

Date: Thu, 22 Feb 2007 15:37:03 -0400

Subject: Quarry - St. Mary's Well Drilling Activities - Monitoring Well To Be Installed on City Property

Over and above the additional information the MOE has requested of St. Mary's before a decision will be made on the PTTW application, **THE CITY HAS REQUESTED** that St. Mary's install a monitoring well, at their expense, between the Carlisle well field and the St. Mary's property so that the City can monitor any potential off-site impacts from operations that St. Mary's is engaging in (particularly with respect to the Carlisle wells). This monitoring well will be City owned and is scheduled to be drilled soon. It will provide ongoing water level and water quality data for the City. The location will be on the 10th Concession East approximately 1 km east of Centre Road between St. Mary's southern property boundary and the Carlisle well field - Councillor McCarthy is delighted with this information and has advised City staff that the sooner that this well could be installed, the better for the community.

Councillor McCarthy however continues to have on-going concerns with the St. Mary's well drilling activities and the two e-mails noted below provide some further details on her concerns and the response received from the City's Hydrogeologist, David Kerr.

From: McCarthy, Margaret
Sent: Friday, February 16, 2007 11:17 AM
To: Kerr, David

Dave: My concern with St. Mary's tests are that they only provide at best a snap shot in time of " water levels and water quality data" .This past 12 months has been unprecedented for water both from flooding and snow accumulation, how reflective of what normally happens can this test possibly be? Of great concern for me is that this test will be skewed and that this data will be judged without the knowledge that this area under normal conditions is the first to be affected by draught. Historic data over long periods of time needs to be reflected in this information, which given this study **it does not**.

Dave I don't know how much weight will be given to this test, or how it could be used in the future to somehow support the application but what I do know is that the area in question here has documented evidence that goes back years proving that both water quality and quantity problems have been persistent.

Can you please provide me with some suggestions as to how I could go about ensuring that my concerns will be evaluated along with whatever test is provided through the current process to the MOE. In addition to which, could you give me the benefit of your knowledge as to how I could impress upon the MOE that any tests regarding water quantity and quality **now** will not accurately reflect how detrimental this recirculation permit may be under normal conditions over prolonged periods of time.

I would appreciate any advice you could give me on this David.

Thank you for your assistance to date.

From: Kerr, David
Sent: Tuesday, February 20, 2007 2:56 PM
To: D'Ortenzio, Rita

Hi Rita-Our response to Councillor McCathy's E-mail is as follows:

We recognize that the proposed test has limitations, however it will provide some benefit in terms of technical information that will lead to better understanding the sensitivities of the aquifer. Information from the pump test must be extrapolated and reviewed (and modeled) in context with seasonal variation and climatic change scenarios. As well it will be critical to select triggers at the property boundary so that if any significant water level drop is noted at St. Mary's property boundary and is deemed attributable to pumping groundwater from the site that restoration of the water supply take place immediately. A well thought out monitoring system must be in place to assess shallow and deep groundwater levels as well as surface water flows prior to any on-site pumping to properly evaluate what the resultant effect of pumping is. We have been requesting that St. Mary's ensure that this monitoring be in place and have been providing comments to them to ensure that this is being done. In addition the MOE has requested specific monitoring details be in place. We will continue to assess any information/documentation from St. Mary's in context with these aspects and also request from them that this information be reviewed in context with historical streamflow data from the area and any historical groundwater level datam (i.e. levels from Provincial Groundwater monitoring wells in the area as well as other potential sources).

We agree that the area has experienced water quality/water quantity issues in the past and have re-iterated to MOE as well as St. Mary's (and their consultants) that we have very serious concerns about any proposed water taking and how it may impact the public supply system and private wells in the area. We have also re-iterated to MOE and St. Mary's that our concerns are most acute during seasonally low flow conditions /dry periods and that it is critical any information from testing take into consideration these periods of low groundwater flow.

We have also relayed this information to MOE and requested they incorporate our comments into the monitoring program that is developed for St. Mary's. In addition we have asked that we be involved at all steps of the process to ensure that our concerns are being addressed. As well we will be doing our own off-site monitoring to keep track of the groundwater levels in the area. In addition to the City and MOE's review of any investigative/ test data from St. Mary's the City will has retained the services of a third party Hydrogeological consultant for peer review.