Crowe Valley Conservation Authority

Water Management – Fall Draw Down

Fall weather means cooler temperatures, shorter days, autumn colour and of course, fall draw down of lake levels on controlled lakes in the Crowe Valley watershed.

The fall draw down or the intentional lowering of lake levels is a watershed management tool the Crowe Valley Conservation Authority uses to mitigate the effects of another normal cyclical event, the spring flood.

First and foremost, the fall draw down has been a "regular" fall exercise since the establishment of the CVCA to coordinate the process. Every year, staff reduce lake levels by opening sluiceways by simply removing the stop logs which were in place to maintain higher summer recreational levels. It is the lowering of the water on these lakes which creates storage capacity (extra space) for the spring freshet (runoff). This extra capacity helps the CVCA to mitigate any potential flooding resulting from the freshet. Typically, the lowering of the lakes averages approximately 35 – 40 centimetres (14 to 16 inches), depending on the lake and the dam's discharge capacity. This water management strategy is a normal practice by the CVCA to help protect lives and property during the spring freshet. Of course, the magnitude of a flood in the spring will vary from a minimal flood where very little property is affected or damaged to a 1:100 year flood (or even worse). Since staff never know what the extent of the flood will be in the spring, staff draw down lake levels every year to be prepared.

The CVCA begins the fall draw down cycle relatively early in the autumn season for one specific reason, which is to respect the natural cycle of certain fish species in the northern part of the watershed. Managing lake levels to help protect people and their personal belongings during floods is vital, but the CVCA has an obligation to work with nature's cycles and rhythms to reduce or eliminate any impacts from the actions CVCA takes as it implements the watershed management strategy.

For example, the CVCA starts the draw down on Paudash Lake to accommodate lake trout. This particular species will spawn generally on rocky reefs or shoals in the fall. If the water was left at the summer level during the spawn, then, as the water is lowered, it would leave the spawn "high and dry", killing the eggs. Therefore, the CVCA begins lowering Paudash Lake early in September and finishes the draw down to the winter level by the 30th of September.

The remainder of the draw down follows a progression of lowering lake levels from north to south in the watershed during the period from 1 October to 15 November. In total, the CVCA removes stop logs at the dams located on Paudash, Wollaston, St. Ola, Steenburgh, Kasshabog, Oak, Round, Cordova, Belmont, and Crowe Lakes.

The draw down is targeted to be completed by the November date in order to ensure lakes are at their winter setting before the winter freeze. Of course, the CVCA's target could easily be "thrown a curve" if heavy rains arrive late in the autumn. This would add a significant amount of water into the watershed system making it difficult to reduce lake levels. However, should this possibility occur, the CVCA will take the necessary steps (remove more stop logs) to reduce lake levels to the winter setting, which means it may take longer to get to the winter levels as determined in the CVCA's engineered study.

First and foremost, flooding is a serious threat to the safety and well being of people in the Crowe Valley watershed. Flooding also causes considerable damage and the resulting expenses associated with flooding are higher than any other disaster in Ontario. The draw down is a necessary tool at the disposal of the CVCA to help minimize the effects of flooding. Without the draw down, the CVCA would be increasing the potential of serious harm or death to its residents and adding to the destruction of personal property.