

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Great Lakes Hydro America, LLC

Project No. 2300-052

ORDER ISSUING NEW LICENSE

(September 9, 2025)

INTRODUCTION

1. On August 1, 2022, Great Lakes Hydro America, LLC (GLH) filed, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),¹ an application for a new license to continue operating and maintaining the 3.72-megawatt (MW) Shelburne Hydroelectric Project No. 2300 (Shelburne Project or project). The project is located on the Androscoggin River, in Coos County, New Hampshire.²
2. As discussed below, this order issues a new license for the project.

BACKGROUND

3. The Federal Power Commission, predecessor to the Federal Energy Regulatory Commission (FERC or Commission), issued an original license for the project on July 19, 1962, with an expiration date of December 31, 1993.³ The Commission issued

¹ 16 U.S.C. §§ 797(e) and 808.

² The Androscoggin River is a navigable waterway of the United States. *N.H. Water Res. Bd.*, Docket No. E-6807, 20 FPC 99 (1958); *Brown Co.*, 28 FPC 175 (1962). Therefore, section 23(b)(1) of the FPA, 16 U.S.C. § 817(1), requires the project to be licensed.

³ The license was issued to Brown Company. *Brown Co.*, 28 FPC 175.

the current license for the project on August 1, 1994,⁴ with an expiration date of July 31, 2024. Since then, GLH has operated the project under an annual license pending the disposition of its new license application.⁵

4. On July 26, 2023, the Commission issued a public notice accepting the application for filing, indicating the application was ready for environmental analysis (REA notice), and setting September 25, 2023, as the deadline for filing motions to intervene, protests, comments, recommendations, preliminary terms and conditions, and preliminary fishway prescriptions.⁶ On September 11, 2023, the U.S. Department of the Interior (Interior), through the U.S. Fish and Wildlife Service (FWS), filed a reservation of authority to prescribe fishways. On September 20, 2023, Interior filed comments on behalf of the National Park Service (NPS). On September 22, 2023, the City of Berlin, New Hampshire and the Town of Gorham, New Hampshire jointly filed a timely, unopposed motion to intervene.⁷

⁴ *James River-N.H. Elec., Inc.*, 68 FERC ¶ 61,174 (1994). On May 27, 1997, the name of the licensee was changed from James River-New Hampshire Electric, Inc. to Crown Vantage-New Hampshire Electric, Inc. *James River-N.H. Elec., Inc.*, 79 FERC ¶ 62,131 (1997). Subsequently, on October 27, 2000, the name was changed from Crown Vantage-New Hampshire Electric, Inc. to American Tissue-New Hampshire Electric, Inc. *Crown Vantage-N.H. Elec., Inc.*, 93 FERC ¶ 62,063 (2000). On August 30, 2002, the license was transferred to GLH. *Am. Tissue-N.H. Elec., Inc.*, 100 FERC ¶ 62,154 (2002).

⁵ See 16 U.S.C. § 808(a)(1); see also August 23, 2024 Notice of Authorization for Continued Project Operation.

⁶ 88 Fed. Reg. 50,142 (Aug. 1, 2023). The Commission's Rules of Practice and Procedure provide that if a filing deadline falls on a Saturday, Sunday, holiday, or other day when the Commission is closed for business, the filing deadline does not end until the close of business on the next business day. 18 C.F.R. § 385.2007(a)(2) (2025). Because the 60-day filing deadline fell on a Sunday (i.e., September 24, 2023), the filing deadline was extended until the close of business on Monday, September 25, 2023.

⁷ Timely, unopposed motions to intervene are granted by operation of Rule 214(c)(1) of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c)(1) (2025).

5. Pursuant to the National Environmental Policy Act of 1969 (NEPA),⁸ Commission staff issued a draft environmental assessment (EA) on May 1, 2024, analyzing the effects of the proposed project and alternatives to it and setting a deadline for comments of May 31, 2024. GLH, the Town of Shelburne, NPS, and the New Hampshire State Historic Preservation Office (SHPO) filed comments on the draft EA. On October 8, 2024, Commission staff issued a final EA.

6. The interventions, comments, and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

A. Project Area

7. The Shelburne Project is located in the Town of Shelburne on the Androscoggin River, in Coos County, New Hampshire. The Androscoggin River begins in northwestern Maine at Umbagog Lake, crosses into northern New Hampshire, then re-enters Maine near Bethel, eventually joining the Kennebec River at Merrymeeting Bay in coastal Maine. The watershed has a total drainage area of 3,450 square miles. Flows in the Androscoggin River are regulated by several large storage reservoirs upstream of Umbagog Lake, including: Kennebago, Mooselookmeguntic, Upper and Lower Richardson, and Azischohos.

8. There are eight hydroelectric projects, including the Shelburne Project, within an 11-mile-long reach of the river between Berlin and Shelburne, New Hampshire that are seeking new licenses concurrently.⁹ The Androscoggin River Basin contains over 200 dams, most of which are located on various tributaries to the mainstem.

B. Project Facilities

9. The Shelburne Project consists of a dam, impoundment, powerhouse, generation equipment, transmission line, and appurtenant facilities. The project dam is a 696-foot-long structure consisting of the following sections from north to south: (1) a 3-foot-wide, 70-foot-long, concrete retaining wall along the northern shore of the Androscoggin River; (2) a 171-foot-long gated spillway section consisting of an 83-foot-long section with

⁸ 42 U.S.C. §§ 4321 *et seq.*; *see also* 18 C.F.R. pt. 380 (2025) (Commission's regulations implementing NEPA). The Council on Environmental Quality's final rule rescinding its NEPA regulations became effective on April 11, 2025. 90 Fed. Reg. 10,610 (Feb. 25, 2025).

⁹ The eight projects from upstream to downstream are: Sawmill (P-2422), Riverside (P-2423), J. Brodie Smith (P-2287), Cross Power (P-2326), Cascade (P-2327), Upper Gorham (P-2311), Gorham (P-2288), and Shelburne (P-2300).

9.6-foot-high hinged steel and wood flashboards and an 88-foot-long section containing three 25-foot-long, 10-foot-high wastegates separated by 5-foot-wide concrete piers; (3) a 27-foot-wide, 143-foot-long sluiceway controlled by a 19-foot-wide sluice gate; (4) a 95-foot-long non-overflow concrete retaining wall; (5) a 150-foot-long powerhouse integral to the dam that extends to the south riverbank; and (6) a 250-foot-emergency spillway dike along the south shore of the impoundment. A 17-foot-long by 14-foot-wide building located on the island adjacent to the sluiceway houses the controllers for the gates. The dam creates an impoundment that is 7,200 feet long and has a surface area of approximately 78 acres at the normal full pond elevation of 734.2 feet.¹⁰

10. From the impoundment, water enters a 112-foot-long by 15-foot-high intake that conveys flows to the powerhouse. The intake is fitted with a steel bar trashrack with 3-inch clear spacing. The 112-foot-long, 48.6-foot-wide brick and steel powerhouse contains two 960-kilowatt (kW) vertical Francis turbine-generator units and one 1,800-kW vertical Kaplan turbine-generator unit. The total installed capacity of the units is 3.72 MW.

11. After passing through the turbine-generator units, flow discharges through a 130-foot-long tailrace to the Androscoggin River, creating a 150-foot-long bypassed reach. Power from the powerhouse is transmitted to a transformer located adjacent to the powerhouse through a 50-foot-long, 2-phase 2.2-kilovolt (kV) transmission line where it is connected to GLH's distribution system, which serves the Cascade Mill and the regional grid.

12. GLH does not own, operate, or maintain any project recreation facilities; however, the project was included in an approved Upper Androscoggin River Comprehensive Recreation Plan (1995 Recreation Plan).¹¹ There are multiple informal sites that provide access to the Androscoggin River, including: (1) the Shelburne informal access area, which is located on the northern and southern shorelines directly downstream of the Shelburne dam; (2) the Hogan Road informal access area, off Hogan Road upstream of

¹⁰ All elevations in this document are based on the National Geodetic Vertical Datum of 1929 (NGVD29).

¹¹ On February 13, 1997, the Commission approved the 1995 Recreation Plan. The plan included recreation license requirements for the Shelburne Project, Upper Gorham Project, Cross Power Project, and Sawmill Project. *James River-N.H. Elec., Inc.*, 78 FERC ¶ 62,110 (1997). The order required a sign providing history of the Shelburne powerhouse.

the dam;¹² (3) the Reflection Pond¹³ information access area, which is a road-side pull-off that can be accessed off Route 2; and (4) the Meadow Road informal access area. None of the informal access sites are within the current project boundary.

13. A more detailed description of the project facilities is contained in ordering paragraph (B)(2).

C. Project Boundary

14. The current project boundary encloses an area of 78 acres and includes the project facilities described above.

D. Current Project Operation

15. The project operates in a run-of-river mode, such that outflow from the project approximates inflow to the impoundment, by maintaining the water surface elevation of the impoundment at 734.2 feet via a pond level sensor that is monitored remotely. GLH provides a minimum flow of 2 cubic feet per second (cfs) or inflow, whichever is less, into the bypassed reach via leakage from the dam.

16. The turbine-generator units are started manually onsite and can be adjusted remotely. The spill gates can be operated manually onsite or remotely.

17. The hydraulic capacity of each of the two vertical Francis turbines (Units 1 and 2) is 800 cfs and of the vertical Kaplan turbine (Unit 3) is 1,800 cfs. Under normal circumstances the units are set to maximize generation from available river flow, while still maintaining the minimum flow in the bypass reached. When river flow is less than 1,000 cfs, GLH operates either Unit 1 or Unit 2. When river flow is between 1,000 and 1,600 cfs, Units 1 and 2 are both operated. When river flow is above 1,600 cfs, GLH operates all three units.

