The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

August 7, 2017

Brentwood Dam Ventures LLC
Attn: Mr. Naoto Inoue
25 Limerick Road
Arundel, ME 04046

RE: Reclassification of Exeter River Dam, #D029001, Brentwood

Dear Mr. Inoue:

The New Hampshire Department of Environmental Services Dam Bureau (NHDES) is responsible for ensuring the safety of dams in New Hampshire through its dam safety program. One of the many tools that help us reach this goal is our dam inspection program. In accordance with RSA 482:12 and administrative rule Env-Wr 302.02, NHDES conducted an inspection of the Exeter River Dam on June 14, 2017. Reports of the physical deficiencies noted during the inspection, along with appropriate recommendations for repair, will be issued in a subsequent letter.

The primary purpose of this letter is to notify you that, in accordance with Env-Wr 303.02, the NHDES has reviewed the impacts associated with a failure of Exeter River Dam and, consequently, reassigned its hazard classification. For the reasons outlined below, it is the determination of NHDES that the hazard classification should be changed from "low hazard" potential to "significant hazard" potential dam.

As a result of the reclassification, the dam will now be subject to meeting the current design and safety standards applicable to its new classification, as well as those changes listed below. A full listing of the requirements may be found in the administrative rules relating to dams.

- Per RSA 482:8-a, the Annual Dam Registration Fee will change from $400 to $750.
- The scheduled safety inspections carried out by NHDES will now occur every four (4) years instead of every six (6) years.
- The Operations, Maintenance and Response (OMR) form needs to be filled out to reflect the current hazard classification.
- In accordance with Env-Wr 303.11 Discharge Capacity, the dam must have sufficient capacity to pass the runoff produced by the 100 year flood generated by the drainage area upstream of the dam with one foot of freeboard and without manual operations. NHDES's regulations allow dam owners the option of passing the Inflow Design Flood (IDF). This is a storm that generates a lesser runoff rate and may be applied if it is shown that dam failure flows, when combined with this runoff rate, would not contribute to endangering additional public safety or property downstream of the dam.

- As required by RSA 482:11-a and in accordance with Env-Wr 500, the owner shall develop an Emergency Action Plan (EAP).

- In accordance with Env-Wr 507.01 Notification Test, the owner shall conduct a test of the emergency communication network within one month of approval of the EAP and every four years thereafter.

Hazard Classification and Justification:

The Exeter River Dam came under NHDES jurisdiction in January 2017 when the Federal Energy Regulatory Commission (FERC) ended its jurisdiction over the safety of the dam by terminating its hydropower exemption from licensing for the dam due to the failure to restore hydropower generation at the site. Following that transfer of jurisdiction, NHDES conducted its first official inspection of the dam in June, and, based on the presence of two residential structures downstream of the dam (at 46 Mill Road and 506 Middle Road, which are approximately 100 and 400 feet, respectively, downstream of the dam), NHDES determined that the hazard classification of this dam should be reevaluated. As part of that reevaluation, NHDES performed an analysis of the downstream flooding that would occur due to dam failure. The results of that analysis indicate that both structures would be impacted by a failure of the dam during floods with expected recurrence intervals ranging from 5 years to 100 years (i.e, floods having a probability of occurrence of 20% to 1%, respectively, in a given year). At 46 Mill Road, the incremental depth of flooding from dam failure would be more than 2 feet, although the portion of the structure that would be inundated is currently unfinished and not considered a habitable portion of the structure in its current condition. At 506 Middle Road, the incremental depth of flooding caused by dam failure would be less than one foot so would not be expected to result in loss of life, but could result in major economic loss to the structure.

The definition of a Significant hazard dam, provided in Env-Wr 101.39 of New Hampshire's Dam Safety Rules, includes specific criteria that could qualify a dam as a Significant hazard dam. In this case NHDES has determined that the dam meets the criteria listed below:

> Env-Wr 101.39 "Significant Hazard Structure" means a dam that has a significant hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in any of the following:
>
> (a) No probable loss of life; and
>
> (b) Major economic loss to structures or property.

Please be advised that if you do not agree with NHDES's determination to reassign the hazard classification and wish to request reconsideration, the process that must be followed is described in section Env-Wr 303 of NHDES's administrative rules. Included with this letter are the administrative rules that govern NHDES's review of and the procedures for appealing hazard classifications.

If you have any questions, or would like to discuss this matter further, please contact Charlie Krautmann, P.E. at 271-4130 or me at 271-1961.

Sincerely,

James W. Gallagher, Jr., P.E.
Chief Engineer
Dam Bureau

Enclosure

Cc: Town of Brentwood
Town of Fremont
Stephen Roberts, Esq.