STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

BROOKFIELD WHITE PINE HYDRO LLC Hiram, Baldwin, Denmark, and Brownfield Oxford and Cumberland Counties HIRAM HYDROELECTRIC PROJECT PROJECT #L007780-33-L-N (APPROVAL)	MAINE WATER QUALITY PROGRAM CLEAN WATER ACT WATER QUALITY CERTIFICATION

Pursuant to the provisions of 38 M.R.S. §§ 464 *et seq*., Section 401 of the Clean Water Act, 33 U.S.C. §§ 1341, and Department Rules 06-096 CMR Chapters 579-581, the Department of Environmental Protection (Department) has considered the application of BROOKFIELD WHITE PINE HYDRO LLC (Applicant or BWPH) with all supporting data, agency review comments, public review comments, and other related materials in the administrative record. Based on the record evidence and its professional judgment and expertise, the Department makes the following findings of fact, determinations, and conclusions:

1. APPLICATION SUMMARY

A. Application

On March 12, 2021, the Applicant submitted an application 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 Hiram Hydroelectric Project, P-2530, (the Project) located on the Saco River in the towns of Hiram, Baldwin, Denmark, and Brownfield, Maine.

B. History

The Department finds that the site of the Hiram Hydroelectric Project was first developed for hydroelectric power generation in 1917. The Project was first licensed by FERC in 1970 with an effective date of 1955, following FERC criteria for initial operating licenses at existing hydropower plants. Initially the Project included a single generating unit; in 1984 a second generating unit was added and the wood stave penstock was replaced with a metal penstock, bifurcated to deliver water to each generating unit. In 2013, two sections of inflatable rubber dam were installed on the 258-foot-long concrete spillway, replacing flashboards at the spillway crest.

C. Existing Project Features

The existing Hiram dam consists of a 448-foot-long dam topped with two section of rubber bladders; a 254-acre impoundment; an intake structure integral to the dam; a 320-foot-long penstock; a powerhouse containing two generating units with a total generating capacity of 11.633 megawatts (MW); and appurtenant facilities.

1) Project Dam. The Hiram dam is 448 feet in length including the intake section, founded on bedrock, and topped by an inflatable rubber bladder installed on the crest of each of two spillway sections.[1] Features of the dam include four sluiceways with gates, an old intake structure, a concrete abutment, a new intake structure, and a concrete bulkhead. The concrete spillway extends a total of 258 feet into the river from the west shore; the section closest to the shore is approximately 143 feet long, and the second section is approximately 105 feet long. Piers located on either side of the spillway and between the two spillway sections comprise the remaining ten feet of the spillway length.[2] The crest elevation for both spillway sections is 343.62 feet[3]; the crest elevation of the fully inflated rubber bladder sections is 349.25 feet. A set of four sluiceways extends approximately 64 feet east of the spillway. The first sluiceway section contains a deep sluice with a 10-foot-wide by 8.5-foot-high lift gate with a sill at elevation 341.0 feet; the second sluiceway section contains a 10-foot-wide by 7.5-foot-high Tainter gate with a sill elevation of 341.5 feet installed on top of a former log sluice; the third sluiceway section comprises a trash sluice with a 6.75-foot-wide by 5.2-foot-high lift gate with a sill elevation of 343.5 feet; the fourth sluiceway section contains a large Tainter gate, measuring 22-feet-wide by 11-feet high, with a sill elevation of 338 feet. An old intake structure is located next to the sluiceways, extending 29 feet east to a 9-foot-wide concrete abutment. The still-existing old intake structure and original wooden penstock are filled with concrete and are inoperable. The current intake is constructed of reinforced concrete, is 88 feet long by approximately 40 feet in height and is located adjacent to the original intake. The top of the intake is at elevation 341.5 feet and the bottom is at elevation 318.75 feet. The intake contains two openings, each 15 feet wide by 24 feet high and is protected by trash racks with 3.25 inch clear spacing and two wheeled gates. A 30-foot-wide bulkhead to the eastern shore completes the dam structure.

[1] The inflatable flashboard system, or rubber dams, were installed to replace wooden flashboards in 2013.
[2] Piers between the sluiceways, moving from west to east, are 4 feet wide, 4.5 feet wide, and 3 feet wide, respectively.
[3] All elevations described in this water quality certification are referenced to U.S. Geological Service (USGS) datum.

2) Project Impoundment. The Project dam impounds approximately 572 acre-feet of water over 254 acres at a normal full pond elevation of 349.0 feet. The impounded water extends approximately 7.5 miles upstream of the dam. Impoundment fluctuations during normal Project operations are limited to one foot from October 1 to November 15, annually, and limited to two feet during the remainder of the year.

3) Penstocks. The Project penstock is constructed of metal and is 320 feet long by 15.5 feet wide, bifurcating to a 10-foot-diameter, 170-foot-long penstock leading to turbine-generator unit 1, and a 15.5-foot-diameter 80 foot-long penstock leading to turbine-generator unit 2.

4) Powerhouse. The powerhouse is constructed of reinforced concrete and is 133.42 feet long by 50 feet wide. The powerhouse contains a control room, two generator rooms, wheel pits, and several small utility rooms. Each generator room contains a single Francis runner turbine-generator unit; unit 1 has a capacity of 3.008 MW and unit 2 has a capacity of 8.625 MW, for a total rated generating capacity of 11.633 MW at a normal operating head of 349.0 feet. The minimum hydraulic capacity is 30 cubic feet per second (cfs) and the maximum hydraulic capacity is 2,310 cfs. The two turbine pits each contain a vertical shaft waterwheel. A stoplog slot is mounted outside the draft tube for unit 1; an 11-foot stop log gate is mounted outside of unit 2.

5) Bypass. The configuration of the Project dam and powerhouse creates an approximately 500-foot-long bypass reach of Hiram Falls. The approximate 55-foot tall cascading falls contain four deep pools connected by shallower cascades of flowing water during low-flow, non-spill conditions. Hiram Falls is watered by leakage flows from the dam gates and by spill over the dam. A fifth pool measuring 25.5 feet wide by 30.4 feet long and located outside the main channel near the top of the reach becomes isolated during low-flow conditions. The dominant substrate at Hiram Falls is bedrock ledge with some minor large boulders, small boulders, and cobbles present.

D. Existing Project Operation

The Project is operated in accordance with the flow and impoundment level provisions of the 1997 Instream Flow Agreement[4] (the Agreement) to maintain the impoundment water elevation within one or two feet of normal full pond elevation of 349.0 feet. The

[4] The 1997 Instream Flow Agreement was incorporated into the Project License in 1998 by amendment. Document Accession #19981208-0241, dated December 7, 1998.

Agreement calls for a minimum flow of 300 cfs or inflow, whichever is less, from November 16 through September 30 with pond drawdown limited to 2 feet or less from full pond during normal operation or from spillway crest when the flashboards (rubber dams[5]) are down; and run-of-river operation from October 1 through November 15, with pond drawdown limited to 1 foot or less from full pond elevation or from the spillway crest when the flashboards (rubber dams) are down. The timing of the six-week fall flow period may be changed in accordance with the provisions of the Agreement.

The Hiram Project has a maximum hydraulic capacity of 2,310 cfs through its two generating units. Inflow to the Project exceeds the station maximum hydraulic capacity approximately 30 percent of the time, on average. Inflow in excess of the maximum hydraulic capacity is passed downstream at the rubber dams and Project gates, beginning with the automated log sluice gate, followed by the large Tainter gate, trash sluice gate, and deep sluice gate, in that order, which are operated manually to pass flows between 2,310 cfs and the capacity of the four gates (approximately 4,681 cfs) and the rubber dams which can be operated manually or will deflate when overtopped sufficiently. When flows exceed 4,681 cfs the rubber dams are manually deflated to pass water downstream.

Project minimum flows are passed through the powerhouse or spilled at the dam, or both. The automated log sluice gate is designed to automatically open to pass minimum flows when the station trips off-line.

The Project powerhouse and the log sluice gate are monitored and operated remotely, 24 hours per day, 7 days per week by the Applicant's North American System Control Center. All other gate changes are managed by local operations. The local operating crew also performs routine maintenance of the facility. During both scheduled and unscheduled maintenance and unit shutdown events inflow to the Project impoundment is passed downstream through operation of the remaining unit, through the sluiceways, Tainter gates, vertical spill gates, or though spill by deflating the rubber bladders as necessary.