18. Flow in excess of the maximum hydraulic capacity (i.e., 3,400 cfs) passes over the dam. In advance of an anticipated major flood, GLH attempts to draw down the impoundment 3 to 5 feet. The drawdowns are timed to minimize or prevent overtopping of the emergency spillway and capture high flows from the Peabody River, located upstream near the Town of Gorham. This flashy river conveys runoff from the Mt. Washington area and can cause flows in the Androscoggin River to rise very quickly

¹² The road itself is owned by the Town of Shelburne, and the informal access area is owned by the State of New Hampshire's Shelburne State Forest and the Society for the Protection of New Hampshire Forests.

¹³ A section of the Shelburne impoundment on the south side of the St. Lawrence and Atlantic Railroad is also called Reflection Pond.

during severe storms. These events historically occur 1 to 3 times per year. The project has an average annual energy production of approximately 16,962 megawatt-hours (MWh).

E. Proposed Operation and Environmental Measures

19. To protect aquatic resources in the impoundment and the Androscoggin River downstream of the powerhouse, GLH proposes to continue to operate the project in a run-of-river mode, such that outflow from the project approximates inflow at all times, and to maintain the impoundment level at elevation 734.2 feet during normal operation.
20. To protect fisheries and aquatic habitat, GLH proposes to continue to provide a minimum flow of 2 cfs or inflow, whichever is less, into the bypassed reach.
21. To ensure the project is operated in compliance with any new license issued, GLH proposes to implement an updated Operations Compliance Plan.
22. To support and enhance recreational opportunities at the project, GLH proposes to revise the 1995 Recreation Plan to include the following measures: (1) connecting the hand-carry take-out at the impoundment and the downstream put-in by developing a natural approximately 4-foot-wide and 450-foot-long portage; (2) improving the downstream put-in by adding gravel or wood crib steps; (3) installing a wooden canoe rest at the halfway point between the take-out and put-in; and (4) developing a gravel parking area for 4-5 vehicles adjacent to the take-out location and existing access gate off North Road.
23. To protect cultural resources within the project boundary, GLH proposes to develop a Historic Properties Management Plan (HPMP) that covers all of its projects on the Upper Androscoggin River.

SUMMARY OF LICENSE REQUIREMENTS

24. This license, which authorizes 3.72 MW of renewable energy generation capacity, requires the proposed measures listed above, except for revising the 1995 Recreation Plan and developing a multi-project HPMP. The license also requires the New Hampshire Department of Environmental Services (New Hampshire DES) section 401 water quality certification (certification) conditions (Appendix A), and the Commission staff-recommended measures described below. Combined, these measures will protect and enhance water quality, aquatic and terrestrial resources, federally listed species, recreation, and cultural resources at the project.
25. To protect the northern long-eared bat and tricolored bat, the license requires GLH to avoid, among other things, removing, destroying, or trimming trees of any size on project land from April 15 through October 31 unless the trees represent a safety hazard.

26. To enhance and manage recreational facilities at the project, the license requires GLH to develop a project-specific recreation management plan (rather than revising the 1995 Recreation Plan) that includes GLH's proposed measures, an additional measure to install and maintain recreational signage near the proposed parking and portage area, and an implementation plan and schedule. It also requires revising the project boundary to include the Shelburne access area as a project recreation facility that would be maintained and operated by GLH.

27. To protect and manage cultural resources, the license requires GLH to develop an HPMP specific to the Shelburne Project in consultation with the New Hampshire SHPO within one year of license issuance that conforms to current guidelines and includes a plan and schedule, developed in consultation with the Town of Shelburne, to install and maintain interpretive signage regarding the Shelburne dam and powerhouse.¹⁴

WATER QUALITY CERTIFICATION

28. Under section 401(a)(1) of the Clean Water Act (CWA),¹⁵ the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency has either issued certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.¹⁶

29. On September 22, 2023, GLH applied to New Hampshire DES for certification for the Shelburne Project. New Hampshire DES received the application on the same day.¹⁷ On September 19, 2024, New Hampshire DES issued a certification for the project with 12 conditions.

30. Seven conditions (E1 through E6 and E12) are general or administrative in nature and are not discussed further. The remaining conditions require GLH to: (1) implement GLH's proposed minimum flow, impoundment fluctuation limits, and run-of-river

¹⁴ See FERC and Advisory Council on Historic Preservation, *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, (May 20, 2002), <https://www.ferc.gov/sites/default/files/2020-07/hpmp.pdf>.

¹⁵ 33 U.S.C. § 1341(a)(1).

¹⁶ *Id.* § 1341(d).

¹⁷ GLH filed a copy of the receipt of delivery of the application to New Hampshire DES on September 22, 2023.

operation measures, and restrict the rate of impoundment drawdown and refill for maintenance activities (condition E-7); (2) notify and submit reports to New Hampshire DES, New Hampshire Fish and Game Department (New Hampshire FGD), and FWS if the project does not meet state water quality standards or in the event of a deviation from the minimum flow or impoundment fluctuation limits (condition E-8); (3) develop an operation compliance monitoring plan with specific procedures for monitoring and reporting compliance with project operational requirements, including maintaining and calibrating monitoring equipment (condition E-9); (4) develop a water quality improvement plan with provisions for implementing corrective measures if New Hampshire DES determines that the project is causing or contributing to a violation of water quality standards (condition E-10); and (5) implement a water quality monitoring and reporting program if New Hampshire DES determines that the project is causing or contributing to a violation of state water quality standards (condition E-11).

31. The certification conditions are set forth in Appendix A of this order and incorporated into the license by Ordering Paragraph (D).

COASTAL ZONE MANAGEMENT ACT

32. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),¹⁸ the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state's coastal zone management 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 6 months of its receipt of the applicant's certification.

33. On January 18, 2022, GLH requested confirmation from the New Hampshire Coastal Program (New Hampshire CP) that the Shelburne Project is not included in the state's coastal zone. New Hampshire CP confirmed¹⁹ that the project is outside the New Hampshire coastal zone. Therefore, no consistency certification is required.

¹⁸ 16 U.S.C. § 1456(c)(3)(A).

¹⁹ New Hampshire CP's confirmation email is included in Appendix A of Exhibit E of the license application filed on August 1, 2022.

SECTION 18 FISHWAY PRESCRIPTION

34. Section 18 of the FPA²⁰ provides that the Commission shall require the construction, operation, and maintenance by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate.

35. By letter filed September 11, 2023, Interior requested that the Commission reserve authority to prescribe fishways. Consistent with Commission policy, Article 403 of this license reserves the Commission's authority to require fishways that may be prescribed by Interior for the Shelburne Project.

THREATENED AND ENDANGERED SPECIES

36. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)²¹ requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species or result in the destruction or adverse modification of their designated critical habitat.

37. Based on FWS's Information for Planning and Consultation (IPaC) website,²² the federally listed endangered northern long-eared bat, the federally listed threatened Canada lynx, the federally proposed endangered tricolored bat, and the federally proposed threatened monarch butterfly, have the potential to occur within the project boundary.²³ There is no proposed or designated critical habitat for either bat species, the Canada lynx, or monarch butterfly in the project area.

A. Northern Long-eared Bat and Tricolored Bat

38. In a letter to FWS issued on May 10, 2024, Commission staff recommended including a requirement in the new license that prohibits any tree cutting and trimming at the project from April 15 through October 31, unless the trees represent a public safety hazard, to protect the northern long-eared bat and tricolored bat. Staff noted that with a seasonal tree removal and trimming restriction in place, relicensing the project may affect, but is not likely to adversely affect, the northern long-eared bat, and would not

²⁰ 16 U.S.C. § 811.

²¹ *Id.* § 1536(a).

²² *See* IPaC, FWS, <https://ipac.ecosphere.fws.gov/> (last accessed August 4, 2025).

²³ The monarch butterfly was a candidate species when the final EA was issued, but it was subsequently proposed for listing on December 12, 2024.

jeopardize the continued existence of the tricolored bat.²⁴ In the May 10, 2024 letter, Commission staff requested FWS's concurrence with its determination for the northern long-eared bat. On September 27, 2024, FWS concurred with staff's determination for the northern long-eared bat.²⁵

39. Article 404 of this license requires the seasonal restrictions for tree removal and trimming as recommended by staff. Trees representing a public or project safety hazard would not be subject to the seasonal cutting and trimming restrictions. If emergency tree removal is necessary, the licensee must notify New Hampshire FGD and FWS as soon as practical after conducting the trimming or removal. No further action under the ESA is required for these species.

B. Canada Lynx

40. In the EA, Commission staff concluded that relicensing the project would not affect the Canada lynx because there is little suitable habitat for the lynx near the project and its main prey species, snowshoe hare, is unlikely to occur there.²⁶ Therefore, no further action under the ESA is required.

C. Monarch Butterfly

41. In the EA, Commission staff found that current maintenance activities at the project, including minor clearing and trimming of brush and other vegetation management, are not expected to remove or degrade monarch butterfly habitat. The monarch butterfly is not known to overwinter near the project, and common milkweed (larval host plant) is not generally found at higher elevation areas within New Hampshire where the project is located and is thus unlikely to be present in plant communities near the project. Therefore, any project effects on the monarch butterfly and its habitat would be minimal and discountable.²⁷ Based on this information, staff concludes that relicensing the project would not jeopardize the continued existence of this species, and no further action under the ESA is required.

²⁴ For species proposed for listing, a federal agency must confer with FWS only when the agency determines that its action would likely jeopardize the continued existence of the proposed species or destroy or adversely modify proposed critical habitat. 16 U.S.C. § 1536(a)(4).

²⁵ See September 27, 2024 FWS Letter (filed October 1, 2024).

²⁶ Final EA at D-3 to D-5.

