

Eatonbrook Reservoir Level and the perfect storm.

Eatonbrook Reservoir was constructed for the control of water to feed the Chenango Canal in the 1830s for navigation of canal boats moving goods from Binghamton to Utica. The water is no longer used or necessary for Canal operations. The Dam is classified as large “high Hazard” according to the NYSDEC. Sudden failure of the Dam would likely result in loss of life to downstream residents and widespread substantial economic and environment loss. The Canal Corporation and the New York Power Authority manages the Dam with public safety as a top priority.

The Dam was designed with three methods which water can be released from the reservoir impoundment. The old stone spillway was replaced by a newer concrete spillway for additional capacity several decades ago. The older stone spillway is now used as a backup spillway and is slightly higher than the overflow elevation of the newer concrete spillway. Recent state dam safety regulations are requiring many dams to have these spillways increased in size due to the larger and larger high intensity rain event we are experiencing. DeRuyter Reservoir is currently under construction as a result of these safety regulations.

Breakaway boards have been placed on the newer concrete spillway to maintain a lake level that establishes our normal shoreline level. People get cranky when the lake level is higher or lower than what the boards are set at. What some of you do not realize is that this is a reservoir that was design to go up and down. We are just spoiled because it has been maintained at very stable levels for years. Go visit Hinkley Reservoir some time, we are so lucky! The third method of water released from the reservoir is from a 36-inch diameter pipe located near the bottom of the earthen dam. The 36 pipe is attached to three valves upstream at the bottom of the reservoir. The valves and pipe are used to rapidly remove water from the reservoir in the event that there is an impending storm that may produce a significant volume of rain collected within our watershed area. State regulations set the volume that this lower release system must be able to drain over a certain time period. The valves and pipe are also used to lower the level in the winter to protect the shoreline and the dam during our very cold months. This past winter the valve was set in the fall to reduce the water level.

“Then the perfect storm occurred”! I do not need to tell you that the weather has been extremely dry! But at the same time the valve was letting fall/winter volumes out, and the Canal Corp had a reduced staff due to the pandemic. Also, the lack of rain is not the only way that water leaves the reservoir. Evaporation and ground seepage can have a huge impact on water loss during hot dry periods. I simple can not remember more sunny days in the past few months than we have had. Great for recreation and warm weather, but not so good for lake levels. Thanks to the quick action of the Canal Corp the valves were closed to a level that is needed to support downstream aquatic species and for people that use the water downstream. I know, many people have asked if the valve can be closed all the way. Sorry, that will never happen! But the lake level is holding stable at this time. I get asked: will it go up soon? I answer: Can you predict the weather?

Recently, the Canal Corp and the NYPA has been investing millions to upgrade our local high hazard dams. DeRuyter Reservoir is nearly complete with its multimillion-dollar project that took all winter and this spring, and it looks like Lake Moraine may be next for upgrades. Many dams around the country have been removed and drained due to the cost to keep such old massive structures safe. We should feel very fortunate that the Canal Corp and the NYPA are investing such huge sums of money to maintain our reservoirs. If you see a Canal Corp. staff member working at the dam, please thank them for all they do. We owe our wonderful lifestyle, safety, and real estate investments to their efforts when they do not even need the canal feeder system any longer.

As Town Supervisor. Please let me know what your issues and concerns. If you go to the new website, you can email me your concerns or email SupervisorNelsonJimC@gmail.com

Jim Cunningham

Town of Nelson Supervisor, Madison County Board of Supervisors

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