

# St Marys Cement Flamborough Quarry

COMMUNITY NEWSLETTER

Issue #8 | Spring 2008

We have devoted  
this newsletter  
exclusively to  
water issues

## Welcome to the eighth edition of the St Marys Flamborough Quarry Community Newsletter

On January 9th, 2008 we held our third Public Event, in accordance with the Terms of Reference of our Haul Route Study, at the Carlisle Community Centre. I would like to thank those community members who participated in the workshop for providing your input and feedback. Our consultants will be continuing their work on the Haul Route Study and we will hold the final Public Information Centre (PIC#4) in the coming months. We will inform the community once a date and location have been chosen. The purpose of PIC #4 is to present the preliminary findings of the Haul Route Study – specifically, the evaluation of the alternative haul routes and recommendations for the preferred haul route – and to provide an opportunity for the public to comment on the preliminary findings before the Haul Route Study results are finalized.

We recognize and understand that water is a matter of continuing concern for area residents. We are listening and we are working to address your concerns. As such we have devoted this edition of the community newsletter exclusively to water issues so we may respond to the many inquiries we have received. In addition, we will be holding a public meeting dedicated to our application for the Permit to Take Water at **Our Lady of Mount Carmel Catholic Elementary School on Wednesday, April 16, 2008 at 7:30 p.m.** At the meeting you will have an opportunity to get more information regarding the Permit to Take Water, the pumping test and our well monitoring measures. A formal presentation will include representatives from St Marys, the Ministry of the Environment and other invited stakeholders. There will be a question and answer session following the presentation.

Do not hesitate to get in touch with us through our toll-free telephone number or email address on the bottom page of this newsletter.

Sincerely,  
**John Moroz, MSC., P.Eng., MBA**  
Vice-President, St Marys CBM



The Amabel Formation dolostone at the Flamborough site is a high quality aggregate resource, which is between 27 to 40 metres thick. Quarrying the dolostone will result in open excavation that will extend below the water table. To develop the site, St Marys will be required to obtain approval from the Ministry of Natural Resources for a quarry licence as well as approval from the Ministry of the Environment (MOE) for a dewatering permit. In addition, amendments to the Official Plan and Zoning Bylaw are required.

A hydrogeological report prepared in 2005 recommended that the development of the quarry include measures to maintain the groundwater levels surrounding the quarry, and thereby maintain residential water well supplies and the existing groundwater discharge into surface water features. The report recommended re-infiltration of the water extracted for quarry dewatering. The feasibility of using a groundwater recharge system was demonstrated through computer modeling. The modeling determined that there would be no impact to the residential wells in the area and that groundwater discharge to surface water features would be maintained. The pumping test will allow for further evaluation of the hydrogeological setting at the site and provide data to verify modeling predictions.

The pumping test program was developed in response to comments received from various review agencies, as well as INTERA, a consulting firm retained by the local public interest group FORCE, requesting St Marys prove the feasibility/effectiveness of a groundwater recirculation system.

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### Has the Ministry of the Environment issued the Permit to Take Water?

No, the application for the Permit to Take Water is currently under review by the MOE.

### Why did St Marys apply for a Permit to Take Water?

St Marys is working with the Ministry of the Environment (MOE) and the City of Hamilton to provide clarification around the technical components of the application and to establish a better understanding of the groundwater conditions at the site.

To collect that information, St Marys has applied to the MOE for a Permit to Take Water (PTTW) to allow us to conduct a pumping test. The pumping test will allow the MOE and the city to evaluate if the project could have any potential impacts on local water resources.

### Have pumping tests ever been conducted on the property?

The previous owner of the property conducted two pumping tests in 2004 to gain a preliminary understanding of groundwater conditions at the property. These were short-term tests, two and five days in duration. Both tests were conducted in accordance with a PTTW and resulted in no impacts to private wells on neighboring properties.

### What is a pumping test?

Pumping tests are a routine part of any groundwater investigation, whether it be to develop a new water supply or as part of a larger investigation of an area's water resources. In fact, under provincial regulation, when your well was installed, the driller would have conducted a short-term pumping test.