E. Project Proposals

No new power development structures or generating facilities are proposed in this license application for the Project, however, new upstream and downstream fish passage facilities are scheduled to be installed later during the term of a new license, in accordance with the Fisheries Agreement[6] that provides for fish passage at dams on the

[5] Subsequent to the execution of the 1997 Instream Flow Agreement, the flashboard sections on the spillway were replaced with two inflatable rubber bladders, referred to as rubber dams.

[6] The Fisheries Agreement refers collectively to the 1994 Saco River Fish Passage Agreement and associated revisions and amendments in 2007, 2009, and 2019.

mainstem of the Saco River, including the Hiram Project, for the purpose of restoring populations of migratory fish. Conceptual designs and permit applications will be submitted at that time.

The Applicant proposes to enhance some existing Project recreation sites and facilities and to discontinue some amenities at the Nature Trail site,[7] though none of the proposed recreation enhancements require significant construction.

In its Final License Application[8] (FLA), the Applicant proposes to modify the Project boundary to remove the Overlook from its list of FERC approved Project recreation sites. The Overlook site provides no access to Project lands or waters and no longer offers a view of Project features; thus, the Applicant finds it is not necessary for Project purposes and wishes to remove it from the Project boundary. Application materials indicate that Maine Department of Transportation will continue to maintain the site as a roadside emergency pull-out.

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

The Hiram Project is located at river mile 46 on the Saco River, approximately 30 miles northwest of the City of Saco. There is no headwater storage on the Saco River, therefore, river flow tends to follow natural runoff patterns for precipitation and snowmelt. The Project is one of seven FERC licensed hydropower project on the mainstem of the Saco River, whose operations are set by the 1994 In-stream Flow Agreement and by FERC Orders.

The Applicant proposes to continue current Project operations in accordance with the provisions of the Agreement. The Agreement terminates upon expiration of the FERC licenses for downstream Bonny Eagle and Skelton Projects (FERC No. 2529 and FERC No. 2527, respectively) on January 31, 2038, or subsequent annual licenses, if applicable at that time; however, the Applicant proposes to continue the current operation during the term of a new Project license with a formal condition to continue to provide a minimum flow of 300 cfs and maintain the impoundment water level within 2 feet of the normal full pond elevation of 349.0 feet between November 16 and September 30, and within 1 foot of full pond from October 1 through November 15.

[7] The Applicant proposes to discontinue the informational kiosk, the picnic area and the parking area inside the Nature Trail gate.
[8] The Final License Application is incorporated into the WQC Application by reference.

G. Proposed Protection, Mitigation and Enhancement Measures

The Applicant proposes the following measures to protect and enhance environmental resources:

1. Develop and implement a Recreation Facilities Management Plan and, through that plan, continue to maintain and provide access to the existing Canoe Portage Trail and Parking area recreation site. The Applicant proposes to continue to provide access to and will make improvements at the Downstream Access Trail, Parking and Sandbar site with additional signage and installation and maintenance (in July and August) of a portable toilet[9] and trash receptacle, and to increase site security by installing a locking swing gate. BWPH is proposing to discontinue the information kiosk, picnic area and parking area inside the Nature Trail[10] site gate. A parking area will be maintained outside the access road gate and the Nature Trail site will remain available for informal, walk-in, public use.

2. BWPH proposes to remove the Overlook from the Project boundary and from the FERC approved Project recreation sites listing. The Overlook no longer provides views of the Project or access to Project lands or waters and so is not necessary for Project purposes. The site will continue to be maintained by MDOT[11] as a roadside emergency pull-out.

3. BWPH proposes to continue to implement the applicable provisions of the Fisheries Agreement, including schedules and processes to implement fish passage measures for migratory species, including new upstream and downstream fish passage measures for American eel[12] and for anadromous fish species.[13] Such measures are anticipated to be implemented at the Project

[9] A concrete slab may be necessary for the portable toilet and the access road may need to be upgraded to allow access by a pump truck to service the portable toilet.
[10] The Nature Trail recreation site is formerly known as the Nature Study Area.
[11] MDOT means Maine Department of Transportation.
[12] Under the terms of the Fisheries Agreement, upstream passage for American eel is scheduled to be installed by June 1, 2025; downstream passage for American eel is scheduled to be installed by September 1, 2032.
[13] Under the terms of the Fisheries Agreement, upstream passage for Atlantic salmon is anticipated to be installed by May 1, 2032, depending on the need for passage at that time as determined in consultation with the fisheries resource agencies. Downstream passage for Atlantic salmon is anticipated to be installed by April 15 two years following written notification that annual stocking of juvenile Atlantic salmon in the Saco River watershed above the Hiram dam has commenced pursuant to a written agency-approved Atlantic salmon stocking program to be developed by USFWS, NMFS, or New Hampshire Fish and Game Department, or once the operation of permanent upstream fish passage facilities for Atlantic salmon commences at the Hiram Project.

during the term of a new license; conceptual designs will be developed in coordination with the fisheries agencies.[14]

4. BWPH will develop and implement a Historic Properties Management Plan to provide for management of historic properties through the term of a new FERC license and an Operations Monitoring Plan to specify methods for monitoring and reporting minimum flows and pond levels to demonstrate compliance with the terms of a new license.

5. And BWPH proposes to develop and implement a plan to monitor dissolved oxygen downstream of the Project dam in Hiram Falls and below the Project tailrace to reaffirm that applicable Class A water quality standards are met.

2. JURISDICTION

The proposed continued operation of the Project qualifies as an "activity…which may result in [a] discharge into the navigable water [of the United States]" under Section 401 of the Clean Water Act (CWA). Section 401 of the CWA 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. State law authorizes the Department to issue a WQC pursuant to Section 401 of the CWA when the standards of classification of the water body and the State's antidegradation policy are met. 38 M.R.S. § 464(4)(F)(3).

State WQC for the Project was last issued by the Department on October 29, 1982, pursuant to installation of hydroelectric power generating facilities at the Hiram Hydroelectric 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 (LUPC) permitting and review. Therefore, the DEP is the certifying agency for the Project. Executive Order No. 3 FY 96/97.

The Project is licensed by FERC as a water power project under the Federal Power Act (FERC Project No. 2530). The initial FERC license was issued on November 19, 1970, and expired on December 31, 1993. A subsequent amendment and new FERC license was issued in 1982 for a term of 40 years, and will expire on December 31, 2022. BWPH

[14] Fisheries agencies include Maine Department of Marine Resources (MDMR), Maine Department of Inland Fisheries and Wildlife (MDIFW), U.S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS).

has filed an Application for New License with FERC to continue to operate the project for another 40 years. That application is currently pending before FERC.

3. APPLICABLE STATE WATER QUALITY STANDARDS

A. Classification

The Saco River meets the definition of a river, stream or brook pursuant to 38 M.R.S. § 480-B(9). The portion of the Saco River at issue in the application is designated as Class A waters from the confluence with the impoundment of the Hiram Dam to a point located 1,000 feet below the Hiram Dam. 38 M.R.S. § 467(12)(A)(4).[15]

B. Designated Uses

The Applicant must demonstrate that the Hiram Project riverine impoundment and Saco River below the Project meet the Class A water classification standards and the designated uses described at 38 M.R.S. § 465(2)(A):

> 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.

C. Numeric Standards

The Applicant must demonstrate that the Hiram Project impoundment and the Saco River below the Project dam meet the following numeric Class A standard[16] set forth in 38 M.R.S. § 465(2)(B):

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[15] Segments of the Saco River are classified Class AA in recognition of their outstanding character, including the segment upstream of the Hiram impoundment and the segment downstream of the Project. The segment that includes the Hiram Hydroelectric Project is not included in the Class AA classification. Additionally, the Saco River from the Little Ossipee River to the New Hampshire border is designated an Outstanding River Segment. 38 M.R.S. § 480-P. New dams and diversions projects and redevelopment of existing dams will alter the physical and chemical characteristics and designated uses of the waters of these river and stream segments and constitute violations of the State's water quality standards. 12 M.R.S. § 403. No new dams or diversion projects and no redevelopment is proposed for the Hiram Hydroelectric Project.

