvements due to the lack of diverse substrate types (the channel is almost entirely comprised of bedrock) and the high gradient of the downstream section of the bypassed reach. However, 20 cfs, released through the proposed new downstream fish passage flume, in combination with the other proposed bypassed reach enhancements could provide better fish survival, passage effectiveness, and macroinvertebrate habitat than the 16 cfs flow released from the existing minimum flow weir. These potential effects are discussed below under "downstream fish passage."

Compliance with run-of-river operation and minimum flow

Hampshire Paper proposes to install staff gages or concrete benchmarks in the impoundment, in the bypassed reach plunge pool, and downstream of the proposed bypassed reach weir. This proposal is consistent with section 3.4 of the Settlement.

Under section 10(j) of the FPA, Interior recommends (recommendation #3) that the licensee develop a flow and water level monitoring plan, in consultation with the New York DEC and the FWS. Interior states that this plan is described in section 3.4 of the Settlement. However, the Settlement only includes the staff gages or concrete benchmarks described above and does not include a plan.

Staff Analysis

The proposed staff gages/concrete benchmarks would collectively provide a simple and effective method to determine compliance with the required reservoir elevation and the 20 cfs minimum flow.

An operation compliance monitoring plan (OCMP) developed by Hampshire

[7] A Delphi study is a consensus-based demonstration flow study which evaluates the relationship of various flow releases with the aquatic habitat requirements of several target species and other flow dependent criteria such as downstream fish movements and angling opportunities.

Paper, in consultation with New York DEC and FWS, would meet the intent of Interior's recommendation #3 for a flow and water level monitoring plan. Additional details about how the proposed equipment would be operated and maintained could be incorporated into an OCMP and would ensure that the installed equipment functions properly. Finally, an OCMP could clarify the impoundment refilling procedures under various hydrologic scenarios to ensure that agency resource management priorities are met.

Fish Protection

Hampshire Paper proposes to seasonally install overlays with 1-inch clear spacing on the trashracks. The overlays would be installed from March 15 through November 30 each year. After the first 5 years of the license term, the need for permanent trashracks with 1-inch clear spacing would be evaluated in consultation with the New York DEC and FWS. This proposal is consistent with section 3.3 of the Settlement and Interior's recommendation #5 filed under section 10(j) of the FPA.

Staff Analysis

The existing trashracks have clear spacing of 5 inches. The estimated maximum approach velocity in front of the trashracks is 2.2 feet per second. Based on the swimming speeds of fish species that occur in the impoundment, most fish should be able to avoid impingement on the existing racks, although because of the 5-inch clear spacing between bars, it is unlikely that the current trashracks are effective at preventing entrainment of fish, including adult gamefish.

By installing the seasonal overlays with 1-inch clear spacing, fewer fish would be vulnerable to entrainment, because most fish that are 9 inches or longer would be too large to fit through the 1-inch clear spacing and would be physically excluded from passing through the racks (Lawler et. al., 1991). The 1-inch spacing may also result in some behavioral avoidance of the trashracks by smaller fish that may be able to physically pass through the bars. Although site specific turbine survival data do not exist, studies at other similar sites suggest that survival of fish that pass through the project's horizontal propeller turbine is likely to be approximately 60 to 80 percent (EPRI, 1997). Although there is nothing in the record to suggest that current levels of fish entrainment, and related mortality, are having an adverse effect on the fish community in the project vicinity, the proposed seasonal overlays with 1-inch clear spacing would reduce project-related entrainment and benefit fish communities in the project vicinity.

Downstream Fish Passage

Hampshire Paper proposes to replace the existing minimum flow weir with a downstream fish passage flume, designed in consultation with the New York DEC and the FWS. The new flume would be located on the crest of the existing spillway

approximately 25 feet from the existing minimum flow weir. A minimum year-round flow of 20 cfs or inflow, whichever is less, would be passed through the proposed downstream fish passage flume into the bypassed reach. In addition, Hampshire Paper would install a weir across the bypassed reach approximately 50 feet downstream from the existing spillway to increase the depth and area of the plunge pool. Hampshire Paper would also excavate certain areas in the bypassed reach to facilitate downstream fish movements. This proposal is consistent with sections 3.2 and 3.3 of the Settlement and Interior's recommendations #6 and #7 filed under section 10(j) of the FPA.

Staff Analysis

Currently, fish may pass downstream through the existing spillway minimum flow weir, along the length of the spillway when flows exceed the project's hydraulic capacity and the capacity of the minimum flow weir, or through the project turbine. Although no downstream passage mortality has been documented or quantified at the project, installing the proposed downstream fish passage flume and plunge pool weir and excavating the bypassed reach should improve downstream fish movements and survival. Additionally, because the design and location of the new downstream fish passage flume may be better at attracting fish than the existing minimum flow weir, there may be a reduction in entrainment-related mortality that occurs at the project. Only resident fish species, no anadromous fish species, occur above the project dam. Although the resident species that occur above the project dam do not need to pass downstream to complete any life-history requirements, the presence of the downstream fish passage flume could increase recruitment of fish to suitable habitat areas downstream of the project. The combination of reduced mortality and increased recruitment to downstream areas may improve fish communities in the project vicinity.

The proposed weir across the bypassed reach and excavations within the bypassed reach would increase the amount of wetted area which could increase the amount of habitat available for macroinvertebrates. However, as the Delphi flow study concluded, because of the lack of diversity of substrate types within the bypassed reach, the increase in wetted area would not likely result in a significant increase in quality habitat.

The proposed excavations in the bypassed reach could result in increased turbidity and some mortality of fish or macroinvertebrates at the sites of the excavations. However, these effects would likely be short-term and temporary.

3.3.2.3 Cumulative Effects

The Emeryville Project, in combination with the other hydroelectric projects located on the Oswegatchie River, has the potential to cumulatively affect aquatic resources. The adverse effects that can occur from multiple hydroelectric developments within a river basin include disruption of the natural hydrograph from peaking operations,

reduced flows and habitat quality in bypassed reaches, fish mortality from turbine passage, and blockage of fish movements. In this case, Hampshire Paper's proposed measures, including installation of gages to provide better verification of compliance with reservoir elevation and minimum flow requirements, 20 cfs year-round minimum flow in the bypassed reach, trashracks or overlays with reduced clear spacing, and a downstream fish passage flume and other fish passage enhancements, would cumulatively benefit aquatic resources by reducing the effects of the project. In addition, several of the other hydroelectric projects within the Oswegatchie River basin are currently undergoing FERC relicensing and measures implemented as a result of those proceedings could further reduce cumulative effects in the Oswegatchie River basin.

3.3.3 Terrestrial Resources

3.3.3.1 Affected Environment

The Emeryville Project lies at an elevation of about 570 feet above sea level within the transitional area between the St. Lawrence Lowlands and the Adirondack Mountains. Classified as the Northern Hardwoods Forest ecoregion, this area has the northernmost deciduous forests in eastern North America. The land around the project was cleared in the past for agriculture, but is now reverting back to forest as the number of farms declines. The environmental character of the project area will change from agricultural St. Lawrence Lowlands to the forested Adirondack Mountains as ecological succession continues (FERC, 2011)

The shoreline is forested, with the only development being in the immediate vicinity of the dam. Deciduous and mixed forests are the dominant habitat along the shores of the impoundment. Common tree species in these forests include American basswood (*Tilia americana*), American elm (*Ulmus americana*) black cherry (*Prunus serotina*), box elder (*Acer negundo*), eastern hemlock (*Tsuga canadensis*), sugar maple (*Acer saccharum*), and white pine (*Pinus strobus*). Common native shrub species found in the understory of the forest are common buttonbush (*Cephalanthus occidentalis*), American highbush cranberry (*Viburnum trilobum*), silky dogwood (*Cornus amomum*), staghorn sumac (*Rhus typhina*), and willows (*Salix* spp.). Common forbs in the project area include eastern poison ivy (*Toxicodendron radicans*), goldenrod (*Solidago* spp.), riverbank grape (*Vitis riparia*), sensitive fern (*Onoclea sensibilis*), and Virginia creeper (*Parthenocissus quinquefolia*).

Table 3. Common terrestrial plants in the project area. (Source: FERC, 2011).

Common name	Scientific name
Trees	
American Basswood	*Tilia americana*
American Beech	*Fagus grandifolia*
American Elm	*Ulmus americana*
Birch	*Betula spp.*
Black Cherry	*Prunus serotina*
Box Elder	*Acer negundo*
Eastern Hemlock	*Tsuga canadensis*
Eastern White Pine	*Pinus strobus*
Oak	*Quercus spp.*
Speckled Alder	*Alnus incana*
Sugar Maple	*Acer saccharum*
Shrubs	
American Highbush Cranberry	*Viburnum trilobum*
Common Buttonbush	*Cephalanthus occidentalis*
Silky Dogwood	*Cornus amomum*
Staghorn Sumac	*Rhus typhina*
Willows	*Salix* spp.
Herbaceous Plants	
Bloodroot	*Sanguinaria canadensis*
Canada Wild Ginger	*Asarum canadense*
Cattail	*Typha latifolia*
Christmas Fern	*Polystichum acrostichoides*
Eastern Poison Ivy	*Toxicodendron radicans*
Five-Fingered Fern	*Adiantum pedatum*
Frost Grape	*Vitis riparia*
Goldenrod	*Solidago* spp.
Wild Leek	*Allium tricoccum*
Violet	*Viola spp.*
Virginia Creeper	*Parthenocissus quinquefolia*

Wetlands

There is one forested/shrub wetland within the project boundaries. This palustrine

emergent wetland covers all of a small, low island in the Oswegatchie River. The primary plant species are broadleaf cattail (*Typha latifolia*), willows (*Salix* spp.), and various shrubs.

