

February 28, 2022

Anna Laskin, Civil Engineer  
Connecticut Department of Energy and Environmental Protection  
Bureau of Water Protection and Land Re-Use  
Water Planning and Management Division  
79 Elm Street, Hartford, CT 06106-5127

RE: Crystal Pond Dam, ID #3908, Town of Eastford

Anna,

On behalf of the Crystal Pond Association, I would like to address the M&E Request Letter from your February 1, 2022 email. I have met with Phil Forzley (copied on email) of Fuss & O'Neill, Inc., and with our Board, to begin the development of a plan to address the items noted in the inspection report submitted November 22, 2021. Below are the six points mentioned in the report with a corresponding response.

1. Continue to monitor the dam for increased signs of leakage, particularly after storm events. A repair should be designed to address the deficiency to ensure that it does not continue to deteriorate.
  - a. The leakage noted is monitored and it has been noted that with the water level down approximately four inches from capacity the volume of leakage is reduced. Also see response to item six (6) below.
2. Continue completing routine mowing and brush clearing at the dam.
  - a. Ongoing maintenance continues on a regular basis to include mowing and trimming on the top of the dam along with the clearing of brush on the downstream side of the dam.
3. Remove all trees and woody vegetation within 15 feet of the dam and dike embankments, including along the toe of downstream stone masonry wall and the trees located at the left and right abutments of the dam. Should removal at this time be infeasible due to ownership/property boundary issues, the trees should be monitored and ultimately removed if later determined to be causing damage to the dam.
  - a. The smaller vegetation is removed on at least an annual basis. Both the Crystal Pond Association and the adjacent landowner have agreed that should Fuss & O'Neill determine, as part of the larger project, the trees on the abutments need removal we will do so at that time. In the meantime, we continue to monitor.
4. Monitor leaning stone masonry wall on downstream face and repair if necessary to correct stone displacement to provide plumb wall, minimizing the potential for future stone displacement.
  - a. As part of regular visits to the dam the stone masonry walls are visually monitored and over the several decades of ownership by the Association there has been no evidence of movement. Also see response to item six (6) below.
5. Eradicate nuisance animals and repair (fill) animal holes.
  - a. Any animal holes are filled upon discovery during routine maintenance and visual inspection.
6. Provide a filter berm at the downstream side of the dam. The filter berm should be designed to reduce the potential for damage to the embankment by internal soil erosion, provide support to the downstream wall, and facilitate maintenance access to the downstream side of the dam.

- a. As you are aware, this work will require a dam safety permit. Per Fuss & O'Neill, a pre-application meeting with DEEP is the first step in the process so everyone agrees with their approach. A web-based meeting would be the best way to accomplish. After this meeting Fuss & O'Neill will provide a proposal to the Association for design and permitting. Once permitted the Association will get a construction cost estimate. The Association will need 2022 and 2023 to raise money for the project. Our timeline is to have the pre-application meeting in summer or fall 2022, design and permitting in the winter 2022 – 2023 with construction in the fall 2023. Generally speaking, below is our approach to the repair.
  - i. Temporarily lowering water level in the lake
  - ii. Building access for construction equipment along the entire toe of the dam
  - iii. Stripping vegetation and topsoil from the toe of the dam and partway up the embankment
  - iv. Installing drainage materials (sand, clean gravel) and possibly a drainage pipe and outlet at the toe of the dam to intercept seepage
  - v. Spread topsoil, seed and mulch
  - vi. Restore all disturbed surfaces
  - vii. Close permit out with DEEP – record drawing and narrative
  - viii. Continue monitoring seepage paying special attention while the lake is allowed to fill again

We appreciate your understanding and trust the above appropriately addresses the M&E Request Letter. Should you have any questions or comments please feel free to email me at [shernberg@royalliance.com](mailto:shernberg@royalliance.com) or call me at 860-428-3154.

Sincerely,

*S. Hernberg*

Scott Hernberg  
President, Crystal Pond Association