[16] The Class A classification standard applies to Project waters within 1,000 feet of the Hiram dam and Class AA classification standard applies beginning 1,000 feet downstream of the Hiram dam, a point located in the pool at the base of Hiram Falls. The numeric DO standard for Class A waters is 7 parts per million; DO in Class AA waters must be as naturally occurs. The aquatic habitat and life criteria is the same for Class A and Class AA waters.

The dissolved oxygen (DO) content of Class A waters shall be not less than 7 parts per million or 75% of saturation, whichever is higher. The aquatic life and bacteria content of Class A waters shall be as naturally occurs.

D. Narrative Standards

The Applicant must demonstrate that the Saco River below the Hiram dam meets the following Class A narrative standards 38 M.R.S § 465(2)(C):

1) Direct discharges to these waters licensed after January 1, 1986 are permitted only if the discharged effluent will be equal 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.[17]

2) Hydropower facilities managed under riverine classifications under 38 M.R.S. § 465 (such as the Hiram riverine impoundment) are additionally subject to 38 M.R.S. § 464(10) in recognition of some changes to aquatic life and habitat that have occurred due to the existing impoundments of these projects. Under Section 464(10), Class A and Class B riverine impoundments (including the Hiram impoundment) are generally deemed to meet their respective classification standards if the aquatic life and habitat in those impounded waters achieve Class C aquatic life criteria found at 38 M.R.S. § 464(4)(C), provided that no changes can be made to improve such habitat that does not significantly affect existing energy generation capacity. 38 M.R.S. § 464(10)(A)-(B). In addition, when the actual water quality of water affected by this standard attain higher water quality classification or criteria, that water quality must be maintained and protected. 38 M.R.S. § 464(10)(D).

E. Antidegradation

The Department may only approve WCQ if the standards of classification of the waterbody and the requirements of the State's antidegradation policy will be met. The Department may approve WQC for a project affecting a waterbody in which the standards of classification are not met 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).

[17] 38 M.R.S § 465(2)(C).

F. Department Rules

Attainment of water quality standards is assessed through 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.

2) 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 water 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 (38 M.R.S. § 465(2)(A); 38 M.R.S. § 464(10)(A)(1))

For this standard, the Applicant must demonstrate that the Hiram riverine impoundment and outlet stream below the dam are suitable for the designated use as habitat for fish and other aquatic life. The Applicant also must demonstrate that this impounded section of the Saco River and portion of the river below the dam are of sufficient quality to support indigenous aquatic species consistent with the applicable narrative standard.

1) Aquatic Habitat-Riverine Impoundment (38 M.R.S. § 465(2)(A); 38 M.R.S. § 464(10)(A)(1))

Attainment of aquatic habitat standards can be demonstrated in a variety of ways, including through evaluation of the structure and function of the biotic community, and measurement or submission of other data or evidence that demonstrates a sufficient maintenance of the impoundment's littoral zone.[18]. Absent other evidence, and based on its professional experience, expertise, and judgment, the Department generally presumes the presence and suitability of sufficient aquatic life and habitat, especially for small or young fish as well as other aquatic life that rely on that refuge and forage provided by nearshore aquatic vegetation, when at least 75% of an impounded area, called the littoral zone, as measured from full pond conditions, remains watered at all times. Conversely, and again absent other evidence, water levels that provide wetted conditions for approximately 75% of the littoral zone of an impounded area, as measured from full pond conditions, are generally presumed necessary to meet aquatic life and habitat standards. This reputable presumption, as developed through the exercise of the Department's professional experience, expertise, and judgment also is reflected in the Department's Hydropower Project Flow and Water Level Policy, dated February 4, 2002 (Water Level Policy). This rebuttable presumption is not a rule, but a guideline the Department applies on a case-by-case basis, informed by best professional judgment, and considering site-specific circumstances.

a. Existing Habitat and Resources

The Department finds that the Hiram impoundment is narrow and riverine in character, extending approximately 7.5 miles upstream of the Project dam with a surface area of 254 acres at normal full pond elevation of 349.0 feet. Impoundment fluctuations are limited to within two feet of full pond from November 16 to September 30 and to within one foot during a six-week period in the fall, from October 1 to November 15, in accordance with the provisions of the Saco River Instream Flow Agreement.[19] The

[18] The 'littoral zone' of lakes and lake-like waterbodies, including some riverine impoundments, 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 which 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 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.

[19] The Saco River Instream Flow Agreement expires on January 31, 2038 or upon expiration of the FERC licenses for BWPH's Skelton and Bonny Eagle Projects, including, if applicable, subsequent annual licenses. BWPH proposes in its FAL to continue applying the provisions of this agreement for term of a new FERC License for the Hiram Hydroelectric Project. MDIFW requested the agreement be renegotiated at the end of its present term rather than be unilaterally extended until the end of the term of a new FERC license for the Hiram Hydroelectric Project.

shoreline is steep-sided, especially in the upper half of the impoundment. The dominant substrate is sand with several sand bars occurring throughout the impounded river reach. Both shorelines support bands of submerged and emergent aquatic plant beds with woody debris, undercut banks and overhanging vegetation prevalent. The average water depth is approximately 9 feet and the average width is approximately 200 feet.

b. Studies

The Applicant completed an Impoundment Habitat Study in 2018 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 collected bathymetric data in the impoundment and measured Secchi disk transparency throughout the summer. The average Secchi disk transparency was 17.5 feet; calculated at twice the Secchi disk transparency measurement, the littoral zone would extend to a depth of 35 feet. However, the maximum depth of the impoundment is 31.2 feet. Therefore, the entire impoundment is littoral in character. The Applicant calculated, and the Department finds, that the volume of the impoundment at the normal full pond elevation of 349.0 feet to equal 62,506 cubic feet (1,435 acre-feet) and surface area equal to 7,359,825 square feet (169 acres); the volume and surface area of the impoundment at a headpond elevation of 347.0 feet is 47,787,525 cubic feet (1,097 acre-feet) and 7,355,343 square feet (168.8 acres) respectively. A maximum drawdown of 2 feet, therefore, maintains 76.5% of the impoundment volume and 99.9% of the surface area of the impoundment, demonstrating that Project operations that limit the impoundment drawdown to not more than 2 feet maintain at least 75% of the littoral zone at the lowest authorized impoundment elevation of 347.0 feet.

c. Discussion and Findings

The Applicant demonstrated and the Department finds that through its bathymetric survey, Secchi disk transparency analysis and depth measurements that the littoral zone in the impounded reach of the Saco River within the Hiram Project boundary extends to the riverbed. Further, the Applicant demonstrated and the Department finds that the proposed maximum water level fluctuation of 2 feet maintains approximately 76.5 % of the volume and 99.9% of the surface area of the riverine impoundment. Accordingly, the Department presumes the presence and suitability of habitat based on the Project's proposed operation that will continue to limit impoundment drawdowns to not more than 2 feet. Based on its review of the evidence presented in the Final License Application,

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See Section 5(A) of this certification. While not a signatory to the Agreement, the Department agrees with MDIFW that a negotiated settlement should not extend beyond its agreed upon term without the expressed consent of all signatories.

the Department finds and determines that Project operations meet the Class A designated use of habitat for fish and other aquatic life in the Hiram impoundment.

2) Aquatic Habitat – Outlet Stream (38 M.R.S. (38 M.R.S. § 465(2)(A))

For this standard, the Applicant must demonstrate that the Class A waters, such as those at the outlet of the Hiram dam, must be of such quality that they are suitable for the designated use of habitat for fish and other aquatic life. The habitat must be characterized as natural. In addition, the aquatic life of Class A waters must be as naturally occurs. In addition to satisfying all other requirements, discharges to Class A waters must be equal to or better than the existing water quality of the receiving waters.

To meet Class A aquatic life standards in the riverine outlet waters, the Applicant must demonstrate two things. First, the Applicant must show that the macroinvertebrate community attains Class A aquatic life criteria according to the Department's Chapter 579 rule. The benthic macroinvertebrate community is an indicator of the general state of aquatic life for the purpose of attainment of outlet stream aquatic classification standards. Where there is documented evidence of conditions that could result in uncharacteristic findings, allowances may be made to account for those situations by adjusting the classification attainment decision through the use of professional judgment. 06-096 C.M.R. Chapter 579, § 3(G).

