STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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DEPARTMENT ORDER

IN THE MATTER OF

KEI (USA) POWER MANAGEMENT INC.	) MAINE WATER QUALITY PROGRAM
Lowell, Penobscot County	) CLEAN WATER ACT
LOWELL TANNERY HYDROELECTRIC	)
PROJECT	)
L-008688-35-A-X (approval)	) WATER QUALITY CERTIFICATION

Pursuant to the provisions of 38 M.R.S. § 464 *et seq*., Section 401 of the Clean Water Act (CWA), 33 U.S.C. § 1341, and Department Rules 06-096 CMR Chapters 579-582, the Department of Environmental Protection (Department) has considered the application of KEI (USA) Power Management Inc. (KEI or Applicant) with all supporting data, agency review comments, public review comments, and other related materials in the administrative record. Based on its professional judgment and expertise, the Department makes the following findings of fact and conclusions:

1. APPLICATION SUMMARY

A. Application

On July 29, 2024, the Applicant applied to the Department for Water Quality Certification (WQC) pursuant to Section 401 of the CWA for the proposed relicensing and continued operation of the existing Lowell Tannery Hydroelectric Project, P-4202 (Lowell Tannery Project or Project), located on the Passadumkeag River in the Town of Lowell, Penobscot County, Maine.

B. History

The existing dam was constructed in the 1920s as a replacement for an old timber crib dam and was used to supply electrical and hydromechanical power to a lumber mill. The dam remained idle from the 1940s to 1986, when it was redeveloped for the purpose of generating hydroelectric power. Redevelopment of the Lowell Tannery Project was approved by the Board of Environmental Protection in Order #L-8688-35-A-X, the current WQC for the Project. Order #L-8688-35-E-M modified the construction plans in the WQC.

C. Existing Project Features

Located approximately 13 river miles upstream from the confluence with the Penobscot River, the Lowell Tannery Project is the only dam on the Passadumkeag River. The Passadumkeag River is part of the Penobscot River watershed. The Lowell Tannery Project dam and original powerhouse have been in place since 1986.

The existing Lowell Tannery Project consists of a 230-foot-long, 27-foot-high concrete gravity dam with a crest elevation of approximately 178.8 feet[1] topped with 3.5-foot-high flashboards (for a total of 182.3 feet normal pond elevation), with a principal spillway of 30 feet and an auxiliary spillway of 89 feet, a seven-foot-wide log sluice and a 10-foot-wide tainter gate. The Project impoundment is approximately 341 acres at an elevation of 187.5 feet. The Project has upstream and downstream fish passage facilities, consisting of a 3-foot-wide Denil fish passage facility and a dedicated downstream fish bypass pipe. A powerhouse integral to the dam contains a single turbine generator unit with a total generating capacity of 1 Megawatt (MW) and an average annual generation of approximately 4,095 Megawatt hours (MWh). The Project has a 200-foot-long transmission line and appurtenant facilities. The Lowell Tannery Project operates in a run-of-river mode, where upstream water flowing into the project impoundment approximately equals water flowing downstream from the project. The Project boundary includes the dam, powerhouse, four miles upstream, and approximately 250 feet downstream of the powerhouse

D. Existing Project Operation

The Lowell Tannery Project operates as a run-of-river facility. The Project has an overall minimum flow requirement of 150 cubic feet per second (cfs), or inflow if less. The Applicant provides 40 cfs of attraction and conveyance water through the fishway from May 15 through November 10 annually; the fishway attraction flow is discharged near the base of the powerhouse. The Applicant provides a fishway flow of 20 cfs through the downstream bypass, which is provided through the stop log slot at the entrance. When river flow exceeds the powerhouse capacity, fish may pass with spill over the dam. KEI operates the downstream fish passage in the spring from ice-out through early June. Downstream passage for kelts[2] is provided through the downstream fishway from November 1 to ice-in.

[1] Elevations are provided in feet above mean sea level.
[2] Post-spawned Atlantic salmon.

E. Project Proposals

No new power development structures or generating facilities are proposed in the license application[3] for the Project.

F. Proposed Operation, Minimum Flow, and Impoundment Water Level

The Applicant proposes to continue operating the Lowell Tannery Project in a run-of-river mode. The Applicant proposes to eliminate the overall downstream minimum flow requirement of 150 cfs, or inflow if less, that is part of the current license. The Applicant proposes to continue to provide 40 cfs of attraction and conveyance water through the fishway from May 15 through November 10 annually; as well as a fishway flow of 20 cfs through the downstream bypass. When river flow exceeds the powerhouse capacity, the Applicant proposes to continue allowing fish to pass with spill over the dam.

G. Proposed Protection, Mitigation, and Enhancement Measures

The Applicant proposes to install upstream and downstream eel passage facilities. Facilities and their operation will be designed in consultation with fisheries agencies. Upstream passage will consist of an eel ladder, and downstream passage will consist of two siphon-style passage systems. The Applicant proposes to modify the discharge location for the existing downstream fish passage pipe to discharge adjacent to the existing upstream fish ladder entrance. The Applicant also proposes to install full depth seasonal intake rack overlays with a 7/8-inch hole diameter punch plate. These proposals are part of a settlement agreement for a fishway prescription at the Lowell Tannery Project between the Applicant and the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the Maine Department of Marine Resources (DMR), and the Penobscot Nation.[4]

2. JURISDICTION

The proposed continued operation of the Project qualifies as an "activity…which may result in [a] discharge into the navigable waters [of the United States]" under Section 401 of the CWA. 33 U.S.C. § 1341(a). Section 401 requires that any Applicant for a federal license or permit to conduct such an activity must obtain a certification that the discharge will comply with applicable State water quality standards. *Id.* State law authorizes the Department to issue a WQC pursuant to Section 401 of the CWA if the continued

[3] The Final License Application is expressly incorporated into the WQC application, as supplemented by Applicant filings with FERC on February 16, June 7, and June 16, 2022, as well as a settlement agreement dated July 23, 2024.
[4] *See* Appendix A.

operation of the Project will maintain the standards of classification for the affected water bodies, including the State's antidegradation policy.[5]

State WQC for the Project was last issued by the Department on July 27, 1983, pursuant to installation of hydroelectric power generating facilities at the site of the Lowell Tannery Project. Under a 1996 Executive Order of the Governor of the State of Maine, the Department is designated as the certifying agency for issuance of Section 401 WQC for all activities in the State not subject to Land Use Planning Commission permitting and review. Therefore, the Department is the certifying agency for the Project.[6]

The Project is licensed by the Federal Energy Regulatory Commission (FERC) as a hydropower project under the Federal Power Act (FERC Project No. 4202). The current FERC license was issued on October 31, 1983, and expired on October 30, 2023. The Applicant has filed an Application for New License with FERC to continue to operate the project for another 50 years. That application is currently pending before FERC.

3. APPLICABLE STATE WATER QUALITY STANDARDS

A. Classification

The Passadumkeag River meets the definition of a river, stream, or brook pursuant to 38 M.R.S. § 480-B(9). The following classifications apply to the waters at issue in the application:

"Passadumkeag River and its tributaries – Class A, unless otherwise specified." 38 M.R.S. § 467(7)(F)(6); and

"Passadumkeag River from the Pumpkinhill Dam[7] to its confluence with the Penobscot River—Class AA." 38 M.R.S. § 467(7)(F)(6)(a).

B. Designated Uses

The Applicant must demonstrate that the impoundment and Passadumkeag River above the dam meet Class A, and that the Passadumkeag River below the dam meets Class AA water classification standards and designated uses as described in 38 M.R.S. § 465(2)(A) and § 465(1)(A):

[5] 38 M.R.S. § 464(4)(F)(3).
[6] Executive Order No. 3 FY 96/97.
[7] The Pumpkinhill Dam is a prior name for the Project dam.

Class A waters must be of such quality that they are suitable for the designated uses of drinking water after disinfection; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as natural.

Class AA waters must be of such quality that they are suitable for the designated uses of drinking water after disinfection; fishing; agriculture; recreation in and on the water; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as free-flowing and natural.

C. Numeric Standards

The Applicant must demonstrate that the Lowell Tannery riverine impoundment above the dam meets Class A, and that the Passadumkeag River below the dam meets Class AA numeric standards as described in 38 M.R.S. § 465(2)(B) and § 465(1)(B):

The dissolved oxygen content of Class A waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. The aquatic life and bacteria content of Class A waters must be as naturally occurs, except that the numbers of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

The aquatic life, dissolved oxygen and bacteria content of Class AA waters must be as naturally occurs, except that the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

D. Narrative Standards

The Applicant must demonstrate that the Lowell Tannery riverine impoundment above the dam meets Class A, and that the Passadumkeag River below the dam meets Class AA narrative standards as described in 38 M.R.S. § 465(2)(C) and § 465(1)(C):

> Except as provided in this paragraph, direct discharges to these waters licensed after January 1, 1986 are permitted only if, in addition to satisfying all the requirements of this article, the discharged effluent will be equal to or better than the existing water quality of the receiving waters. Prior to issuing a discharge license, the department shall require the applicant to objectively demonstrate to the department's satisfaction that the discharge is necessary and that there are no other reasonable alternatives available. Discharges into waters of this classification licensed prior to January 1, 1986 are allowed to continue only until practical alternatives exist.
>
> Except as provided in this paragraph, there may be no direct discharge of pollutants to Class AA waters.

E. Antidegradation

The Department may approve WQC for a project affecting a waterbody in which the standards of classification are not met only if the project does not cause or contribute to the failure of the waterbody to meet the standards of classification. 38 M.R.S. § 464 (4)(F)(3).

