

# Special Edition Stepping Stones



THE DUNTROON QUARRY EXPANSION NEWSLETTER November 23, 2010

## Message from Walker Aggregates' Vice-President

Over the past two weeks, the Consolidated Hearings Board has heard testimony from the Niagara Escarpment Commission's (NEC) hydrogeology and karst experts, and the beginning of testimony from its ecologist.

What has been frustrating to those of us at Walker Aggregates, and what board members have raised in their questions as well, is how the NEC experts have come out against our application for an expanded Duntroon Quarry without meaningfully participating in a process to ask questions about our experts' findings or suggest ways to improve our application. Instead, eight years after we began our application process we are in a lengthy hearing that is costing all the participating parties a lot of time, energy and money – including taxpayer dollars for the NEC's participation.

Having begun last May, the hearing is now expected to run until February or March of 2011. This week, proceedings will focus on further testimony from the NEC's ecologist Lisa Grbinicek. Also, members of the public who had earlier registered as participants and sent the board their statements will have an opportunity to make their views known.

We very much appreciate the fact that so many of our neighbours, friends, customers, suppliers and employees will be testifying in support of our quarry expansion proposal.

On a more cheerful, seasonal note, I look forward to raising a glass of good cheer with many of our friends at our annual holiday wine and cheese reception at Mylar and Loretta's Restaurant in Singhampton on Thursday, November 25 at 6 p.m. I hope to see you there!

As always, please contact me with any questions about the quarry expansion or the hearing process at 705-445-2300 extension 224, or in Niagara at 905-227-4142, or visit our website at <http://walkerind.com/walker-aggregates/duntroon-expansion.html>.

A handwritten signature in black ink, appearing to read "Ken Lucyshyn".

Ken Lucyshyn

## NEC Water and Ecology Experts Testify Against Expanded Quarry Proposal

A karst expert hired by the Niagara Escarpment Commission (NEC) to review the work done by Walker Aggregates' karst experts has testified before the Consolidated Hearings Board that he does not support the modeling work done to determine how water will flow in the rock around the proposed Duntroon Quarry.

While Daryl Cowell admitted that he had generally supported the work by Walker's experts in 2008 and 2009, he had more recently changed his opinion. Cowell said the model used by the Walker experts is "difficult to apply at this site because of the karst exceptions."

Karst is a landscape formed by the underground erosion of rocks that dissolve in water, such as limestone.

Cowell went on to say "I don't disagree the model is useful. I disagree the model is applicable at this site."

He said he did not believe that water around the site flowed underground through karst features – features that were formed by the water flow itself. Instead, he claimed that the water flowed through channels that were pre-existing. "The fractures were already there," he said.

Cowell maintained that the cracks in the bedrock were formed in a different way than that put forward by Walker's experts, with the result that it was not possible to predict impacts on surface water features such as wetlands and streams.

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He testified that he believed further study was needed, noting that "There's also a potentially significant loss of base flow to springs being fed...in the Beaver River, the Pretty River and/or Batteaux Creek."

Cowell noted that one area of the quarry expansion lands was found to have a high hydraulic conductivity, meaning that tests demonstrated that water moved through the bedrock fairly quickly. He said the "lack of understanding of how this karst [area] functions means the proponent has not adequately characterized the hydrogeology of the site nor documented potentially significant impacts related to Rob Roy Provincially Significant Wetlands 2 through 5, and the connected springs."

He also concluded that Walker's experts had not proven that the final lake level of the rehabilitated quarry would discharge water into the nearby wetlands, as planned.

A further disagreement between Cowell and Walker's experts related to the viability of injection wells to direct water to nearby springs as a mitigation measure. "The karst conceptual model presented in my evidence suggests that it is not possible," he said.

Cowell noted that the bedrock below the proposed quarry expansion was composed of a "complex system" of fractures, and that too few boreholes were drilled to adequately understand the system. However, he further went on to say "What's enough bore holes? I can't tell you."

In cross examining the Cowell and the NEC hydrogeology expert Chris Neville, Walker lawyer Mary Bull took them to opinions in sections of their witness statements for the hearing that were different from the opinions in peer review reports and e-mail correspondence they had earlier prepared.

In one example, Bull pointed Cowell to an e-mail message in which he noted that, after a visit to the proposed expansion site and as a result of discussions with Walker's water experts, "I have a much better appreciation of the situation. In particular, it confirmed my original assessment of the karst characterization, which I felt was well done."

Cowell was critical of the karst work done by the Walker experts in his later witness statement and in his testimony to the board this week.

Bull asked Cowell whether, if he had subsequent concerns, he had contacted the Walker experts to discuss those concerns, to which he replied, "No, I did not contact them after the site visit."

The Walker lawyer also asked Cowell and Neville, if they had expressed to the NEC that the quarry not proceed, based on the work they had done in their peer reviews. Both indicated that they did not.