Second, the Applicant must show that the flow of water in the Saco 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 second demonstration may be met if the Applicant demonstrates 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 also is reflected in the Department's Water Level Policy. Consistent with the Water Level Policy, on a case-by-case basis, the Department may establish alternative flows or water levels under certain circumstances where the alternative flows for water levels can be shown to meet all water quality standards, including where site-specific conditions limit the impact of flows or water levels on the quality or quantity of aquatic habitat.

a. Existing Habitat and Resources

The reach of the Saco River downstream of the Project dam includes two types of substrate. Hiram Falls, located immediately downstream of the Hiram dam, is comprised of bedrock ledge with some large boulders, small boulders and cobble. The falls drop approximately 55 feet over about 500 feet of distance in a cascade. The falls contain four deep pools connected by shallower cascades to the plunge pool below the falls and a fifth pool is located outside the main channel. Hiram Falls is watered by leakage flows from the dam and by spill during conditions that overtop the dam. The Hiram Falls ledges consist of extensive bedrock and cobble substrate and have a high gradient. DEP's DEA has determined that the natural conditions that characterize the falls do not support benthic organisms. Additionally, while the ledge pools located at the falls are deep enough with sufficient flow and the water oxygenated enough to support transient fish that drop down from the impoundment, these pools at the falls lack other characteristics, including fine grained substrate that supports the diverse vegetative and macroinvertebrate communities needed support and sustain a resident aquatic community. Downstream of the falls the Saco River becomes primarily deep pool or deep run habitat with sand, fine sand or silt, or cobble substrate. The channel is incised, with steep riverbanks comprised of fine sediments, undercut banks and canopy cover. Woody debris is present along both the right and left banks. Cover for fish and other aquatic organisms is provided in the river reach downstream of Hiram Falls by stream vegetation, riparian canopy, deep pools, woody debris, and cobbles.

b. Studies

The Applicant completed a number of studies in the Saco River downstream of Hiram Falls, including a survey of water quality and aquatic habitat in the falls themselves to ascertain whether habitat sufficient to support and sustain resident aquatic life is present there; a benthic macroinvertebrate study to determine if the aquatic community meets Maine's water quality standards in the waters downstream of the Project tailrace; and an aquatic habitat cross-section flow study to determine if there is sufficient water to maintain wetted conditions in at least 75% of the bankfull cross-sectional area.

At the Department's request, the Applicant conducted a qualitative survey of aquatic habitat and an assessment of dissolved oxygen in the 500-foot-long Hiram Falls bypass under non-spill, low river flow conditions. The Hiram Falls habitat study demonstrated that pool and cascade habitat exist in the Hiram Falls reach throughout the range of flows, including during low-flow, higher temperature periods in summer. The four large ledge pools are connected by smaller cascades and provide egress for fish that may be washed over the dam during higher flows but provide limited habitat for benthic

macroinvertebrates. A fifth pool is not connected to the four in the main channel. DO concentrations measured in two representative pools were found to be greater than 7 mg/L in 99.7 percent of the measurements collected.[20] Water temperature was collected in Hiram Falls, tailwater, and impoundment from July 3 to September 12, 2019 and was found to be generally consistent, with average ranges between 22.0ºC and 22.5ºC.

The Applicant conducted a Benthic Macroinvertebrate Study in the Saco River downstream of the dam and the Project tailwater, in accordance with the Department's *Methods for Biological Sampling and Analysis of Maine's Inland Waters* (Davies and Tsomides 2002. Rock baskets were installed on July 18, 2018 and retrieved on August 15, 2018 in a location approved by the Department, approximately 975 feet downstream of the powerhouse in representative riverine habitat.[21] TU commented that the selected sample location was not representative of Class A waters and was inappropriately located near the west bank and not representative of the river as a whole because of the presence of rooted aquatic grasses and filamentous algae, noting that such algal growth is often present on the edges of streams. The Department notes here, and as discussed elsewhere in this certification, that Secchi disk transparency measurements indicate that the entire riverbed in this reach of the Saco River is littoral in character and so the presence of rooted grasses and filamentous algae would be expected throughout the riverbed and not only on its banks. The macroinvertebrate community sampled downstream of the Hiram Project was found to be abundant and rich in taxa, populated by 25 different taxa with a total of 812 individuals. Ephemeroptera, Plecoptera and Trichoptera (stoneflies, mayflies, and caddisflies) represented 64 percent of the benthic community. These species are sensitive to pollution and so their presence and abundance are important indicators of good water quality.

Results of the macroinvertebrate study were analyzed by the Department using its linear discriminant model and determined to attain Class A criteria after the initial finding was raised by Department staff[22] from Class B to Class A based on lake outlet effect. Lake

[20] A total of 3,280 hourly measurements of DO were collected in the Hiram Falls reach during the 2019 field season.
[21] The deep, sandy bottomed tailwater pool immediately downstream of the Project was determined to be not typical habitat targeted for river and stream macroinvertebrate sampling and assessment results would be ambiguous. Therefore, a suitable sampling site and a sampling station representative of river habitat was selected downstream of the pool but within 1000 feet, and approved by Department staff in accordance with Department guidance. While the approved sampling location was outside the boundary of Class A waters, macroinvertebrate communities representative of Class A and Class AA waters are the same, thus Department's DEA determined that the macroinvertebrate community present in the approved sample location was representative of both Class A and Class AA water quality criteria.
[22] The Department's Chapter 579 rule addresses how benthic macroinvertebrate samples must be collected and the process for analyzing these samples using its linear discriminant model to evaluate whether a stream is in attainment. Site selection, data collection and processing must be in conformance with the Department's approved methods. Chapter 579 establishes that where there is documented evidence of conditions that could result in uncharacteristic findings, allowances may be made to account for those situations by adjusting the classification

outlet effect is a condition commonly found in the outlet streams of both natural and impounded water bodies. The quiescent water in impoundments, like that of natural lakes and ponds, promote the growth of zooplankton and phytoplankton. The zooplankton and phytoplankton are a food source for macroinvertebrates and their increased numbers promote higher densities of plankton consumers immediately downstream of the lake or impoundment outlet. As long as the underlying communities contain sensitive macroinvertebrates such as mayfly and stonefly larvae, the high abundance of filterers is known to be a natural, common phenomena. Maine's aquatic life criteria are identical for Class A and Class AA waters and finding that Project water meet Class A aquatic life criteria also meets the narrative standard, "as naturally occurs."

The Applicant also conducted a Cross Section Flow Study to evaluate tailwater habitat conditions including an aquatic habitat survey. Habitat in the study area is primarily deep run or deep pool with sand, sand and silt, or cobble substrates. The channel has steep riverbanks of fine sediment with undercut banks and woody debris, and a canopy cover. Average water depth across the two study transects at low-flow conditions was 4.1 feet and 3.3 feet, the maximum water depth was 5.3 feet and 5.6 feet. Bankfull elevations at each transect were estimated by assessing the active channel based on the extent of undercut banks and distinct slope breaks on the bank.[23] Bankfull width was estimated at 199.0 feet and 213.5 feet at the transects, respectively. Using a HEC-RAS model, the Applicant showed that an average river flow of 724 cfs wet the 100% of the bankfull width, and that the area measured 1,031 ft^2 and 1,033 ft^2 at transect 1 and 2, respectively. A flow of 383 cfs wetted 91.9% and 96.0% of the bankfull channel width and 70.4% and 67.0 % of the cross-sectional area as measured from bankfull conditions, respectively. The current minimum flow of 300 cfs wetted 89.8 % of the bankfull width across both transects and 60.6% and 56.3% of the cross-sectional area measured from the bankfull conditions, respectively, with an average value of 58.5%.

c. Discussion and Findings

Studies conducted by the Applicant demonstrate and the Department finds and determines that the existing Project flow regime maintains and supports habitat for aquatic species in the Saco River downstream of the Project dam. An Aquatic Habitat Study in the Hiram Falls reach demonstrated that there is sufficient DO to sustain any aquatic life that drops down from the impoundment and that the pools there are connected to the outlet stream through a series of several cascades that provide sufficient egress through the pools to the large tailwater pool and the lower Saco River. The Applicant

attainment decision through use of professional judgement. Ch. 579, § 3(G). Factors that may allow adjustment of the model outcome include habitat factors such as lake outlets, as occurred here.

