

Dufferin Aggregates 2300 Steeles Ave W, 4th Floor Concord, ON L4K 5X6 Canada

August 14, 2013

RECEIVED
AUG 1 4 2013

Township of Puslinch

Al Murray
Guelph Area Team Supervisor
Ministry of Natural Resources
Guelph District
1 Stone Road West
Guelph, Ontario
N1G 4Y2

Attention: Mr. Al Murray

Re: Monthly Monitoring Report

Mill Creek Pit, License #5738

Township of Puslinch, Wellington County

CLERK'S DEPARTMENT
TO
Copy
Please Handle
For Your Information
Council Agenda
File
File

Please find enclosed the required monitoring data for the month of July 2013. As indicated, there were no exceedences in this month.

If you have any questions, please do not hesitate to call.

Sincerely,

Ron Van Ooteghem Site Manager

C.c.

Karen Landry (Township of Puslinch) Sonja Strynatka (GRCA) Kevin Mitchell (Dufferin Aggregates) University of Guelph

Monthly Reporting Mill Creek Aggregates Pit July 2013

				July	2013				
Date	DP21 (mASL)	Threshold Value (mASL)	Exceedance	Date	BH13 (mASL)	DP21 (mASL)	Head Difference (m)	Threshold Value (m)	Exceedance
5-Jul-13	305.94	305.49	NO	5-Jul-13	306.45	305.94	0.51	0.10	NO
12-Jul-13	305.88	305.49	NO	12-Jul-13	306.33	305.88	0.45	0.10	NO
17-Jul-13	305.81	305.49	NO	17-Jul-13	306.26	305.81	0.45	0.10	NO
31-Jul-13	305.83	305,49	NO	31-Jul-13	306.40	305.83	0.57	0.10	NO
Date	DP17 (mASL)	Threshold Value (mASL)	Exceedance	Date	BH92-12 (mASL)	DP17 (mASL)	Head Difference (m)	Threshold Value (m)	Exceedance
5-Jul-13	305.31	305.17	NO	5-Jul-13	305.60	305.31	0.29	0.06	NO
12-Jul-13	305.29	305.17	NO	12-Jul-13	305.50	305.29	0.21	0.06	NO
17-Jul-13	305.25	305.17	NO	17-Jul-13	305.46	305.25	0.21	0.06	NO
31-Jul-13	305.26	305.17	NO	31-Jul-13	305.57	305.26	0.31	0,06	NO
Date	DP3 (mASL)	Threshold Value (mASL)	Exceedance	Date	DP6 (mASL)	DP3 (mASL)	Head Difference (m)	Threshold Value (m)	Exceedance
5-Jul-13	304.80	304.54	NO	5-Jul-13	305.80	304.80	1.00	0.58	NO
12-Jul-13	304.74	304.54	NO	12-Jul-13	305.66	304.74	0.92	0.58	NO
17-Jul-13	304.70	304.54	NO	17-Jul-13	305.59	304.70	0.89	0.58	NO
31-Jul-13	304.75	304.54	NO	31-Jul-13	305.72	304.75	0.97	0.58	NO
Date	DP2 (mASL)	Threshold Value (mASL)	Exceedance	Date	BH92-27 (mASL)	DP2 (mASL)	Head Difference (m)	Threshold Value (m)	Exceedance
5-Jul-13	304.36	303,50	NO	5-Jul-13	305.02	304.36	0.66	0.32	NO
12-Jul-13	304.28	303.50	NO	12-Jul-13	304.96	304.28	0.68	0.32	NO
17-Jul-13	304.21	303.50	NO	17-Jul-13	304.92	304.21	0.71	0.32	NO
31-Jul-13	304.26	303.50	NO	31-Jul-13	304.90	304.26	0.64	0.32	NO
Date	DP1 (mASL)	Threshold Value (mASL)	Exceedance	Date	BH92-29 (mASL)	DP1 (mASL)	Head Difference (m)	Threshold Value (m)	Exceedance
5-Jul-13	304.43	303.91	NO	5-Jul-13		304.43	0.76	0.23	NO
12-Jul-13	304.34	303.91	NO	12-Jul-13	305.18	304.34	0.84	0.23	NO
17-Jul-13	304.30	303.91	NO	17-Jul-13		304.30	0.86	0.23	NO
31-Jul-13	304.33	303.91	NO	31-Jul-13	305.13	304.33	0.80	0.23	NO
Date 5-Jul-13	DP5C (mASL) 303.29	Threshold Value (mASL) 302.79	Exceedance NO	Date 5-Jul-13	OW5-84 (mASL) 303.75	DP5C (mASL) 303.29	Head Difference (m) 0.46	Threshold Value (m) 0.25	Exceedance
	303.29	302.79	NO	12-Jul-13		303.29	0.31	0.25	NO
12-Jul-13			NO	12-Jul-13 17-Jul-13		303.25	0.26	0.25	NO
17-Jul-13	303.25	302.79				303.25	0.26	0.25	NO
31-Jul-13	303.29	302.79	NO	31-Jul-13	303.56	303.29	0.27	0.25	INO