Aquatic Vegetation

The project area has relatively little aquatic vegetation due to topography, thin soils, and river flow. In the small sections of the littoral zone with vegetation, the primary species are tapegrass (*Vallisneria americana*) and broadleaf cattail (*Typha latifolia*).

Invasive Species

Pale swallow-wort (*Cynanchum rossicum*) was identified as an invasive species in terrestrial habitat in the vicinity of the project boundary. The seeds of this species are easily dispersed by the wind, so it is possible that it could invade the project area during the license term.

Wildlife

Mammals and birds commonly found in the project area are presented in Tables 4 and 5, respectively. A list of reptiles and amphibians found in the project area are presented in Table 6

Table 4. Mammals commonly found in and near the project area. (Source: FERC, 2011).

Common name	Scientific name
Beaver	*Castor canadensis*
Black Bear	*Ursus americanus*
Eastern Chipmunk	*Tamias striatus*
Eastern Cottontail	*Sylvilagus floridanus*
Eastern Gray Squirrel	*Sciurus carolinensis*
Fisher	*Martes pennanti*
Gray Fox	*Urocyon cinereoargenteus*
Longtail Weasel	*Mustela frenata*
Moose	*Alces alces*
Mouse-eared bats	*Myotis* spp.
Muskrat	*Ondatra zibethicus*
Opossum	*Didelphis virginiana*
Pine Marten	*Martes americana*
Porcupine	*Erethizon dorsatum*

Common name	Scientific name
Raccoon	*Procyon lotor*
Red Fox	*Vulpes vulpes*
Red Squirrel	*Tamiasciurus hudsonicus*
River Otter	*Lutra canadensis*
Shrews	*Sorex* spp.
Shortail Weasel	*Mustela erminea*
Snowshoe Hare	*Lepus americanus*
Striped Skunk	*Mephitis mephitis*
Voles	*Microtus* spp.
White-Footed Mouse	*Peromyscus leucopus*
White-Tailed Deer	*Odocoileus virginianus*
Woodchuck	*Marmota monax*

Birds

Table 5. Birds found in and near the project area. (Source: NY DEC, 2007).

Common name	Scientific name
Alder Flycatcher	*Empidonax alnorum*
American Crow	*Corvus brachyrhynchos*
American Goldfinch	*Carduelis tristis*
American Kestrel	*Falco sparverius*
American Redstart	*Setophaga ruticilla*
American Robin	*Turdus migratorius*
Baltimore Oriole	*Icterus galbula*
Barn Swallow	*Hirundo rustica*
Belted Kingfisher	*Ceryle alcyon*
Black-and-White Warbler	*Mniotilta varia*
Black-Capped Chickadee	*Poecile atricapillus*
Black-Throated Green Warbler	*Dendroica virens*
Blue Jay	*Cyanocitta cristata*
Bobolink	*Dolichonyx oryzivorus*
Brown-Headed Cowbird	*Molothrus ater*
Canada Goose	*Branta canadensis*
Cedar Waxwing	*Bombycilla cedrorum*
Chestnut-Sided Warbler	*Dendroica pensylvanica*
Chipping Sparrow	*Spizella passerina*
Common Grackle	*Quiscalus quiscula*
Common Raven	*Corvus corax*
Common Yellowthroat	*Geothlypis trichas*

Common name	Scientific name
Downy Woodpecker	*Picoides pubescens*
Eastern Kingbird	*Tyrannus tyrannus*
Eastern Meadowlark	*Sturnella magna*
Eastern Phoebe	*Sayornis phoebe*
Eastern Towhee	*Pipilo erythrophthalmus*
Eastern Wood-Pewee	*Contopus virens*
European Starling	*Sturnus vulgaris*
Field Sparrow	*Spizella pusilla*
Gray Catbird	*Dumetella carolinensis*
Great Blue Heron	*Ardea herodias*
Great Crested Flycatcher	*Myiarchus crinitus*
Green Heron	*Butorides virescens*
Golden-Winged Warbler	*Vermivora chrysoptera*
Hermit Thrush	*Catharus guttatus*
House Sparrow	*Passer domesticus*
House Wren	*Troglodytes aedon*
Indigo Bunting	*Passerina cyanea*
Killdeer	*Charadrius vociferus*
Least Flycatcher	*Empidonax minimus*
Mallard	*Anas platyrhynchos*
Mourning Dove	*Zenaida macroura*
Northern Cardinal	*Cardinalis cardinalis*
Northern Flicker	*Colaptes auratus*
Ovenbird	*Seiurus aurocapilla*
Purple Finch	*Carpodacus purpureus*
Red-Eyed Vireo	*Vireo olivaceus*
Red-Tailed Hawk	*Buteo jamaicensis*
Red-Winged Blackbird	*Agelaius phoeniceus*
Rock Pigeon	*Columba livia*
Rose-Breasted Grosbeak	*Pheucticus ludovicianus*
Savannah Sparrow	*Passerculus sandwichensis*
Scarlet Tanager	*Piranga olivacea*
Song Sparrow	*Melospiza melodia*
Turkey Vulture	*Cathartes aura*
Warbling Vireo	*Vireo gilvus*
White-Breasted Nuthatch	*Sitta carolinensis*
Wild Turkey	*Meleagris gallopavo*
Wilson's Snipe	*Gallinago delicata*
Winter Wren	*Troglodytes troglodytes*
Wood Thrush	*Hylocichla mustelina*
Veery	*Catharus fuscescens*

Common name	Scientific name
Yellow-Bellied Sapsucker	*Sphyrapicus varius*
Yellow-Throated Vireo	*Vireo flavifrons*
Yellow Warbler	*Dendroica petechia*

Amphibians and Reptiles

Table 6. Reptiles and amphibians found in and near the project area. (Source: FERC, 2011).

Common name	Scientific name
American Toad	*Bufo americanus*
Black Rat Snake	*Elaphe obsoleta*
Bull Frog	*Rana catesbeiana*
Common Map Turtle	*Graptemys geographica*
Eastern Garter Snake	*Thamnophis sirtalis*
Eastern Milk Snake	*Lampropeltis triangulum*
Eastern Ribbon Snake	*Thamnophis sauritis*
Four-Toed Salamander	*Hemidactylium scutatum*
Gray Tree Frog	*Hyla versicolor*
Mudpuppy	*Necturus maculosus*
Northern Brown Snake	*Storeria dekayi*
Northern Dusky Salamander	*Desmognathus fuscus*
Northern Green Frog	*Rana clamitans*
Northern Leopard Frog	*Rana pipiens*
Northern Redbelly Snake	*Storeria occipitomaculata*
Northern Spring Peeper	*Pseudacris crucifer*
Northern Water Snake	*Nerodia sipedon*
Painted Turtle	*Chrysemys picta*
Pickerel Frog	*Rana palustris*
Redback Salamander	*Plethodon cinereus*
Red-Spotted Newt	*Notophthalmus viridescens*
Snapping Turtle	*Chelydra serpentina*
Spotted Salamander	*Ambystoma maculatum*
Wood Frog	*Rana sylvatica*
Wood Turtle	*Clemmys insculpta*

3.3.3.2 Environmental Effects

Wildlife and Botanical Resources

As part of the settlement agreement of May 18, 2010, Hampshire Paper proposes to develop an Invasive Species Management Plan (ISMP) to prevent the introduction and/or spread of invasive species. The ISMP would follow recommendations from the New York DEC.

No stakeholders commented on the wildlife and botanical resource section of the application.

Staff Analysis

Invasive plants can outcompete native ones, which could lead to a loss of diversity affecting forage and habitat for animal species. Invasive plant species found in St. Lawrence County that could be introduced into the project area include pale swallow-wort as well as purple loosestrife (*Lythrum salicaria)*, Japanese knotweed (*Polygonum cuspidatum)*, glossy barberry (*Berberis thunbergii)*, and spotted knapweed (*Centaurea stoebe)*. The ISMP would include methods for monitoring for the introduction or spread of invasive plant species and describe measures to stop or reverse the spread of invasive plant species in the project boundary.

Wetlands

Hampshire paper does not propose any measures for the protection of wetlands. No agencies filed recommendations for wetlands over the course of the next license term.

Staff Analysis

Hampshire Paper proposes to operate the project in run-of-river mode as it did during the previous license term, the relicensing of the project is not expected to have any effect on wetlands.

3.3.4 Threatened and Endangered Species

3.3.4.1 Affected Environment

According to the website maintained by the FWS (2011), the endangered Indiana Bat (*Myotis sodalis*) is the only Federally-listed species with the potential to occur in the project vicinity. The project is approximately 36 miles from known nesting areas. There are no designated critical habitats in the project area.

Indiana bat

The Indiana bat is currently listed as endangered under the Endangered Species Act of 1973. The Indiana bat is a migratory species found throughout much of the eastern half of the United States, with the greatest concentrations in the Midwestern states. In 2005, it was estimated that there were 457,000 bats in the U.S., with about 42,000 in New York. These bats eat flying insects, and can consume up to half their body weight in insects each night. Females give birth to just one pup each summer (USFWS, 2006). Indiana bats can live up to 14 years (USFS, 2010).