[23] Bankfull elevations and characteristics were determined using the USGS method developed by Powell and others (2004).

reports and the Department finds and determines that the high gradient flow and extensive bedrock substrate, defining characteristics of the falls, are not conditions that support benthic macroinvertebrates in the Hiram Falls reach. Additionally, Hiram Falls is not characterized by the types of qualities, including a diverse and abundant vegetative and biotic community, that support a resident aquatic community. Trout Unlimited (TU) commented that the Hiram Falls ledge pools are wadable and fishable based on anecdotal reports, and requests that minimum flows over the ledges be increased from the current leakage flows of approximately 2 cfs. Such a change, however, will not alter the defining characteristics of the falls or make the falls suitable for benthic macroinvertebrates or enable the falls to support a resident aquatic community. Whether at the flows proposed by the Applicant or TU the water at the falls will be equally suitable for the designated use of habitat fish or other aquatic life.

The Applicant demonstrated through a Benthic Macroinvertebrate study and the Department determined using its linear discriminant model that the benthic community downstream of the Project meets Class A aquatic life criteria and can be characterized as natural. Further, the Applicant showed through its Aquatic Habitat Cross Section Flow Study and the Department finds and determines based on that study, that the minimum flow of 300 cfs maintains at least 75% of the wetted width of the outlet stream. While the study showed that just an average of 58.5% of the bankfull area is maintained at the minimum flow, sites with steep banks typically to do not provide wetted conditions in 75% of the cross-sectional area. Other site characteristics then must be considered. Information provided by the Applicant demonstrated that a depth of 4 to 5 feet is maintained in the channel and provides a zone of passage for all resident and diadromous fish species across most of the channel. Further, the Applicant demonstrated through its Secchi disk transparency measurements that the water clarity[24] in the Project area supports littoral habitat throughout the full depth of the river in the downstream reach. Based on information in the administrative record, the Department determines that site specific conditions, including the depth of water in the channel that provides a zone of passage equaling 4-5 feet and the extent of littoral habitat in the Project area, support a project-specific flow less than the flow that provides wetted conditions in at least 75% of the cross-sectional area. The Department, therefore, determines that flows provided by current and proposed Project operations provides sufficient water quality and sufficient water quantity to support the Class A designated use of habitat for fish and other aquatic life downstream of the Project.

[24] Water clarity is demonstrated by Secchi disk transparency measurements (averaging 5.1 meters or 16.7 feet) in the impoundment and are extrapolated to the downstream waters.

B. Dissolved Oxygen (38 M.R.S. § 465(2)(B))

For this standard, the Applicant must demonstrate that the dissolved oxygen content shall be not less than 7 parts per million or 75% saturation, whichever is higher.

a. Existing Habitat and Resources

The Department finds that the Hiram impoundment has a surface area of approximately 254 acres at full pond, with a water surface elevation of 349.0 feet. The impoundment extends approximately 7.5 miles upstream at full pond. The Saco River below the Hiram Project powerhouse and dam receives flows released from the powerhouse, leakage flow from the dam, runoff and ice melt. The Project is located approximately 46 miles upstream of the mouth of the Saco River, 39.2 miles downstream of Swans Falls Hydro and 20 miles upstream of Bonny Eagle Hydroelectric Project. The drainage area at the Hiram dam is 830 square miles.

b. Studies

The Applicant submitted data collected during water quality studies in the impoundment, collected twice each month between June and October 2018. Samples were collected from a location approximately 24 feet deep and 1,600 feet upstream of the Project dam, in accordance with a study plan approved by the Department, to assess the effects of Project operation on impoundment water quality. DO is dependent on temperature; as temperature decreases DO increases. DO profiles in the Hiram riverine impoundment were generally uniform throughout the sampling period, varying less than 0.3 mg/L, and all DO concentrations were at least 7 mg/L[25] or 75% saturation.

The Applicant conducted a Dissolved Oxygen and Temperature Study downstream of the tailwater pool between July 12 and September 13, 2018, in accordance with a Study Plan approved by the Department.[26] Data was collected using a Onset Hobo U-26 datasonde at a depth two feet below the water surface in a location with a total depth of four feet. Water temperature ranged from 21.4 ºC to 27.2 ºC, averaging 24 ºC, 24.3 ºC and 22.7 ºC

[25] One part per million is equal to 1 mg/L.

[26] TU comments that the Department erred in approving a location for DO sampling downstream of the Class AA-Class A line and, therefore, water quality sampling results do not demonstrate attainment of Class A DO criteria. The Department disagrees; there are no indications of stratification effects or DO depletion in the impounded waters and no indication that the presence or operation of the Hiram Project causes or contributes to diminished DO downstream of the Project. DO sondes were installed within 1000 feet of the dam in a location approved by Department staff with flowing water and sufficient depth to keep the sonde wet throughout the sampling period, in accordance with standard Department sampling protocol. Results are indicative of DO conditions in the waters downstream of the Project and DEA staff have not identified a reason to believe that water closer to the powerhouse would have lower DO concentrations than water measured in the chosen location.

in July, August, and September, respectively. DO concentrations ranged from 6.4 mg/L to 9.5 mg/L, DO saturation ranged from 74.7 to 103.5%. DO concentrations met or exceeded Maine's Class A water quality standard 97.8% of the time, and DO saturation met or exceeded 75% throughout the sampling period. The Department's Division of Environmental Assessment analyzed the slight DO excursions downstream of the dam and determined them to be the result of plant respiration.

c. Discussion and Findings

DO data collected by the Applicant in the Hiram impoundment and submitted for Department consideration indicates that water in the Hiram Project impoundment is sufficiently oxygenated. Based on evidence in the record the Department finds that the Project meets Class A water quality standards under current and propose operating conditions.

DO data collected by the Applicant indicates, and the Department finds, that water in the Saco River downstream of the Project dam meets the Class A water quality standard of 7 parts per million 97.8% of the time; DEA analysis determined that the slight DO excursions are likely the result of plant respiration. Further, the Applicant reports and the Department finds that DO saturation met or exceeded water quality standards throughout the sampling period. In its FLA, BWPH proposes to develop a DO Monitoring Plan in consultation with the Department, to monitor and reaffirm that DO concentrations in the Hiram Falls reach and in the tailwater area downstream of the Project continue to meet applicable Class A standards. Based on results of sampling conducted by the Applicant and analysis by the Department's DEA staff, the Department determines that DO saturation met the Class A water quality standard and the slight DO excursions are not caused or contributed to by the presence and operation of the dam. Therefore, the Department determines that the Project meets the applicable Class A water quality standard under current and proposed operating conditions.

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

For this standard, the Applicant must demonstrate that the project water are suitable for the designated uses of recreation in and on the water, fishing, and navigation. It's 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.

A hydropower impoundment shall be considered to have stable or declining trophic state unless it exhibits (1) a perceivable and sustained increase in its trophic state as

characterized by its Trophic State Index or other appropriate indices, or (2) the onset of algal blooms. 06-096 C.M.R. Chapter 581 § 6(C). The trophic state is the ability of water to produce algae and other aquatic plants. The trophic state a body of water is a function of its nutrient content and may be estimated using the Maine Trophic State Index (TSI), which includes measurements of chlorophyll, phosphorus or Secchi disc transparency. 06-096 C.M.R. Chapter 581 § 6(A). An algal bloom is defined as a planktonic growth of algae which causes Secchi disk transparency to be less than 2.0 meters. 06-096 C.M.R. Chapter 581 § 6(B).

1) Existing Facilities and Use

The Applicant reports that the area around the Hiram Hydroelectric Project provides varied recreational opportunities, including biking, hiking, fishing, camping, wildlife viewing, snowmobiling and skiing in Sebago Lake State Park, located approximately 20 miles from the Project. The Applicant further notes that the Saco River is a popular regional recreational resource, and that the upper Saco River is a popular for boating, including day use and overnight paddling trips. There are nine publicly and privately owned public boat launches on the Saco River, the closest is located approximately 17.5 miles upstream of the Hiram Project dam in Brownfield, providing a carry-in launch with five vehicle and trailer spaces, 31 vehicle parking spaces and toilet facilities. A private boat launch is located 3 miles upstream of the Hiram dam in Hiram, which provides access to the Project impoundment.