Note: No exceedences to report.

Monthly Reporting
Mill Creek Aggregates Pit
July 2013

July 2013									Max. Allowa	able as per PTT	W- Main Po	nd
			25					(Imperial Gallons)				(Litres)
Total Monthly Precipitation (mm): 137.6			Waterloo-Wellington Airport (July Actual)				2,500			per minute	11,365	
Total Monthly N	Normal Precipitation (mm):	85	Waterloo-Wellington	n Airport (30-year No	rmal)			1,800,000			per day	8,183,000
Date	Below Water Table Extraction (wet tonnes) Phase 2	Below Water Table Extraction (wet tonnes) Phase 3	Water Pumped from Main Pond (gals)	Water Pumped from Active Silt Pond (gals)	Main Pond Level (mASL)	Exceedance Y/N (BELOW 305.5 mASL)	Phase 2 Pond Level (mASL)	Exceedance Y/N (BELOW 305.0 mASL)	Phase 3 Pond Level (mASL)	Exceedance Y/N (BELOW 303,85 mASL)	SP3 Ext Level (mASL)	Exceedance Y/N (ABOVE 305,5 mASL) or (BELOW 304.5 mASL)
1-Jul-13	0	0	0	0	306.67	NO	306.34	NO	305.42	NO	305.43	NO
2-Jul-13	0	6000	1,711,141	663,207	306.79	NO	306.35	NO	305.32	NO	305.32	NO
3-Jul-13	0	3450	1,708,281	1,517,568	306.76	NO	306.35	NO	305.31	NO	305.34	NO
4-Jul-13	0	3000	1,715,540	4,457,017	306.77	NO	306.36	NO	305.36	NO	305.36	NO
5-Jul-13	0	1800	1,715,760	2,088,168	306.78	NO	306.37	NO	305.36	NO	305.38	NO
6-Jul-13	0	0	0	0	306.78	NO	306.37	NO	305.36	NO	305.38	NO
7-Jul-13	0	0	0	0	306.78	NO	306.37	NO	305.36	NO	305.38	NO
8-Jul-13	0	2400	1,699,922	2,224,549	306.80	NO	306.40	NO	305.36	NO	305.37	NO
9-Jul-13	0	2550	1,706,521	2,209,591	306.81	NO	306.40	NO	305.35	NO	305.35	NO
10-Jul-13	0	2700	1,699,702	2,190,674	306.82	NO	306.39	NO	305.34	NO	305.34	NO
11-Jul-13	0	2700	1,705,642	2,466,515	306.82	NO	306.39	NO	305.32	NO	305.32	NO
12-Jul-13	0	1500	1,674,626	663,207	306.81	NO	306.37	NO	305.29	NO	305.29	NO
13-Jul-13	0	0	0	0	306.81	NO	306.37	NO	305.29	NO	305.29	NO
14-Jul-13	0	0	0	0	306.81	NO	306.37	NO	305.29	NO	305.29	NO
15-Jul-13	0	4200	1,669,567	1,586,418	306.81	NO	306.37	NO	305.29	NO	305.29	NO
16-Jul-13	0	1500	1,670,446	2,368,849	306.81	NO	306.37	NO	305.29	NO	305.29	NO
17-Jul-13	0	0	1,703,002	0	306.81	NO	306.37	NO	305.29	NO	305.29	NO
18-Jul-13	0	0	1,610,835	0	306.81	NO	306.37	NO	305.31	NO	305.31	NO
19-Jul-13	0	0	1,541,764	0	306.81	NO	306.37	NO	305.31	NO	305.31	NO
20-Jul-13	0	0	0	0	306.81	NO	306.37	NO	305.31	NO	305.31	NO
21-Jul-13	0	0	0	0	306.81	NO	306.37	NO	305.31	NO	305.31	NO
22-Jul-13	0	0	1,669,567	0	306.65	NO	306.36	NO	305.41	NO	305.49	NO
23-Jul-13	0	0	1,674,626	1,624,253	306.63	NO	306.36	NO	305.42	NO	305.49	NO
24-Jul-13	0	0	1,655,709	2,323,755	306.63	NO	306.35	NO	305.40	NO	305.49	NO
25-Jul-13	0	0	1,690,464	1,298,698	306.65	NO	306.34	NO	305.38	NO	305.47	NO
26-Jul-13	0	0	1,683,865	1,624,253	306.65	NO	306.34	NO	305.38	NO	305.47	NO
27-Jul-13	0	0	0	0	306,65	NO	306.34	NO	305.38	NO	305.47	NO
28-Jul-13	0	0	0	0	306.65	NO	306.34	NO	305.38	NO	305.47	NO
29-Jul-13	0	0	1,706,301	2,196,173	306.65	NO	306.34	NO	305.38	NO	305.47	NO
30-Jul-13	0	900	1,703,662	2,161,198	306.65	NO	306.34	NO	305.31	NO	305.33	NO
31-Jul-13	0	3600	1,705,642	2,812,527	306.76	NO	306.34	NO	305.31	NO	305.33	NO
Total	0	36300	37,022,584	36,476,621								
Avg./ day	0.0	1170.97	1,194,276.91	1,176,665.18	306.75	NO	306.37	NO	305.34	NO	305.37	NO

