

# Village Quarry Rising Water Report, 8-17-11

	<u>Year 2000</u>	<u>Jan 2010</u>	<u>August 2011</u>	<u>Property / Building elevation</u>
Village Lower Quarry 1	425.0	563.6	573.2	BC 580
Village Upper Quarry 2	575.3	577.4	577.4	N/A
Julies Café Quarry 3	577.0	580.7	582.0	583.2 currently 1.3' to spare
Watering Hole Quarry 4	580.4	582.6	584.5	585.5 currently 1.1' to spare

## Estimated future lower quarry water levels and the associated impacts

The Village applied for and has received DNR and Army Corps approval for a culvert which would connect Quarry #1 to Lancaster Creek. The culvert would be set at 579.50 and have a backflow preventer to keep small flood events from entering the quarry. Lancaster Creek water levels will fluctuate based upon water levels on Green Bay and short duration flood events on Lancaster Creek itself. Water levels could normally be expected to be in the range of 579 to 583. Large flood events will still occur in relation to Green Bay and Lancaster Creek but recede more quickly due to having an outlet and could be as high as 588.

## Upper quarry water levels

It is expected that water levels will continue to rise in the upper quarries as the lower quarry fills, such that basement floor elevations will be in jeopardy. This could be mitigated by pumping on a long term ongoing basis which has certain ongoing costs. An expensive alternative would be to install culverts between the quarries to control the final water elevations. The cost of installing culverts is extremely expensive because they lie in solid rock and are under roadways having utilities and other structures.

## Summary

Village Staff met with Julies Café and Watering Hole owners in the spring of 2011 to inform them of the rising water issue. Brown County has also been kept informed of the situation. All parties were updated with current water level information this week so that they are aware that:

- They need to take action to install appropriate quarry drainage facilities by the Fall of 2011 or Spring of 2012, and
- Water levels should be monitored very closely as rising water is now an impending threat to their buildings.

## ATTACHMENT

Quarry map