Recreation within the Project boundary can be accessed at three formal Project recreation sites, including the Canoe Portage Trail and Parking, the Downstream Access Trail, Parking, and Sandbar, and the Overlook. The Project also includes an informal boat launch that provides access to the Project impoundment, and a walk-in Nature Trail.[27]

2) Water Quality Data.

The Applicant conducted a Trophic State Study in accordance with the Department's Lake Trophic State Sampling Protocol for Hydropower Studies (2017). Water Quality samples were collected from the deepest portion of the impoundment upstream of the boat barrier at a depth of approximately 24 feet, twice per month for five consecutive months from June through October 2018. Data collected by the Applicant indicates, and the Department finds, that sample results indicate the Hiram impoundment does not stratify, and is mesotrophic (total phosphorus ranged from 8 µ/L to 180 µ/L with a

[27] The Nature Trail is also referred to as Nature Study Area and was previously recognized by FERC as a formal recreation site, while the Applicant describes it as an informal recreation site. Addition of a security gate in the 2000s resulted in a decline in use and the Applicant subsequently discontinued maintenance of the Nature Study Area as a formal recreation site. The Nature Trail remains an informal walk-in site associated with the Project.

median of 14.5 µ/L and average of 30.1 µ/L; chlorophyll-*a* ranged from 0.001 mg/L to 0.003 mg/L, averaging 0.002 mg/L; and Secchi disk transparency measurements ranged from 3.5 meters to 6.2 meters, averaging 5.1 meters). Both phosphorus and chlorophyll-*a* concentration measured in the Hiram impoundment were below the threshold for mesotrophic waters except for a total phosphorus concentration measured on a single day, following a significant rainstorm.[28] Secchi disk transparency measurements indicate no nuisance algal blooms were present, supporting a finding that the Hiram impoundment is mesotrophic.

The Applicant conducted an inventory and conditions assessment of the existing recreational sites[29] and facilities during the 2018 field season and relied on FERC reporting in 2014 to estimate recreation site use. The assessment included formally recognized Project recreation sites and the non-Project informal boat launch; the 2014 FERC use reports include only formally recognized Project recreation sites. The informal boat launch was included in the 2018 inventory to assess the location that serves as the impoundment boat launch although no use counts were made there. The Applicant reports, and the Department finds, that overall recreational use at the Hiram Project is low, estimating 4,000 recreation days at all the formal, FERC approved sites. Use of the Overlook was found to be 25% of capacity, use of the Nature Study Area was found to be 25% of capacity, and use of the Canoe Portage Trail was found to be 5% of capacity. No reports of recreational use of the Downstream Access Trail or the Sandbar area were included, however the 2018 study found the Canoe Portage and Downstream Access Trail sites were generally in good condition but showed evidence at the sandbar of unauthorized fired, vegetation damage, and litter. The Overlook was found to be in reasonable condition; however, the site provides no physical access to Project lands or waters, and the visual access once available there is now gone, the result of vegetative growth that has fully obscured views of the powerhouse, the Project dam or the Saco River. The 2020 site visit to the Nature Study Area revealed the trail to be in good condition but the picnic and parking areas were found in poor condition due to lack of maintenance. The Applicant reports that access to the impoundment is available at a non-Project informal boat launch, capable of launching small, motorized watercraft as well as hand-carry boats. In its Draft Environmental Assessment for the Project, FERC recommends that BWPH secure the rights to operate and maintain the facility in perpetuity and should include operation and maintenance tasks for the facility in its proposed Recreational Facilities Management Plan. FERC recommends that BWPH propose to construct a new facility if it is unable to secure rights to the existing facility.

[28] The measurement of 180 µ/L total phosphorus was determined to be an outlier, measured following a significant 2-day, 1.5 inch rainstorm. All other samples were equal to or below the proposed state water quality standard of 18 µ/L.

[29] The 2018 recreational use survey and condition assessment did not include the Nature Trail facility, which was assessed in June 2020.

The Applicant also conducted a fish assemblage study in 2019 using a boat electrofishing unit and gill nets to survey Project waters in spring (late May) and fall (early October). The study intended to document existing fish assemblage, collect information about the abundance and distribution of brook trout, document the relative abundance and distribution of cold and warmwater species, evaluate size class, and evaluate species diversity in the Project area. The Applicant reports, and the Department finds, that 16 species are present, dominated by yellow perch, white sucker, fallfish and common shiner, with pickerel, sunfishes, basses, stocked trout, shiners and American eel also present but in lower numbers. Stocked trout[30] made up a small percentage of the overall fish assemblage; no wild trout were collected in either 2006[31] or 2019 in the Project area. Survey results indicate that Project waters support common warmwater species and stocked trout, as well as American eel. The adult fish collected were described as healthy, well-nourished individuals.

3) Discussion and Findings

The Applicant reports and the Department finds and determines that regional recreational opportunities include biking, hiking, fishing, camping, wildlife viewing, snowmobiling and skiing, and that the Hiram impoundment additionally supports and provides for fishing and non-motorized boating. The Applicant reports and the Department finds that the Project's Canoe Portage and Downstream Access Trail sites in generally good condition but found evidence of unauthorized uses and damage. The Overlook site was found to be in reasonable condition however the Applicant seeks to remove it from the Project's formal recreation sites because it no longer provides views of the Project and so no longer serves a Project purpose. The Nature Study Area was found to be in good condition, but its associated picnic and parking areas were found to be in poor condition from lack of maintenance. The Applicant wishes to remove the Nature Study Area from Project's formal recreation sites citing continued concerns about Project security and periodic report of illicit use but would continue to maintain the nature trail itself for informal public use. The Applicant proposes to make improvements and upgrades to the Downstream Access Trail by installing additional signage, providing a portable toilet and trash receptacle, and increasing site security. Use of the Downstream Access Trail was found to meet its use and capacity levels, and improvements there will ensure access to that portion of the Project waters. The Applicant reports that the informal impoundment boat launch is expected to continue providing public access to the impoundment. FERC

[30] Maine DIFW stocks brook trout and brown trout annually in the Saco River in the towns of Baldwin and Hiram to support the coldwater fishery. From 2015 to 2019 MDIFW stocked 3,000 brown trout in Baldwin and Hiram and 2,150 brook trout near the town of Hiram.

[31] Midwest Biodiversity Institute completed boat electrofishing surveys in the Saco River near the Hiram Project in 2006, establishing a baseline of fish species presence and relative abundance.

recommends that BWPH secure rights to that facility in perpetuity or establish an alternate boat launch site if it is unsuccessful in acquiring permanent access at the existing facility. DIFW concurs with FERC and recommends the Applicant legally secure the private informal access site or secure an alternative site for suitable access to the impoundment for small motorized and hand-carry watercraft. The Applicant proposes to prepare and implement a Recreation Facilities Management Plan to address management of the remaining formal Project recreation sites over the term of a New License.[32] Finally, the Applicant proposes some minor revisions to the Project boundary to remove some lands that are not necessary for Project purposes, including contraction of the downstream boundary of the Project to 1,000 feet below the Project dam and removing approximately 32 acres of Project lands above elevation 349.0 feet associated with a bog located upstream of the dam, retaining the boglands below 349.0 feet within its boundaries. The Department finds that there is sufficient capacity and access opportunities to Project waters to meet current and future uses. The Department finds and determines, based on information reported by the Applicant, that the Hiram impoundment is mesotrophic, with nutrient levels in the higher end of the trophic state guidelines for mesotrophic waters, but that there are no algal blooms present and Secchi disk transparency measurements were greater than 2.0 meters. Secchi disk measurements consistently greater than two meters indicates a low potential for nuisance algal blooms. Therefore, in the Department's professional judgement and consistent with 06-096 C.M.R. ch. 581, the Department concludes that the trophic state of the Hiram impoundment is stable and its waters are suitable for recreational use.