Indiana bats hibernate colonially in caves, mines, and other underground areas through the winter. These winter colonies can have up to 500 bats per square foot (USFWS, 2006). Summer habitat requirements include: (1) dead or live trees and snags with peeling or exfoliating bark, split tree trunks or braches, or cavities that may be used as maternity roost areas; (2) live trees such as shagbark hickory and oaks which have exfoliating bark; and (3) stream corridors and riparian areas (USFS, 2010).

Indiana bats are susceptible to disturbance during hibernation by human activity in or near the entrances of their caves, loss or fragmentation of summer forest habitat, and by pesticide usage that reduces the number of flying insects and that can lead to the accumulation of toxins in the bats. Their low reproductive rate compounds their susceptibility to disturbance. Recovery actions include protection of summer habitat areas and caves, as well as education and outreach (USFWS, 2006).

3.4.4.2 Environmental Effects

Hampshire Paper does not propose any measures for the protection of Indiana bats. No agency recommendations were received regarding Indiana bats.

Staff Analysis

Indiana bats are not expected to use habitat in the project area and it is unlikely that the project would have any impact on them. Even if these bats were present in the project vicinity, it is doubtful that the continued operation of the project would negatively affect them because project operations would not have any expected effect on their habitat or food availability. Based on this information, we conclude that relicensing the Emeryville Hydroelectric Project would have no effect on Indiana bats.

3.3.5 Land Use and Recreation

3.3.5.1 Affected Environment

Land Use

In the project area, land consists of heavily wooded forest with a mix of deciduous and coniferous trees. Hampshire Paper owns approximately 169 acres of land within the project vicinity. The main land uses adjacent to the property boundary are residential and agricultural. No federal lands exist within nor are adjacent to the proposed project boundary.

Regional Recreation

The Emeryville Project is located at RM 70 on the Oswegatchie River, within the middle 35-mile reach between Newton Falls and Hailesboro. This section offers challenging boating experiences with numerous waterfalls, rapids, and hydroelectric dams throughout the 970-foot vertical drop in elevation.

A privately-owned island is located upstream of the project impoundment just downstream of the confluence of the mainstem Oswegatchie River and the West Branch of the Oswegatchie River. The right-hand channel around the island is very rocky and not generally navigable, while the main current runs around the left side of the island and meets at a set of standing rapids upstream from the calm waters in the project impoundment. The topography of the area downstream of the project is similar to that of the upstream with a set of rapids located approximately 6,500 feet downstream of the dam. The 5-mile downstream reach between these rapids and Hailesboro offers a short stretch of flat-water boating with one class III rapid around the midway point (Paddling.net, Inc., 2011).

Several public access sites exist in the area for shore anglers, waders, and boaters using canoes, car-top boats, or other small boats. Game fish species in the area include walleye, catfish, largemouth bass, and brook and brown trout stocked by New York DEC in the spring upstream in Clifton and Fine (New York DEC, 2011). Other than boating and fishing, sightseeing and hiking are also popular recreational activities in the area. Several municipal parks and designated recreation areas exist in the project area that provide opportunities for these activities. Riverview and Harry Mills Memorial Parks are located about 8 RMs downstream in Gouverneur. Further, seven state-operated campgrounds are located within St. Lawrence County. Adirondack State Park, which includes over 3,000 lakes and 30,000 miles of rivers and streams, is also located in the project vicinity.

Project Recreation

Recreational facilities at the project include two parking areas, two boat ramps, a canoe portage trail (from take-out to put-in), and a picnic area on the south shore of the Oswegatchie River (Figure 3). The parking area adjacent to the power plant headworks provides access to the project impoundment from a small car-top boat launch upstream of the dam. This boat launch also serves as the take-out for the canoe portage trail. The portage trail runs from the take-out, through this parking area, to a put-in downstream of the bypass reach. The put-in also serves as a second boat launch that can be accessed by foot from the same parking area. Canoe portage signs are located along the length of the trail to guide paddlers from take-out to put-in. The picnic area is located on the right-hand side of the portage trail, just before the put-in. An additional smaller parking area is located adjacent to Emeryville Road across from the larger parking lot. These facilities provide access for boating and fishing upstream and downstream of the project, as well as picnicking.

A chain-link fence with two 5-foot wide gates secures the car-top boat launch from November 30 to April 1 to prevent snowmobiles, ATVs, and other vehicles from driving onto the impoundment when the surface of the river is covered in ice. The boat restraining barrier, located in the impoundment upstream of the dam, is removed during winter months to prevent damage from the ice. Hampshire Paper employees provide general maintenance for the project recreational facilities, such as brush removal and sign replacement, but do not collect or remove trash.

The results of a Recreational Usage Survey conducted in 2008 between May and October show that boating and fishing are the primary recreational uses of the project impoundment and tailrace. The survey indicated that fishing in the impoundment, is by far the most popular activity, followed by fishing in the tailrace, and then boating. Most boating activity takes place within the impoundment and the canoe portage trail has received minimal through-boater use since its installation in 1992. The survey results also show that within the impoundment, anglers prefer to fish from boats, while downstream of the dam, anglers primarily fish from the shore.

A total of approximately 860 recreation people-hours were logged at the project facilities during this 2008 Recreational Usage Survey. Of this total, approximately 95 percent of the use was fishing and boating, with sightseeing and hiking accounting for the remaining 5 percent. The survey indicated that most recreational activity at the project occurs between May and August, and minimal usage takes place in September and October. In 2003, the Commission granted an exemption to Hampshire Paper for filing the Form 80 due to the limited recreational usage observed at the project.

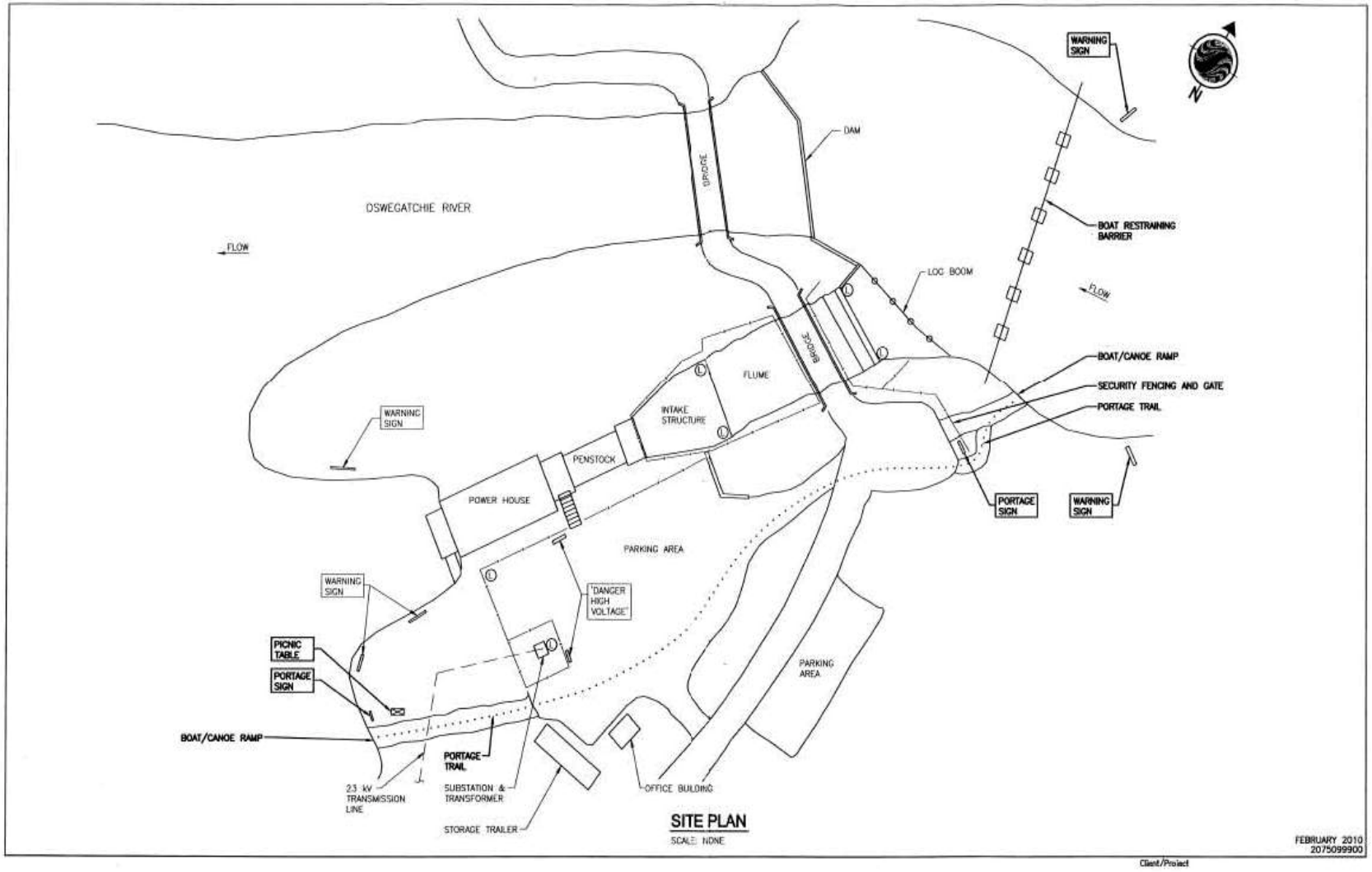

Figure 3. Emeryville Hydroelectric Project Recreational Facilities. (Source: Hampshire Paper)

Project Access

Access to the project is provided by area roads and two New York State highways within the immediate vicinity (figure 4). State highway 812 runs north from Harrisville to the town of Fowler below Emeryville. State highway 58 runs west along the Oswegatchie River from the town of Fine to Morristown at the St. Lawrence River. County highway 22 (Emeryville Road) intersects where the two highways converge in Fowler and runs north through project lands and across the Oswegatchie River.