F. Department Rules

Attainment of water quality standards is assessed through the application of the following Department Rules:

> 1) 06-096 Chapter 579: Classification Attainment Evaluation Using Biological Criteria for Rivers and Streams.
>
> Criteria to quantify aquatic life standards for Classes AA, A, B, and C waters are defined in this chapter. The benthic macroinvertebrate community is used as a surrogate to determine conformance with statutory aquatic life standards, related statutory definitions, and statutory provisions for the implementation of biological water quality criteria that are provided in Maine’s standards for classification of fresh surface waters. Methods described in this chapter are used to make

decisions about classification attainment; however, it is important to note that the methods presented in Chapter 579 do not adequately assess mussels, although mussels are part of the macroinvertebrate community. In cases of large drawdowns, additional studies to assess the mussel community may be necessary.

2) 06-096 Chapter 580: Regulations Relating to Sampling Procedures and Analytical Procedures.

This rule establishes standards whereby all sampling and analysis is performed according to accepted technical procedures for chemical and biological analysis.

3) 06-096 Chapter 581: Regulations Relating to Water Quality Evaluations.

These rules provide for the maintenance of stream and lake classifications without violations by computing capacity of the waters to break down waste and shows fish, wildlife, and organisms in the receiving waters to migrate both up and downstream in an undisturbed section of river adjacent to the waste discharge outfall. In addition, a scale of 0-100 is established in order to measure the trophic state or degree of enrichment of lakes due to nutrient input.

4. DEPARTMENT ANALYSIS

A. Aquatic Habitat and Aquatic Life (38 M.R.S. § 465(1)(A); § 465(2)(A))

The Applicant must demonstrate that the Lowell Tannery impoundment and the Passadumkeag River below the dam is suitable for the designated use of habitat for fish and other aquatic life and is characterized as natural (Class A and AA) and free-flowing (Class AA only). Conformance with the aquatic habitat designated use is determined by methods described in the Department's Hydropower Project Flow and Water Level Policy, dated February 4, 2002 (Water Level Policy). Under this policy guidance, the Department operates under the rebuttable presumption that a flow providing wetted conditions in a weighted average of 3/4ths of the cross-sectional area of the affected river or stream, as measured from bankfull conditions, or a water level that provides wetted conditions for 3/4ths of the littoral zone[8] of a lake or pond, as measured from full pond

[8] The "littoral zone" of lakes and lake-like waterbodies is defined in limnology as the portion of a lake where light penetration allows plant growth on the bottom. The littoral zone extends from the shoreline to the maximum depth where plants on the bottom receive enough sunlight for photosynthesis. This depth, known as the euphotic zone, is commonly estimated as the depth that receives approximately 1% of incident light (Cole, 1979). While depth of the zone varies with many factors, it can be estimated as a multiple of the Secchi disk transparency (SDT). Based on

conditions, will be needed to meet aquatic life and habitat standards. On a case-by-case basis, the Department may approve alternative flows or water levels under circumstances defined in the Water Level Policy, where the alternative flows or water levels can be shown to meet all applicable water quality standards.

The Applicant also must demonstrate that the Passadumkeag River is of sufficient quality to support all species of fish indigenous to the receiving waters and to maintain the structure and function of the resident biological community in accordance with applicable narrative and numeric aquatic life standards. The resident biological community means aquatic life expected to exist in a habitat that is free from the influence of the discharge. This shall be established by accepted biomonitoring techniques. 38 M.R.S. § 466(10). Accepted biomonitoring techniques with respect to rivers and streams are established in Department rule, 06-096 C.M.R. ch. 579, *Classification Attainment Evaluation Using Biological Criteria for Rivers and Streams* (effective May 27, 2003) (Chapter 579). Criteria to quantify aquatic life standards for Class AA, A, B, and C waters use the benthic macroinvertebrate community as a surrogate to determine classification attainment. Chapter 579 addresses how benthic macroinvertebrate samples must be collected and the process for analyzing these samples using the linear discriminant model to evaluate whether the sampled river or stream is in attainment. The selection of sampling sites, as well as data collection and processing, must be in conformance with the Department's *Methods for Biological Sampling and Analysis of Maine's Rivers and Streams*. Ch. 579, § 3(A).

1) Aquatic Habitat - Riverine Impoundment (38 M.R.S. § 465(2)(A))

a. Existing Habitat and Resources

The Department finds that the Lowell Tannery impoundment is approximately 341 acres with a normal pond elevation of 187.5 feet. The Applicant minimizes impoundment fluctuations to approximately 1 foot of normal full pond elevation by maintaining a discharge from the Project so that, at any point in time, outflows from the Project approximate inflows to the Project reservoir.

Tyler (1968), for more than 20 years DEP has delineated the littoral zone using a depth two times the SDT for purposes of determining attainment of Maine's Water Quality Standards.
Cole, GA. (1978) *Textbook of Limnology*, 2nd Ed. 165, St. Louis, MO: The CV Mosby.
Tyler, JE. (1968) *The Secchi disk, Limnology and Oceanography* 13(1): 1-6.

The Department find that the run-of-river operations provide a relatively stable head pond elevation while passing inflows. Such operations protect existing littoral habitats from changes related to water level fluctuations.

b. Studies

The Applicant completed Impoundment Trophic State Studies in 2019 in accordance with the Department's *Sampling Protocol for Hydropower Studies* (April 2022) to determine the extent to which Project operations may affect the littoral zone and to assess the ability of the riverine impoundment to support habitat for fish and other aquatic life. The Applicant completed a reconnaissance-level bathymetry survey prior to collecting the first lake trophic sample to identify the deepest, safely accessible spot in the Lowell Tannery Impoundment. That spot was approximately 20 feet deep and 250 feet upstream of the dam. Lake trophic sampling was conducted twice per month for five consecutive months from June through October, primarily between the hours of 11:00 am and 3:00 pm.

Sample parameters included Secchi disk transparency (SDT), water temperature and dissolved oxygen (DO) profiles at 1-meter intervals, and epilimnetic core[9] samples of total phosphorous, Chlorophyll-*a*, color, pH, and total alkalinity. Additional nutrient and dissolved metal samples were collected during the late summer sampling event on August 15, 2019. The additional late summer sample parameters included nitrate, dissolved organic carbon (DOC), total iron, total dissolved aluminum, total calcium, total magnesium, total sodium, total potassium, specific conductance, chloride, and sulfate. The late season sample was collected from an integrated epilimnetic core because the water column was not thermally stratified.

Total phosphorus in the Lowell Tannery impoundment ranged from 15 micrograms per liter (µg/L) to 33 µg/L, with an average of 20 µg/L. Color ranged from 85 platinum cobalt units (PCU) to 180 PCU, with an average of 136 PCU. Chlorophyll-*a* ranged from 0.0020 milligrams per liter (mg/L) to 0.0050 mg/L, with an average of 0.0031 mg/L. The samples collected on June 25 and August 26, 2019, had values of 0.004 mg/L, and the sample collected on August 15, 2019, was 0.005 mg/L. The SDT at the deep spot in the Lowell Tannery impoundment ranged from 1.9 meters to 2.9 meters, with an average of 2.3 meters. Using the average Chlorophyll-*a* concentration for the entire sampling period (0.003 mg/L), the Trophic State Index (TSI) for the Lowell Tannery impoundment is 40.6, which is categorized as mesotrophic.

[9] The epilimnetic zone is determined by establishing a temperature profile at 1-meter increments to define the epilimnion as the upper layer where the change in temperature per meter of depth is less than 1 degree Celsius.

The Applicant monitored DO and water temperature in 2020 to evaluate whether upstream waters contributed to low DO values near the dam and in the tailwater that were observed in 2019. DO and temperature profiles indicate that the impoundments did not stratify. DO ranged from 6.3 mg/L to 7.3 mg/L, with averages of 6.5 mg/L to 6.8 mg/L. DO generally increased in the remaining profiles collected in September and October 2019 (range 7.1 mg/L to 9.2 mg/L); the water column average was 9.0 mg/L in the last profile on October 16, 2019. Except for the August 26, 2019, profile when the range was 72.1 percent to 75.1 percent, all DO percent saturation measurements were above the standard for Class A waters (75 percent saturation).

In the Final License Application (FLA), the Applicant provides monthly and annual average flow duration statistics for the Lowell Tannery Project using United States Geological Survey data from 2021. The data indicate that Project operations generally maintain consistent water levels and attenuate high-inflow events. Project operations limit impoundment water level fluctuations to approximately 1 foot of normal pond elevation for the Lowell Tannery impoundment.

c. Discussion and Findings

The Department finds that Project operations maintain relatively stable water levels with minimal impoundment fluctuation from full pond conditions, subject only to natural variations related to precipitation events. The Applicant demonstrated this by providing discharge and impoundment water level data. Therefore, the Project maintains 75% of the littoral zone in wetted conditions as measured from full pond conditions, protecting habitat in the littoral zone.

DO values in the impoundment are likely low due to the presence of high concentrations of DOC, which is comprised of organic compounds that originate from the decomposition of plant and animal matter. High concentrations of DOC result in high color in surface waters. Color ranged from 85 -180 PCU, with an average of 136 PCU, and the one DOC value obtained during the late summer visit was 16 mg/L. Both color and DOC concentrations are high for a typical Maine lake or impoundment. DOC molecules are broken down by sunlight in an oxidative reaction, which consumes oxygen from the water. Thus, highly colored waters often experience low oxygen concentrations.

In addition, DOC molecules are complex and are able to sequester chemical elements rendering them biologically unavailable. The total phosphorus concentrations observed are higher than one would expect given the observed low to moderate Chlorophyll-*a* concentrations; this suggests that some of the total phosphorus is associated with the DOC and biologically unavailable.

Based on the sampling results and information contained in the WQC application, the Project impoundment meets applicable Class A water quality standards and is free of culturally induced algal blooms. Trophic data indicate that that the waters are in the mesotrophic range. See Section 4(B) below for further discussion of dissolved oxygen.

