Lake of Four Seasons Dam Report

August 2014

Sonar surveying of the front side of the dam, including the underwater surface has been completed. We have also comprehensively surveyed the downstream (Security) side, so we now have a very accurate portrayal of what our dam looks like. This identified where the slips were, where the cracks occurred. We are currently just short of 6 ½ feet below normal pool and we are no longer draining the lake.

We have received the results from the borings that were completed by DLZ a few months ago. DLZ is concerned that there are foundational issues that are deep below the dam. They have proposed two additional phases of boring. The first phase will cost approximately $72,000 and depending upon the information from that, as much as $200,000 or more to do a second phase. All of these borings would be done on the downstream side of the dam.

2LMN was not comfortable with this proposal; they did not feel that it addressed the issues that they had brought up with DLZ in terms of a possible conceptual remediation plan for the dam. 2LMN proposed they would like to go out and aggressively solicit additional consulting engineering input. Their first contact was an engineering firm named TerraCon. TerraCon came to the dam and has subsequently brought us back a different plan for boring. Their plan is for a smaller amount of borings than DLZ proposed. That proposal is for $52,000. 2LMN will be talking with TerraCon and trying to refine this proposal. Additionally, 2LMN is going to at least one other engineering firm to solicit a proposal and further analysis.

In the meantime, 2LMN has done the studies that we commissioned last month, which were the hydraulic and hydrologic studies (H&H). They identified the shape of the dam and how much water we need to control when we ultimately come up with a remediation plan. A conceptual proposal would move the crest of the dam away from the lake about 30 feet, increase the height 3 feet and lessen the slope on the upstream side. We will receive a recommendation from 2LMN on which engineering firm they want to use and what the next plan will be. We hope that decision will come within the next week to 10 days. We will then be doing additional borings and there will be installation of inclinometers which basically show how much the slip is moving and if the cracks are getting bigger.

ODNR sent us a letter and they want progress reports on a daily basis, which we are currently doing. They also want to see us sign a contract with one of these companies for the further analysis and they want to see from that firm what their plan is. By October they have requested a proposed remediation plan. We need to move to another geotechnical firm since DLZ does not seem to be responding to the schedules that we have.

Greg Ptacin pointed out that the 3-foot increase in the height would have been necessary anyway because of the new ODNR Probable Maximal Flood calculations.