Two bridges cross the Oswegatchie River and connect the southern and northern sections of Emeryville Road at the project (Figure 4). One bridge (south bridge) is a single-lane structure with a 42-foot deck and spans the project's power flume. According to New York State Department of Transportation (New York State DOT) current highway bridge data[8], this bridge is owned by St. Lawrence County. The other bridge (north bridge) spans the river where it meets the northern section of Emeryville Road, and is also owned by St. Lawrence County. The northern section of Emeryville Road follows the river northwest where it terminates in Hailesboro, about 5 miles downstream of the project.

As part of New York State's Bridge Program, New York State DOT inspects state highway bridges, as well as highway bridges owned by localities, railroads and commissions that do not collect tolls. New York State DOT bridge inspectors assign a condition rating after evaluating each bridge. New York's condition rating scale ranges from 1 to 7, with 7 indicating the bridge is in "new condition" and a rating of 5 or greater representing "good condition." Bridges with condition ratings of less than 5 are considered "deficient." A deficient condition rating indicates deterioration at a level that requires corrective maintenance or rehabilitation to restore the bridge to its fully functional, non-deficient condition. However, New York State DOT notes that a deficient rating does not mean the bridge is unsafe, and that if any bridge is deemed unsafe, it is closed to traffic (New York State DOT, 2011).

According to New York State DOT's current Highway Bridge Data, updated March 8, 2011, the north bridge that spans the Oswegatchie River at the project is rated 6.20, or in good condition. The south bridge that crosses the power flume (listed by New York State DOT as: power inlet channel) is rated 3.40, or deficient and requires corrective action to restore it to a non-deficient condition (New York State DOT, 2011).

[8] See https://www.nysdot.gov/main/bridgedata/repository2/StLawrenceBridgeData.pdf

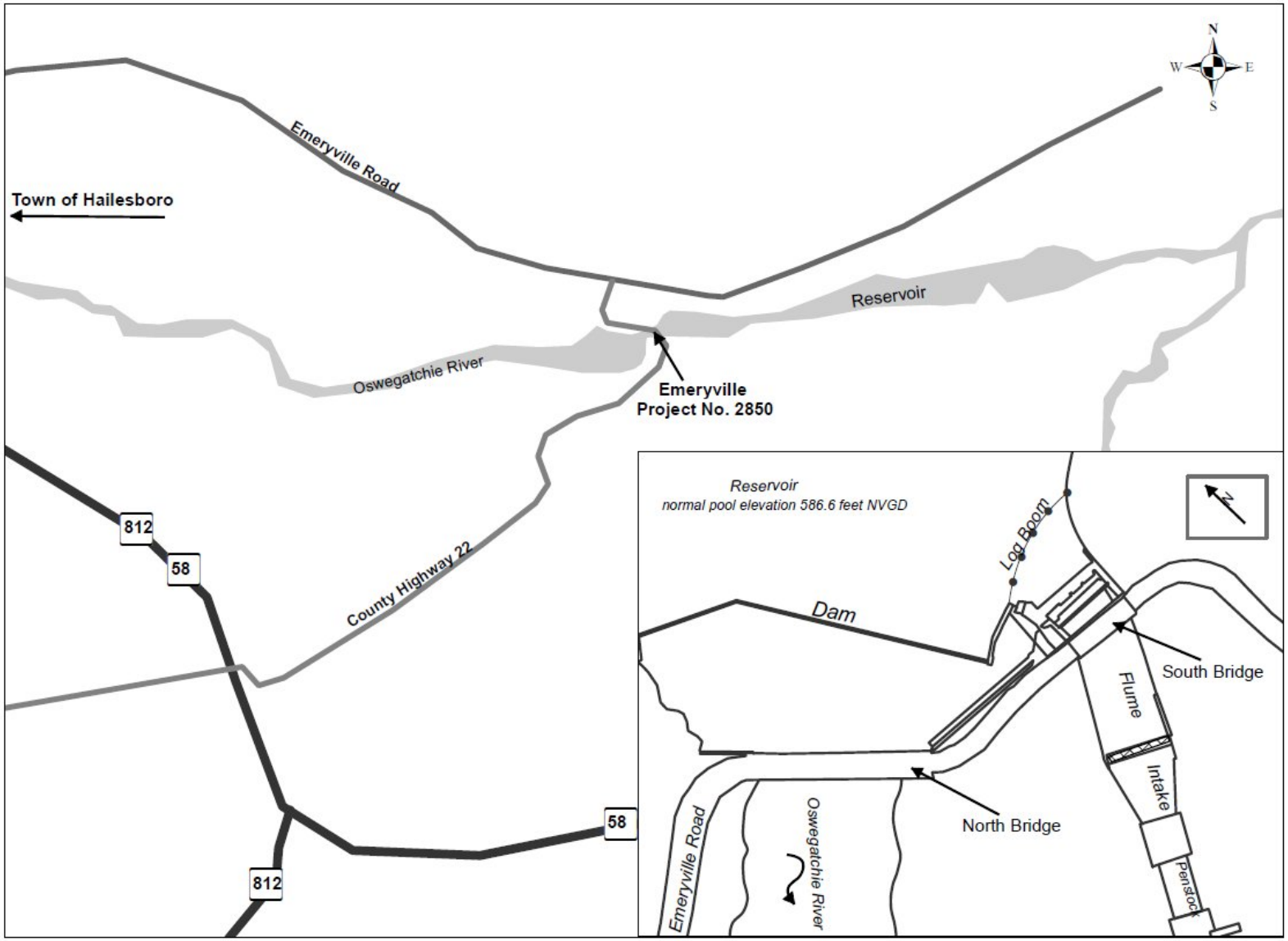

Figure 4. Bridges Crossing the Oswegatchie River on Emeryville Road. (Source: staff)

3.5.5.2 Environmental Effects

Proposed Maintenance and Management of Recreational Facilities

Hampshire Paper proposes to maintain the existing project recreational facilities and does not propose any new facilities. Hampshire Paper developed a Recreation Management Plan (RMP) which outlines operation and maintenance responsibilities for the existing project recreational facilities. The proposed RMP is consistent with Section 3.5 of the Settlement.

Under the proposed RMP, Hampshire Paper would be responsible for general operation, management, and maintenance of project recreational facilities, including: 1) repairs and updates to signage as necessary; 2) maintenance of the parking areas, lawn, picnic area, canoe portage trail, boat access ramps, impoundment security fencing and gates; and 3) installing and removing the impoundment boat restraining barrier seasonally.

Hampshire Paper does not propose to monitor the use of recreational facilities.

Staff Analysis

Hampshire Paper's proposed maintenance and management of the existing project recreational facilities would ensure that public access to the Oswegatchie River above and below the project is provided throughout the term of any new license. Maintaining the existing parking areas, boat launches, and the canoe portage trail would facilitate recreational use at the project by providing access for angling and boating, and allowing through-boaters to pass the dam. Further, updating signage and repairing impoundment security structures, as necessary, would protect the safety of individuals using the project area. Maintaining the picnic area and lawn would also benefit visitors to the project area.

The results of the 2008 Recreational Usage Survey indicate that recreational use at the project is limited and that the existing recreational facilities adequately meet demand. Based on limited recreational use observed at the project, no significant change to existing project recreational facilities, and substantial availability of recreational opportunities throughout the project vicinity, recreational monitoring does not appear to be necessary at the project.

Project Access

In a letter filed January 19, 2010, on behalf of the St. Lawrence County Board of Legislators, Gregory M. Paquin indicates that the Emeryville Road bridge that spans the project's power flume (i.e., the south bridge) is deteriorated condition and in need of

maintenance. The letter suggests that the existing license order, issued on June 17, 1982[9], includes the south bridge in the description of project facilities. Mr. Paquin requests that the Commission determine the ownership of the bridge and whether or not the bridge is a project facility.

On March 11, 2010, the Commission issued a letter to St. Lawrence Co.'s indicating that based on the current license, the project's exhibit drawings, and other documents in the public record, the south bridge is not a project facility under the current license.

On January 6, 2011, St. Lawrence Co. recommended that the south bridge be included as part of the project's facilities in any new license, and that Hampshire Paper assume ownership and maintenance responsibilities. St. Lawrence Co. requested that Hampshire Paper perform the construction and maintenance necessary to improve the bridge's deteriorated condition in the interest of public safety.

In a letter filed January 25, 2011, Hampshire Paper opposed St. Lawrence Co.'s recommendation to include the bridge as a project facility in any new license. Hampshire Paper contends that the structure is not necessary for operating, accessing, or maintaining project facilities and that it does not intend to assume ownership of this bridge.

Staff Analysis

There are no roads or bridges included as project facilities in the current license. Hampshire Paper uses Emeryville Road (County Road 22) to access project facilities and lands on both sides of the Oswegatchie River. Emeryville Road is a widely-used, public road that connects the towns of Hailesboro and Fowler, New York and crosses the north and south bridges (see Figure 4) in the project area. While the north and south bridges provide Hampshire Paper with a convenient route between the north and south sides of the river in the project area, the Oswegatchie River can also be crossed at several locations downstream in Hailesboro and project facilities and lands can be accessed using these river crossings.

3.3.6 Cultural Resources

3.3.6.1 Affected Environment

Area of Potential Effect

The Advisory Council on Historic Preservation defines an area of potential effect

[9] 19 FERC¶62,491, issued June 17, 1982.