Except for fish passage, which is discussed separately below in Section 4(A)(3), based on the evidence provided by the Applicant, the Department, applying its professional judgment through application of its Water Level Policy, determines that the impoundment meets the applicable aquatic life and habitat criteria.

2) Aquatic Habitat and Aquatic Life – Outlet Stream (M.R.S. § 465(1)(A))

To meet Class AA aquatic life standards in the riverine outlet waters, the Applicant must demonstrate three things. First, the Applicant must show that the benthic macroinvertebrate community attains aquatic life standards contained in the Department's Chapter 579 rule. The benthic macroinvertebrate community is an indicator of the general state of aquatic life for the purpose of demonstrating attainment of outlet stream aquatic life classification standards. Where there is documented evidence of conditions that could result in uncharacteristic findings, such as effects related to the discharge of nutrient rich water at a lake's outlet, the Department may account for those situations by determining the appropriate use for sample results with professional judgment decisions. 06-096 C.M.R. Ch. 579(3)(G).

Second, an Applicant must show that the flow of water in the Passadumkeag River is sufficient to support the designated use of habitat for fish and other aquatic life. The Department generally presumes, absent evidence to the contrary, that flow providing wetted conditions for at least 75% of the cross-sectional area of the affected river or stream, as measured from bankfull conditions, is needed to meet aquatic life and habitat standards. The Applicant can demonstrate attainment of these standards by providing evidence that 75% of the cross-section of the outlet stream is wetted at all times. This rebuttable presumption, as developed through the exercise of the Department's professional experience, expertise, and judgment is also reflected in the Department's Water Level Policy.

Third, since aquatic species indigenous to the Passadumkeag River include diadromous fish,[10] the Applicant must demonstrate that the Project waters provide for the safe, timely, and effective passage of diadromous fish, ensuring that the waters are of sufficient quality

[10] American shad, alewife, blueback herring, Atlantic salmon, sea lamprey, and American eel historically occur in the Passadumkeag River.

to support all indigenous aquatic species and that the discharge from the dam does not cause an adverse impact to indigenous diadromous fish.

a. Existing Habitat and Resources

The Passadumkeag River flows over the Lowell Tannery dam. The Lowell Tannery dam is located approximately 13 miles upstream of the confluence of the Passadumkeag River and the Penobscot River. All of Maine's native diadromous species are found in the Penobscot River system, but only American shad, alewife, blueback herring, Atlantic salmon, sea lamprey, and American eel occur within the Lowell Tannery Project boundary.

Wetlands and forests dominate the Passadumkeag River downstream of the Lowell Tannery dam. The tailwater encompasses approximately 250 feet of the Passadumkeag River downstream of the dam. The tailwater area is shallow and narrow with bedrock or large boulder substrates. The Passadumkeag River immediately downstream of the Lowell Tannery Project includes typical low-gradient stream features such as riffle, run, and pool habitats.

b. Studies

The Applicant completed a survey of aquatic habitat in the Passadumkeag River downstream of the Lowell Tannery Dam and a Benthic Macroinvertebrate Study to determine if the aquatic community meets Maine's water quality standards in the waters downstream of the Project tailrace. Additionally, the Applicant submitted Project water level and flow data that indicate that the Project operates in run-of-river mode.

The Applicant completed the Benthic Macroinvertebrate Study[11] between August 6 and September 13, 2019, to assess whether current in-stream flow releases affect attainment of aquatic life criteria in the Passadumkeag River downstream of the Project dam. Benthic macroinvertebrate samplers were deployed in accordance with the Department's sampling protocol, and the Department analyzed resulting data using its linear discriminant model.

Three rock bags were installed at a site approximately 490 feet below the Lowell Tannery Dam.[12] Linear discriminant model results indicate that the site attained Class B aquatic life criteria. However, the Department determined that because of the abundance of filter

[11] The field and laboratory procedures in this study were conducted using the Department's *Methods for Biological Sampling and Analysis of Maine's Inland Waters* (Davies and Tsomides, revised 2014).

[12] Although rock bags were placed beyond the Project boundary, the Department's best professional judgment is that the sampling site is representative of water quality within the Project boundary.

feeding organisms and the impoundment's characteristics as a natural lake outlet, that finding should be raised to meet Class A aquatic life criteria. Therefore, because Class A and Class AA have the same aquatic life standards, the Passadumkeag River downstream of the Lowell Tannery Dam also meets Class AA aquatic life criteria.

c. Applicant's Proposal

The Applicant proposes to continue to operate the Project in run-of-river mode and to eliminate the overall downstream minimum flow requirement of 150 cfs, or inflow if less, that is part of the current license. The Applicant proposes to continue to provide 40 cfs of attraction and conveyance water through the fishway from May 15 through November 10 annually; as well as a fishway flow of 20 cfs through the downstream bypass. When river flow exceeds the powerhouse capacity, the Applicant proposes to continue allowing fish to pass with spill over the dam.

d. Discussion and Findings

Studies conducted by the Applicant demonstrate, and the Department finds, that the existing Project flow regime maintains and supports habitat for aquatic species in the Passadumkeag River downstream of the Project dam.

The Department finds that the sample site submitted for the Benthic Macroinvertebrate Study meets Class AA standards for aquatic life. In some cases, when considering factors that may affect the assemblage of aquatic life downstream of a riverine impoundment, such as a riverine impoundment's characteristic as a natural lake outlet, the Department applies its best professional judgment in determining the aquatic life classification of the sample results. The Department therefore concluded that the initial linear discriminant result of Class B aquatic life should be raised to Class A. A Class AA waterbody must meet the aquatic life criteria for Class A. Therefore, the benthic macroinvertebrate community downstream of the Project meets Class AA aquatic life criteria.

The Department finds that the water level and flow data provided by the Applicant demonstrate that the Project maintains at least 75% stream wetted width, which provides wetted conditions sufficient to meet aquatic habitat criteria in the Passadumkeag River. Except for fish passage, which is discussed separately below in Section 4(A)(3), based on the evidence provided by the Applicant, the Department, applying Chapter 579 and its professional judgment through application of its Water Level Policy, determines that the area downstream of the Project dam meets the applicable aquatic life and habitat criteria.

The Department, therefore, determines that flows provided by current and proposed Project operations provide sufficient water quality and sufficient water quantity to support the Class AA designated use of habitat for fish and other aquatic life downstream of the Project.

3) Aquatic Habitat – Fish Passage (38 M.R.S. § 465(1)(A); §§ 465(2)(A), (C))

The Lowell Tannery Project is a run-of-river project with all the water of the Passadumkeag River flowing through or over the dam, discharging to the river. The habitat below the dam must be characterized as free-flowing and natural, and the habitat above the dam must be characterized as natural. By influencing the flow of the water, the dam and its discharge impacts the ability of fish to pass the section where the dam is located. By influencing fish passage, the dam and its discharge affect the biological integrity[13] of the waters in the river.

For the Applicant to satisfy applicable State water quality standards, the Applicant must demonstrate that the water flowing through and over the Lowell Tannery Dam, which discharges into the Passadumkeag River, supports indigenous species, does not cause adverse impacts to aquatic life, and does not adversely affect the characterization of the habitat above the dam as natural. This requires showing that the discharge from the dam supports safe, timely, and effective upstream and downstream fish passage. Safe, timely, and effective fish passage is necessary to achieve Class A and Class AA standards by ensuring the receiving waters are of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community.

a. Existing Habitat and Resources

The Project currently has upstream passage for diadromous species via a Denil ladder. The fishway is approximately 3 feet wide with 8-inch-thick walls and consists of three runs and two switchbacks. The Applicant provides 40 cfs of attraction and conveyance water through the fishway from May 15 through November 10 annually. Attraction flow is discharged near the base of the powerhouse.

Downstream fish passage is provided through a dedicated fish bypass. Adjacent to the

[13] The department understands biological integrity to generally mean the ability of an aquatic ecosystem to support and maintain a balanced, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitats within a region.

eastern side of the intake racks there is a downstream surface bypass gate that leads to an 18-inch bypass pipe, which discharges into a plunge pool next to the tailrace. When river flow exceeds the powerhouse capacity, fish may pass with spill over the dam. The downstream passage facility is operated in the spring from ice-out through early June. Downstream passage for kelts is provided through the downstream fishway from November 1 to ice-in annually.

b. Applicant's Proposal

KEI proposes to implement fish passage in accordance with an offer of settlement between KEI, USFWS, NMFS, DMR, and the Penobscot Nation (Settlement).[14] The Department has reviewed the Settlement and finds that it provides for (1) new upstream and downstream fishway provisions for anadromous target species (Part I of Settlement); (2) upstream and downstream passage for American eel (Part II of Settlement); (3) improvements to existing fishway operations (Part III of Settlement); (4) species-specific fish passage performance standards (Part IV of Settlement); and (5) adaptive management and periodic monitoring (Part V of Settlement).

c. Discussion and Findings

The data provided by the Applicant demonstrate that the Project does not currently provide for safe, timely, and effective fish passage for American eel, American shad, alewife, Atlantic salmon, blueback herring, and sea lamprey. However, as part of its WQC application, the Applicant has submitted the Settlement, which provides for improved upstream and downstream passage for American eel, American shad, alewife, Atlantic salmon, blueback herring, and sea lamprey. The Department finds that the terms and agreements in the Settlement will provide for safe, timely, and effective fish passage at the Lowell Tannery Project going forward.

Provided the Applicant complies with the Settlement, the Department concludes that fish passage at the Lowell Tannery Project will be safe, timely, and effective and sufficient to avoid detrimental changes in the resident biological community. The water flowing through and over the Lowell Tannery Dam, which discharges into the Passadumkeag River, will support indigenous species, will not cause adverse impacts to aquatic life, and will not adversely affect the characterization of the habitat above the dam as natural.