Additionally, the Department finds that resident fish are present in the Project area and the DIFW provides and Project operations support a sport fishery for resident fish and stocked trout above and below the Hiram dam. A Fisheries Agreement (see footnote 6) as approved by FERC and incorporated into the current Hiram Project license remains in effect for the Project waters and will guide the need for and installation of fish passage facilities and measures for diadromous fish species at the Project during the term of a New License.[33, 34] The 2019 amendments to the Fisheries Agreement settled all diadromous fisheries issues in the watershed and were signed by the state and federal fisheries resource agencies. The Applicant reports and the Department finds that that

[32] TU comments that a Recreational Facilities Management Plan (RFMP) proposed for the Project will not address vandalism and neglect currently evident at Project recreational facilities. The Department observes that while there is not currently an RFMP for the Project, its experience is that development and implementation of such a plan as a condition of a WQC and incorporation of such a condition into a New License and implemented under FERC oversight has been successful at other hydropower projects in Maine. See Condition 5.A of this Certification.
[33] MDIFW requests in its comments that use of Project waters by native trout be considered when fish passage for Atlantic salmon is addressed in 2032, in accordance with the terms of the Fisheries Agreement. See section 5(A) Comments on Application.
[34] TU comments that "[t]he 2007 Settlement will never provide fish passage at Hiram Dam on its present course." However, the Fish Passage Agreement will address fish passage in 2032, during the term of a New License and DIFW requested that resident fish passage be considered at that time. See Condition 3(B) of this Certification.

access to the impoundment is available at a non-Project informal boat launch, capable of launching small, motorized watercraft as well as hand-carry boats. Ensuring that this or alternative public access to the impoundment, through the term of any new license is necessary to ensure the riverine impoundment continues to meet the Class A designated us of recreation in and on the water and navigation in the impounded portion of the Project. Further, the Department finds that based on studies conducted by the Applicant, the quality and quantity of water in the Project area is sufficient to support a sport fishery and that DIFW stocks trout into the Saco River in the vicinity of the Project. Based on the evidence in the record, the Department determines that Project operations meet the Class A designated uses of recreation in and on the water, fishing, and navigation, provided BWPH secures permanent rights to access, operate and maintain the existing informal impoundment boat launch or develops and includes in its final Recreational Facilities Management Plan a plan and schedule for constructing a new boat launch providing access to the impoundment as specified in the conditions below.

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 uses of hydroelectric power generation.

1) Existing Generation

The Department finds that the Project operates in accordance with a 1997 Instream Flow Agreement, maintaining a water elevation within one or two feet of normal full pond and a minimum flow of 300 cfs or inflow, whichever is less. The Project has a total authorized nameplate generating capacity of 11.633 MW and is capable of producing a gross average energy output of 49,287 megawatt hours of electricity annually. This is equivalent to the energy that would be produced by burning 82,145 barrels of oil or 22,839 tons of coal each year.

2) Energy Utilization

BWPH sells Project power wholesale to ISO[35] New England for the New England market. The Project interconnects with the electrical grid via a substation located adjacent to the powerhouse and the transmission circuit connecting the substation to a non-profit switching station.

[35] 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 while its objective is to promote a competitive wholesale electricity marketplace while maintaining the electrical system's integrity and reliability.

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 public power grid. The Applicant proposes no changes or additions to the existing turbine-generator units or other redevelopment activities. Based on the evidence on record, the Department determines that the Project operations meet the Class A designated use of hydroelectric power generation.

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

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

1) Discussion and Findings.

The Applicant did not submit information indicating that the Hiram Project impoundment or the Saco River is used as a drinking water supply. However, water quality data collected for the Trophic State Study in the Project impoundment and DO data collected downstream of the dam indicate that generally, water quality meets state standards and there are no culturally induced algal blooms. Based on the evidence on record, the Department determines that the Project operations meet the Class A 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) Discussion and Findings

The Hiram Project impoundment and the Saco River downstream of the dam are not used for any industrial processes beyond a cooling water supply for energy generation equipment at the Project. However, water quality data indicates that it would be suitable as an industrial process water supply in addition to its present use as a cooling water supply. Based on the evidence on record, the Department determines that the Project operations meet 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. 38 M.R.S. § 464(4)(F).

1) Discussion and Findings

The Department finds that the Hiram Hydroelectric Project was first developed for power generation in 1917 and included a single generating unit. A second generating unit was added in 1984 and the original wood stave penstock was replaced with a bifurcated metal penstock. Two sections of inflatable rubber bladders were installed to replace existing flashboards on the spillway crest in 2013. While structures have been replaced and maintained over time, in-stream uses are generally the same on and after November 1975 and include hydropower generation, recreation in and on the water including fishing and navigation, and as habitat for fish and other aquatic life. Based on the evidence on record, the Department determines that the Project operations meets the requirement of the antidegradation policy.

5. PUBLIC COMMENTS

A. Comments on Application

The Department received comments on the water quality certification application from eight citizens, from Trout Unlimited Sebago Chapter (TU), and from DIFW. Citizen's comments generally expressed concern around the lack of upstream and downstream fish passage, with some also noting the poor condition of the Project's amenities. TU advocates for fish passage as well, and is concerned that the locations of the BMI samples and the locations of the DO sondes are not representative of Class A waters and that the resultant data cannot, therefore, be relied upon to demonstrate attainment of applicable classification standards. DIFW advocates for permanent public recreational access to Project waters and is concerned that access to the impoundment relies on a single, private, informal access point that is not well advertised and may not persist for the duration of a new license. DIFW believes the methodology used to assess recreational access underestimates recreational use, particularly use of an informal access site and requests that access to the Project impoundment be formally included in the provisions of

a new Project license. DIFW further requests that the Saco River Instream Flow Agreement be re-negotiated at the end of its term,[36] rather than extended for the term of a new license. And finally, DIFW requests that native trout resources be considered when fish passage at the Project dam is addressed in 2032.

The Department reviewed and considered the comments received and accepted all comments into the record.

Department staff met with TU on June 7, 2021 to discuss their comments and to explain that the water quality standards for Class AA and Class A are identical with regard to measurements of aquatic habitat water quality[37] and that the cascades that comprise Hiram Falls do not contain the substrate necessary to support a robust macroinvertebrate community and that the Department views the habitat as naturally unable to sustain fish in the pools there. Department staff also explained its position that DO standards are met in the Project waters, specifically Class AA must be as naturally occurs and Class A waters must have at least 7 parts per million DO or 75% of saturation, whichever is higher; the DO saturation in the receiving waters of the Saco River meet 75% of saturation at all times, and that small deviations below 7 parts per million were not caused or contributed to by Project operations but likely are the result of plant respiration. Regardless of those small excursions, meeting 75% of saturation demonstrates that the Class A DO standard is met in Project waters downstream of the dam. TU questioned and Department staff explained that locations where measurements were collected were appropriate for the sampling methods and devices used and were considered and approved by the Department and that the sample location favored by TU was a poorer fit because of the quiescent nature of the plunge pool waters.

With regard to fish passage at the Project, the fish resource agencies negotiated a Fisheries Agreement in 1994, which was revised and amended in 2007, 2009, and as recently as 2019 that provides for fish passage at dams on the mainstem of the Saco River, including the Hiram dam. That agreement establishes a schedule for downstream fish passage facilities at all BWPH facilities on the Saco River including at the Hiram dam, and a process for evaluating the need, design and schedule to provide upstream passage at its Bar Mills, Bonny Eagle, West Buxton and Hiram projects in a coordinated

[36] The Saco River Instream Flow Agreement expires on January 31, 2038 or upon expiration of the FERC licenses for BWPH's Skelton (FERC No. 2527) and Bonny Eagle (FERC No. 2529) including, if applicable, subsequent annual licenses. BWPH proposes in its FLA to continue applying the provisions of this agreement for the term of a new FERC license.

[37] Assessment of benthic macroinvertebrate communities through the Department's linear discriminant model is routinely used to indicate attainment of aquatic habitat water quality, in accordance with Department policy and practice (see section 4. A. 2) of this certification).

manner. DIFW has requested that this certification support consideration of native brook trout when passage for Atlantic salmon is addressed in 2032.

B. Comments on Draft Order. On February 24, 2022, the Department issued a draft Order approving water quality certification for the continued operation of the existing Hiram Hydroelectric Project. Comments on the draft order were invited from the Applicant, DIFW, and Trout Unlimited (TU), as each party commented on the WQC Application. The deadline for comments was 5:00 P.M. on March 3, 2022.