(APE) as the geographic area or areas in which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE for the Emeryville Hydroelectric Project includes (a) lands enclosed by the project boundary; and (b) lands or properties outside the project boundary where project operations or future project-related recreational development may cause changes in the character or use of historic properties, if any exist.

Regional History

Before European incursion, the Adirondacks were the territories of the Oneida and Mohawk tribes. Cultural resource surveys in similar settings nearby have uncovered prehistoric cultural material which suggests that Native Americans in the Adirondack region were highly mobile hunter-gatherers who utilized riverine resources and game extensively (Seib, 2008). Additionally, the Oswegatchie River once served as the boundary between the Mohawk and Oneida tribes of the Iroquois confederacy, and a frequently used route for war parties traveling north during the French and Indian Wars (Paddling.net, Inc., 2011).

Due to their historical presence and use, Commission staff contacted the Indian tribes (Onondaga Nation, Oneida Nation, Tuscarora Nation, Cayuga Nation, Tonawanda Seneca Nation, Seneca Nation of Indians, and the St. Regis Mohawk Tribe) to determine their interest in the proposed project by letters issued June 8, 2007. By letter dated June 7, 2007, filed June 26, 2007, the St. Regis Mohawk Tribe stated they would prefer not to participate in the relicensing of the project. No other responses were filed.

Historical Properties

The nearest building listed on the National Register of Historic Properties (National Register) is the U.S. Post Office (Gouverneur Post Office), located approximately 8 miles downstream from the project dam. It was added to the National Register in 1989 for its architectural and engineering significance (National Register of Historic Places, undated). Other than this building, no other buildings or Historic Districts are listed on the National Register within the vicinity of the project.

3.3.6.2 Environmental Effects

On July 30, 2007, the Commission designated Hampshire Paper as a non-federal representative for section 106 consultation responsibilities under the NHPA. Pursuant to section 106, and as the Commission's designated non-federal representative, Hampshire Paper consulted with the State Historic Preservation Office (SHPO) and affected Indian tribes to locate, determine National Register eligibility, and assess potential adverse effects to historic properties associated with the project.

The construction permit issued by the U.S. Army Corps of Engineers Buffalo District in 1984 stated that no registered historic properties or properties listed as being eligible for inclusion in the National Register would be affected by renovations to the project. Renovations were performed in 1987. Further, in a letter dated February 7, 2007, the SHPO concluded that the project would have "no effect" upon properties in or eligible for inclusion in the National Register.

Hampshire Paper does not propose any specific protection, mitigation, or enhancement measures for cultural resources at the project.

Staff Analysis

Because archaeological sites are often found immediately adjacent to water bodies, shoreline erosion can affect historic properties at hydroelectric projects. Fluctuating water levels contribute to erosion. In addition, waves caused by wind and boats contribute to erosion. Other potential impacts include project-related ground disturbing activities (i.e., construction or maintenance projects), and looting and vandalism associated with public use of project facilities.

Although no known historical or archaeological properties located within the project area are listed or eligible for listing in the National Register, it is possible that unknown archaeological resources may be discovered in the future as a result of project construction, operation, or other project-related activities. To ensure the proper treatment of any potential archaeological or cultural resources, a condition could be included in any license issued for the project requiring that Hampshire Paper notify the Commission, SHPO, and Indian tribes immediately if any cultural artifacts are encountered. Cultural artifacts may include human remains, funerary objects, sacred objects or objects of cultural patrimony. In the event of any such discovery, Hampshire Paper would discontinue all exploratory or construction-related activities until the proper treatment of any potential archaeological or cultural resources is established.

4.0 DEVELOPMENTAL ANALYSIS

In this section, we look at the Emeryville Hydroelectric Project's use of the Oswegatchie River for hydropower purposes to see what effect various environmental measures would have on the project's costs and power generation. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corp.,[10] the Commission compares the current project cost to an

[10] See *Mead Corporation, Publishing Paper Division*, 72 FERC ¶ 61,027 (July 13, 1995). In most cases, electricity from hydropower would displace some form of fossil-fueled generation, in which fuel is the largest component of the cost of electricity.

estimate of the cost of obtaining the same amount of energy and capacity using a likely alternative source of power for the region (cost of alternative power). In keeping with Commission policy as described in Mead Corp, our economic analysis is based on current electric power cost conditions and does not consider future escalation of fuel prices in valuing the hydropower project's power benefits.

For each of the licensing alternatives, our analysis includes an estimate of: (1) the cost of individual measures considered in the EA for the protection, mitigation and enhancement of environmental resources affected by the project; (2) the cost of alternative power; (3) the total project cost (i.e. for construction, operation, maintenance, and environmental measures); and (4) the difference between the cost of alternative power and total project cost. If the difference between the cost of alternative power and total project cost is positive, the project produces power for less than the cost of alternative power. If the difference between the cost of alternative power and total project cost is negative, the project produces power for more than the cost of alternative power. This estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license. However, project economics is only one of many public interest factors the Commission considers in determining whether, and under what conditions, to issue a license.

4.1 POWER AND ECONOMIC BENEFITS OF THE PROJECT

Table 7 summarizes the assumptions and economic information we use in our analysis. This information was either provided by Hampshire Paper in the license application or estimated by staff. We find that the values provided by Hampshire Paper are reasonable for the purposes of our analysis. Cost items common to all alternatives include: taxes and insurance costs; net investment (the total investment in power plant facilities remaining to be depreciated); estimated future capital investment required to maintain and extend the life of plant equipment and facilities; relicensing costs; normal operation and maintenance cost; and administrative fees.

Table 7. Staff parameters for economic analysis of the Emeryville Hydroelectric Project. (Source: Staff)

Parameters	Values (2010$)	Sources
Period of analysis	30 years	Staff
Term of financing	20 years	Staff
Interest/cost of capital	8.0 percent	Staff
Escalation rate	0 percent	Staff

Parameters	Values (2010$)	Sources
Federal tax rate	34 percent	Staff
State tax rate	3 percent	Staff
Net investment [a]	$1,235,000	License Application (2010)
Operation and maintenance [b]	$632,935	License Application (2010)
Energy and Capacity value ($/MWh) [c]	54.14	Staff
Interest rate	8.0	Staff
Discount rate	8.0	Staff

[a] The net investment includes license application cost.
[b] The Operation and maintenance cost includes insurance and fees.
[c] The energy and capacity rates are based on the Energy Information Administration's Annual Outlook for 2010 at *http://www.eis.doe.gov/oiaf/aeo/index.html*

4.2 COMPARISON OF ALTERNATIVES

Table 8 summarizes the installed capacity, annual generation, cost of alternative power, estimated total project cost, and difference between the cost of alternative power and total project cost for each of the alternatives considered in this EA: no-action, the applicant's proposal, and the staff alternative.

Table 8. Summary of the annual cost of alternative power and annual project cost for the three alternatives for the Emeryville Hydroelectric Project. (Source: Staff)

	No Action	Hampshire Paper's Proposal	Staff Alternative
Installed capacity (MW)	3.5	3.5	3.5
Annual generation (MWh)	18,400	18,193[a]	18,193[a]
Annual cost of alternative power	$996,220	$985,010	$985,010
($/MWh)	54.14	54.14	54.14
Annual project cost	$824,940	$871,890	$872,420

	No Action	Hampshire Paper's Proposal	Staff Alternative
($/MWh)	44.83	47.92	47.95
Difference between the cost of alternative power and project cost ($/MWh)	$171,280 9.31	$113,120 6.22	$112,590 6.19

[a] The lost generation is for increasing the year-round flow to the bypassed reach from 16 cfs to 20 cfs and for installing and removing seasonal overlays.

4.2.1 No-Action Alternative

Under the no-action alternative, the project would continue to operate as it does now. The project would have an installed capacity of 3.5 MW, and generate an average of 18,400 MWh of electricity annually. The average annual cost of alternative power would be $996,220, or about $54.14/MWh. The average annual project cost would be $824,940, or about $44.83/MWh. Overall, the project would produce power at a cost which is $171,280, or $9.31/MWh, less than the cost of alternative power.

4.2.2 Proposed Action

Hampshire Paper proposes to continue to operate the project in a run-of-river mode and maintain the impoundment between elevations 586.6 feet NGVD (top of the wooden flashboards) and 586.3 feet NGVD (0.3 feet below the top of the wooden flashboards). Hampshire Paper also proposed to provide a year round flow of 20 cfs or inflow, whichever is less, to the bypassed reach. In addition to the operation changes, Hampshire Paper proposes to: install new operations monitoring equipment, install overlays, install a new weir in the bypassed reach, excavate the bypassed reach, install a new downstream fish passage flume, develop and implement an invasive species management plan, and implement a recreation facilities management plan. The project would have a total capacity of 3.5 MW and an average annual generation of 18,193 MWh. As proposed by Hampshire Paper, the average annual cost of alternative power would be $985,010, or about $54.14/MWh. The average annual project cost would be $871,890, or about $47.92/MWh. Overall, the project would produce power at a cost which is $113,120, or $6.22/MWh, less than the cost of alternative power.

4.2.3 Staff Alternative

The staff alternative includes Hampshire Paper's proposal and, therefore, would have the same capacity and energy attributes. Table 9 shows the staff recommended

additions and modifications to Hampshire Paper's proposed environmental protection and enhancement measures and the estimated cost of each.