[14] *See* Appendix A

B. Dissolved Oxygen (38 M.R.S. § 465(1)(B))

For this standard, the Applicant must demonstrate that the DO criteria for the Class AA waters below the Lowell Tannery Dam, in the Passadumkeag River, are met. DO concentrations in these waters must be as naturally occurs.

1) Studies

In addition to the DO and temperature data collected as part of the trophic study, the Applicant conducted a continuous Dissolved Oxygen and Temperature Study at a single location approximately 200-feet downstream of the tailrace in accordance with the Department's *Sampling Protocol for Hydropower Studies* from June 25 to September 17, 2019.

In late June 2019, the DO concentration and percent saturation ranged from 7.6 mg/L to 10.0 mg/L and 81.8 percent to 103.1 percent. In July and August 2019, the DO concentration and percent saturation ranged from 6.2 mg/L to 9.1 mg/L and 70.9 percent to 104.5 percent. In September 2019, the DO concentration and percent saturation ranged from 7.7 mg/L to 9.8 mg/L and 79.5 percent to 101.5 percent.

2) Discussion and Findings

The rapid increases and decreases in DO correspond to times when the Lowell Tannery Project began and stopped generating. When generation stopped, DO levels downstream of the dam increased as a result of spill, reflecting increased aeration and mixing (for example on August 3 and August 19, 2019). During times when the project was generating, the water temperature and DO measured downstream of the dam reflected the levels in the impoundment, as demonstrated by comparing levels downstream to the impoundment profiles on June 25, July 16, July 29, and August 16, 2019.

The Applicant monitored DO and water temperature in 2020 to evaluate whether upstream waters (i.e., impounded waters or inflowing waters to the impoundment) may have contributed to the low DO values near the dam and in the tailwater that were observed in 2019. Between July 15 and August 24, 2020, continuous measurements were recorded at the following four locations: (1) Upstream (3.8 miles upstream from the dam at the transition point between river and impounded habitat);[15] (2) Impoundment (deep hole ~250 feet upstream of the dam); (3) Tailwater (directly downstream of the dam); and (4) Downstream (one mile downstream of the dam). Due to low river flows, KEI was not able to operate the project during the 2020 monitoring period; all water was spilled or

[15] The "Upstream" site is also near the outlet to Saponac Pond; which is a naturally impounded body of water significantly larger than the Lowell Tannery Impoundment.

passed through the fishways. As a result, the data from the tailwater site was not representative of conditions during project operations.

The 2020 monitoring showed that the Upstream site regularly had DO concentrations and percent saturation levels below the Class A/AA standards. The DO concentration and percent saturation at the deep spot in the impoundment were consistently between 6.0 mg/L and 7.5 mg/L and 60 percent to 90 percent, respectively. In the tailwater and downstream of the dam, the DO concentration and percent saturation were above the Class AA standards throughout the monitoring period.

Analysis of the sampling results indicates that the Passadumkeag River above the Project is frequently below Class A DO levels, which contributes to periodic low DO values in the impoundment and tailrace. The river's natural conditions of high color and DOC are characteristic of this wetland-dominated, low gradient stream system and appear to be the primary contributors to low values measured within the Project area.

The Applicant's sampling results demonstrate that the Passadumkeag River below the Lowell Tannery Project meets applicable Class AA DO standards during critical water quality conditions. Based on the evidence in the record, the Department concludes that the Project meets applicable Class A and Class AA DO numeric criteria under current and proposed operating conditions.

C. Fishing, Navigation, and Recreational Access and Use (38 M.R.S. § 465(1)(A); § 465(2)(A)))

For this standard, the Applicant must demonstrate that the project waters are suitable for designated uses of recreation in and on the water, fishing, and navigation. It is the Department's longstanding position that a hydropower impoundment may be found suitable for recreation in and on the water if it has a stable or decreasing trophic state and is free of culturally induced algal blooms that impair its use and enjoyment.

The Department considers an impoundment to have a stable or declining trophic state unless it exhibits (1) a perceivable and sustained increase in its trophic state as characterized by its TSI or other appropriate indices, or (2) the onset of algal blooms.[16] The trophic state is the ability of water to produce algae and other aquatic plants. The trophic state of a body of water is a function of its nutrient content and may be estimated using the TSI, which includes measurements of chlorophyll, phosphorous, or SDT.[17] An

[16] 06-096 C.M.R. Chapter 581 § 6(C).
[17] 06-096 C.M.R. Chapter 581 § 6(A).

algal bloom is defined as a planktonic growth of algae that causes SDT to be less than 2 meters.[18]

1) Existing Facilities and Use.

The town of Lowell, Maine, is in the southern portion of the Lincoln Lakes Region. The Passadumkeag River provides opportunities for fishing, canoeing, kayaking, and whitewater rafting. The Maine Department of Inland Fisheries and Wildlife (IF&W) stocks the Passadumkeag River with brook trout annually. In 2020, IF&W stocked 20,000 brook trout and 778 landlocked salmon approximately 12 miles upstream of the Lowell Tannery Project, and 10,000 brook trout and 389 landlocked salmon in the Passadumkeag River.

The Applicant provides access to the Lowell Tannery impoundment from a small, unpaved boat launch at the dam. The Applicant also maintains a parking area and canoe portage from the impoundment access area to a put-in location near the bridge on Tannery Road.

2) Water Quality Data

As discussed above in Section 4(A), sample results for Chlorophyll-*a*, total phosphorous, and SDT indicate that the Lowell Tannery impoundment is mesotrophic.

3) Applicant's Proposal

No changes to recreation in and on the water, fishing, or navigation are proposed.

4) Discussion and Findings

The Department finds that recreation in and on the water, fishing, and navigation, can be accessed in the Project vicinity at the hand-carry boat launch at the dam, a parking area, and canoe portage from the impoundment access area to a put-in location near the bridge on Tannery Road.

The Department finds that the Lowell Tannery impoundment has a stable or decreasing trophic state and is free of culturally induced algal blooms that impair its use and enjoyment. Based on the evidence in the record, the Department determines that the Project operations meet the Class A designated uses of recreation in and on the water, fishing, and navigation.

[18] 06-096 C.M.R. Chapter 581 § 6(B).

D. Hydroelectric Power Generation (38 M.R.S. § 465(2)(A))

For this standard, the Applicant must demonstrate that the Project waters are suitable for the designated use of hydroelectric power generation.

1) Existing Generation

The Department finds that the Project has a total authorized generating capacity of 1,000 kilowatts (kW) and can produce an average energy output of 4,144 megawatt-hours (MWh) annually.

2) Energy Utilization

The Project is equipped with a 1,000 kilo-volt-amperes (kVA), 2.3/12.5-transformer and a 200-foot-long, 12.5-kV transmission line. KEI (USA) Power Management Inc. is an independent power producer that sells power wholesale from the Project to ISO New England.[19]

3) Discussion and Findings

The Applicant proposes to continue generating power under the current operational mode during the term of a new Project license, providing a dependable source of energy to the power grid. The Applicant proposes no changes or additions to the existing turbine-generator units or other redevelopment activities. Based on the evidence in the record, the Department finds that the Project meets the Class A designated use of hydroelectric power generation.

E. Drinking Water Supply (38 M.R.S. § 465(1)(A); § 465(2)(A))

Class A and Class AA standards indicate that water must be of sufficient quality to be used as drinking water after disinfection.

1) Discussion and Findings

[19] ISO means Independent System Operator. ISO New England serves as the independent system operator of the regional bulk power system and administers the wholesale marketplace. Its primary responsibilities are to coordinate, monitor, and direct the operations of the major generating and transmission facilities in the region. Its objective is to promote a competitive wholesale electricity marketplace while maintaining the electrical system's integrity and reliability.

The Lowell Tannery impoundment and the Passadumkeag River are not used as drinking water supply. However, water quality data collected for the TSI in the Project riverine impoundment and DO data collected downstream of the Project dam indicate that water quality meets State standards, and there are no culturally induced algal blooms. Based on the evidence in the record, the Department finds that the Project meets the Class A and Class AA designated use of drinking water after disinfection

F. Industrial Process or Cooling Water Supply (38 M.R.S. § 465(2) (A))

Class A standards indicate that water must be of sufficient quality to be used as industrial process or cooling water supply.

1) Existing Use

Water use within the Project boundary includes hydroelectric power generation.

2) Discussion and Findings

The Department finds that water in the Lowell Tannery impoundment is used as a cooling water supply for energy generation equipment at the Project. Water quality data indicated the water is suitable as a cooling water supply. Based on the evidence in the record, the Department finds that the Project meets the Class A designated use of industrial process or cooling water supply.

G. Antidegradation (38 M.R.S. § 464(4)(F))

For this standard, the Applicant must demonstrate that the Project waters maintain existing in-stream water uses occurring on or after November 28, 1975. The Department may approve a WQC pursuant to Section 401 of the CWA if the standards of classification of the water body and the State's antidegradation policy are met, or for a project affecting a water body in which the standards are not met if the project does not cause or contribute to the failure of the water body to meet the standards of classification.

1) Discussion and Findings

The existing dam was constructed in the 1920s as a replacement for an old timber crib dam and was used to supply electrical and hydromechanical power to a lumber mill. The dam remained idle from the 1940s to 1986, when it was redeveloped for the purpose of generating hydroelectric power. While structures have been replaced and maintained

over time, in-stream uses have been generally the same on and after November 1975 and include hydropower generation; recreation in and on the water, including fishing and navigation; and habitat for fish and other aquatic life. Based on the evidence in the record, the Department determines that Project operations will meet the requirement of the antidegradation policy provided the Project is operated in accordance with the requirements and conditions of this WQC.

