Dam Report

In 2020 I was asked to chair the newly formed dam committee. Previously, managing the dam was under the auspices of the lake committee. At that time, the board of directors determined it was in the best interest of WLLA to split the responsibilities to provide a more focused approach to managing these two assets independently.

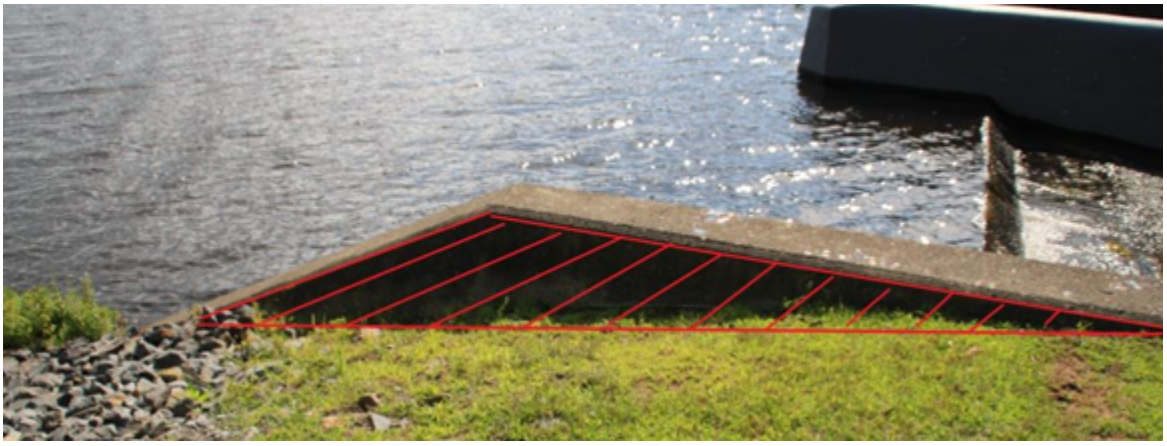
With the cooperation of the lake committee, our engineering firm (Kiley Assoc.), and the PADEP Division of Dam safety, I determined where we were deficient, and/or non-compliant. I am pleased to announce that prior to 2021 year end, we became fully compliant with the PADEP.

With that behind us, our focus is now on any necessary repairs needed on the dam. In July of 2020, we conducted an underwater inspection of the outlet works of the dam. The diver entered the inlet and outlet pipes as well as the sluice gate and tower (control valve). Inlet, sluice gate and tower are in satisfactory condition. The outlet pipe is a metal pipe and is seriously corroded and compromised. This needs a major repair.

Kiley Assoc. submitted preliminary repair plans to PADEP for review. The inspection and engineering reports totaled $13,000. Prior to review, there is a new state requirement necessitating a hydrologic study as well as a structural engineer report on the spillway. A hydrologic study was last done in 1980 by the Army Corp of Engineers. Methodologies have changed, and this study is to determine if our spillway meets current minimum standards.

Kiley has done the initial survey of the dam area, and a completed report is tentatively scheduled to be completed in early April. The cost of this study and report is $9000. Once this report is sent to the state for review, we will then be able to determine what repairs are needed and work on a time frame. If or when a lake draw down is required, the community will be notified in advance so individuals can plan for any maintenance activities on their lakefront properties.

There are currently several smaller repair and or maintenance activities needing to be performed on and around the dam. These are currently on hold waiting for the final report. Of special note and concern is the removal of rocks (rip-rap) from the dam face, and throwing of rocks into the spillway. The rip-rap is the protective barrier for our dam and is vital for its structural integrity. The picture shows the depletion of rip-rap along the spillway walls.



Red lines indicate missing rip-rap. This condition is on both walls.

This is a serious problem that lowers the holding capacity of the dam in the event of a serious storm event, as well as provides a high potential for dam erosion and possible failure should the water level reach this height. Currently, the estimated cost to repair these areas is $12,000. Debris and rocks thrown into the spillway impede flow and require removal.

— Ed Zimmermann