Note: No exceedences to report

RECEIVED

Township of Puslinch



4622 Nassagaweya-Puslinch Townline R.R. 1 Moffat Ontario Canada L0P 1J0 Phone: 519.826.0099 fax: 519.826.9099 www.hardenv.com

Groundwater Studies

Geochemistry

Phase I / II

Regional Flow Studies

Contaminant Investigations

OMB Hearings

Water Quality Sampling

Monitoring

Groundwater Protection

Studies

Groundwater Modelling

Groundwater Mapping

Our File: 0132

July 25, 2013

Township of Puslinch R.R. 3 Guelph, ON N1H 6H9

Attention:

Karen Landry, Clerk-Treasurer

Dear Ms. Landry:

Re: Aberfoyle Pit #2

2012 Monitoring Report Review

We have reviewed the 2012 Aberfoyle Pit #2 report prepared by Conestoga Rovers and Associates prepared on behalf of Dufferin Aggregates. There has been no aggregate extraction at this site between 2009 and 2012. Based on the data presented we make the following comments.

The monitoring of stations SW1-90, SW2-91, SW3-91 and SW4-91 resumed in February 2012. Data from SW1-90 was not included on Figure 3.5 of the monitoring report with the other station data. The recent data from these stations showed water levels near historic low water levels. However, precipitation was also very in 2012 and this could explain the low levels. The one year of new data is insufficient to draw conclusions regarding changed groundwater conditions. Ongoing monitoring at these locations should demonstrate if levels return to normal levels as the precipitation increased significantly in early in 2013.

The 2012 Monitoring report again recommends the removal of the Van Horsigh, Behmann, Hohenadel and Cox private wells from the monitoring program. We concur that on-site monitoring wells can adequately address changes in the groundwater flow system. The removal of the each private well should, however, be agreed to by the individual resident.