H. Historic and Cultural Resources

Assessment of historic and cultural resources is not a statutory requirement for a WQC. However, the National Historic Preservation Act at Section 106 requires FERC to account for the impact of hydropower facilities on historic properties. FERC requires the Applicant to prepare a Historic Properties Management Plan as a license condition, and the Maine Historic Preservation Commission (MHPC) reviews the impact of hydropower projects on cultural resources under agreement with the Advisory Council on Historic Preservation. Therefore, inclusion of MHPC review in the WQC is appropriate.

1) Discussion and Findings

The Applicant filed a Historic Architectural Survey Report with FERC, which was reviewed by MHPC. MHPC concluded that the proposed measures to the Project will have no adverse effect upon historic properties. The Department finds that the proposed enhancement, mitigation, and protection measures will have no adverse effect upon historic properties.

5. PUBLIC COMMENTS

On May 30, 2025, the Department issued a draft Order approving water quality certification for the continued operation of the existing Lowell Tannery Hydroelectric Project. The deadline for comments was 5:00 P.M. on June 20, 2025.

Comments on the draft Order were received from

6. DEPARTMENT CONCLUSIONS

BASED on the above Findings of Fact and the evidence contained in the application and supporting documents, and subject to the conditions listed below, the Department CONCLUDES that the continued operation of the LOWELL TANNERY HYDROELECTRIC PROJECT, as described above, will result in all waters affected by the project being suitable for all designated uses and meeting all other applicable water quality standards, specifically:

A. The Applicant provided sufficient evidence and the Department finds and determines that, as discussed in Section 4(A)(1) and (2) and provided the Applicant complies with Conditions 2(A)-(B) below, the Project meets the classification standards for aquatic habitat in the Project impoundment and in the outlet waters below the Project dam. The Department concludes that water discharged from the impoundment meet the classification standards for Class AA waters. 38 M.R.S. § 465(1)(A).

B. The Applicant provided sufficient evidence and the Department finds and determines that, as discussed in Section 4(A)(3) above and provided the Applicant complies with Conditions 3(A)-(B) below, Project operations related to fish passage will meet the narrative classification standards related to the designated use of habitat for fish and other aquatic life. 38 M.R.S. §§ 465(1)(A), 2(A) (C).

C. The Applicant provided sufficient evidence and the Department finds and determines that the impoundment and waters downstream of the Project dam meet the remaining narrative classification standards for Class A and Class AA waters and are of such quality that these waters are suitable for the designated uses of drinking water after disinfection; recreation in and on the water; fishing; agriculture; industrial process and cooling water supply; hydroelectric power generation; and navigation. 38 M.R.S. § 465(1)(A); 38 M.R.S. § 465(2)(A).

D. The Applicant provided sufficient evidence that DO concentrations in the Passadumkeag River below the Lowell Tannery impoundment meet the applicable Class AA DO standard. The Department concludes that the DO concentrations in the Passadumkeag River meet applicable numeric Class AA DO standards. 38 M.R.S. § 465(1)(B).

E. The Applicant provided sufficient evidence and the Department finds and determines that existing in-stream uses which have actually occurred on or after November 28, 1975, and the level of water quality necessary to protect those uses, are maintained. The Department concludes that the Project meets the State's antidegradation policy. 38 M.R.S. § 464(4)(F).

7. DECISION AND ORDER

THEREFORE, the Department APPROVES the water quality certification of KEI (USA) POWER MANAGEMENT INC. and GRANTS certification pursuant to Section 401(a) of the Clean Water Act that there is a reasonable assurance that the continued operation of the LOWELL TANNERY HYDROELECTRIC PROJECT, as described above, will not violate applicable water quality standards, SUBJECT TO THE FOLLOWING CONDITIONS:

1) WATER LEVELS

A. Except as temporarily modified by 1) approved maintenance activities, 2) extreme hydrologic conditions,[20] 3) emergency electrical system conditions,[21] or 4) agreement between the Applicant, the Department, and appropriate state and/or federal agencies, impoundment water levels must be maintained within one foot of normal pond elevation, 187.5 feet. The Applicant must continue to provide 40 cfs of attraction and conveyance water through the fishway from May 15 through November 10 annually; as well as a fishway flow of 20 cfs through the downstream bypass. When river flow exceeds the powerhouse capacity, the Applicant must continue allowing fish to pass with spill over the dam.

B. These conditions regarding water levels are necessary to ensure that the discharge from the Project will comply with water quality requirements, including those found at 38 M.R.S. § 465(1)(A) and as discussed above at Sections 4(A) and (C). The water levels of the impoundment, which are determined by the discharge, affect, among other things, the water quality requirements of the designated uses of fishing; recreation in and on the water; navigation; and habitat for fish and other aquatic life.

2) MINIMUM FLOWS

A. The Applicant must provide flow releases from the Project in accordance with the Applicant's proposal in the FLA. Except as temporarily modified by 1) approved maintenance activities, 2) extreme hydrological conditions (see footnote 30), 3) emergency electrical system conditions (see footnote 31), or 4) agreement between the Applicant, the Department and appropriate state and/or federal agencies, the Applicant must operate in a run-of-river mode.

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[20] For the purpose of the certification and Order, extreme hydrologic conditions mean the occurrence of events beyond the Licensee's control such as, but not limited to, abnormal precipitation, extreme runoff, flood conditions, ice conditions, drought, or other hydrologic conditions such that operational restrictions and requirements contained herein are impossible to achieve or are inconsistent with the safe operation of the Project.

[21] For the purpose of this certification and Order, emergency electrical system conditions mean operating emergencies beyond the Licensee's control which require changes in flow regimes to eliminate such emergencies which may in some circumstances include, but are not limited to, equipment failure or other temporary abnormal operating conditions, generating unit operations or third-party mandated interruptions under power supply emergencies, and orders from local, state, or federal law enforcement or public safety authorities.

B. These conditions regarding minimum flows are necessary to ensure that the discharge from the Project will comply with water quality requirements, including 38 M.R.S. § 465(1)(A) as discussed above at Sections 4(A) and (C). The flow of the discharge from the Project affects, among other things, whether the receiving waters are of sufficient quality to support the designated uses of fishing; recreation in and on the water; navigation; and habitat for fish and other aquatic life.

3) FISH PASSAGE

A. The Applicant must comply with the requirements of the Settlement Agreement for prescription of fishways with USFWS, NMFS, DMR, and the Penobscot Nation dated July 23, 2024 and included with this WQC as Appendix A.

B. This condition regarding fish passage measures is necessary to ensure that the discharge from the Project will comply with water quality requirements, including 38 M.R.S. § 465(1)(A) and 38 M.R.S. § 465(2)(A), as discussed above at Sections 4(A) and (C). The nature of the Project's discharge affects, among other things, whether the receiving waters are of sufficient quality to support the designated uses of fishing and habitat for fish and other aquatic life, including use of all Project waters.

4) RECREATIONAL ACCESS AND USE

A. The Applicant must continue to provide formal and informal access to the Project waters upstream and downstream of the Project dam for the purposes of recreation in and on the water, fishing, and navigation to the extent possible, for the term of the License.

B. This condition is necessary to ensure that the discharge from the Project will comply with water quality requirements, including 38 M.R.S. § 465(1)(A) and 38 M.R.S. § 465(2)(A), as discussed above at Sections 4(A) and (C). Because the discharge affects, among other things, the water level of the impoundment and the flow downstream of the dam, it necessarily affects the water quality requirements of the designated uses of fishing, recreation in and on the water, and navigation, among others.

5) WATER QUALITY

Upon any future determination by the Department that the Project, as approved by the certification and as conditioned by the Department and FERC, may be causing or contributing to a decline in water quality or to non-attainment of water quality standards, the Department reserves the right to, in its discretion and upon notice to the Applicant and opportunity for hearing in accordance with its regulations, reopen this certification to consider requiring modifications to the certification or additional conditions as may be

deemed necessary by the Department to ensure that the Project does not cause or contribute to any decline in water quality or non-attainment of water quality standards.

6) STANDARD CONDITIONS

The Applicant must comply with all Standard Conditions attached to this certification, with such compliance to be determined by the Department.

7) LIMITS OF APPROVAL

This approval is limited to and includes the proposals and plans contained in the application and supporting documents submitted and affirmed to the Department by the Applicant. Any variations from the plans and proposals contained in said documents are subject to the review and approval of the Department prior to implementation.

8) COMPLIANCE WITH ALL APPLICABLE LAWS

The Applicant must secure and appropriately comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and Orders required for the operation of the Project, in accordance with the terms and conditions of the certification, as determined by the Department.

9) EFFECTIVE DATE

This water quality certification will be effective concurrent with the effective date of the New License issued by FERC for the Project.

10) SEVERABILITY

In the event any provision, or part thereof, of this certification is declared to be unlawful by a reviewing court, the remainder of the certification will remain in full force and effect and will be construed and enforced in all respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

DONE AND DATED AT AUGUSTA, MAINE, THIS ___ DAY OF _____, 2025.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

LP/L00868833NN/ATS92865

STANDARD CONDITIONS

1. Noncompliance. Should the project be found, at any time, not to be in compliance with any of the conditions of this approval or should the permittee construct or operate this project in any way other than specified in the application or supporting documents, as modified by the conditions of this approval, then the terms of this approval will be considered to have been violated.

2. Inspection and Compliance. Authorized representatives of the Commissioner or the Attorney General must be granted access to the premises of the permittee at any reasonable time for the purpose of inspecting the operation of the project and assuring compliance with the conditions of this approval.

