

Jeffrey W. Cown, Director

Watershed Protection Branch

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April 2, 2024

Jamey Dotson, P.E.
Geosyntec Consultants, Inc.
835 Georgia Avenue, Suite 500
Chattanooga, TN 37402

Subject: Lake Petit Dam
Pickens County
Permit #112-009-00462

Dear Mr. Dotson:

This letter is to transmit to you the “Independent Review of Seismic Stability Analyses Performed by Geosyntec, Lake Petit Dam, Pickens County, Georgia (Schnabel Reference Number 23170093.000)”. Please respond to the following items also found in Section 6.0 Conclusions and Recommendations of the report.

1. Assess the susceptibility and potential for triggering liquefaction and cyclic softening and evaluate their impact on dam stability if they are deemed likely to occur. This is important because liquefaction and cyclic softening are significant mechanisms for large seismic slope displacement that are not captured in the pseudostatic or simplified seismic slope displacement analyses. This assessment, if not previously done, could be accomplished as a “screening level” evaluation.
2. Assess potential for seismic densification or post-liquefaction reconsolidation settlement, neither of which is captured in the pseudostatic or simplified seismic slope displacement analyses. This assessment, if not previously done, could be accomplished as a “screening level” evaluation.
3. Verify the dam can tolerate up to 60 cm (2 feet) of permanent seismic displacement at the 2475-year return period hazard level (i.e., consistent with Geosyntec’s assumption in developing their design-level analysis with k_s of 0.054) or provide an alternate allowable seismic slope displacement.

You should respond to the comments above within 30 days of the date of this letter. If you have any questions, please contact me at Kate.Betsill@dnr.ga.gov or at (470) 524-4667.

Sincerely,



Kate Betsill
Environmental Engineer
Safe Dams Program

cc: Wesley MacDonald, P.E., Geosyntec
Scott Auer, Big Canoe POA