### What happens to the water pumped during the test?

The pumping test requires three separate tests involving the controlled extraction of groundwater from wells installed on the property.

During Test 1, the water extracted from wells will be discharged into the neighbouring wetlands and Mountsberg Creek. During Test 2 and 3, water extracted from the wells will be released in a shallow trench and/or boreholes. Any surplus water extracted during Test 2 and 3 will also be released into the neighbouring wetlands.

The purpose of releasing water in this manner is to assess the use of these measures in the future to maintain water levels in the aquifer beyond the limits of the quarry.

## How will you know what impact the pumping test will have on private wells?

To determine what the impact could be on individual private wells, we compared the computer model predicted results with the well construction details on the water well records (WWRs). The MOE maintains records of most of the wells that have been installed in the Province dating back to the mid-1950s. The WWRs are available to the public.

Our assessment will focus on the following information:

- Well depth
- Depth at which water is found
- Static water level (natural level to which water rose in the well after installation)
- Pumping rate

## What is “drawdown”?

When a well is pumped, the water level around it declines. This decline is referred to as “drawdown.” The water level decline is greatest in the vicinity of the well and decreases with distance from the well.

A pumping test is a routine part of any groundwater investigation

## What will you do with the pumping test results?

The water level information collected during the testing program will be used to produce water level vs. time graphs for each of the monitoring wells and surface water stations and to populate a predictive model simulating quarry operating conditions. These graphs will be prepared on a daily basis to monitor test progress and will be used by agency staff and our consultants to ensure that the testing is proceeding as anticipated.

These graphs will also be available to the public for review so that you can observe the performance of the test.

## I understand that during the pumping test, you will be pumping at a very high rate. Why?

The high rate of the pumping test was established at the request of the City of Hamilton. St Marys is able to obtain the necessary information at a lower pumping rate. We requested to have a lower pumping rate to the Ministry of the Environment but the City required the higher volume.

## What monitoring will be in place to protect well water?

Well water monitoring is an important and essential part of the testing program. St Marys will monitor wells on the site and we are offering to monitor wells on neighboring properties. All of these wells will be monitored for water volume and quality analysis. There will

Our commitment to you is to protect and preserve the quantity and quality of groundwater for households, businesses and farms

also be on-site supervision from provincial and municipal staff.

## Will I be kept informed of the well testing program and results?

Yes. You will be informed at every stage – from testing to results. We will conduct door-to-door visits and site checks. We will provide you with information handouts, letters and audio-visual materials. You will have the opportunity to provide comments and feedback on the well testing program, or on any other aspect of the project.

As mentioned, we will be holding a public meeting dedicated to our application for the Permit to Take Water at Our Lady of Mount Carmel Catholic Elementary School on Wednesday, April 16, 2008 at 7:30 p.m. At the meeting you will have an opportunity to get more information regarding the Permit to Take Water, the pumping test and our well monitoring measures. A formal presentation will include representatives from St Marys, the Ministry of the Environment and other invited stakeholders.

## Will the pumping test impact the quality and quantity of our well water?

We will make sure the pumping test does not impact the quantity and quality of groundwater for households, businesses and farms. We will be monitoring the pumping test in cooperation with the Ministry of the Environment and the City of Hamilton.

### About St Marys Cement

St Marys Cement Group is a leading manufacturer of cement and related construction products in Canada and the United States. For more than 90 years, we have contributed to the growth and prosperity of Ontario through countless engineering, civic and residential building projects. St Marys operates two cement plants in Ontario, including one in St. Marys and one in Bowmanville. We also operate more than 40 ready-mix concrete plants and 22 aggregate pits and quarries across the province.

We want to hear from you...

If you have any questions about St Marys Cement Group or about the proposed quarry project, please get in touch with us. If someone you know did not receive this newsletter and would like to, please let us know and we will add them to our distribution list.

### St Marys Public Meeting

Where: Our Lady of Mount Carmel Catholic Elementary School  
 When: Wednesday, April 16, 2008  
 Time: 7:30 p.m. Formal Presentation  
 Question and answer session to follow



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