3. Assignment of Transfer of Approval. This approval will expire upon the assignment or transfer of the property covered by this approval unless written consent to transfer this approval is obtained from the Commissioner. To obtain approval of transfer, the permittee must notify the Commissioner 30 days prior to assignment or transfer of property which is subject to this approval. Pending Commissioner determination on the application for a transfer or assignment of ownership of this approval, the person(s) to whom such property is assigned or transferred must abide by all of the terms and conditions of this approval. To obtain the or Commissioner's approval of transfer, the proposed assignee or transferee must demonstrate the financial capacity and technical ability to (1) comply with all terms and conditions of this approval and (2) satisfy all other applicable statutory criteria.

   A "transfer" is defined as the sale or lease of property which is the subject of this approval or the sale of 50 percent or more of the stock of or interest in a corporation or a change in a general partner of a partnership which owns the property subject to this approval.

Appendix A

Settlement Agreement for Prescription of Fishways; KEI, USFWS, NMFS, MDMR, and the Penobscot Nation[22]

Measures to be included in the Prescription for Fishways:

"Description	Elements of Prescription
Part I: New Fishway Provisions for Anadromous Target Species	
Requirement to Install New Upstream Fishway	• The Licensee shall construct, operate, and maintain a new upstream fishway at the Project.
Timing for Placing New Upstream Fishway into Service	• The Licensee shall place the new upstream fishway into service no later than the start of the 8th upstream passage season following FERC's issuance of the Subsequent License. • If the Licensee receives federal funding as described in section 2.1.4 of the Relicensing Settlement Agreement for the Lowell Tannery Project (FERC Project No. 4202), filed with the Federal Energy Regulatory Commission on [date] ("Agreement"), for at least 30% of the total capital cost of the new upstream fishway and improvements to downstream fish passage, the Licensee shall place the new upstream fishway into service under the terms of the award(s), but no later than the start of the 6th upstream passage season following license issuance.
Process for Selecting New Upstream Fishway Type	• At least 4 years prior to construction of the new upstream fishway, the Licensee shall prepare and distribute to the Resource Agencies and the Nation a report that investigates and compares alternative fishway types and identifies KEI's preferred fishway type.[23] At a minimum, the report shall demonstrate that the Licensee considered the following metrics: o Ability to meet the most up-to-date version of the FWS published design criteria and support safe, timely, and effective passage of the Anadromous Target Species; o Ability to be appropriately sized to: (a) meet the Passadumkeag River watershed's biological capacity, as determined by the Resource Agencies in consultation with the Nation and KEI; and (b) the potential to achieve the performance standards identified in Part IV below; o Cost (Capital, operation, and maintenance); and o Technical feasibility specific to the Project. • Following distribution of the report discussed above, the Licensee shall consult with the Service, other Resource Agencies, and the

[22] Referred to as "the Nation" throughout the Settlement Agreement.

[23] The Resource Agencies' and the Nation's preferred new upstream fishway type will allow for the volitional passage of the Anadromous Target Species, unless the report demonstrates that: (1) it is not technically feasible to install a volitional fishway that meets the other requirements; or (2) a non-volitional fishway will be no less protective than a volitional fishway and would cost significantly less to implement or would result in improved operation of the project works for electricity production; consistent with FPA section 33(b)(2), 16 U.S.C. § 823d(b)(2).

	Nation regarding viable alternatives for the new fishway, and the Licensee shall refine the report based on this consultation with a preferred fishway type and submit it to the Service, other Resource Agencies, and the Nation for review. • If the Service, in consultation with the other Resource Agencies and Nation, concurs that the Licensee's preferred fishway type meets the metrics outlined above, then the Licensee shall obtain FERC approval as necessary, and proceed to construction. • If the Service, in consultation with the other Resource Agencies and Nation, determines that the Licensee's preferred fishway type does not meet one or more of the metrics identified above, the Licensee shall refine the report in response to the rationale and technical and scientific information provided by the Service and submit it to the Resource Agencies and the Nation for review and concurrence following the same process outlined above. • The Licensee shall repeat this process, as necessary, until the Service, in consultation with the other Resource Agencies and Nation, concurs with the Licensee's preferred fishway type.
Design of New Upstream Fishway	• When designing the new upstream fishway, the Licensee shall ensure that it is: o Based on the report described above; o Consistent with the fishway type supported by the Service in consultation with the other Resource Agencies and the Nation, as described above; o Consistent with the most up-to-date version of the FWS published design criteria as of the date on which the Licensee submits the report; o Sized to pass the Passadumkeag River watershed's biological capacity for the Anadromous Target Species, as determined by the Service, in consultation with the other Resource Agencies, the Nation, and the Licensee; o Reasonably anticipated to provide safe, timely, and effective passage of Anadromous Target Species and meet the performance standards identified below; o Designed to include an automated entrance gate; o Designed to allow for counting of Anadromous Target Species that have successfully ascended the new upstream fishway in a way that does not interfere with the safe, timely, and effective passage of Atlantic salmon; and o Designed to incorporate a PIT tag logger data collections system. • No later than 3 years prior to the start of construction of the new fishway, the Licensee shall submit the 30% design plans for review and concurrence by the Service, in consultation with the other Resource Agencies and the Nation. When concurring with the 30% design plans, the Service reserves the right based on the best technical and scientific information available to it, to suggest any appropriate changes to the proposed design. • No later than 2 years prior to the start of construction of the new fishway, the Licensee shall submit the 60% design plans for review and concurrence by the Service, in consultation with the other Resource Agencies and the Nation. The same process for review and occurrence applicable to the 30% design plans will apply to the review and concurrence at the 60% design phase.

	• No later than 18 months prior to the start of construction of the new fishway, the Licensee shall submit the 90% design plans for review and concurrence by the Service, in consultation with the other Resource Agencies and the Nation. The same process for review and occurrence applicable to the 30% design plans will apply to the review and concurrence at the 90% design phase. • Upon concurrence of final design plans by the Service, and prior to the start of construction of the new fishway, the Licensee shall submit the plans to FERC for its approval. • Upon completion of fishway construction, the Licensee shall submit final as-built drawings that accurately reflect the fishway as constructed to the Service, other Resource Agencies, the Nation, and FERC.
Operation of New Upstream Fishway	• The Licensee will operate the new upstream fishway annually from May 15 through November 15 or as otherwise articulated in the Fishway Operation and Maintenance Plan (FOMP). • Throughout the term of the Subsequent License, the Licensee at the request of a Resource Agency shall monitor all PIT tagged species, including any Target Species and other co-evolved species, at the PIT tag logger data collections system installed as part of the new upstream fishway. • No later than 1 year prior to construction of the new fishway, the Licensee shall submit an Upstream Fishway Monitoring Plan for review and approval by the Service, in consultation with the other Resource Agencies and the Nation. The Licensee shall include in the Upstream Fishway Monitoring Plan: o Appropriate measures for testing to determine whether improvements to upstream passage meet performance standards for Anadromous Target Species; and o Procedures, as appropriate, to ensure consistency with the requirements of section IV of the AMP filed with FERC on [date]. • Following approval of the Upstream Fishway Monitoring Plan by the Service, the Licensee shall submit the Plan to FERC for review and approval. • The Licensee shall implement the plan following approval by FERC.
Description of New Downstream Fishway and Timing for Placing into Service	• The Licensee shall construct, operate, and maintain the following improvements to downstream fish passage infrastructure at the Project: o Within one year of FERC's issuance of the Subsequent License, the Licensee shall install full depth seasonal intake rack overlays consisting of a 0.75-inch hole diameter punch plate. The Licensee shall deploy the rack overlays on a seasonal basis, consistent with timeframes established in the FOMP. o Prior to April 1 of the year in which the new upstream passage facilities become operational, the Licensee shall place the following downstream fish passage infrastructure into service: ▪ The Licensee shall add a second entrance for downstream fish passage on the side of the intake rack opposite the existing downstream entrance, or at another location approved by the Service, in consultation with the other Resource Agencies and the Nation.

	▪ The Licensee shall incorporate a new flume or pipe capable of passing an additional 15% of flow (total of 20% when combined with fishway attraction flow). This new flume or pipe will discharge near the entrance of a new facility when flows exceed the powerhouse discharge capacity.
Design of New Downstream Fishway	• The Licensee shall include the design plans for the downstream fish passage improvements as part of the 30/60/90 design plans for the new upstream fish passage facilities, and shall submit them for review and concurrence as described above.
Operation of New Downstream Fishway	• The Licensee shall operate the new downstream fish passage infrastructure annually from April 1 (or ice-out, whichever happens last) to December 31 (or ice-in, whichever happens first).
Downstream Fishway Monitoring Plan	• Within three months after FERC's issuance of the Subsequent License, the Licensee shall submit a Downstream Fishway Monitoring Plan for review and approval by the Service, in consultation with the other Resource Agencies and the Nation. • The Licensee shall include in the Downstream Monitoring Plan: o Appropriate measures for testing to determine whether improvements to downstream passage meet performance standards for Anadromous Target Species; o Procedures, as appropriate, to ensure consistency with the requirements of section IV of the AMP filed with FERC on [date] and o Procedures for evaluating the risk of impingement and gilling[24] of Atlantic salmon smolts in the punchplate overlay. • Following approval of the Downstream Fishway Monitoring Plan by the Service, the Licensee shall submit the Plan to FERC for review and approval. • The Licensee shall implement the plan following approval by FERC.
Flow Release Requirements	• Except as may be approved under section 2.2.3 of the Agreement, the Licensee shall provide a minimum downstream fishway flow of 45 cfs (i.e., 5% of station capacity) or inflow (whichever is less), which the Licensee shall: (1) release through a combination of one or both downstream bypass pipes/flumes; and (2) provide from the later of April 1 or ice-out (whichever happens last) to December 31 or ice-in, whichever happens first. • Except as may be approved under section 2.2.3 of the Agreement, upon the in-service date of the new upstream fishway described above, the Licensee shall provide, from May 15 through November 15 annually, a minimum attraction flow of 45 cfs (i.e., 5% of station capacity) or inflow (whichever is less).
Operation of Existing Fishway	• The Licensee shall continue to operate the existing fishway until the new upstream fishway and improvements to downstream fish passage are constructed.

