



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street
Providence, Rhode Island 02908

November 18, 2020

KEI(USA) Power Management, Inc.
Sherri Loon, Coordinator-Operations USA
423 Brunswick Avenue
Gardiner, ME 04345

**Insignificant Alteration – Permit
Water Quality Certification**

Re: FWW Application No. 19-0341; WQC File 19-229 for the property and project located:

The length of the Blackstone River and tailrace between the “Tupperware Dam” in Blackstone, Massachusetts and the hydroelectric facility southeast of Butler Street, Assessor's Plat 3, Lot 242 North Smithfield, RI

Dear Ms. Loon:

Kindly be advised that the Department of Environmental Management's ("DEM") Freshwater Wetlands Program ("Program") has completed its review of your **Request for Preliminary Determination** application. The project has also been reviewed by the DEM's Water Quality Certification Program ("WQC Program"). This review included a site inspection of the above referenced property ("subject property") and an evaluation of the proposal to continue operations of a 1,724 kW hydropower electric generation facility at the Tupperware Dam and operate in an instantaneous run-of-river mode that is to maintain 35 cfs minimum flow in the bypass reach of the Blackstone River as illustrated and detailed on site plans submitted with your application. These site plans were received by the DEM on December 10, 2019. The DEM acknowledges that this project is also currently seeking a license renewal from the Federal Energy Regulatory Commission ("FERC") under FERC Project Number 3023.

Our observations of the subject property, review of the site plans and evaluation of the proposed project reveals that alterations of freshwater wetlands are proposed. However, pursuant to 250-RICR-150-15-1.9 of the Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act, 250-RICR-150-15-1, this project may be permitted as an **insignificant alteration** to freshwater wetlands under the following terms and conditions:

Terms and Conditions for Wetlands Application No. 19-0341:

1. This letter is the DEM's permit for this project under the R.I. Fresh Water Wetlands Act, R.I. Gen. Laws § 2-1-18 et seq.
2. This permit is specifically limited to the project, site alterations and limits of disturbance as detailed on the site plans submitted with your application and received by the DEM on December 10, 2019. A copy of the site plans stamped approved by the DEM is enclosed. Changes or revisions to the project that would alter freshwater wetlands are not authorized without a permit from the DEM.

3. Where the terms and conditions of the permit conflict with the approved site plans, these terms and conditions shall be deemed to supersede the site plans.
4. You must notify this Program in writing of the anticipated start date, and of your contractor's contact information, by submitting the Notice of Start of Construction Form prior to commencement of any permitted site alterations or construction activity. The Start of Construction Form can be found on the webpage: dem.ri.gov/stormwaterconstruction
5. A copy of the stamped approved site plans and a copy of this permit must be kept at the site at all times during site preparation, construction, and final stabilization. Copies of this permit and the stamped approved plans must be made available for review by any DEM or Town representative upon request.
6. Within ten (10) days of the receipt of this permit, you must record this permit in the land evidence records of the Town of North Smithfield and supply this Program with written documentation obtained from the Town showing this permit was recorded.
7. The effective date of this permit is the date this letter was issued. This permit expires four (4) years from the date of this letter unless renewed pursuant to the Rules. This expiration date applies to the commencement of the new proposed minimum releases into the bypass reach. Once new minimum releases have begun the project, from a freshwater wetlands perspective, is complete.
8. Any material utilized in this project must be clean and free of matter that could pollute any freshwater wetland.

Pursuant to the provisions in 250-RICR-150-15-1.7(A)(9) and 250-RICR-150-15-1.11(D), as applicable, any properly recorded and valid permit is automatically transferred to the new owner upon sale of the property.

This project, including the proposed operation of the hydroelectric generation station and associated modifications to flows in the bypass reach have also been reviewed pursuant to the Water Quality Regulations, 250-RICR-150-05-1 to determine if the project may be issued a Water Quality Certification. It is the determination of the WQC Program that said project is in compliance with the requirements of the Water Quality Regulations provided that the applicant complies with the above-referenced application materials, all preceding terms and conditions of the Freshwater Wetlands Permit, and the following conditions:

1. The Project shall be operated in an instantaneous run-of-river mode, whereby inflow to the Project shall equal outflow from the Project at all times and water levels above the dam are not drawn down for the purpose of generating power. Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the applicant or for short periods upon mutual agreement between Blackstone Hydro, the U.S. Fish and Wildlife Service, and RIDEM.
2. A continuous conservation flow of 35 cfs shall be provided to the bypass reach whenever the Project is generating.
3. During periods when inflow is less than 125 cfs, 50 percent of inflow shall be released over the spillway and 50 percent through the canal outlet gate. RIDEM is aware that splitting inflow in this way may result in less than the minimum 35 cfs provided to the bypass reach. This procedure is intended to minimize stagnant conditions in the power canal and headpond at low flows that may detrimentally affect downstream water quality.
4. Upstream passage facilities that provide safe, timely and effective upstream passage for American eels shall be constructed, operated and maintained. In order to determine the proper location for the required upstream eelways, an upstream eel siting survey shall be conducted the first two passage seasons after a new license is issued for the Project. Temporary eel ramps or traps shall be installed,