Based on a total installed capacity of 3.5 MW and an average annual generation of 18,193 MWh, the cost of alternative power would be $985,010, or about $54.14/MWh. The average annual project cost would be $872,420, or about $47.95/MWh. Overall, the project would produce power at a cost which is $112,590, or $6.19/MWh, less than the cost of alternative generation.

4.3 COST OF ENVIRONMENTAL MEASURES

Table 9 gives the cost of each of the environmental enhancement measures considered in our analysis. We convert all costs to equal annual (levelized) values over a 30-year period of analysis to give a uniform basis for comparing the benefits of a measure to its cost.

Table 9. Cost of environmental mitigation and enhancement measures considered in assessing the environmental effects of continuing to operate the Emeryville Hydroelectric Project (Source: Hampshire Paper and Staff).

Measures	Entity	Capital cost	Operation and maintenance cost	Levelized annual cost
Geology and Soils Resources				
Erosion and sedimentation plan	Staff	$5,000	$0	$380
Aquatic Resources				
Run-of-river operation with a 0.3 feet limit on impoundment fluctuations	Hampshire Paper, Interior, Staff	$0	$0	$0
Year-round minimum flow of 20 cfs or inflow, (whichever is less), in the bypassed reach at all times	Hampshire Paper, Interior, Staff	$0	$3,360	$3,360 [a]
Operation compliance [b] monitoring plan	Staff	$2,000	$0	$150

Measures	Entity	Capital cost	Operation and maintenance cost	Levelized annual cost
Install equipment to monitor flow and water level	Hampshire Paper, Interior, Staff	$5,150	$520	$900
Downstream fish passage flume and bypassed reach excavation	Hampshire Paper, Interior, Staff	$107,120	$2,580	$10,640
Install seasonal overlays with 1-inch spacing over the existing trashracks	Hampshire Paper, Interior, Staff	$47,380	$18,150	$ 21,720[c]
Terrestrial Resources				
Implement invasive species management plan	Hampshire Paper, Interior, Staff	$5,150	$520	$900
Recreation and Land Use Resources				
Implement the proposed Recreation Management Plan	Hampshire Paper, Interior, Staff	$0	$0	$0 [d]
Maintain or replace Emeryville Road Bridge that crosses over power flume	St. Lawrence Co.	$330,000	$5,000	$29,840 [e]

[a] The cost of this measure includes the cost of annual energy loss at the project (62 MWh) that would result from increasing the year-round flow to the bypassed reach from 16 cfs to 20 cfs.

[b] We assume development of an Operation Compliance Monitoring Plan is consistent with Interior's recommendation #3 to develop a Water Level Monitoring Plan.
[c] The cost of this measure includes capital and operation and maintenance costs plus the cost of annual energy loss at the project (145 MWh) that would result from installing, operating, and removing seasonal overlays.
[d] Staff assume that the cost of this measure is included in the cost of the license application and the cost of overall project operation and maintenance.
[e] The cost of this measure is based on a cursory review of bridge maintenance and replacement cost estimates from the New York State DOT. The actual cost of the measure may vary based on design and actual bridge condition.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 COMPARISON OF ALTERNATIVES

In this section we compare the development and non-developmental effects of Hampshire Paper's proposal, Hampshire Paper's proposal as modified by staff, and the no-action alternative. Table 10 summarizes the environmental effects of the different alternative.

Table 10. Comparison of alternatives for the Emeryville Hydroelectric Project (Source: Staff).

Resource	No-action Alternative	Proposed Action	Staff Alternative
Annual Generation (MWh)	18,400	18,193	18,193
Geology and Soils Resources	No changes to geology and soils.	No measures proposed to control erosion and sedimentation during excavation of the bypassed channel and construction of the proposed downstream fish passage flume and plunge pool.	Develop and implement an erosion and sediment control plan with specific measures to limit erosion and sedimentation during project construction, including detail regarding, actual site conditions, an implementation schedule, and any necessary monitoring maintenance programs.
Aquatic Resources	No change to project operations; Hampshire Paper would operate the project in a run-of-river mode with 16 cfs flow in the bypassed reach; No provisions for downstream fish passage other than the existing minimum flow weir and spill; and no additional	Limit impoundment elevations to no more than 0.3 feet below the crest of the flashboards during normal operations. Install staff gages/monuments (in the impoundment, the plunge pool, and the bypassed reach downstream of the plunge pool weir), to ensure run-of-	An operation compliance monitoring plan would provide details on how the project would operate, including refill procedures after flashboard failures or periods of non-compliance with run-of-river operations.

Resource	No-action Alternative	Proposed Action	Staff Alternative
	protection from fish entrainment or impingement.	river operation and compliance with a minimum impoundment level of 586.3 feet NGVD. Provide trashrack overlays with 1-inch clear spacing from March 15 through November 30 of each year. After 5 years, the need for permanent trashracks with 1-inch clear spacing would be evaluated. Construct a downstream fish passage flume on the spillway, install a weir across the bypassed reach to increase plunge pool depth and area, and excavate the bypassed reach to facilitate downstream movement of fish.	

Resource	No-action Alternative	Proposed Action	Staff Alternative
Terrestrial Resources	No change to project operations; and no measures would be implemented to address invasive species.	Develop and implement an Invasive Species Management Plan (ISMP) to control the introduction and spread of invasive plant species in the project area.	The measures and effects would be the same as the Proposed Action.
Recreation	No formalized plan for operating and maintaining the project's recreational facilities.	Implement the proposed Recreation Management Plan that establishes maintenance procedures for existing project recreational facilities.	The measures and effects would be the same as the Proposed Action.
Cultural Resources	No effect on cultural resources.	No effect on cultural resources, therefore no specific measures would be implemented to address potential effects on cultural resources.	No effect, but Hampshire Paper would be required to notify the Commission, SHPO and Indian tribes immediately if previously unidentified archeological or historic properties are discovered during the course of constructing, maintaining, or developing project works or other facilities at the project.

5.2 Comprehensive Development and Recommended Alternative

Section 4(e) and 10(a) of the FPA require the Commission to give equal consideration to the power development purposes and to the purposes of energy conservation; the protection, mitigation of damage to, and enhancement of fish and wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The section contains the basis for, and a summary of, our recommendations for relicensing the Emeryville Hydroelectric Project. We weigh the costs and benefits of our recommended alternative against other proposed measures.

Based on our independent review of agency and public comments filed on this project and our review of the environmental and economic effects of the proposed project and economic effects of the project and its alternatives, we selected the proposed project with staff-recommended modifications as the preferred alternative. We recommend this alternative because: (1) issuing a new license for the project would allow Hampshire Paper to continue to operate their project and provide a beneficial and dependable source of electric energy; (2) the 3.5 MW of electric capacity comes from a renewable resource which does not contribute to atmospheric pollution; (3) the public benefits of this alternative would exceed those of the no-action alternative; and (4) the recommended measures would protect and enhance fishery resources.

In the following section, we make recommendations as to which environmental measures proposed by Hampshire Paper or recommended by agencies or other entities should be included in any new license issued for the project. In addition to Hampshire Paper's proposed environmental measures, we recommend additional staff-recommended environmental measures to be included in any new license issued for the project, and we describe these requirements in the draft license articles in Appendix A. We also discuss which measures we do not recommend including in the license.

5.2.1 Measures Proposed by Hampshire Paper

Based on our environmental analysis of Hampshire Paper's proposal in section 3, and the costs presented in section 4, we conclude that the following environmental measures proposed by Hampshire Paper would protect and enhance environmental resources and would be worth the cost. Therefore, we recommend including these measures in any license issued for the project.

<u>Aquatic Resources</u>

- Maintain the impoundment between elevations 586.6 feet NGVD (top of

the flashboards) and 586.3 feet NGVD (0.3 feet below the top of the flashboards; section 3.1 of the Settlement).

- Maintain a year round minimum flow in the bypassed reach of 20 cfs or inflow to the project, whichever is less (section 3.2 of the Settlement).

- Replace the existing spillway weir with a new downstream fish passage flume designed to enhance downstream fish passage as well as release the minimum flow; increase the size and depth of the existing plunge pool by installing a new weir across the bypassed reach approximately 50 feet downstream of the existing spillway; and excavate the bypassed reach to enhance downstream fish passage (section 3.2 and 3.3 of the Settlement)

- Install overlays with 1-inch clear spacing on the trashracks from March 15 through November 30 of each year. After the first 5 years of the license term, the need for permanent trashracks would be evaluated (section 3.3 of the Settlement).

- Install staff gages or concrete benchmarks (in the impoundment, plunge pool, and the bypassed reach downstream of the plunge pool outlet weir), to monitor the impoundment elevation, bypassed reach flow and ensure run-of-river operation and compliance with a minimum impoundment level of 586.3 feet NGVD (section 3.4 of the Settlement).

Terrestrial Resources

- Develop an Invasive Species Management Plan (ISMP) to with measures to prevent the introduction or spread of invasive species, and submit the plan to New York DEC and FWS for approval.

Recreation

- Implement the proposed Recreation Management Plan (RMP) which includes maintaining two parking areas, boat ramps to access the impoundment and tailrace, a canoe portage trail, picnic table, and signage.[11]

[11] Because of limited recreational use observed at the project and no significant changes to existing project recreational facilities, staff does not recommend recreational monitoring via the Commission's Form 80 process.