[24] For purposes of this prescription, "gilling" is defined as the trapping of a fish beyond its gills so that it cannot move forward or back out of the device.

Development and Implementation of a FOMP	• Within 6 months of FERC's issuance of a Subsequent License for the Project, the Licensee shall submit a FOMP to the Service, other Resource Agencies, and the Nation. • The Licensee shall include in the FOMP: o A description of fishway facilities and operational measures associated with the Project; o An installation and seasonal operation schedule for the new upstream fishway described above; the improvements to downstream fish passage described above; and passage facilities for American eel described below; o Details for the operation and maintenance of the existing fishway until the new upstream fishway and improvements to downstream fish passage are placed into service; o Details regarding the monitoring and reporting to be performed on an annual basis; o Details for the operation and maintenance of PIT antennas and loggers; o A requirement for the Licensee to conduct annual biological sampling consistent with MDMR's draft instructions for Biological Monitoring of River Herring;[25] o Applicable operation, maintenance, and inspection procedures; o Replacement of flashboards and limiting leakage within 3 days after river flow is within the hydraulic control of the powerhouse, or within such longer period as is necessary to account for worker safety concerns; o Standards for temporary suspension or other changes to fishway operations due unplanned (e.g., unusual weather events such as ice conditions) or planned (e.g., maintenance) circumstances upon approval by the resource agencies; and o Provisions for updating the FOMP over the term of the Subsequent License, as needed, in consultation with the Service, other Resource Agencies, the Nation, and the Licensee, and as approved by the Resource Agencies and FERC. • Following approval of the FOMP by the Service, in consultation with the other Resource Agencies and the Nation, the Licensee shall submit the FOMP to FERC for review and approval. • The Licensee shall implement the plan following approval by FERC.
Development of FOMR	• Following FERC's approval of the FOMP, the Licensee shall prepare a Fishway Operation and Maintenance Report (FOMR) annually during the remaining Subsequent License term for the Project, unless the Service approves a less frequent schedule for the FOMR. • In each FOMR, the Licensee shall: o Include a summary of the current state of the fishways and yearly fishway operation and maintenance activities; and o Provide an assessment of any needed changes to the operation or maintenance of the fishways to continue to provide safe, timely, and effective upstream and downstream passage of target species, including, but not limited to, any changes to the seasonal operation schedule for the fishways, based on information produced from the monitoring and studies and the best available scientific and technical information as appropriate.

[25] MDMR's draft Instructions for Biological Monitoring of River Herring are included as Appendix E to the Agreement.

	• The Licensee shall submit the FOMR to the Service, other Resource Agencies, and the Nation by February 28, beginning with the first full calendar year following approval of the FOMP by FERC, as follows: o The Licensee shall provide a draft FOMR to the Service, other Resource Agencies, and the Nation for a 30-day opportunity to review and comment; and o The Licensee shall consider comments received on the draft FOMR, make any appropriate adjustments, and submit a revised draft FOMR to the Service for approval, in consultation with the other Resource Agencies and the Nation. • Following the Service's approval of the updated draft FOMR, the Licensee shall: o File the final, approved FOMR with FERC, for informational purposes; o Seek FERC approval of any operation or maintenance changes to the Project's fishways identified in the final FOMR, as appropriate; and o Implement any operation or maintenance modifications to fish passage facilities identified in the final FOMR, including any such modifications approved by FERC, as appropriate. • The Service reserves the right to reduce the frequency of the FOMR, following consultation with the other Resource Agencies, the Nation, and the Licensee.
Part II: Passage Facilities for American Eel	
Temporary Upstream American Eel Passage	• Through the first 9 upstream passage seasons for American eel following FERC's issuance of the Subsequent License, the Licensee shall construct, operate and maintain temporary facilities for the upstream passage of American eel at the Project, as follows: o The Licensee shall submit its proposed location for temporary eel passage for approval by the Service in consultation with the other Resource Agencies and the Nation. The Licensee shall base its siting proposal on previous siting studies conducted at the Project. o Following approval of the temporary eel passage location, the Licensee shall place the temporary upstream eel passage system into service no later than the start of the 3rd upstream passage season following FERC's issuance of the Subsequent License. o The Licensee shall operate the temporary upstream eel passage system annually from May 1 through October 31, or on a different schedule consistent with timeframes established in the FOMP. o The Licensee shall operate and maintain the temporary eel passage facility until the permanent eel passage facility is constructed and operational, as provided below.
Permanent Upstream American Eel Passage System	• Beginning with the 10th upstream passage season for American eel following FERC's issuance of the Subsequent License, the Licensee shall operate and maintain a new, permanent American eel passage system.

Design of Permanent Upstream American Eel Passage System	• Beginning the first eel passage season after the permanent upstream anadromous fishway is installed, the Licensee shall perform eelway siting studies in consultation with the Resource Agencies and the Nation to determine the location of the permanent upstream eelway. Based on the siting studies, the Licensee shall propose a location for the permanent eel passage for approval by the Service in consultation with the other Resource Agencies and the Nation. • The Licensee shall design the permanent upstream eel passage system as follows: o The Licensee shall design the permanent eelway in accordance with the most up-to-date version of the FWS published design criteria as of the date in which the Licensee submits the 30% design plans for the permanent eelway; o The Licensee shall design the permanent eelway to meet the performance standards for American eel, described below; and o The Licensee shall adhere to the 30/60/90 design plan review that pertains to the new upstream fishway, described above.
Operation of Permanent Upstream American Eel Passage System	• The Licensee shall operate the permanent upstream American eel passage system annually from May 1 through October 31, unless otherwise provided in the FOMP.
Downstream American Eel Passage System	• The Licensee shall construct, operate, and maintain a low-level bypass system at the Project's dam for downstream American eel passage at the Project. • The Licensee shall place the low-level bypass system into service concurrent with the new upstream anadromous fishway described above. • The Licensee shall adhere to the same 30/60/90 design plan review that pertains to the new upstream anadromous fishway, described above. • If the Licensee discovers mortality or delay issues for downstream passage of American eel prior to the implementation of the low-level bypass system, the Licensee shall develop and implement a temporary measure to prevent the associated passage issue as approved by the Service in consultation with the other Resource Agencies and the Nation, to ensure that the issue has been adequately resolved. • The Licensee shall operate the low-level bypass system for downstream passage of American eel annually from August 15 through November 15, except as may be provided in the FOMP.
Part III: Existing Fishway Operational Provisions	
Improvements to Existing Fishway Operational Provisions	• The Licensee shall implement the following improvements to the existing fishway at the Project: o Prior to the 2025 fish passage season, the Licensee shall install a means of access to the upstream fishway entrance for observations, maintenance, and operation of the upstream fishway, unless the Licensee provides for this access during the term of the original license. o Within two years after FERC's issuance of the Subsequent License, the Licensee shall install a PIT antenna array and data loggers, as described above. Following installation of the PIT antenna array and data loggers:

	▪ The Licensee shall monitor all PIT tagged species, including any Target Species and other co-evolved species; and ▪ By December each year (or more frequently upon request), the Licensee shall provide PIT tag logger data requested by a Resource Agency to the requesting Resource Agency(ies) and the Nation. o For each fish passage season beginning after FERC's issuance of the Subsequent License through FERC's approval of the FOMP as described above, the Licensee shall: o Implement a pre-season de-watered inspection plan; ▪ Repair and maintain all fishway components identified during the pre-season de-watered inspection; ▪ Record daily headpond and tailwater water surface elevations, fishway entrance depth, and depth of flow over stop-logs at fishway entrance; ▪ Maintain a baffle to ensure an entrance jet of 4-6 ft/s during the river herring upstream passage season (May 1 to June 15), and 6-8 ft/s during the Atlantic salmon upstream passage season (June 16 to November 15) to facilitate passage of different species during their presumed peak migration timeframes; the baffle shall be designed to meet velocities for the associated fish passage operating range for each species (e.g., 5 to 95% exceedance flows), when possible; ▪ Operate the fishway at 10 cfs from May 1 to June 15 to facilitate upstream river herring passage and increase flow up to 30 cfs from June 16 to November 15 for the Atlantic salmon upstream passage season. KEI will consult with the Resource Agencies and Nation before the settings are changed (e.g., lowered headpond, removal of baffles). Any changes that may affect Atlantic salmon must be consistent with the biological opinion issued in connection with the license for this project; ▪ Operate the auxiliary flow system during the entirety of the river herring and Atlantic salmon season unless testing determines a negative effect on performance; ▪ Update the tailwater rating curve as well as data (specifically headpond and tailwater elevations) for a minimum of 10 years, if available, and incorporating data collected as discussed above; ▪ Provide a weekly intra-season report on fish passage operations; and ▪ Provide an annual FOMR to the Service, other Resource Agencies, and the Nation by February 28 for the previous year's fish passage season. The report may be in letter format and shall include a summary of the state of the fishways (structures, flows, etc.), and a review of the previous year's fishway operation and maintenance activities (e.g., deviations, issues, timing of installation, inspection results, etc.). In the report, the Licensee shall document fish passage operations and provide an assessment of any necessary or recommended changes to fish passage facilities and their operations. These may include, but are not limited to, any changes to the provision in seasonal operation schedule for the fishways, and any proposed modifications to the existing fish passage facilities.