²⁷ *Id.*

HISTORIC AND CULTURAL RESOURCES

A. National Historic Preservation Act

42. Under section 106 of the National Historic Preservation Act (NHPA),²⁸ and its implementing regulations,²⁹ federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (National Register), defined as historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This process generally requires the Commission to consult with the SHPO to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

43. The following features are eligible for listing in the National Register under Criterion A and C: the Shelburne 1906/1929 powerhouse and dam (#217.01; ca. 1925/1964/1990); bridges 075/113 (1920/1959) and 075/110 (1973) of North River Road; setting/landscape features including historic walls, impoundment, reflection pond, ledge, etc.; the 1906 railroad causeway resulting from plant/dam construction; and the remnants of an historic power line along the causeway. To protect cultural resources and the Shelburne powerhouse, GLH proposed to develop an HPMP in consultation with the New Hampshire SHPO.

44. In the EA, Commission staff concluded that developing an HPMP would ensure that measures are in place to protect known historic properties and any previously undiscovered archaeological resources within the area of potential effects from project operation and maintenance, including the proposed recreation improvements.³⁰ Staff also recommended that GLH include in the HPMP a plan and schedule, developed in consultation with the Town of Shelburne, to install and maintain interpretive signage regarding the Shelburne dam and powerhouse, and that the HPMP conform to current guidelines.

45. To satisfy its section 106 responsibilities, the Commission executed a Programmatic Agreement (PA) with the New Hampshire SHPO and invited GLH to concur with the stipulations of the PA. GLH concurred with the PA. Article 406 requires GLH to implement the PA. The PA requires GLH to develop and implement an HPMP, within one year of license issuance, that includes the measures described above.

²⁸ 54 U.S.C. § 306108.

²⁹ 36 C.F.R. pt. 800 (2025).

³⁰ Final EA at 25.

46. Execution of the PA demonstrates the Commission's compliance with section 106 of the NHPA.

47. Developing a single HPMP that covers all of GLH's projects on the Androscoggin River, as proposed by GLH, could make administering the Shelburne Project license difficult if GLH were to sell the project. The license conditions for the Shelburne Project should not be encumbered by the requirements of other licensed projects. Therefore, Article 406 requires the HPMP to be specific to the Shelburne Project.

B. Tribal Consultation

48. There are no state or federally recognized Tribes in New Hampshire. No federally recognized Tribes having an interest in the project area at the county level were identified by Commission staff using the Tribal Directory Assessment Tool.³¹

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES PURSUANT TO SECTION 10(J) OF THE FPA

49. Section 10(j)(1) of the FPA³² requires the Commission, when issuing a license, to include conditions based on recommendations submitted by federal and state fish and wildlife agencies pursuant to the Fish and Wildlife Coordination Act,³³ to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

50. Neither New Hampshire FGD nor FWS filed section 10(j) recommendations for the project.

SECTION 10(A)(1) OF THE FPA

51. Section 10(a)(1) of the FPA³⁴ requires that any project for which the Commission issues a license be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection,

³¹ *Tribal Directory Assessment Tool*, <https://egis.hud.gov/tdat/> (last visited Apr. 15, 2025).

³² 16 U.S.C. § 803(j)(1).

³³ *Id.* §§ 661 *et seq.*

³⁴ *Id.* § 803(a)(1).

mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

A. Operational Deviations

52. Certification condition E-7 allows temporary modifications to project operating requirements (e.g., minimum flows, impoundment levels) upon mutual agreement among New Hampshire DES, New Hampshire FGD, and the licensee, and after obtaining approval by the Commission and “any other federal agency that has the authority to specify flow or impoundment levels of the Project.” Certification condition E-8 requires GLH to notify New Hampshire DES, New Hampshire FGD, and FWS (collectively, “agencies”) within 24 hours of any deviation from required minimum flows or instances where the impoundment level fluctuates more than 0.5 foot from the normal operating level of 734.2 feet. The certification also requires GLH to file with the Commission an annual summary report of all such incidents by March 1st of each year following license issuance.

53. For purposes of administrative efficiency, the Commission typically does not require licensees to obtain prior Commission approval of temporary modifications to project operations that last less than 3 weeks and are implemented in agreement with the resource agencies. Instead, for planned deviations less than 3 weeks, the Commission typically requires licensees to notify the Commission within 14 days and file a report within 30 days that provides an explanation of the planned deviation. However, to be consistent with the certification requirements, Article 402 requires GLH to also notify the Commission in addition to the agencies and to file a report with the Commission within 30 days of the onset of the deviation that includes: (1) the reasons for the deviation and how project operations were modified; (2) the duration and magnitude of the deviation; (3) any observed or reported environmental effects and how potential effects were evaluated; and (4) documentation of consultation with the agencies. Because operational deviations exceeding 3 weeks have a greater potential for adverse environmental effects and are likely to represent unique circumstances potentially warranting Commission awareness and oversight, Article 402 requires the licensee to file an application for a temporary amendment from the operational requirements of the license for these types of deviations.

54. Although certification condition E-8 requires the licensee to notify and submit incident reports to the agencies for all operational deviations regardless of their duration or severity, as explained above, the Commission typically does not require licensees to report minor deviations (e.g., those that last less than 3 hours and do not result in any observable environmental effects) to reduce the reporting burden on its licensees. Instead, the Commission typically only requires an annual report of such deviations. The annual summary report of deviations that is to be filed with the Commission by March 1st of each year is sufficient for the Commission’s reporting purposes for minor unplanned deviations.

55. When unplanned deviations last longer than 3 hours or result in visible environmental effects such as a fish kill, the Commission typically requires that licensees notify the resource agencies within 24 hours, and the Commission within 14 days, and file a report with the Commission as soon as possible, but no later than 30 days after each such incident. As noted above, the certification requires GLH to notify the agencies within 24 hours and to provide the written reports on unplanned deviations to the agencies within 30 days; however, it does not include a requirement for notifying the Commission or filing the reports with the Commission until March 1st of the year following the event. Therefore, when a deviation lasts longer than 3 hours or results in visible adverse environmental effects, Article 402 requires the licensee to also notify the Commission within 24 hours and file a report with the Secretary of the Commission within 30 days after each such incident. The report must include: (1) the cause of the deviation; (2) the duration and magnitude of the deviation; (3) any operational and/or monitoring data related to the deviation; (4) a timeline of the incident and the licensee's response; (5) any comments or correspondence received from the agencies, or confirmation that no comments were received from the agencies; (6) documentation of any observed or reported environmental effects; and (7) a description of measures implemented to prevent similar deviations in the future. The reports and the additional information required by Article 402 would assist the Commission in determining the severity of the incidents and the adequacy of measures at preventing recurrences in the future. The cost of these additional administrative measures would be negligible.

B. Recreation

56. There are no project recreation facilities within the project boundary; however, there are four informal access points to the Androscoggin River that provide access to the project impoundment and the river immediately downstream of the dam: Shelburne informal access, Hogan Road informal access, Reflection Pond informal access, and Meadow Road informal access. The Shelburne informal access provides access to the river below the dam on the north and south sides of the Androscoggin River. On the south side of the river, there is a gravel pull-off with parking for approximately three vehicles that provides access to a relatively steep, small, cobble-size riprap hand-carry boat launch and informal angling area below the dam. On the north side of the river, just past the Shelburne dam, is a gravel parking area and space for two vehicles. A short path from the parking area through the woods leads to a bedrock outcrop and informal angling area below the dam. The Hogan Road and Reflection Pond informal access areas provide access to the north and south sides of the project impoundment. Both access areas consist of road-side parking with one to six spaces off Hogan Road and Route 2, respectively, with paths down to the impoundment suitable for hand-launching boats. The Meadow Road informal access provides access to the north side of the river about 2.7 miles below the Shelburne dam. It includes a single paved entrance that leads to an approximately 55-foot by 50-foot gravel parking area with space for approximately 10 vehicles. A short 60-foot gravel/dirt path leads to a hand carry launch and informal angling area.

57. GLH proposes to revise the 1995 Recreation Plan to include the following improvements to the south side of the Shelburne informal access area: (1) connect the hand-carry take-out at the impoundment and the downstream put-in by developing a natural approximately 4-foot-wide, 450-foot-long portage; (2) improve the downstream put-in by adding gravel or wood crib steps; (3) install a wooden canoe rest at the halfway point between the take-out and put-in; and (4) develop a gravel parking area for 4-5 vehicles adjacent to the take-out location and existing access gate off North Road.

58. The results of the Recreation Use and Facility Assessment Study GLH conducted during pre-filing showed the Shelburne informal access area to be one of the least visited recreation sites in the project area. In the EA,³⁵ Commission staff found that the lack of use is likely due to the relatively steep grading, limited parking, and difficult access to river entry points. Therefore, staff concluded that the benefits of GLH's proposed measures to improve access and create a safe and convenient portage around the Shelburne dam would be worth the estimated levelized annual cost of \$7,951 and recommended them.³⁶ In addition, because these enhancements could increase use, staff concluded that the benefits to the public of adding signage at the site that describes the recreation opportunities and rules governing the accessibility and use of recreational facilities would be worth the additional estimated levelized annual cost of \$811 and recommended it.

59. To ensure that the access site continues to meet project recreation needs, staff recommended that GLH be responsible for maintaining the parking area, portage trail, and put-in/take-out over the term of any new license, and therefore, that the project boundary be revised to include those facilities. Staff also recommended that these measures be included in a new project-specific recreation management plan, rather than the 1995 Recreation Plan, to avoid potential issues with administering the license if the project were to be sold and the license transferred to a new owner during the term of the license.

60. Article 405 of this license requires GLH to develop a project-specific recreation management plan that includes an implementation schedule for the staff-recommended recreation improvements, an operation and maintenance schedule for the project recreation facilities over the term of the license, and the filing of revised Exhibit G drawings upon completion of the improvements that include the facilities within the project boundary.

ADMINISTRATIVE PROVISIONS

³⁵ Final EA at 22.

³⁶ *Id.* at F-1, F-2.

