FoTTSA Special Report: The Site 41 Aquifer Is at Risk Again

by SCOTT WILLIAMS AND JUDITH GRANT



Ten years after Simcoe County Council succumbed to public pressure and voted down its proposed new landfill operation — the notorious "Site 41" — another environmental battle is taking shape.

In January 2018, CRH Canada Group Inc., the current owner of the Teedon Pit in Concession 1, sought a 10-year renewal of its Permit to Take Water (PTTW) from the Ministry of the Environment and Climate Change (MOECC) and this January it sought permission from the Ministry of Natural Resources and Forestry (MNRF) to extend its pit north into a hill. The amount of water involved is colossal — 1.6 million litres per day from a well, plus 5.2 million litres per day from a washing pond — and to do so 210 days a year. What was all this water for? Washing gravel! There was a lot of it to be cleaned: the expanded mining operation would permit excavation of up to 600,000 tonnes of aggregate per year.

These operations are on land in Tiny Township locally known as French's Hill or the Waverley Uplands, and are in the heart of what is believed to be a recharge zone for the Alliston Aquifer, which has been scientifically assessed to be the cleanest water in the world. Current thinking is that its purity results from surface water reaching the aquifer after travelling through relatively porous, unconsolidated, or fractured materials, like the sand and gravel deposits that comprise French's Hill.

A little history

Operations in the pit have impacted on the area's water at least since 2009. That year Cedarhurst Quarries and Crushing, owner of the pit until 2017, expanded its aggregate operation and installed a gravel wash plant and wash pond. Almost immediately nearby residents, all reliant on groundwater, began reporting silt in hitherto pristine wells and local streams to Cedarhurst and MOECC. Cedarhurst conducted an assessment, which concluded that its activities were not responsible for the silting.

One couple, Jake Pigeon and Bonnie Pauze, among these residents then hired Wilf Ruland, a specialist in water resource and contamination issues, to investigate the hydrogeological impacts — if any — of aggregate washing and other activities at the Teedon Pit. His findings were damning. Ruland focused on Cedarhurst's sorry record of failures to live up to the conditions of its Permits to Take Water, on inadequate hydrogeology reports, and on the MOECC's failures of oversight. He concluded that Cedarhurst's "Assessment of Local Well Water Quality Complaints" had a fatal flaw: it did not contain enough hydrogeological information to assess the impact of the company's aggregate washing activities.

"The starting point must be a detailed understanding

of the site hydrogeology," writes Ruland. "The complexity of the local geology is such that facile interpretations will risk entirely missing the mark in terms of providing an understanding of how groundwater will move in this extraordinary environment. This has been a problem for [the quarry]'s hydrogeologists, who have provided conflicting interpretations of the site's hydrogeology — none of which are what I would consider to be an accurate description of the nature of groundwater movement in the area... The local geology is very complex — with almost every borehole log and cross-section... presenting a different picture regarding the nature and composition of the overburden deposits in the area of the pit."

Since CRH took over in 2017, the situation has not changed. Local wells, streams and springs are still afflicted with silt. When he examined CRH's January 2018 PTTW Application, Ruland found "little in the way of original investigations or analysis." Instead the application set out "to demonstrate that the aggregate washing operations... do not pose a threat to water supplies or the environment." Despite these dispiriting findings, Ruland's report concludes with a ray of hope: "This is not an insoluble problem — the state of the science is adequate to appropriately deal with this matter once CRH and/or the MOECC decide to do so."

Opposition to the expansion plans (of Cedarhurst and latterly of CRH) continues to mount. Here are a few examples:

• Township of Tiny, which has withheld approval for official plan and zoning by-law amendments that

would allow a substantial northward expansion of the pit. The amendment request was submitted in 2012 by Cedarhurst. That year the township hired R.J. Burnside & Associates and the Severn Sound Environmental Association to review the application and accompanying studies. Cedarhurst addressed some but not all concerns raised by the review. When Cedarhurst was granted a major site plan amendment in 2016 by MNRF, the township supplied the ministry with concerns raised by residents at a public meeting, as well as concerns from its own review. These efforts bore no fruit: the ministry approved the application. The township's delay in amending its Official Plan and by-law resulted in the current owner, CRH, filing an appeal with the Local Planning Appeal Tribunal, or LPAT (formerly the Ontario Municipal Board). A series of prehearing conferences began in late 2018 and are continuing this year.

• FoTTSA has reported on and recently actively opposed Cedarhurst and CRH amendment applications. Board member Judith Grant spearheaded FoTTSA submissions to Tiny on the Aggregate Resources section of its Official Plan during the recent updating process, regularly reports on updates in the "Report on Council," is a member of a community liaison committee set up by CRH and liaises with other interest groups. Most recently, Grant applied on FoTTSA's behalf for party status at the December 5, 2018 LPAT prehearing conference and submitted a letter to MNRF during the public consultation period on CRH's

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Although CELA will provide its legal assistance throughout the LPAT process gratis, FoTTSA is responsible for CELA's expenses (travel, hotels, supplies) and for the cost of retaining essential witnesses like hydrogeologist Wilf Ruland. These expenses will amount to thousands of dollars.

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