28 October 1998

Mr. Dallon Thomas Woosley, P.E. Environmental Engineer Safe Dams Program **Environmental Protection Division** Georgia Department of Natural Resources Atlanta Tradeport, Suite 110 4244 International Parkway Atlanta, Georgia 30354

Subject:

Progress Update - Lake Petit Dam, / Pickens Co.

Big Canoe, Georgia

Dear Mr. Woosley:

I have prepared this letter as a follow-up to our telephone discussion of 21 October 1998. The letter summarizes the main items that we discussed during our telephone discussion, and provides an update on progress made to date on the re-analysis of the Lake Petit Dam.

Before I summarize progress, I would like to first resolve any confusion that may still remain concerning your letter addressed to me dated 7 October 1998. Tom, as you are aware, I had attempted to call you to discuss the content of this letter when I received it on 13 October. However, your secretary stated that you were unavailable at that time. In your letter, you expressed concern over the way you were notified of the start of the field investigation program for the Lake Petit Dam project. As I stated during our 21 October telephone discussion, I was concerned and perplexed by your letter, given the discussions and correspondence that had preceded it. You may recall that we originally discussed our proposed schedule when I visited your office on 10 September. At that time, you requested that GeoSyntec prepare a work plan to outline further details of our proposed activities. I agreed to prepare the work plan and also asked if the work plan would need the approval of the Safe Dams Program prior to implementation of the various tasks. You told me that approval was not required and that it was your normal practice to only give approval to final plans and specifications for rehabilitation measures.

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Consistent with your request, GeoSyntec developed a detailed work plan and schedule. I sent you a copy of the work plan together with a detailed Gantt Chart schedule, which includes the dates of the field investigation program, by fax and Federal Express on 18 September. When we talked on 21 October, you confirmed receipt of the work plan, but stated that you had not had a chance to review it in detail.

Site investigation drilling activities actually started on 2 October, i.e., 4 days later than shown on our work plan schedule. The reason for this slight delay was due to scheduling difficulties with the selected drilling contractor, Atlanta Testing and Engineering (AT&E). We particularly wanted to use AT&E since they had performed the previous drilling work and piezometer installation supervised by Piedmont I decided that this slight delay was justified, given the obvious advantages in using the same drilling company and drillers from the previous investigation. Given the slight delay, I attempted to contact you by phone, and left a telephone message on 2 October to confirm the start of field activities and to invite you to visit the site and/or our laboratory to witness the drilling and subsequent soils testing. Since you were not available, I also sent you a fax that contained an additional reference table providing a summary of the data to be collected from each boring. This table was intended as a "quick reference" to our planned activities in the event that you visited the site.

Tom, I realize that you are very busy, particularly at this time of year due to conducting scheduled dam inspections. However, when you have a chance to review the work plan and schedule, I am confident that you will see that we planned our activities in accordance with our previous discussions, and carried out these activities as closely as possible to our submitted schedule.

We also recognize your concern about consistency with previous investigations performed by Piedmont Geotechnical. As I stated during our telephone discussion, we consulted with Karl Myers (Piedmont Geotechnical) on several occasions during the planning of the investigation to ensure consistency in approach. As we discussed, our soil sampling and testing program was developed to be consistent with the approach that would have been taken by Piedmont if their investigation program had been





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extended to include these items. Although, it was not possible for Mr. Myers to visit the site during the drilling activities due to a previous commitment (Mr. Myers was out of town for a three week period), GeoSyntec has made all reasonable attempts to ensure consistency in approach to previous investigations. It has always been, and remains, our intent to conduct the re-evaluation of the dam in a professional manner consistent with accepted industry practice. With this in mind, GeoSyntec will continue to involve Mr. Myers in the project.

Regarding progress made to date, the site investigation activities are now complete. Laboratory testing of collected soil samples is nearing completion. Recognizing the importance of this project, we have developed an extensive library of photographs of the collected soil samples and associated tests. We have also carefully preserved unused portions of the collected samples at our laboratory. Again, I invite you or any member of your staff to inspect these samples at your convenience.

We are presently in the process of preparing detailed drilling logs and a summary of laboratory test results. As you are aware, our investigation program also included the installation of additional piezometers in the dam. We are presently monitoring the response of these, and expect to have stabilized readings of pore water pressures within the next several days. These results, together with laboratory-measured soil shear strength values will be used in our re-analysis of both seismic and static stability of the dam, as outlined in our 18 September work plan. Preliminary laboratory test results indicate very consistent shear strengths, obtained from the testing of undisturbed soil samples, ranging from 34 to 40 degrees. We will submit details of the investigation program, testing results, and the results of our re-analysis of current conditions to you in the form of a technical memorandum.

Since our investigation program was delayed slightly, this submittal will also be slightly delayed when compared to our originally anticipated schedule. Finalization of our analyses is also dependent upon obtaining steady-state piezometric readings from the newly-installed piezometers. I will contact you within the next few days to update you on this issue, and as we discussed, to confirm a new submittal date (likely early to mid November) for the technical memorandum on our findings.



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Tom, I hope this letter is useful in understanding activities and progress to date. If you have any questions or comments, please do not hesitate to contact me at (404) 705-9500.

Sincerely

R. Neil Davies, C.Eng., MICE, P.E.

Project Manager