A. Annual Charges

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

B. Reservation of Authority to Require Financial Assurance Measures

62. To confirm the importance of licensees maintaining sufficient financial reserves, Article 202 reserves the Commission's authority to require future measures to ensure that the licensee maintains sufficient financial reserves to carry out the terms of the license and Commission orders pertaining thereto.

C. Amortization Reserve

63. The Commission requires that for new major licenses, non-municipal licensees set up and maintain an amortization reserve account upon license issuance. Article 203 requires the establishment of the account.

D. Exhibit A Project Description

64. Exhibit A was filed on August 1, 2022, and revised on October 11, 2022. The revised exhibit A was provided only in a strikethrough format. A final, clean copy is needed for Commission staff records. Article 204 requires the licensee to file a final, clean copy of the revised Exhibit A.

E. Exhibit F and G Drawings

65. The Commission requires licensees to file sets of approved project exhibit drawings in electronic file format. Article 205 requires the filing of these drawings.

F. Headwater Benefits

66. Some projects directly benefit from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 206 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

G. Review of Final Plans and Specifications

67. Article 301 requires the licensee to coordinate with the Commission's Division of Dam Safety and Inspections-New York Regional Engineer on any project modifications resulting from environmental requirements that would affect project works, dam safety, or project operation.

H. Use and Occupancy of Project Lands and Waters

68. Requiring a licensee to obtain prior Commission approval for every use and occupancy of project land would be unduly burdensome. Therefore, Article 407 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

I. Commission Approval of Resource Plans, Filing of Reports, and Filing of Amendments

69. In Appendix A of this order, there are certain water quality certification conditions that do not require the licensee to file certain plans and reports with the Commission or that contemplate future changes to approved plans and/or project operations and facilities without prior Commission approval. Article 401 requires the licensee to file these plans and reports with the Commission for approval and file amendment applications, as appropriate.

STATE AND FEDERAL COMPREHENSIVE PLANS

70. Section 10(a)(2)(A) of the FPA,³⁷ 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.³⁸ Under section 10(a)(2)(A), Commission staff identified and reviewed six comprehensive plans relevant to this project.³⁹ No conflicts were found.

APPLICANT'S PLANS AND CAPABILITIES

71. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,⁴⁰ Commission staff evaluated GLH's record as a licensee with respect to: (A) conservation efforts; (B) compliance history and ability to comply with a new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission services; (G) cost-effectiveness of

³⁷ 16 U.S.C. § 803(a)(2)(A).

³⁸ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2025).

³⁹ The list of applicable plans can be found in Appendix H of the final EA.

⁴⁰ 16 U.S.C. §§ 803(a)(2)(C), 808(a).

plans; and (H) actions affecting the public. This order accepts staff's findings in each of the following areas.

A. Conservation Efforts

72. Section 10(a)(2)(C) of the FPA⁴¹ requires the Commission to consider the electricity consumption efficiency improvement programs of GLH, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. GLH sells the project's energy to the ISO New England administrated market.

73. Staff concludes that, given the limits of GLH's ability to influence users of the electricity generated by the project, GLH will operate the project in a manner that is consistent with section 10(a)(2)(C) of the FPA.

B. Compliance History and Ability to Comply with New License

74. Based on a review of GLH's compliance with the terms and conditions of the existing license, GLH's overall record of making timely filings and compliance with its license is satisfactory. Therefore, GLH can satisfy the conditions of a new license.

C. Safe Management, Operation, and Maintenance of the Project

75. Commission staff has reviewed GLH's management, operation, and maintenance of the project pursuant to the requirements of 18 C.F.R. Part 12 and the Commission's Engineering Guidelines. Staff concludes that the dam and other project works are safe, and that there is no reason to believe that GLH cannot continue to safely manage, operate, and maintain these facilities under a new license.

D. Ability to Provide Efficient and Reliable Electrical Service

76. Commission staff has reviewed GLH's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Staff's review indicates that GLH has devices that monitor structural movement or stress, seepage, uplift, and equipment failure at the project. GLH regularly inspects the project turbine generator units to ensure they continue to perform in an optimal manner, schedules maintenance to minimize effects on energy production, and, since the project has been in operation, has undertaken several initiatives to ensure the project is able to operate reliably into the future. Therefore, GLH can operate the project to provide efficient and reliable electric service in the future.

⁴¹ *Id.* § 803(a)(2)(C).

E. Need for Power

77. To assess the need for power from the project, staff looked at the needs in the operating region in which the project is located, which is the Northeast Power Coordinating Council's New England region of the North American Electric Reliability Corporation (NERC). NERC annually forecasts electrical supply and demand in the nation and the region for a 10-year period. NERC's most recent report indicates the net internal demand for this region is projected to increase annually by about 1.32% from 2024 to 2033. Therefore, the project's power will continue to help meet the regional need for power.

F. Transmission Services

78. Project power is transmitted from the generator at the powerhouse to a transformer through a 50-foot-long, 2-phase 22-kV transmission line. Project power is then carried to the distribution system, which serves the Cascade Mill and the regional grid. GLH is proposing no changes that would affect its own or other transmission services in the region. The project is an important element in providing power and voltage control to retail and wholesale customers in Coos County and the New England region.

G. Cost Effectiveness of Plans

79. GLH proposes environmental measures for the protection of fish and wildlife and enhancement of recreation resources at the project. Based on GLH's record as the existing licensee, Commission staff conclude that these plans are likely to be carried out in a cost-effective manner.

H. Actions Affecting the Public

80. GLH provided opportunity for public involvement in the development of its application for a new license for the Shelburne Project. In addition to helping to meet regional power needs, GLH provides opportunities for the public to use the project area for recreation such as fishing and picnicking.

PROJECT ECONOMICS

81. In determining whether to issue a new license for an existing hydroelectric project, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,⁴² the Commission uses current costs to compare the costs of the project with the costs of the likely alternative source of power with no forecasts concerning potential future inflation, escalation, or

⁴² 72 FERC ¶ 61,027 (1995).

deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

82. In applying this analysis to the Shelburne Project, Commission staff considered three options: a no-action alternative, GLH's proposal, and the project as licensed herein.⁴³

83. Under the no-action alternative, the project would continue to operate as it does now. The project has an installed capacity of 3.72 MW, a capacity benefit of 2.8 MW,⁴⁴ and generates an average of 19,962 MWh of electricity annually. The alternative source of power's annual cost to produce the same amount of energy and provide the same capacity benefit is \$1,927,110.⁴⁵ The total annual project cost is \$1,569,929. To determine whether the proposed project is currently economically beneficial, the project's total annual cost is subtracted from the alternative source of power's cost. Therefore, the project would cost \$357,181 less than the alternative source of power's cost.

84. As proposed by GLH, the project would have an installed capacity of 3.72 MW, generate an average of 19,962 MWh of energy annually, and have a capacity benefit of 2.8 MW. The alternative source of power's annual cost to produce the same amount of energy and provide the same capacity benefit is \$1,927,110. The total annual project cost is about \$1,581,220. Subtracting the project's total annual cost from the alternative source of power's cost, the project would cost \$345,890 less than the alternative source of power's cost.

⁴³ Details of Commission staff's economic analysis for the three alternatives are included in section 4.0 and Appendix E of the final EA.

⁴⁴ The term "capacity benefit" is used to describe the benefit a project receives for providing capacity to the grid, which may be in the form of a dependable capacity credit or credit for monthly capacity provided.

⁴⁵ The alternative source of power cost is based on the current cost of providing the same amount of generation and capacity benefit from a natural gas-fired combined cycle plant, as reported by the most recent publication of The U.S. Energy Information Administration (EIA), *Annual Energy Outlook*. This analysis is based on EIA, *Annual Energy Outlook 2023*, for Division 1, New England Region. As reported in Section 4 and Appendix E of the final EA, the alternative source of power cost is a combination of the cost of energy, \$71.42/MWh, and a capacity benefit which staff estimates to be about \$179.08/kilowatt-year.

85. As licensed herein, the project would have an installed capacity of 3.72 MW, generate an average of 19,962 MWh of energy annually, and have a capacity benefit of 2.8 MW. The alternative source of power's cost to produce the same amount of energy and provide the same capacity benefit is \$1,927,110. The total annual project cost is about \$1,582,842. Subtracting the project's total annual cost from the alternative source of power's cost, the project would cost \$344,268 less than the alternative source of power's cost.

86. In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include the ability to help maintain the stability of a power system, such as by quickly adjusting power output to respond to rapid changes in system load; and to respond rapidly to a major utility system or regional blackout by providing a source of power to help restart fossil fuel-based generating stations and put them back online.

COMPREHENSIVE DEVELOPMENT

87. Sections 4(e) and 10(a)(1) of the FPA⁴⁶ 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 must be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

88. The EA for the project contains background information, analysis of effects, and support for related license articles. Based on the record of this proceeding, including the EA and the comments thereon, licensing the Shelburne Project, as described in this order, will not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of the license.

89. Based on our independent review and evaluation of the Shelburne Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EA, the project as licensed herein, is best adapted to a comprehensive plan for improving or developing the Androscoggin River.

⁴⁶ 16 U.S.C. §§ 797(e), 803(a)(1).

90. This alternative is selected because: (1) issuance of a new license will serve to maintain a beneficial and dependable source of electric energy; (2) the required environmental measures will protect or enhance water quality, fish and wildlife resources, federally listed species, recreational resources, and cultural resources; and (3) the 3.72 MW of electric capacity comes from a renewable resource that does not contribute to atmospheric pollution.

LICENSE TERM

91. Section 15(e) of the FPA⁴⁷ provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years.

92. On October 19, 2017, the Commission established a 40-year default license term policy for licenses, effective as of October 26, 2017.⁴⁸ The Policy Statement provides for exceptions to the 40-year default license term under certain circumstances:

(1) establishing a shorter or longer license term if necessary to coordinate license terms for projects located on the same river basin; (2) deferring to a shorter or longer license term explicitly agreed to in a generally-supported comprehensive settlement agreement; and (3) establishing a longer license term upon a showing by the license applicant that substantial voluntary measures were either previously implemented during the prior license term, or substantial new measures are expected to be implemented under the new license. Because none of the above exceptions apply in this case, a 40-year license for the Shelburne Project is appropriate.