Part IV: Species-Specific Fish Passage Performance Standards for Safe, Timely, and Effective Passage at the Project	
Species-specific performance standards	• The Licensee shall design the Project's fish passage facilities to meet, and shall test against, the species-specific performance standards set forth below. • The performance standards provided herein may be revised by the Service prior to the Service's approval of the monitoring plans as provided in the AMP, in consultation with the other Resource Agencies, the Nation, and the Licensee if the best available scientific information and engineering principles indicate that modifying a standard would be necessary and appropriate to achieve restoration goals. • Any changes to performance standards for Atlantic salmon, in the context of ESA section 7, must be addressed in ESA section 7 consultation between NMFS and FERC.
Alewife	• For downstream passage: at least 95% of the adult and juvenile alewives that approach within 200 m of the Project's powerhouse pass the project within 24 hours and survive. • For upstream passage: At least 90% of the adult alewives that approach within 200 m of the Project's powerhouse pass upstream at the Project within 48 hours. o Alternative Abundance Goal: A rolling average of greater than or equal to 678,680 alewives passing the Project annually across four consecutive years can be substituted for the Project to be deemed safe, timely, and effective for upstream passage of alewives.
Blueback Herring	• Unless the Service, in consultation with the other Resource Agencies, the Nation, and KEI, establishes a quantitative performance standard for blueback herring as provided below, the Project will be subject to the qualitative standard that Project facilities and operations will achieve safe, timely, and effective passage of blueback herring upstream and downstream of the Project. • Prior to the Service's approval of the monitoring plans as provided in the AMP and as above, the Service, in consultation with the other Resource Agencies, the Nation, and KEI, may establish quantitative performance standards for blueback herring for the Project. Any such performance standards will be based on generally accepted scientific and engineering principles and supported by the best available scientific information. These standards are expected to be based on a similar approach to alosine standards at other projects in the Northeast.
American Shad	• For downstream passage: at least 95% of the adult and juvenile shad that approach within 200 m of the Project's powerhouse pass the Project within 24 hours and survive. • For upstream passage: At least 75% of the adult shad that approach within 200 m of the Project's powerhouse pass upstream at the Project within 48 hours. o Alternative Abundance Goal: A rolling average of greater than or equal to 12,765 shad passing the Project annually across four consecutive years can be substituted for the Project to be deemed

	safe, timely, and effective for upstream passage of American shad.
Atlantic Salmon	• The performance standard for Atlantic salmon will be finalized during the ESA section 7 consultation between NMFS and FERC and is expected to include performance standards for upstream and downstream passage. These standards will be developed based on the best available scientific and commercial information, including dam impact assessments and consideration of standards at other hydro projects where Gulf of Maine DPS Atlantic salmon are present. The standards for Atlantic salmon are likely to be at least 95% passage efficiency for upstream migrating adults and survival for downstream migrating smolts, and will incorporate passage delay standards (i.e., number of hours to pass that would constitute safe, timely, and effective passage). Performance standards for downstream migrating kelts (post-spawn adults) may also be established. Any changes to performance standards for Atlantic salmon must be addressed in an ESA section 7 consultation between NMFS and FERC.
American Eel	• Unless the Service, in consultation with the other Resource Agencies, the Nation, and KEI, establishes quantitative performance standards for American eel as provided below, the Project will be subject to the qualitative standard that Project facilities and operations will achieve safe, timely, and effective passage of American eels upstream and downstream of the Project. • Prior to the Service's approval of the monitoring plans as provided in the AMP and as above, the Service, in consultation with the other Resource Agencies, the Nation, and KEI, may establish quantitative American eel performance standards for the Project. Any such performance standards will be based on generally accepted scientific and engineering principles and supported by the best available scientific information.
Sea Lamprey	• Unless the Service, in consultation with the other Resource Agencies, the Nation, and KEI, establishes quantitative performance standards for sea lamprey as provided below, the Project will be subject to the qualitative standard that Project facilities and operations will achieve safe, timely, and effective passage of sea lamprey upstream and downstream of the Project. • Prior to the Service's approval of the monitoring plans as provided in the AMP and as above, the Service, in consultation with the other Resource Agencies, the Nation, and KEI, may establish quantitative sea lamprey performance standards for the Project. Any such performance standards will be based on generally accepted scientific and engineering principles and supported by the best available scientific information.[26]
Part V: Adaptive Management and Periodic Monitoring	

[26] For reference, performance standards for sea lamprey have been developed for the Kennebec River and require 80% of adult sea lamprey that approach within 200 meters of the project to pass upstream within 48 hours. While a specific downstream passage standard has not been identified as part of the Kennebec standard, both upstream and downstream passage facilities will be operated 24 hours a day to accommodate the nocturnal migratory movements of sea lamprey.

Adaptive Management	• The Licensee shall implement the Adaptive Management Process for Meeting Fish Passage Performance Standards filed with FERC on [date] (AMP).[27]
Periodic Monitoring	• Following completion of the adaptive management process under section II.A of the AMP, the Licensee shall carry out monitoring of upstream and downstream passage of target species (or an agreed upon subset of species) every 10 years during the remaining Subsequent License term, for purposes of informing the consideration and implementation of any potential repairs or improvements to the Project's fishways to ensure achievement of safe, timely, and effective fish passage for the target species. • This 10-year monitoring cycle shall include the following: o No later than one year prior to the beginning of a 10-year monitoring cycle, the Licensee shall prepare a draft Monitoring Plan and submit it to the Service, the other Resource Agencies, and the Nation; o The Licensee shall include in the draft Monitoring Plan measures for testing sufficient to determine whether the fishways prescribed by the Service meet the performance standards. o The Licensee shall ensure that the draft Monitoring Plan is consistent with the requirements of section IV of the AMP. o The Licensee shall consult with the Service, other Resource Agencies, and the Nation to address comments provided on the Draft Monitoring Plan and to attempt to reach consensus on a final Monitoring Plan; o Once the Service, other Resource Agencies, the Nation, and the Licensee reach consensus on the Monitoring Plan, the Licensee shall submit the Monitoring Plan to the Service for approval, in consultation with the other Resource Agencies and the Nation; and o Upon approval, the Licensee shall implement the Monitoring Plan, as approved. • Within six months of completing the Monitoring Plan, the Licensee shall prepare a written report that details the monitoring results and identifies any recommended operation, maintenance, or construction measures that may be warranted to attain or maintain safe, timely, and effective fish passage for the target species. The Licensee shall distribute the written report to the Resource Agencies and the Nation. • Within six months of the Licensee's distribution of the written report, the Licensee shall meet and confer with the Service, other Resource Agencies, and the Nation on any maintenance, operation, or construction measures that may be warranted to attain or maintain safe, timely, and effective fish passage for the target species. • The Licensee shall request FERC approval and any other permitting agency to implement any measure agreed upon by consensus of the Service, other Resource Agencies, the Nation, and the Licensee. • Upon approval by FERC and any other applicable permitting agency, the Licensee shall implement the approved measure."

[27] The AMP is included as Appendix D to the Agreement.

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: August 2021 **Contact: (207) 314-1458**

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner.

Except as provided below, there are two methods available to an aggrieved person seeking to appeal a licensing decision made by the DEP Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

A person filing an appeal with the Board should review Organization and Powers, 38 M.R.S. §§ 341-D(4) and 346; the Maine Administrative Procedure Act, 5 M.R.S. § 11001; and the DEP's *Rule Concerning the Processing of Applications and Other Administrative Matters* (Chapter 2), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Not more than 30 days following the filing of a license decision by the Commissioner with the Board, an aggrieved person may appeal to the Board for review of the Commissioner's decision. The filing of an appeal with the Board, in care of the Board Clerk, is complete when the Board receives the submission by the close of business on the due date (5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board, as determined by the received time stamp on the document or electronic mail). Appeals filed after 5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board will be dismissed as untimely, absent a showing of good cause.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic mail and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection
c/o Board Clerk
17 State House Station
Augusta, ME 04333-0017
ruth.a.burke@maine.gov

The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee; and if a hearing was held on the application, (3) any intervenors in that hearing proceeding. **Please contact the DEP at 207-287-7688 with questions or for contact information regarding a specific licensing decision.**

REQUIRED APPEAL CONTENTS

A complete appeal must contain the following information at the time the appeal is submitted.

1. *Aggrieved status*. The appeal must explain how the appellant has standing to bring the appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions of law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing criteria that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license to changes in specific license conditions.
5. *All the matters to be contested*. The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for hearing must be filed as part of the notice of appeal, and it must include an offer of proof regarding the testimony and other evidence that would be presented at the hearing. The offer of proof must consist of a statement of the substance of the evidence, its relevance to the issues on appeal, and whether any witnesses would testify. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed supplemental evidence must be submitted with the appeal. The Board may allow new or additional evidence to be considered in an appeal only under limited circumstances. The proposed supplemental evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Requirements for supplemental evidence are set forth in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made accessible by the DEP. Upon request, the DEP will make application materials available to review and photocopy during normal working hours. There may be a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing the appeal.* DEP staff will provide this information upon request and answer general questions regarding the appeal process.

3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a licensee may proceed with a project pending the outcome of an appeal, but the licensee runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of an appeal, and it will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials admitted by the Board as supplementary evidence, any materials admitted in response to the appeal, relevant excerpts from the DEP's administrative record for the application, and the DEP staff's recommendation, in the form of a proposed Board Order, will be provided to Board members. The appellant, the licensee, and parties of record are notified in advance of the date set for the Board's consideration of an appeal or request for a hearing. The appellant and the licensee will have an opportunity to address the Board at the Board meeting. The Board will decide whether to hold a hearing on appeal when one is requested before deciding the merits of the appeal. The Board's decision on appeal may be to affirm all or part, affirm with conditions, order a hearing to be held as expeditiously as possible, reverse all or part of the decision of the Commissioner, or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the licensee, and parties of record of its decision on appeal.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board Clerk at 207-287-2811 or the Board Executive Analyst at 207-314-1458 bill.hinkel@maine.gov, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

Note: This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal. The DEP provides this information sheet for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.