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## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF ENGINEERING & CONSTRUCTION  
BUREAU OF DAM SAFETY & FLOOD CONTROL  
Mail Code 501-01A

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*Commissioner*

CHRIS CHRISTIE  
*Governor*

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*Lt. Governor*

PO Box 420, Trenton, NJ 08625-0420  
Telephone: 609-984-0859 Fax: 609-984-1908

JAN 07 2016

Rock Ridge Community Club  
Attn: John Murray  
P.O. Box 242  
Denville, NJ 07834

Re: Rock Ridge Lake Dam, NJ File No. 25-134  
Denville Township, Morris County

Dear Mr. Murray:

This is in reference to the Inspection Report and the Concept Design Report submitted under the October 2, 2014 and February 4, 2015 cover letters by Greenman-Pedersen, Inc. for the above referenced dam.

Based upon a review of the above-referenced Inspection Report, Rock Ridge Lake Dam was found by your engineer to be in POOR condition with repairs and studies necessary. Maintenance work such as brush and debris removal, minor concrete repairs, minor erosion repairs, gate maintenance, etc. may be undertaken without further approval. The Bureau must approve any repairs that are not considered general maintenance. Your report identifies studies and repairs that are beyond general maintenance; therefore you must retain a New Jersey licensed professional engineer to prepare the study, plans, and specifications necessary to obtain approval from the Bureau.

Please be aware that, per New Jersey Dam Safety Standards N.J.A.C. 7:20-1.11, the next regular inspection of the dam is to be performed by **October 2, 2016**.

The Bureau has found the conceptual design acceptable. Please incorporate the following comments into the dam design and submit a complete permit application package to this office by **June 30, 2016**.

1. The proposed design will increase the water surface elevation in the lake during the 100-year storm resulting in an increased volume of water storage behind the dam. Additionally, the stage/discharge and stage/storage rating curves were modified. Therefore, the final design report must compare non-breach and breach models for the proposed conditions to confirm that the changes, do not impact the hazard classification or spillway design storm for the dam.
2. The current proposal requests an unspecified partial or full waiver of the freeboard requirement. The request for a freeboard waiver was insufficient and lacked an engineering justification. The request did not demonstrate that the absence of freeboard

would not affect the safety of the dam. The freeboard waiver cannot be approved without further details and engineering justification.

3. The design engineer has requested that the left abutment be allowed to overtop as it would now since it is upland. However, if this area were to overtop it would concentrate flows around the spillway and down the dams left groin area on the downstream side. This could easily cause erosion in the groin area that could progress back to the lake and cause an uncontrolled release of the impoundment. The groin at the left downstream abutment must be protected from overtopping flows.
4. As noted in the report, please keep in mind the proposed design raises the 100-year water surface elevation. Therefore, the final design report must confirm that the Rock Ridge Community Club owns the full area affected by the 100-year backwater or written approval must be obtained from all affected property owners.

Should you have any questions regarding this matter, please contact Sarah Hatala of this office at (609) 984-0859.

Sincerely,



John H. Moyle, P.E., Manager  
Bureau of Dam Safety & Flood Control

C: Denville Township Engineer and Clerk  
Morris County Engineer  
Valerie A. Hrabal, P.P., P.E., Greenman-Pederson, Inc.

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