The Director orders:

(A) This license is issued to Great Lakes Hydro America, LLC (licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to operate and maintain the Shelburne Hydroelectric Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

⁴⁷ *Id.* § 808(e).

⁴⁸ See *Policy Statement on Establishing License Terms for Hydroelectric Projects*, 161 FERC ¶ 61,078 (2017) (Policy Statement).

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, described in the project description and enclosed by the project boundary shown by Exhibit G filed on August 1, 2022.

Exhibit No.	FERC Drawing No.	Drawing Title
G-1	P-2300-1008	Project Boundary Map

(2) Project works that include: (1) a 696-foot-long structure consisting of the following sections from north to south: (a) a 3-foot-wide, 70-foot-long, concrete retaining wall along the northern shore of the Androscoggin River, (b) a 171-foot-long gated spillway section consisting of an 83-foot-long section with 9.6-foot-high hinged steel and wood flashboards and an 88-foot-long section containing three 25-foot-long, 10-foot-high wastegates separated by 5-foot-wide concrete piers, (c) a 27-foot-wide, 143-foot-long sluiceway controlled by a 19-foot-wide screw stem operated sluice gate, (d) a 95-foot-long non-overflow concrete retaining wall, (e) a 150-foot-long powerhouse integral to the dam that extends to the south riverbank, and (f) a 250-foot-emergency spillway dike along the south shore of the impoundment; (2) a 17-foot-long by 14-foot-wide building located on the island adjacent to the sluiceway which houses the controllers for the gates; (3) a 78-acre impoundment at a full pond elevation of 734.2 feet;⁴⁹ (4) a 112-foot-long by 15-foot-high intake with a steel bar trashrack with 3-inch clear spacing; (5) a 112-foot-long, 48.6-foot-wide brick and steel powerhouse containing two 960-kilowatt (kW) vertical Francis turbine-generator units and a 1,800 kW vertical Kaplan turbine-generator unit, for a total installed capacity of 3,720 kW; (6) a 130-foot-long tailrace; (7) a 50-foot-long, 2-phase 2,200-volt transmission line that connects the powerhouse to a transformer located adjacent to the powerhouse; and (8) appurtenant facilities.

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

Exhibit F: The following Exhibit F drawings filed on July 10, 2023:

Exhibit No.	FERC Drawing No.	Drawing Title
F-1	P-2300-1001	Site Plan Powerhouse and Dam

⁴⁹ All elevations in this document are based on the National Geodetic Vertical Datum of 1929 (NGVD29).

Exhibit No.	FERC Drawing No.	Drawing Title
F-2	P-2300-1002	Cross Sections of Dam and Canal
F-3	P-2300-1003	Downstream Elevation
F-4	P-2300-1004	Plan of Powerhouse Operating Floor
F-5	P-2300-1005	Powerhouse Elevations
F-6	P-2300-1006	Powerhouse Sections
F-7	P-2300-1007	Powerhouse Sections

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

(C) The Exhibits F and G described above are approved and made part of this license. The Exhibit A filed as part of the application for license does not conform to Commission regulations and is not approved.

(D) This license is subject to the conditions submitted by the New Hampshire Department of Environmental Services under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1), as those conditions are set forth in Appendix A to this order.

(E) This license is also subject to the articles set forth in Form L-3 (October 1975), entitled “Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States” (*see* 54 F.P.C. 1799 *et seq.*), as reproduced at the end of this order, and the following additional articles:

Article 201. *Administrative Annual Charges.* The licensee must pay the United States annual charges, effective as of the first day of the month in which the license is issued, and as determined in accordance with the provisions of the Commission’s regulations in effect from time to time, for the 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 3.72 megawatts.

Article 202. *Reservation of Authority to Require Financial Assurance Measures.* The Commission reserves the right to require future measures to ensure that the licensee

maintains sufficient financial reserves to carry out the terms of the license and Commission orders pertaining thereto.

Article 203. Amortization Reserve. Pursuant to section 10(d) of the Federal Power Act, a specified reasonable rate of return upon the net investment in the project must be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee must set aside in a project amortization reserve account at the end of each fiscal year one half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the licensee must deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee must set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee must maintain the amounts established in the project amortization reserve account until further order of the Commission.

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

Article 204. Exhibit A Project Description. Within 90 days of the issuance date of the license, the licensee must file, for Commission approval, the revised Exhibit A describing all principal project works necessary for operation and maintenance of the project. Specifically, the Exhibit A filed October 11, 2022, must be filed as a final, clean copy (i.e., without the strikethrough, underline, and bold notations).

Article 205. Exhibit F and G Drawings. Within 45 days of the date of issuance of this order, as directed below, the licensee must file the approved exhibit drawings and geographic information system (GIS) data in electronic file format.

a) The licensee must prepare digital images of the approved exhibit drawings in electronic format. Prior to preparing each digital image, the licensee must add the FERC Project-Drawing Number (i.e., P-2300-1001 through P-2300-1008) in the margin below the title block of the corresponding approved drawing. The licensee must label and file the Exhibit F drawings as Critical Energy Infrastructure Information (CEII) material under 18 CFR § 388.113 (The submission should consist of: (1) a public portion

consisting of a cover letter; and (2) a CEII portion containing only the Exhibit F drawings). Each drawing must be a separate electronic file, and the file name must include: FERC Project-Drawing Number, FERC Exhibit Number, Drawing Title, date of this order, and file extension in the following format [P-2300-1001, F-1, Site Plan Powerhouse and Dam, MM-DD-YYYY.TIF]. All digital images of the exhibit drawings must meet the following format specification:

IMAGERY:	black & white raster file
FILE TYPE:	Tagged Image File Format, (TIFF) CCITT Group 4 (also known as T.6 coding scheme)
RESOLUTION:	300 dots per inch (dpi) desired, (200 dpi minimum)
DRAWING SIZE:	22" x 34" (minimum), 24" x 36" (maximum)
FILE SIZE:	less than 1 megabyte desired

Each Exhibit G drawing that includes the project boundary must contain a minimum of three known reference points (*i.e.*, latitude and longitude coordinates or state plane coordinates), arranged in a triangular format for GIS georeferencing the project boundary drawing to the polygon data. The licensee must identify the spatial reference for the drawing (*i.e.*, map projection, map datum, and units of measurement) on the drawing and label each reference point. In addition, a registered land surveyor must stamp each project boundary drawing.

b) Project boundary GIS data must be in a georeferenced electronic file format (such as ArcGIS shapefiles, GeoMedia files, MapInfo files, or a similar GIS format). The filing must include both polygon data and all reference points shown on the individual project boundary drawings. Each project development must have an electronic boundary polygon data file(s). Depending on the electronic file format, the polygon and point data can be included in single files with multiple layers. The georeferenced electronic boundary data file must be positionally accurate to ± 40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) must include: FERC Project Number, data description, date of this order, and file extension in the following format [P-2300, boundary polygon or point data, MM-DD-YYYY.SHP]. The filing must include a separate text file describing the spatial reference for the georeferenced data: map projection used (*i.e.*, UTM, State Plane, Decimal Degrees, *etc.*), the map datum (*i.e.*, North American 27, North American 83, *etc.*), and the units of measurement (*i.e.*, feet, meters, miles, *etc.*). The text file name must include: FERC Project Number, data description, date of this order, and file extension in the following format [P-2300, project boundary metadata, MM-DD-YYYY.TXT].

Article 206. Headwater Benefits. If the licensee's project was directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the prior license (including extensions of that term by annual licenses), and if those headwater benefits

were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee must reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license. The benefits will be assessed in accordance with Part 11, Subpart B, of the Commission's regulations.

Article 301. Project Modification Resulting from Environmental Requirements. If environmental requirements under this license require modification that may affect the project works or operations, the licensee must consult with the Commission's Division of Dam Safety and Inspections–New York Regional Engineer. Consultation must allow sufficient review time for the Commission to ensure that the proposed work does not adversely affect the project works, dam safety, or project operation.

Article 401. Commission Approval, Reporting, and Filing of Amendments.

(a) Requirement to File Plans for Commission Approval.

Certain conditions of the New Hampshire Department of Environmental Service's (New Hampshire DES) Clean Water Act section 401 water quality certification (certification) (Appendix A) require the licensee to prepare plans in consultation with other entities for approval, and to implement specific measures without prior Commission approval. The following plans must be submitted, for Commission approval, by the deadline specified:

New Hampshire DES Certification Condition No.	Plan Name	Commission Due Date
E-9	Operation Compliance Monitoring Plan	Within 120 days of license issuance and after consultation with New Hampshire DES, New Hampshire Fish and Game Department, and the U.S. Fish and Wildlife Service
E-10	Water Quality Improvement Plan	Within 90 days of providing the plan to New Hampshire DES

With each plan filed with the Commission, the licensee must include documentation that it developed the plan in consultation with New Hampshire DES and any other agencies specified in the above table, and provide copies of any comments received, as well as its response to each comment. The Commission reserves the right to make changes to any plan filed. Upon Commission approval, the plan becomes a requirement of the license, and the licensee must implement the plan, including any

changes required by the Commission. Any changes to the above schedule or plans require approval by the Commission before implementing the proposed change.

(b) Requirements to File Reports

New Hampshire DES's certification condition E-11 requires the licensee to submit water quality monitoring reports to New Hampshire DES to document compliance with the requirements of the license. To ensure compliance with the license, these reports must be filed with the Commission by March 31 of each year following license issuance whenever water quality monitoring occurred during the prior calendar year.