Comments on the draft Order were received from DIFW, requesting the WQC include a condition to provide permanent access to the impoundment for small, trailered boats and hand-carry watercraft, as recommended by FERC in its Draft Environmental Assessment. The Applicant had no substantial comments but offered two corrections that were made in the Final WQC. TU's also submitted comments, which largely reiterated the comments it previously provided on the WQC application, that recreational facilities associated with the Project are not adequately managed or maintained and a recreational facilities management plan required in this certification will not address the recreational needs of the Project; that sample locations selected by the Applicant and approved by Department staff did not accurately reflect Class A waters and were located too close to the shoreline; that the Department erred in its findings regarding DO and its use of professional judgement in determining that aquatic habitat and aquatic life criteria meet Class A criteria and in finding that habitat for fish and other aquatic life can be characterized as natural; that the ledges making up Hiram Falls should be considered habitat and receive more water than provided under the existing In-Stream Flow Agreement in order to improve its aesthetic quality and provide fishing opportunities in the open ledge pools, and that the Department is not bound by Agreement; that fish passage should be required immediately for indigenous species, including salmonid species rather than through the timelines and processes included in the Fisheries Agreement; that the Applicant should be required to provide the public with views of Hiram Falls; and that the upper Saco River is granted special status by Maine Legislature and entitled to special protection.

Comments on the draft Order were reviewed and incorporated into the final Order, as appropriate.

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 HIRAM 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:

A. The Applicant has provided sufficient evidence and the Department finds and determines that the Saco River in the Hiram Project impoundment and downstream of the Project dam meets all of the narrative classification standards for Class A waters and is determined to be of such quality that it is 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; navigation and as habitat for fish and other aquatic life. 38 M.R.S. § 465(2)(A).

B. The Applicant has provided sufficient evidence that DO concentrations in the Hiram Project impoundment meet the applicable Class A DO standard. The Applicant further provided evidence that DO concentrations in the Saco River downstream of the Hiram dam meets 75% of saturation all of the time, and meets the Class A standard of 7 parts per million 97.8% of the time; and that minor, short duration excursions of DO concentrations are the result of plant respiration and not caused by operation of the Project. The Applicant has demonstrated that Project waters meet the numeric water quality standard for dissolved oxygen by meeting 75% of saturation, and that the slight excursions in DO concentrations are not caused by Project operations. Further, the Applicant has proposed to develop and implement a DO Monitoring Plan to affirm that the DO standard continues to be met. The Department concludes that the DO concentrations in the Saco River meets applicable numeric Class A DO standards. 38 M.R.S. § 465(2)(B).

C. The Applicant has provided sufficient evidence and the Department finds and determines that the macroinvertebrate community downstream of the Project dam indicates some impact from “lake outlet effect.” However, lake outlet effect is a common occurrence below natural lakes and in the Department’s professional judgment and experience, the impact measured below the Hiram dam is not significantly different than that observed below natural lakes. The Department concludes, therefore, that water discharged from the impoundment meets the classification standards for Class A waters and that aquatic habitat in the Saco River is characterized as natural. 38 M.R.S. § 465(2)(A).

D. 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)(3).

7. DECISION AND ORDER

THEREFORE, the Department APPROVES the water quality certification of BROOKFIELD WHITE PINE HYDRO, LLC and CERTIFIES pursuant to Section 401 (a) of the Clean Water Act that there is a reasonable assurance that the continued operation of the HIRAM HYDROELECTRIC PROJECT, as described above will not violate applicable Class A water quality requirements, SUBJECT TO THE FOLLOWING CONDITIONS:

1) WATER LEVELS

A. Except as temporarily modified by 1) approved maintenance activities, 2) extreme hydrologic conditions,[38] 3) emergency electrical system conditions,[39] or 4) agreement between the Applicant, the Department, and appropriate state and/or federal agencies, daily Project impoundment water levels shall be maintained in accordance with the provisions of the Instream Flow Agreement for Hydroelectric Projects on the Saco River. Current provisions of the Agreement require the impoundment water level remain within 2 feet of the normal full pond elevation of 349.0 feet between November 16 and September 30 and within 1 foot of full pond from October 1 through November 16.

B. The Applicant shall, in consultation with the signatories to the Instream Flow Agreement, review, reconsider, and renegotiate, if such consultation determines necessary, the terms of the Agreement upon its expiration in 2038, coincident with expiration of BWPH's Skelton and Bonny Eagle Project licenses, or subsequent annual licenses, if applicable.

C. The Applicant shall, within six months of issuance of a New License for the Project by FERC or upon such schedule as established by FERC, submit a Final Operations Monitoring Plan to the Department for providing and monitoring Project impoundment water levels required by Part A of this condition.

[38] 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.

[39] 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, ad orders from local, state, or federal law enforcement or public safety authorities.

D. 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(2)(A) and as discussed above at section 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 shall provide flow releases from the Hiram Hydroelectric Project in accordance with the provisions of the Instream Flow Agreement for Hydroelectric Projects on the Saco River. 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, an instantaneous minimum flow equal to 300 cfs or inflow, whichever is less, shall be released from the Project dam from November 16 to September 30, annually. From October 1 through November 15 annually, or for such alternate six week period as may be mutually agreed to by the Applicant and state and federal fisheries resource agencies, outflow from the Project shall be approximately equal to inflow under run-of-river operation, while allowing for up to one foot drawdown of the impoundment. All required flows shall be the sum of generating flows from the powerhouse and sluice gate/Taintor gate/leakage/spillage flows from the dam.

B. The Applicant shall, in consultation with the signatories to the Instream Flow Agreement for Hydroelectric Projects on the Saco River, review, reconsider, and renegotiate the terms of the Agreement upon its expiration in 2038, coincident with expiration of BWPH's Skelton and Bonny Eagle Project licenses, or subsequent annual licenses, if applicable.

C. The Applicant shall, within six months of issuance of a New License for the Project by FERC or upon such schedule as established by FERC, submit a Final Operations Monitoring Plan to the Department for providing and monitoring Project minimum flows required by Part A of this condition.

D. 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(2)(A) as discussed above at section 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) UPSTREAM and DOWNSTREAM FISH PASSAGE

A. The Applicant shall continue to implement the applicable provisions of the 2007 Saco River Fisheries Assessment Agreement, including all amendments as approved by FERC, at the Hiram Project to provide upstream and downstream fish passage facilities and measures for migratory fish species.

B. Upon commencement of fish passage planning, the Applicant shall consult with DIFW to include, as needed, studies, measures and facilities to provide access to Project waters upstream and downstream of the Hiram dam for native trout species.

C. These conditions regarding fish passage measures are necessary to ensure that the discharge from the Project will comply with water quality requirements, including 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) DISSOLVED OXYGEN

A. The Applicant shall, within six months of issuance of a New License for the Project by FERC or upon such schedule as established by FERC, and in consultation with the Department, submit a Final Dissolved Oxygen and Temperature Monitoring Plan for Department review and approval that provides for monitoring DO concentrations in Hiram Falls and in the Project tailrace for a single season within two years of final issuance of a New License by FERC.

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

5) RECREATIONAL ACCESS AND USE

A. The Applicant shall continue to provide formal and informal access to the Project waters upstream and downstream of the Project dam for the purpose of recreation in and on the water, for fishing, and for navigation to the extent possible, for the term of a New License. The Applicant shall submit a final Recreational Facilities Management Plan to the Department that provides for the maintenance and management of Project Recreational sites. Further, the Applicant shall secure permanent rights to access, operate and maintain the existing informal impoundment boat launch or shall develop and include in its final Recreational Facilities Management Plan a plan and schedule for constructing a new boat launch providing access to the impoundment, developed in consultation with DIFW. The Recreational Facilities Management Plan shall provide for installation of sufficient signage and directions for the public to locate and use the impoundment access site.

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(2)(A), as discussed above at section 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.

6) WATER QUALITY

Upon any future determination by the Department that operation of the Hiram Project, as approved by the certification and as conditioned by FERC for the Project, may be causing or contributing to a decline in water quality or 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.

7) STANDARD CONDITIONS

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

8) 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.

9) COMPLIANCE WITH ALL APPLICABLE LAWS

The Applicant shall 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.

10) EFFECTIVE DATE

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

11) 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 shall remain I n full force and effect, and shall 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 4TH DAY OF MARCH, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

KH/L007780LN/ATS87301

FILED

March 4, 2022

State of Maine
Board of Environmental Protection

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 shall be considered to have been violated.

2. Inspection and Compliance. Authorized representatives of the Commissioner or the Attorney General shall 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 shall 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 shall 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 shall 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.

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.