She took the water experts to sections of the opinion report, prepared by the NEC's planner, Kathryn Pounder, which noted that specific hydrogeology and karst issues formed part of the basis for her recommendation that the quarry application be denied.

Bull also pointed to references in Pounder's report which were at odds with what the NEC's peer reviewers concluded. In one instance, Pounder noted that the groundwater model approach used to estimate the final levels for the lakes that would result from the rehabilitated Duntroon expansion quarry and an adjacent MAQ quarry were "untested." Neville said that he had communicated to Pounder that the model approach was, in fact, tested.

In another instance, Pounder's opinion report indicated that a tracer test noted that dye placed in a spring on the quarry property was found to have travelled to a spring location south of Simcoe Road 91 and to a monitoring site north of 26/27 Side Road.

When Bull asked Cowell about the actual results of the test, he refused to confirm that no dye was found at those locations, but conceded "There may be dye, but it's not detectable."

Bull also asked both men if Pounder shared further information from Walker's water experts or from those of the Ministry of the Environment after they had prepared their peer review statements. They said they received no such information, nor did they participate in further meetings prior to the NEC taking a position on the Duntroon Quarry expansion proposal.

Cowell conceded that he raised new issues in his witness statement to the board that he had not noted in his earlier peer reviews, such as a concern he expressed about an existing water feature possibly flowing back into the quarry. He also admitted that these new issues were not prompted by any new or additional information that he became aware of.

Neville also admitted that he had raised issues in his witness statement that were not in his peer reviews, including concerns about how water might flow through soils in nearby wetlands and through the bedrock below – and the appropriateness of Walker's plans to maintain those wetlands.

While peer review reports commented on work done by Walker's experts during the application process to

provide extra layers of oversight in attempting to understand the site and mitigate any impacts, the witness statements were prepared after the parties to the hearing decided to take a position for or against the application. The NEC is opposing Walker's application for an expanded Duntroon Quarry.

In addition to pointing out inconsistencies between the water experts' peer review reports and witness statements, Bull also highlighted areas in which the witness statement information was incorrect or misleading. When she asked Cowell about his critique about how injection wells might be used to pump water lost by quarrying back into wetlands, board chair Chris Conti confirmed with Cowell that injection wells had not been proposed by Walker to mitigate impacts to wetlands.

Bull asked Neville about a concern he expressed that quarrying might intercept a major fracture in one area of the property and cause water to flow into the quarry. She asked whether, as the Walker experts recommended, the way to address this possibility was to monitor water flows as quarrying proceeds and inspect the quarry face. "That would be the prudent thing to do," Neville agreed. She also noted that the site plan for the proposed quarry included mitigation measures for such a possibility, such as creating a hydraulic barrier and adding grout to boreholes in the rock to reduce or eliminate water flows.

Turning to Chris Neville, Bull questioned his change of opinion about Walker's experts' groundwater model and how it could predict groundwater contributions to springs in the proposed quarry area. In his original peer reviews Neville concluded the model could be useful, but changed his mind during his witness statements to the board, citing new monitoring data as the reason for the change.

Bull took the NEC hydrogeologist to detailed comparisons of 2007 monitoring results against the more recent results obtained in 2008 and 2009.

When reviewing the comparative hydrograph results for individual boreholes and wells, Neville conceded that most changes were only "very subtle," and admitted they might have been affected by year-over-year changes in weather conditions. When pressed by Bull about whether he asked Walker's water experts

if they might explain changes that were more pronounced – including, in one instance, active pumping in one well to service the quarry shop – Neville responded that he did not.

At the end of last week, the ecology expert for the NEC, Lisa Grbinicek took the stand to testify. She said the woodlands that are slated to be removed for an expanded Duntroon Quarry are considered "significant" under the policies of the province and the Niagara Escarpment Plan, and should therefore be preserved.

While she admitted that Walker's ecology experts themselves deemed the woodlands in the area in and around the proposed quarry area to be significant, Grbinicek said she believed the smaller woodland in the quarry extraction area itself to be significant and should be protected.

One of the board members responded, "I don't see an exclusion policy that won't permit development," and noted that the Niagara Escarpment Plan states that new development should "preserve as much as possible of wooded areas."

Another board member pointed out, "It doesn't say preserve...it says preserve as much as possible." Grbinicek replied, "It's my opinion that the 'no negative impact test' under the Provincial Policy Statement cannot be met with the removal of the woodlands." She did not address the reforestation plans that Walker intends to implement on lands surrounding the quarry if it proceeds.

Under the application, Walker intends to remove 32.5 hectares of woodlands, and add 53 hectares of forest in areas around the extraction area.

Grbinicek spoke to the criteria the province uses to determine significant woodlands, including size, ecological functions, uncommon characteristics, and economic and social values.

She also told the board the land should be protected because it contains the habitat of a colony of Hart's Tongue Fern. A board member noted, "This is not an area of debate is it? This is a species that will be protected [if the quarry proceeds]," to which Grbinicek replied, "That's correct."