With each report filed with the Commission, the licensee must file documentation of any consultation with New Hampshire DES, and provide copies of any comments received, as well as its response to each comment. The licensee must allow a minimum of 30 days for New Hampshire DES to comment on the report before filing the report with the Commission. The Commission reserves the right to require changes to project operation, facilities, or reporting requirements based on the information contained in the reports, agency comments, or any other available information.

(c) Requirement to File Amendment Applications

Certain New Hampshire DES certification conditions in Appendix A (e.g., condition E-12) contemplate unspecified or conditional long-term changes to project operation or facilities for the purpose of mitigating environmental impacts. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license. In any amendment request, the licensee must identify related project requirements and request corresponding amendments or extensions of time as needed to maintain consistency among requirements.

Article 402. Project Operation. To protect aquatic resources in the impoundment and the Androscoggin River downstream of the dam and powerhouse, the licensee must operate the project (e.g., run of river, impoundment fluctuation limits, bypassed reach minimum flows) as specified in condition E-7 of the New Hampshire Department of Environmental Service's (New Hampshire DES) Clean Water Act section 401 water quality certification (Appendix A). In addition to the notification and reporting requirements specified in condition E-8 of the water quality certification, the licensee must also notify and report deviations from the operating requirements of the license with the Commission as follows:

Planned Deviations

The licensee may deviate from the flow and impoundment management requirements of New Hampshire DES's certification condition E-7 for short periods of time, of up to 3 weeks, without prior Commission approval after concurrence from New

Hampshire DES, New Hampshire Fish and Game Department, and the U.S. Fish and Wildlife Service (collectively, resource agencies). The licensee must notify the Commission, in addition to the resource agencies, within 24 hours and file the report required by condition E-8 with the Secretary of the Commission no later than 30 days after the onset of the planned deviation. Each report must include: (1) the reasons for the deviation and how project operations were modified; (2) the duration and magnitude of the deviation; (3) any observed or reported environmental effects and how potential effects were evaluated; and (4) documentation of consultation with the resource agencies. For planned deviations from project operational requirements exceeding 3 weeks in duration, the licensee must file an application for a temporary amendment from the operational requirements of this license and receive Commission approval prior to implementation.

Unplanned Deviations

If there is any unplanned deviation from the flow and impoundment management requirements of New Hampshire DES's condition E-7 that lasts longer than 3 hours *or* results in visible environmental effects such as a fish kill, turbidity plume, bank erosion, or downstream flooding, the licensee must notify the Commission, in addition to the agencies specified in condition E-7, within 24 hours and file the report required by condition E-7 with the Secretary of the Commission within 30 days after each such incident. The report must include: (1) the cause of the deviation; (2) the duration and magnitude of the deviation; (3) any pertinent operational and/or monitoring data; (4) a timeline of the incident and the licensee's response; (5) any comments or correspondence received from the resource agencies, or confirmation that no comments were received from the resource agencies; (6) documentation of any observed or reported environmental effects; and (7) a description of measures implemented to prevent similar deviations in the future.

Article 403. Reservation of Authority. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior pursuant to section 18 of the Federal Power Act.

Article 404. Protection of Northern Long-Eared Bat and Tricolored Bat. To protect northern long-eared bats and tricolored bats, the licensee must avoid removing trees of any size on project land from April 15 through October 31. Tree removal includes cutting, harvesting, destroying, trimming, or any other form of manipulation of non-hazardous trees, saplings, snags, or woody vegetation. Tree removal is not prohibited if it is needed to ensure public or project safety. If emergency tree removal is necessary, the licensee must notify the New Hampshire Fish and Game Department and the U.S. Fish and Wildlife Service as soon as practical after conducting the trimming or removal.

Article 405. Recreation Management Plan. Within 12 months of license issuance, the licensee must file, for Commission approval, a project-specific recreation management plan that includes, at a minimum:

(1) A description of the Shelburne access area and the project recreation facilities, as described below in item 3.

(2) A description of the operation and maintenance schedule for the project recreation facilities, including, but not necessarily limited to: (a) the operating season; (b) hours of operation; and (c) annual and lifecycle maintenance.

(3) A plan and schedule to: (a) construct an approximately 4-foot-wide, 450-foot-long portage connecting the hand-carry take-out on the impoundment and the downstream put-in; (b) improve the downstream put-in by adding gravel or wood crib steps; (c) install a wooden canoe rest at the halfway point between the take-out and put-in; (d) develop a gravel parking area for 4-5 vehicles adjacent to the take-out location and existing access gate off North Road; and (e) install signage describing the rules governing the accessibility and use of the recreation facility that comply with FERC's recreational signage requirements at 18 C.F.R § 8.2.

The licensee must prepare the recreation management plan after consultation with the Town of Shelburne. The licensee must 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 Town, and specific descriptions of how the Town's comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the Town to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must 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 must not begin until the plan is approved by the Commission. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission. The plan may not be amended without prior Commission approval.

Within 90 days of completing the recreational enhancements required by the recreation management plan, the licensee must file with the Commission a report documenting the completed recreation site including all constructed facilities. The documentation may include photographs, aerial photographs, drawings that reflect the as-built condition, or other methods, provided that the documentation clearly demonstrates the recreation site has been constructed in substantial conformity as required. The report must also include confirmation that the recreation site, including all project recreation facilities and amenities, are located inside the project boundary. Exhibit G drawings must be revised to include the Shelburne access area, as a project recreation facility

within the project boundary, and filed with the Commission within 90 days of completing the enhancements. The licensee must operate and maintain the required recreation facilities for the term of this license.

Article 406. Programmatic Agreement and Historic Properties Management Plan. The licensee must implement the “Programmatic Agreement between the Federal Energy Regulatory Commission and the New Hampshire State Historic Preservation Office for Managing Historic Properties that May be Affected by Issuing a New License to Great Lakes Hydro America, LLC for the Continued Operation of the Shelburne Hydroelectric Project in Coos County, New Hampshire (FERC No. 2300-052),” executed on November 27, 2024. Pursuant to the requirements of this Programmatic Agreement, the licensee must file, for Commission approval, a Historic Properties Management Plan (HPMP) within one year of issuance of this order. Upon Commission approval, the licensee must implement the HPMP for the term of the new license.

In developing the HPMP, the licensee must use the Advisory Council on Historic Preservation and the Commission’s *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, dated May 20, 2002. The HPMP must include the following items: (1) a description of each historic property; (2) a description of the potential effect on each historic property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of the nature and extent of consultation; (5) a schedule for implementing mitigation; and (6) a plan and schedule, in consultation with the Town of Shelburne, for installing and maintaining interpretive signage regarding the Shelburne dam and powerhouse.

The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the HPMP, the licensee must obtain approval from the Commission and the New Hampshire State Historic Preservation Office before engaging in any ground-disturbing activities or taking any other action that may affect any historic properties within the project’s area of potential effects.

Article 407. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee must 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 must 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 must 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 must require multiple use and occupancy of facilities for access to project lands or waters. The licensee must also ensure, to the satisfaction of the Commission's authorized representative, the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee must: (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-kilovolts 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 must file with the Commission a copy 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. No report filing is required if no conveyances were made under paragraph (c) during the previous calendar year.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 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 file a letter with the Commission, 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 Commission's authorized representative, 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 must 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 must 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 must not endanger health, create a

nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee must take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee must not unduly restrict public access to project lands and waters.

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

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G 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 must 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 must not apply to any part of the public lands and reservations of the United States included within the project boundary.

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

(G) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 825*l*, and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2025). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order. The licensee's failure to file a request for rehearing constitutes acceptance of this order.

for
Terry L. Turpin
Director
Office of Energy Projects

Form L-3
(October, 1975)

FEDERAL ENERGY REGULATORY COMMISSION

**TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED
MAJOR PROJECT AFFECTING NAVIGABLE
WATERS OF THE UNITED STATES**

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Article 4. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the

region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a nonpower licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project

property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 10. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such

conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 11. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

Article 12. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 13. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause

why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 14. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

Article 15. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 16. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary

of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 20. The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 21. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 22. Whenever the United States shall desire to construct, complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and rights-of-way and such rights of passage through its dams or other structures, and shall permit such control of its pools, as may be required to complete and maintain such navigation facilities.

Article 23. The operation of any navigation facilities which may be constructed as a part of, or in connection with, any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

Article 24. The Licensee shall furnish power free of cost to the United States for the operation and maintenance of navigation facilities in the vicinity of the project at the voltage and frequency required by such facilities and at a point adjacent thereto, whether said facilities are constructed by the Licensee or by the United States.

Article 25. The Licensee shall construct, maintain, and operate at its own expense such lights and other signals for the protection of navigation as may be directed by the Secretary of the Department in which the Coast Guard is operating.

Article 26. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 27. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 28. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

APPENDIX A

Water Quality Certificate Conditions Issued by New Hampshire Department of Environmental Services

(Issued September 19, 2024)

E. CERTIFICATION CONDITIONS

Unless otherwise authorized or directed by NHDES, the following conditions shall apply:

E-1. Compliance with Surface Water Quality Standards: The Applicant shall ensure that the discharges from the Project will maintain and protect Surface Water Quality Standards of surface waters that are affected by the Project, including the chemical, physical, and biological integrity of those surface waters, to achieve the purposes of the legislative classification of those surface waters.

This condition is necessary to ensure that the discharges from the Project will comply with the Surface Water Quality Standards because those standards apply to all surface waters of the state and any person who undertakes any activity that affects the beneficial uses or the water quality of surface waters. Those standards require, among other things, that all surface waters be restored to meet the water quality criteria for their designated classification, including existing and designated uses, and to maintain the chemical, physical, and biological integrity of surface waters; provide for the protection of designated uses; and maintain surface water quantity at levels that protect existing and designated uses.

Citations that authorize this condition: §401 of the CWA; RSA 485-A:8; RSA 485-A:12, III; and Env-Wq 1700.