- operated and maintained within the tailrace and at the spillway. The ramps or traps shall be deployed from May 15 through October 15 and checked a minimum of two times per week. Collected eels shall be enumerated, assigned a length class, and released upstream of the dam. Based upon results of the survey, optimal locations for siting permanent upstream eelways shall be determined in consultation with the RIDEM Division of Fish & Wildlife and other resource agencies. Permanent eelways shall be in place and operational by May 1 of the fourth year after license issuance.
5. Safe, timely and effective downstream passage shall be provided for American eels. Such downstream passage measures shall be implemented no later than August 15 of the fifth year after implementation of upstream passage measures. Measures may consist of structural facilities and/or operational protocols as agreed to and directed by the U.S. Fish & Wildlife Service. Eel passage shall be operated from dusk to dawn and maintained at the Project's expense to maximize eel passage effectiveness from August 15 through November 15.
 6. An impoundment drawdown and refill procedure shall be implemented whereby during periods immediately following a drawdown of the impoundment for maintenance or other appropriate and approved purposes, adequate flow is maintained in the bypass reach and tailrace/canal outlet gate channel to maintain run-of-river conditions. During impoundment refilling after drawdowns for maintenance or emergency purposes, 50 percent of inflow is to be passed downstream and 50 percent of inflow shall be used to refill the headpond. Of the 50% of inflow to be released downstream, 50% shall be released to the bypass reach and the rest through the tailrace or outlet gate channel. Inflow may be passed downstream using siphon pipes, pumps, temporary coffer dams, or other appropriate measures. The refill procedure may be modified on a case-by-case basis with the prior approval of the WQC Program.
 7. A plan for maintaining and monitoring run-of-river operations and minimum flow releases at the Project which also incorporates the modified Outlet Gate Operation Procedures shall be developed and implemented. This monitoring system should be surveyed and calibrated so that compliance and capacity to provide appropriate flow releases while maintaining instantaneous run-of-river operations may be adequately documented. It is recommended that the monitoring system have the ability to document how flows observed at the Project correlate to USGS gauges upstream and downstream of the Project. The plan should include a description of the mechanisms and structures that will be used, the level of manual and automatic operation, the methods used for recording data on run-of-river operation and minimum flow releases, an implementation schedule, and a plan for maintaining the data for inspection by RIDEM. Reporting methods shall utilize the best available control technologies such as Programmable Logic Controllers, Variable Frequency Drives, etc., and shall provide real-time access to the data they are required to collect in a web-based system with an appropriate dashboard that indicates the facilities are operating within the protocols established. The plan must include provisions for automatic reporting to RIDEM that will notify RIDEM of scheduled or emergency repairs to the project that may result in flow fluctuations; of any instances of flows below 35 cfs in the bypass reach; or of any observed anomalies in the project monitoring gauges. The plan should be provided for agency review and comment within three (3) months of license issuance. Headpond elevation and station generation should be recorded at least hourly and records should be maintained digitally for a period of five years.
 8. Access by the U.S. Fish and Wildlife Service and RIDEM shall be allowed to inspect the Project area at any time while the Project operates to monitor compliance with their Terms and Conditions.
 9. This WQC and all associated Terms and Conditions shall remain in effect for the life of the license issued for the Project.
 10. All aforementioned Terms and Conditions shall be incorporated in any conveyance by lease, sale or otherwise of its interests so as to legally assure compliance with said conditions by future operators as long as the Project operates under the license.

You are required to comply with the terms and conditions of this permit and Water Quality Certification and to carry out this project in compliance with the Rules at all times. Failure to do so may result in an enforcement action by this Department.

In permitting the proposed alterations, the DEM assumes no responsibility for damages resulting from faulty design or construction.

Kindly be advised that this permit is not equivalent to a verification of the type or extent of freshwater wetlands on site. Should you wish to have the types and extent of freshwater wetlands verified, you may submit the appropriate application in accordance with 250-RICR-150-15-1.8(C).

This permit does not remove your obligation to obtain any local, state, or federal approvals or permits required by ordinance or law and does not relieve you from any duties owed to adjacent landowners with specific reference to any changes in drainage.

Please contact Andy Charpentier (telephone: 401-222-4700, ext.7414; or andy.charpentier@dem.ri.gov) should you have any questions regarding the Freshwater Wetlands permit, or Sarah Frazar (ext 7423, sarah.frazar@dem.ri.gov) for any questions regarding the Water Quality Certification.

Sincerely,



Martin D. Wencek, Program Supervisor
Office of Water Resources
Freshwater Wetlands Program
MDW/CAH/AC/ac



Charles A. Horbert, Deputy Administrator
Office of Water Resources
Water Quality Certification Program

Enclosure: Approved site plans

ec: Eric Beck, Administrator, Groundwater & Freshwater Wetlands Protection
Angelo Liberti, Administrator, Surface Water Protection
Catherine Sparks, Assistant Director for Natural Resources
Neal Personeus, Water Quality Certification Program
Sarah Frazar, Water Quality Certification Program
Alan Libby, Principal Biologist, Freshwater & Diadromous Fisheries
Patrick McGee, Principal Biologist, Freshwater & Diadromous Fisheries
Phillip Edwards, Supervising Biologist, Freshwater & Diadromous Fisheries
Melissa Grader, US Fish & Wildlife Service
Caleb Slater, Massachusetts Division of Fish & Wildlife
John Baummer, Federal Energy Regulatory Commission
Kelly MacVane, HDR, Inc.
Jim Gibson, HDR, Inc.