5.2.2 Additional Measures Recommended by Staff

Erosion and Sediment Control Plan

Proposed construction activities including constructing a downstream fish passage flume, excavating portions of the bypassed reach, and creating a plunge pool, could cause soil erosion and sedimentation. Hampshire Paper does not propose any measures to control erosion and sedimentation during these construction activities. To address potential erosion and sedimentation, we recommend that Hampshire Paper develop and implement an erosion and sediment control plan that includes site-specific measures to limit erosion and sedimentation during excavation of the bypassed channel and construction of the proposed downstream fish passage flume and plunge pool. The plan should be developed in consultation with the resource agencies and include details regarding the actual site conditions, implementation schedules, and any necessary monitoring or maintenance programs. This plan would have an estimated annual cost of $380 and we recommend this plan be required for any new license issued for the project (see draft article 007).

Operation Compliance Monitoring Plan

Hampshire Paper proposes to maintain the impoundment between elevations 586.6 feet NGVD (top of the flashboards) and 586.3 feet NGVD under normal operations. In addition, Hampshire Paper proposes to maintain a year round minimum flow in the bypassed reach of 20 cfs, or inflow to the project, whichever is less. Hampshire Paper proposes to use staff gages in the impoundment, the plunge pool, and the bypassed reach channel downstream from the plunge pool weir to determine compliance with this requirement. These measures are consistent with section 3.4 of the Settlement. Interior recommends (10(j) recommendation #3) that Hampshire Paper develop a flow and water level monitoring plan that is not included in the Settlement. There are insufficient details in both section 3.4 of the Settlement and Interior's recommended plan to ensure that misunderstandings about resource management priorities are avoided and that operational compliance is maintained. Therefore, we recommend that Hampshire Paper develop an operation compliance monitoring plan which provides these necessary additional details, as well as procedures for how all monitoring equipment would be installed and maintained over the term of the license. This plan would have an estimated annual cost of $150 and we recommend this plan be required for any new license issued for the project (see draft article 010).

Cultural Resources

There are no known historical or archaeological properties within the project area listed or eligible for listing in the National Register. However, archaeological or historic sites could be discovered during any project modification or construction that requires

land-disturbing activities. Therefore, we recommend that Hampshire Paper notify the Commission, the SHPO, and Indian tribes immediately if previously unidentified archeological or historic properties are discovered during the course of constructing, maintaining, or developing project works or other facilities at the project. There would be no annual cost for this measure and we recommend including this requirement in any new license issued for the project (see draft article 016).

5.2.3 Measures not Recommended by Staff

Maintenance of the South Bridge

The south bridge (Figure 4) is a section of Emeryville road that spans the project's power flume and provides access between the north and south sides of the Oswegatchie River in that project area. The south bridge is a section of a widely-used, public road (Emeryville Road) and available information indicates that this bridge is owned by St. Lawrence Co.[12] Information from the New York DOT and St. Lawrence Co. indicates that the south bridge is deteriorated and in need of maintenance. St. Lawrence Co. recommends that the south bridge be included in any new license as a project facility and that Hampshire Paper assume ownership and maintenance responsibilities for the bridge. Hampshire Paper indicates that the south bridge is not necessary for operating, accessing, or maintaining project facilities and that it does not own or intend to maintain the south bridge. While the south bridge provides convenient access between the north and south sides of the Oswegatchie River in that project area, the Oswegatchie River can also be crossed at several locations downstream in Hailesboro. We estimate that repair or replacement of the south bridge would cost $330,000 and have a levelized annual cost of $29,840; however, because the south bridge is not primarily used to access project facilities, but rather serves a much broader range of public uses,[13] we conclude that the south bridge should not be included as a project facility in any license issued to Hampshire Paper and we do not recommend requiring Hampshire Paper to maintain or repair this bridge.

5.2.4 Conclusion

Based on our review of the agency and public comments filed on the project and our independent analysis pursuant to sections 4(e), 10(a)(1), and 10(a)(2) of the FPA, we conclude that licensing the Emeryville Hydroelectric Project, as proposed by Hampshire Paper with the additional staff-recommended measures, would be best adapted to a plan

[12] See https://www.nysdot.gov/main/bridgedata/repository2/StLawrenceBridgeData.pdf

[13] See *Policy Statement on Hydropower Licensing Statements*, 116 FERC ¶61,270 (September 21, 2006).

for improving or developing the Oswegatchie River

5.3 UNAVIODABLE ADVERSE EFFECTS

The reduced spacing of Hampshire Paper's proposed overlays or permanent trashracks (if required after the 5-year evaluation) would reduce fish entrainment; however, some smaller fish are likely to continue to be entrained and pass through the turbines. While approximately 60 to 80 percent the entrained fish would be expected to survive and contribute to the downstream fish community, the remaining portion would likely experience mortality or injury and would be lost from the fishery.

Some short-term and temporary disturbances to habitats may result from construction of the fish passage and channel modifications.

5.4 FISH AND WILDLIFE AGENCY RECOMMENDATIONS

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, or enhancement of fish and wildlife resources affected by the project.

Section 10(j) of the FPA states that whenever the Commission finds 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 such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of the agency.

In response to our REA notice, Interior filed seven section 10(j) recommendations for the Emeryville Hydroelectric Project on January 11, 2011. Table 11 lists Interior's recommendations filed pursuant to section 10(j), and indicates whether the recommendations are included under the staff alternative. We consider six of the measures to be within the scope of section 10(j) but we recommend adopting all seven measures, one of which we adopt under section 10(a).

Table 11. Fish and Wildlife Agency Recommendations for the Emeryville Hydroelectric Project

Recommendation	Agency	Within the scope of section 10(j)	Annual Cost	Recommend Adopting?
(1) Operate the project in a run-of-river mode with a 0.3 foot limit on impoundment fluctuations.	Interior	Yes	0	Yes
(2) Restore the impoundment gradually following incidents of non-compliance with run-of-river operation in a manner that does not adversely impact fish passage or water quality standards.	Interior	Yes	0	Yes
(3) Develop a Flow and Water Level Water Monitoring Plan.	Interior	No, not a specific measure to protect, mitigate, or enhance fish and wildlife resources.	$150	Yes, under 10(a)
(4) Release a minimum flow of 20 cfs or inflow, whichever is less, into the bypassed reach at all times.	Interior	Yes	$3,360	Yes
(5) Install 1-inch clear-spaced trashracks over the entire depth	Interior	Yes	$21,720	Yes

	Recommendation	Agency	Within the scope of section 10(j)	Annual Cost	Recommend Adopting?
	and width of the existing trashracks within 18 months of license issuance. Installation can be permanent or seasonal from March 15 through November 30 of each year. If seasonal, the need for permanent trashracks will be evaluated after 5 years.				
(6)	Provide a downstream fish passage facility and an adequate plunge pool with 18 months of license issuance.	Interior	Yes	$10,640	Yes
(7)	Excavate a channel in the bypassed reach to facilitate downstream fish movement.	Interior	Yes	Combined with Annual cost of Recommendation (6)	Yes

5.5 CONSISTENCY WITH COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C., § 803(a)(2)(A), 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. We reviewed seven qualifying comprehensive plans that are applicable to the Emeryville Hydroelectric Project, located in New York. No inconsistencies were found.

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6.0 FINDING OF NO SIGNIFICANT IMPACT

If the Emeryville Hydroelectric Project is issued a new license as proposed with the additional staff-recommended measures, the project would continue to operate while providing enhancements to aquatic resources, access to recreation facilities and protection of cultural and historic resources in the project area.

Based on our independent analysis, we find that the issuance of a new license for the Emeryville Hydroelectric Project, with our recommended environmental measures, would not constitute a major federal action significantly affecting the quality of the human environment.

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8.0 LIST OF PREPARERS

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Michael Watts – Need for Power, Geology and Soils and Developmental Analysis (Civil Engineer; B.S., Civil Engineering).

APPENDIX A

LICENSE CONDITIONS RECOMMENDED BY STAFF

We recommend including the following license articles for any license issued for the project:

Draft Article 001. *Administrative Annual Charges*. The licensee shall pay the United State annual charges, effective the first day of the month in which the license becomes effective, and as determined in accordance with provisions of the Commission's regulations in effect from time to time, for the purposes of reimbursing the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 3.5 megawatts.

Draft Article 002. *Exhibit F Drawings*. Within 45 days of the effective date of this license, the licensee shall file the approved exhibit drawings in aperture card and electronic file formats.

(a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P-2850-1 through P-2850-3) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (i.e., F-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

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

(b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections New York Regional Office. Exhibit F drawings must be identified as Critical Energy Infrastructure Information (CEII) material under 18 CFR § 388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-2850-1, F-1, Description, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY - black & white raster file
FILE TYPE – Tagged Image File Format (TIFF), CCITT Group 4

RESOLUTION – 300 dpi desired (200 dpi min)
DRAWING SIZE FORMAT – 24” X 36” (min), 28” X 40” (max)
FILE SIZE – less than 1 MB desired.

Draft Article 003. *Exhibit G Drawings*. Within 90 days of the effective date of the license, the licensee shall file, for Commission approval, revised Exhibit G drawings enclosing within the project boundary all principal project works necessary for operation and maintenance of the project, including Project’s reservoir up to the proposed maximum water surface elevation of 586.6 feet National Geodetic Vertical Datum. The Exhibit G drawings must comply with sections 4.39 and 4.41 of the Commission’s regulations.

Draft Article 004. *Contract Plans and Specifications.* At least 60 days prior to the start of any construction, the licensee shall submit one copy of the final contract plans and specifications to the Commission's Division of Dam Safety and Inspections (D2SI) New York Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI). The licensee may not begin construction until the Regional Engineer has approved in writing the plans and specifications and determined that all preconstruction requirements have been satisfied. The submittal to the Regional Engineer must also include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, an Erosion and Sediment Control Plan as required by Article 007.