E-2. Proposed Modifications to the Project: The Applicant shall consult with and receive prior written approval from NHDES regarding any proposed modifications to the Project, including any modifications to the operation of the Project that could have a significant or material effect on discharges to surface waters from the Project.

This condition is necessary to ensure that the discharges from the Project, with any proposed modifications, would comply with the Surface Water Quality Standards. This certification is based on the Project's proposed operation as described in the Application and the Applicant's request for certification for the Project, as modified by conditions of this certification. Additional, proposed modifications to the Project may require amendment of the associated FERC license, a new or additional Water Quality Certification, or compliance with New Hampshire's antidegradation requirements of the Surface Water Quality Standards before the modifications are implemented. Therefore,

the Applicant must notify NHDES of proposed modifications to Project so that NHDES can determine the applicability of certain laws and rules implemented by NHDES.

Citations that authorize this condition: §401 of the CWA; 40 CFR § 121.10; RSA 485-A:12, III; and Env-Wq 1708.

E-3. Compliance Inspections: The Applicant shall allow NHDES to inspect the Project and have access to inspect any records and monitoring equipment at reasonable times to determine compliance with the conditions of this certification. To the extent possible, NHDES will coordinate with the Applicant's staff prior to site visits, with the exception of unannounced inspections.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because NHDES' inspections would help ensure compliance with and enforcement of the conditions of this certification.

Citations that authorize this condition: §401(a)(4) of the CWA; 40 CFR §121.11(a); RSA 485-A:12, III; and RSA 485-A:18.

E-4. Submittal of Information: The Applicant shall provide to NHDES such information pertaining to discharges into surface waters of the Project upon written request of NHDES within 5 days of the request or other time period mutually agreeable to the Applicant and NHDES.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because NHDES' evaluation of the requested information would help ensure compliance with and enforcement of conditions of this certification.

Citations that authorize this condition: §401 of the CWA; RSA 485-A:12, III; and RSA 485-A:18.

E-5. Transfer of Certification: If the Applicant plans to transfer or consolidate responsibility of the Project to another person (i.e., any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity), the Applicant shall provide the contact information of the new person, including the name, mailing address, phone number, and email address of the person, in writing to NHDES and FERC prior to the transfer.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because NHDES and other persons must be able to know who is responsible for the Project, and so NHDES may appropriately target inspection and enforcement of certification conditions, as necessary, to ensure compliance with and enforcement of conditions of this certification.

Citations that authorize this condition: §401 of the CWA; RSA 485-A:12, III; and RSA 485-A:18.

E-6. NHDES Water Use Registration and Reporting: The Applicant shall measure all withdrawals and discharges of the Project and report them to the NHDES Water Use Registration and Reporting Program, in accordance with RSA 488:3, and the New Hampshire Code of Administrative Rules Env-Wq 2102 – Water Use Registration and Reporting.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because water use data is necessary to understand the effects of cumulative uses, transfers, discharges, and consumptive water losses in aquifers and watersheds in the state. Water use data is also necessary for verifying compliance with Surface Water Quality Standards related to quantity of surface waters.

Citations that authorize this condition: §401(a) of the CWA; RSA 485-A:12, III; RSA 488; Env-Wq 2102; Env-Wq 1703.01(d); Env-Wq 1705.01(a); and Env-Wq 1708.09(a).

E-7. Flow / Impoundment Management: The Applicant shall operate the Project in accordance with the following requirements, which may be temporarily modified if required by operating emergencies beyond the control of the Applicant, such as flooding or drought, and as specified in an Operations Compliance Monitoring Plan (OCMP) required in Condition E-9 of this certification. These requirements may be temporarily modified upon mutual agreement between NHDES, New Hampshire Fish and Game Department (NHFGD), and the Applicant, and approval by FERC and any other federal agency that has the authority to specify flow or impoundment levels of the Project. The Applicant shall determine surface water flows and elevation levels based on measurement data that is collected no less frequently than hourly.

This certification does not require the Applicant to comply with the following requirements during an “emergency condition.” Defined under Env-Wr 101.15, “Emergency Condition” means a situation exists at a dam which jeopardizes its ability to control or impound water or contents.

- a. Run-of-River Flow:** The Applicant shall operate the Project in a run-of-river mode whereby inflow to the Project approximates outflow from the Project, at all times, and water levels above the dam are not drawn down for the purpose of generating power.
- b. Downstream Minimum Flow:** At all times, the Applicant shall discharge a continuous minimum flow of no less than 2 cfs, or inflow to the Project, whichever is less, to the Project’s bypassed reach.

- c. **Impoundment Water Elevation Level:** The target impoundment water elevation under normal operating conditions shall be 734.2 feet as measured at the dam of the Project using the NGVD29 reference datum. The applicant shall not draw the water level in the impoundment down for the purpose of generating power.
- d. **Impoundment Drawdown Procedure for Scheduled Maintenance or Repairs:** When drawing the water level in the impoundment down for scheduled maintenance or repairs, the Applicant shall lower the impoundment water level no more than six inches per 24-hour period. This drawdown procedure may be modified upon mutual agreement between NHDES, NHFGD, USFWS and the Applicant.
- e. **Impoundment Refill Procedure:** When refilling the impoundment of the Project after drawdown for maintenance or emergencies, the Applicant shall maintain bypass reach flows specified in Condition E-7.b. to the extent practicable release 90 percent of the inflow to the Project downstream to the Androscoggin River, and utilize the remaining 10 percent of inflow to refill the impoundment.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because minimum flows downstream of the Project dam and management of the surface water elevation level of the Project's impoundment, will maintain and protect existing uses and designated uses of the Androscoggin River and the project's impoundment.

Designated uses of surface waters, both upstream and downstream of the Project, that may be impacted by the Project are described in Env-Wq 1702.17.

Citations that authorize this condition: §401 of the CWA; RSA 485-A:8; RSA 485-A:12, III; Env-Wq 1703.01; Env-Wq 1703.19; Env-Wq 1705.01(a); and Env-Wq 1708.03(a).

E-8. Flow / Impoundment – Notification and Reporting: The Applicant shall comply with the notification and reporting requirements specified in items E-8.a. through E-8.c., below.

- a. If the Applicant fails to maintain Surface Water Quality Standards as specified in Condition E-1 of this certification, or if the Project causes a deviation from the required downstream minimum flow or a deviation of six inches or more from the target surface water elevation, as specified in Condition E-7 of this certification, the Applicant shall notify NHDES, NHFGD and USFWS of the deviation by telephone or email no later than 24 hours after each such incident, excluding weekends and Federal holidays, in which case the Applicant shall notify NHDES, NHFGD and

USFWS of the deviation by telephone or email as soon as possible the next business day. The Applicant shall include the following information in the notification, to the extent known: a description of the deviation; the probable cause of the deviation; any corrective actions taken or will be taken to address the deviation; and how long it will take until the deviation is corrected and operations comply with Condition E-7.

- b. No later than 30 days after each such incident, the Applicant shall submit a report to NHDES and NHFGD and USFWS that contains, to the extent possible, the cause, severity, and duration of the incident, any observed or reported adverse environmental impacts from the incident, pertinent data and a description of corrective measures completed or proposed by the Applicant.
- c. By March 1st of each year (beginning the first March after the date the new FERC license is reissued), the Applicant shall submit to NHDES, NHFGD, and USFWS, and file with FERC, a summary report for the previous calendar year with appropriate tables, graphs, text and/or supporting documentation that summarizes deviations from the flow and impoundment management requirements in Condition E-7. Where deviations that require notification to NHDES, NHFGD and USFWS under Condition E-8.a. occurred, the summary shall indicate when the deviation occurred, the duration of the deviation, and a description of corrective actions taken to prevent such deviations from reoccurring.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because reporting compliance or deviations of requirements of Condition E-8 will allow NHDES and other persons to know whether the Applicant is complying with certain flow and impoundment management requirements that ensure compliance with Surface Water Quality Standards. If the reports identify noncompliance with Surface Water Quality Standards, NHDES and other persons may respond to help ensure compliance with Surface Water Quality Standards, mitigate unauthorized degradation of surface water quality, or restore and maintain the chemical, physical, and biological integrity of surface waters through enforcement or other mechanisms.

Citations that authorize this condition: §401 of the CWA; RSA 485-A:8; RSA 485-A:12, III; RSA 485-A:18; Env-Wq 1703.01; Env-Wq 1703.19; Env-Wq 1705.01(a); and Env-Wq 1708.03(a).

E-9. Operations Compliance Monitoring Plan (OCMP): Within 120 days of license issuance or other time period mutually agreeable to the Applicant and NHDES, the Applicant shall develop, file with FERC, and implement an operations compliance

monitoring plan (OCMP) that includes, at a minimum, the items specified in E-9.a. through E-9.d., below.

The OCMP, including any proposed revisions, shall be developed in consultation with NHDES, NHFGD and USFWS, and submitted to NHDES for review and approval. The OCMP shall be kept up-to-date by the Applicant so that it reflects current operation of the Project. When revisions are made, the Applicant shall submit, for approval, the updated OCMP to NHDES within 10 days, or other time period mutually agreeable to the Applicant and NHDES, of making the revisions. If NHDES requests the OCMP to be updated, the Applicant shall submit, for approval, the updated OCMP within 30 days, or other time period mutually agreeable to the Applicant and NHDES, of receiving a written request from NHDES to update the OCMP. Notwithstanding any required approvals from FERC or resource agencies, the Applicant shall implement the approved OCMP. The OCMP shall include, but not be limited to, the following:

- a. A description of the type of manual and automatic operation of the Project, including on-site and remote operation;
- b. A detailed description of how the Project will be operated under all conditions (i.e., under normal operating conditions as well as during low flow, high flow, maintenance, and emergency conditions) to maintain compliance with the flow and impoundment level management requirements in Condition E-7, including the actions and measures the Applicant will use to maintain the required minimum flow and impoundment levels;
- c. A description that includes calculations of how the downstream minimum flow will be maintained during scheduled drawdowns and the minimum impoundment level that will pass the downstream minimum flow;
- d. A description of the mechanisms and structures (i.e., type, location and accuracy of all flow and impoundment elevation monitoring equipment and gages) to be used for maintaining compliance with operational requirements, including how the Applicant will measure and monitor increased discharges downstream of the Project dam or decreased regulated inflow to the Project impoundment as necessary to comply with conditions of this certification, including but not limited to:
 - i. Set point elevations for turning the turbine on and off;
 - ii. Procedures for maintaining and calibrating monitoring equipment;

- iii. Rating curves and calculations for all methods of releasing flow downstream of the Project dam, and regulated inflow to Project, that includes a working Microsoft Excel spreadsheet;
- iv. Procedures for collecting and recording continuous data (i.e., no less frequent than hourly) on inflow, flow releases at the Project (i.e., downstream minimum flow, spillage, and turbine discharge), and impoundment levels; and
- v. A mussel protection plan that articulates measures to be implemented to protect mussel species from Project impacts associated with impoundment drawdowns due to flashboard failure or required maintenance and limit the effect of Project operations on mussel species during any drawdown.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because the development and implementation of a OCMP describing how flow and impoundment water level will be managed, monitored, and reported, will document and facilitate the Applicant's execution of the Project in accordance with conditions of this certification. In addition, a OCMP is necessary because it will provide NHDES with the methods that the Applicant will employ to comply with conditions of this certification so that NHDES can determine compliance with and enforce the conditions, as necessary, to help ensure compliance with Surface Water Quality Standards.

Citations that authorize this condition: §401(a) of the CWA; RSA 485-A:8; RSA 485-A:12, III; RSA 485-A:18; Env-Wq 1703.01; Env-Wq 1703.19; Env-Wq 1705.01(a); and Env-Wq 1708.03(a).

E-10. Water Quality Improvement Plan (WQIP): If, in the future, NHDES determines that the Project is causing or contributing to a violation of Surface Water Quality Standards at a magnitude, duration, and frequency that contributes to an impaired designated use, or is not protecting or maintaining an existing use, then NHDES shall notify the Applicant in writing, and the Applicant shall submit a WQIP to NHDES, within 120 days of the notification or other time period mutually agreeable to the Applicant and NHDES, for NHDES review and approval:

- a. The purpose of the WQIP is to restore surface waters to meet Surface Water Quality Standards, in accordance with Env-Wq 1703.01(b), for parameters that are influenced by the Project.
- b. If the riverine segments immediately upstream and beyond the influence of the Project impoundment are not meeting Surface Water Quality Standards,

then the purpose of the WQIP is to restore surface waters so that the parameters of water quality that are influenced by the Project are not any worse than in the upstream riverine segment.

- c. Parameters that may be influenced by the Project include, but are not limited to, dissolved oxygen, temperature, pH, nutrients, chlorophyll-a, Secchi disk (i.e., turbidity), and water quantity (i.e., flow and volume of surface water, including surface water elevation levels).
- d. The WQIP shall include:
 - i. Measures to achieve the purpose of the WQIP;
 - ii. A schedule for implementing the measures;
 - iii. Water quality monitoring and reporting to determine the effectiveness of the implemented measures;
 - iv. Recommendations for next steps; and
 - v. The monitoring and reporting specified in Condition E-11 if there is violation of Surface Water Quality Standards for dissolved oxygen, pH, or temperature.
- e. The Applicant shall implement the approved WQIP upon NHDES approval of the plan. If the monitoring shows that properly implemented measures of the WQIP are not effective to achieve the purpose of the WQIP within 5 years from implementation of the measures, NHDES may request an amendment to the WQIP. In such cases, NHDES shall notify the Applicant in writing, and the Applicant shall submit an amendment to the WQIP to NHDES within 120 days of the request, or other time period mutually agreeable to the Applicant and NHDES, for NHDES review and approval.
 - i. The Applicant shall incorporate any changes to Project operation included in the approved WQIP in the OCMP and submit the updated OCMP to NHDES, NHFGD and USFWS, for NHDES approval, as specified in Condition E-9.
 - ii. The Applicant shall not be subject to Condition E-10 for the violation of Surface Water Quality Standards that initially triggered the condition once NHDES notifies the Applicant in writing that NHDES has determined that the Applicant has achieved the purpose of the WQIP.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because it would be necessary to address any violations of Surface Water Quality Standards caused by the Project that may arise in the future at a magnitude, duration, and frequency that contributes to an impaired designated use, or failure to maintain and protect an existing use, in the Project influenced waters.

Citations that authorize this condition: §401(a) of the CWA; RSA 485-A:8; RSA 485-A:12, III; Chapter Env-Wq 1700.

E-11. Dissolved Oxygen, Temperature, and pH Water Quality Monitoring and

Reporting: In the event that Condition E-10 is triggered by a violation of Surface Water Quality Standards at a magnitude, duration, and frequency that contributes to an impaired designated use related to dissolved oxygen, pH, or temperature, and NHDES requests a WQIP, then the Applicant shall include in the WQIP a schedule to conduct water quality monitoring within the Project boundary at least every five years to: 1) determine the effects of Project operation, both spatially and temporally (in terms of flow, impoundment elevation, and power generation) on water temperature, pH, and dissolved oxygen (i.e., dissolved oxygen concentration and dissolved oxygen percent saturation); 2) to compare results to Surface Water Quality Standards; and 3) to determine if additional changes in Project operation or the WQIP are necessary to comply with Surface Water Quality Standards. In the WQIP specified in Condition E-10, the Applicant shall specify that it will submit a monitoring and reporting plan that describes, in detail, how, when and where monitoring will be conducted, and results reported:

- a. Unless otherwise authorized or directed by NHDES, the monitoring and reporting plan shall specify that monitoring that year shall last for at least five weeks and include periods of relatively low flows and high temperatures as well as at times when the Project is, and is not, generating power.
- b. Continuous (i.e., every 15 minutes) monitoring of temperature, pH, and dissolved oxygen (i.e., dissolved oxygen concentration and dissolved oxygen percent saturation) shall be conducted in the riverine reaches just upstream of the Project impoundment, at the deep spot of the Project impoundment, and below the dam of the Project and the Project tailrace, and vertical profiles for temperature and dissolved oxygen shall be conducted each week at the deep spot of the impoundment. Continuous (i.e., every 15 minutes) estimates of impoundment elevation, inflow, tailrace flow, and generation shall also be provided.

- c. By December 31st of each year that monitoring is conducted, the Applicant shall submit a report and supplemental information that clearly demonstrates via text, tables and plots, the spatial and temporal effect of Project operation on surface water quality and if Surface Water Quality Standards are met:
 - i. Results of quality assurance/quality control checks (calibration, hand-held meter checks, duplicates, etc.) and identification of any deviations from the monitoring and reporting plan shall be clearly identified.
 - ii. In addition to the report, water quality (including uncorrected and any corrected data), continuous impoundment elevation, and continuous flow data (including calculations) should be provided in a working Microsoft Office Excel workbook or other database acceptable to NHDES.
 - iii. The Applicant shall also enter all data into the on-line NHDES Environmental Monitoring Database (EMD) within 120 days of when monitoring is completed in each year monitoring is conducted.
 - 1) Should monitoring indicate that violations of Surface Water Quality Standards for dissolved oxygen, pH, or temperature persist, the Applicant shall consult with NHDES and, if requested by NHDES in writing, submit an amended WQIP in accordance with Condition E-10.

This condition is necessary to ensure that the discharges from the proposed Project will comply with the Surface Water Quality Standards because dissolved oxygen, pH, and temperature are among the Surface Water Quality Standards to be impacted by the Project. If a violation of a Surface Water Quality Standard for dissolved oxygen, pH, or temperature arises in the future at a magnitude, duration, and frequency that contributes to an impaired designated use, additional monitoring would be necessary during the term of the license. This is because FERC licenses are typically issued for 30 to 50 years and, during that time, conditions in the watershed that could affect water quality in the Project impoundment and Project discharges to the tailrace and bypass reach, can change. For example, an increase in the frequency and magnitude of lower river flows and higher temperatures caused by climate change could result in an increase in the frequency and magnitude of dissolved oxygen and pH excursions and higher water temperatures. If a WQIP becomes necessary, as described in Condition E-10, because of a violation of a Surface Water Quality Standard for dissolved oxygen, pH, or temperature, additional monitoring would be necessary.

Citations that authorize this condition: §401 of the CWA; RSA 485-A:8, II; RSA 485-A:12, III; Env-Wq 1703.07; Env-Wq 1703.13; and Env-Wq 1703.18.

E-12. Modification to Certification: In the event that modification(s) to this certification is required by NHDES in order to protect surface water quality, including modification to the operation of the Project that could have a significant or material effect on discharges to surface waters from the Project, certification modifications may be made in accordance with 40 CFR §121.10:

- a. Provided that FERC and NHDES agree in writing that NHDES may modify a grant of certification (with or without conditions), NHDES may modify only the agreed-upon portions of the certification. NHDES, however, is not required to obtain FERC's agreement on the language of the modification.
- b. NHDES shall not, through a modification pursuant to paragraph (a) of this section:
 - i. Revoke a grant of certification (with or without conditions); or
 - ii. Change a grant of certification (with or without conditions) into a denial or waiver of certification.

This condition is necessary to ensure that the discharges from the Project, with any proposed modifications, would comply with the Surface Water Quality Standards. This certification is based on the Project's proposed operation as described in the Application and the Applicant's request for certification for the Project, as modified by conditions of this certification.

Citations that authorize this condition: §401 of the CWA; 40 CFR § 121.10; RSA 485-A:12, III; and EnvWq 1708.