Draft Article 005. *Cofferdam Construction Drawings.* Before starting construction, the licensee in consultation with New York DEC shall review and approve the design of contractor-designed cofferdams and deep excavations and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy of the approved cofferdam construction drawings and specifications and the letters of approval to the Commission's New York Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, D2SI).

Draft Article 006. *As-built Drawings.* Within 90 days of completion of construction of the facilities authorized by this license, the licensee shall file for Commission approval, revised exhibits A, F, and G, as applicable, to describe and show those project facilities as built. A courtesy copy shall be filed with the Commission’s Division of Dam Safety and Inspections (D2SI)-New York Regional Engineer, the Director, D2SI, and the Director, Division of Hydropower Administration and Compliance.

Draft Article 007. *Erosion and Sediment Control Plan.* At least 90 days before the start of any ground-disturbing activities, the licensee shall prepare and file for

Commission approval, an erosion and sediment control plan. The plan shall include, but not be limited to:

(a) a description of the actual site conditions;

(b) a description of measures that will be used to control erosion and minimize the quantity of sediment entering project waters during project construction and operation;

(c) detailed descriptions, design drawings, and specific locations of all control measures;

(d) a description of any methods that may be used for revegetating disturbed areas, including a description of native plant species used, planting densities, temporary soil stabilization techniques, and fertilization procedures or other requirements;

(e) requirements for inspection and maintenance of erosion and sediment control measures to ensure proper operations; and

(f) an implementation schedule.

The licensee shall prepare the erosion and sediment control plan after consultation with the New York Department of Environmental Conservation and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the resource agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

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

Draft Article 008. *Project Operation.* The licensee shall operate the project in a run-of-river mode such that inflow to the project equals outflow from the project on an instantaneous basis, and fluctuations of the impoundment water level are minimized. The licensee shall maintain an impoundment elevation of 586.6 feet NGVD and shall not allow the impoundment level to fall more than 0.3 feet below the crest of the flashboards under normal operations (impoundment elevation 586.3 feet NGVD).

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon agreement among the licensee, the U.S. Fish and Wildlife Service, and the New York Department of Environmental Conservation. If run-of-river operations are modified, the licensee shall notify the Commission and the agencies as soon as possible, but no later than 10 days after each such incident.

Draft Article 009. *Minimum Flow.* The licensee shall maintain a minimum year-round flow of 20 cubic feet per second (cfs) or inflow, whichever is less, in the bypassed reach as measured at the staff gage located downstream of the bypassed reach weir. Minimum flow releases may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon agreement among the licensee, the U.S. Fish and Wildlife Service, and the New York Department of Environmental Conservation. If minimum flow releases are modified, the licensee shall notify the Commission and the agencies as soon as possible, but no later than 10 days after each such incident.

Draft Article 010. *Operation Compliance Monitoring Plan.* Within 6 months of the issuance date of the license, the licensee shall file with the Commission, for approval, an operation compliance monitoring plan for the project. The plan shall include, but not be limited to, the following:

(a) a description of how the project will be operated to maintain compliance with the requirements of Articles 008 and 009;

(b) descriptions of the installation, operation, and maintenance of the staff gages in the impoundment, plunge pool, and bypassed reach downstream from the bypassed reach weir;

(c) a description of impoundment refilling procedures following incidents when impoundment level has dropped below 586.3 feet NGVD;

(d) a description of the procedures for maintaining and calibrating monitoring equipment, and protocols for reporting monitoring data to the Commission, the U.S. Fish and Wildlife Service, and the New York Department of Environmental Conservation; and

(e) an implementation schedule.

The licensee shall include with the plan, documentation of consultation with the U.S. Fish and Wildlife Service and the New York Department of Environmental Conservation; copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies; and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum

of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan and associated schedule shall not begin until the plan and schedule are approved by the Commission. Upon Commission approval, the licensee shall implement the plan and schedule, including any changes required by the Commission.

Draft Article 011. *Trashracks.* Within 1 year of the effective date of this license, the licensee shall install either new permanent trashracks with 1-inch clear spacing or file a plan, for Commission approval, describing the installation and removal of trashrack overlays with 1-inch clear spacing from March 15 until November 30 of each year.

The plan describing the seasonal installation and removal of trashrack overlays shall include, but not be limited to, the following:

(a) an implementation schedule that includes procedures for installation and removal of trashrack overlays from March 15 through November 30 of each year;

(b) a description of inspection and maintenance procedures of the trashrack overlays to ensure proper operation;

(c) a protocol for notifying the New York Department of Environmental Conservation and the U.S. Fish and Wildlife Service of any problems with the installation, operation, maintenance, or removal of the trashrack overlays; and

(d) a protocol for evaluating the need for permanent trashracks after 5 years, in consultation with the New York Department of Environmental Conservation and the U.S. Fish and Wildlife Service.

The plan shall be developed in consultation with the New York Department of Environmental Conservation and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the resource agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information

The Commission reserves the right to require changes to the plan describing seasonal installation and removal of trashrack overlays. Installation of the seasonal

overlays shall not begin until the final design and schedule are approved by the Commission. Upon Commission approval, the licensee shall install the overlays, including any changes required by the Commission.

Draft Article 012. *Downstream Fish Passage Flume, Bypassed Reach Weir, and Excavation of the Bypassed Reach.* Within 3 months of the effective date of this license, the licensee shall file with the Commission, for approval, a final plan to excavate the bypassed reach and design, construct, install, and maintain a downstream fish passage flume on the spillway and a weir across the bypassed reach approximately 50 feet downstream from the spillway.

The plan shall include the final designs of the proposed fish passage flume and bypassed reach weir included as Attachment A of the Offer of Settlement filed with the Commission on May 18, 2010. The plan shall also provide a detailed description of the area(s) to be excavated in the bypassed reach and a schedule for implementation that includes completion of the proposed fish passage flume, weir, and excavation within 18 months of the effective date of this license. The plan shall be finalized in consultation with the U.S. Fish and Wildlife Service and the New York Department of Environmental Conservation (agencies). The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the final plan with the Commission, for approval, including copies of any recommendations made by the agencies. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons based on project-specific information.

The Commission reserves the right to require changes to the final plan. Installation of the downstream fish passage flume, weir across the bypassed reach, and excavation of the bypassed reach shall not begin until the final plan is approved by the Commission. Upon Commission approval, the licensee shall implement the final plan, including any changes required by the Commission.

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Draft Article 013. *Reservation of Authority to Prescribe Fishways*. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior pursuant to section 18 of the Federal Power Act.

Draft Article 014. *Invasive Species Management Plan*. Within 6 months of the effective date of this license, the licensee shall file with the Commission, for approval, an invasive species management plan for the project. The plan shall include, but not be limited to, measures to prevent the introduction and/or spread of invasive plant species.

The licensee shall prepare the plan following the recommendations of the New York Department of Environmental Conservation and have the plan approved by the U.S. Department of the Interior Fish and Wildlife Service and the New York Department of Environmental Conservation.

The Commission reserves the right to require changes to the plan. Implementation of any invasive species management plan shall not begin until the plan is approved by the Commission. Upon Commission approval, the licensee shall implement the provisions of the plan, including any changes required by the Commission.

Draft Article 015. *Recreation Resources Management Plan*. Upon issuance of this license, the licensee shall implement the Recreation Management Plan (RMP) dated March 8, 2010, filed on March 15, 2010.

Draft Article 016. *Cultural Resources Protection*. The licensee, prior to starting any land-clearing or land-disturbing activities within the project boundary shall consult with the New York State Historic Preservation Office (New York SHPO).

If the licensee discovers previously unidentified archeological or historic properties during the course of constructing, maintaining, or developing project works or other facilities at the project, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the properties and consult with the New York SHPO to determine the need for any additional cultural resource studies or measures. If no additional studies or measures are needed, the licensee shall file with the Commission documentation of its consultation with the New York SHPO.

If a discovered cultural resource is determined to be eligible for the National Register of Historic Places (National Register), the licensee shall file for Commission approval a historic properties management plan (HPMP) prepared by a qualified cultural resource specialist after consultation with the New York SHPO. In developing the HPMP, the licensee shall use the Advisory Council on Historic Preservation and the Federal Energy Regulatory Commission's *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, dated May 20, 2002. The HPMP shall include the following items: (1) a description of each discovered property, indicating whether it is listed in or eligible for listing in the National Register; (2) a description of the potential effect on each discovered property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of consultation; and (5) a schedule for implementing mitigation and conducting additional studies. The Commission reserves the right to require changes to the HPMP.

The licensee shall not begin land-clearing or land-disturbing activities or resume such activities in the vicinity of a property discovered during construction, until informed by the Commission that the requirements of this article have been fulfilled.

Draft Article 017. *Project Modification Resulting from Environmental Requirements*. The planning and design of any permanent or temporary modification which affects the project works or operation resulting from environmental requirements shall be coordinated as early as feasible with the Commission's Division of Dam Safety and Inspections (D2SI) New York Regional Engineer. Within 90 days of receipt of the license, a letter is to be sent to the D2SI New York Regional Engineer providing a plan and schedule of any proposed modifications to the water retaining features of the project in the planning and design phase resulting from environmental requirements of the license. The schedule is to allow sufficient review time for the Commission to ensure that the proposed work does not adversely affect project works, dam safety or project operations.

Draft Article 018. *Use and Occupancy.* (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are

maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

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

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

and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

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

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

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

lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

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

Document Content(s)