The Tikal Pond is located between the Dufferin Pit No. 2 extraction area and the Cox well. It is our opinion that continued monitoring of this well is not necessary since it is unlikely that activities on the Dufferin Pit No. 2 site could impact either the quantity or quality of groundwater in the Cox well.

Groundwater levels are measured at eight locations throughout the site. Data was only graphed at four of these locations, however, water levels appear to fluctuate seasonally as expected. Water levels have been declining since 2010, however levels are still within historic ranges and the decline is likely the result of declining precipitation since 2010.

There are no significant changes in on-site water levels since the cessation of extraction in 2009. The ongoing monitoring in off-site wetland monitors will determine if there has been any effect of below-water-table extraction on the provincially significant wetland.

There have been no significant changes in water quality from the extractive operations, based on a review of the water quality data obtained in 2012.

Sincerely

Harden Environmental Services Ltd.

Stan Denhoed, P.Eng., M.Sc.

Stal) enloyed

Senior Hydrogeologist





REPORT

2012 ANNUAL MONITORING REPORT

ABERFOYLE PIT NO. 2 TOWNSHIP OF PUSLINCH

Prepared for: Dufferin Aggregates, a Division of Holcim (Canada) Inc.

Conestoga-Rovers & Associates 651 Colby Drive Waterloo, Ontario N2V 1C2

May 2013 • #001644 Report Number:18



CONESTOGA-ROVERS & ASSOCIATES

651 Colby Drive, Waterloo, Ontario, Canada N2V 1C2 Telephone: 519·884·0510 Facsimile: 519·884·0525 www.CRAworld.com

May 28, 2013

Reference No. 001644

Mr. Ron Van Ooteghem Dufferin Aggregates 125 Brock Road South Aberfoyle, Ontario N1H 6H9

Dear Mr. Van Ooteghem:

Re:

2012 Annual Monitoring Report

Dufferin Aggregates Aberfoyle Pit No. 2

Township of Puslinch

Enclosed please find the 2012 Annual Monitoring Report for Dufferin Aggregates, Aberfoyle Pit No. 2, Township of Puslinch. This report was prepared in accordance with the monitoring program outlined in our August 1991 Final Monitoring Report, and subsequent follow-up correspondence/approvals from the Ministry of the Environment and Ministry of Natural Resources.

If you should have any questions, please do not hesitate to contact us.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Greg M. Pucousky

Greg M. Pucovsky, M.Sc., P. Geo.

GMP/jh/19

Encl.

cc: Steve May, MNR, Guelph (1 copy)

Lynnette Armour, MOE, Guelph (1 copy)

Township of Puslinch (1 copy)

Ron Van Ooteghem, Dufferin Aggregates (2 copies)

CRA (2 copies)

TABLE OF CONTENTS

			<u>Page</u>				
1.0	INTRO	DUCTION	1				
2.0	GEOLC	OGIC/HYDROGEOLOGIC SETTING	3				
3.0	HYDRA 3.1 3.2 3.3 3.3.1 3.3.2	AULIC MONITORING PROGRAM GENERAL PRECIPITATION DATA HYDRAULIC MONITORING GROUNDWATER MONITORING SURFACE WATER MONITORING	4 5 5				
4.0	WATEI 4.1 4.2 4.3	R QUALITY MONITORING RESULTS BACKGROUNDSAMPLING PROGRAM WATER QUALITY ASSESSMENT	10				
5.0	CONCI	CONCLUSIONS					
6.0	RECON	RECOMMENDATIONS					
7.0	REFER	REFERENCES					

LIST OF FIGURES (Following Text)

FIGURE 1.1	SITE LOCATION
FIGURE 3.1	SURFACE WATER AND GROUNDWATER MONITORING LOCA
FIGURE 3.2	HISTORICAL ANNUAL PRECIPITATION
FIGURE 3.3	REPRESENTATIVE GROUNDWATER ELEVATIONS
FIGURE 3.4	PRIVATE WELL GROUNDWATER ELEVATIONS
FIGURE 3.5	SURFACE WATER ELEVATIONS (1)
FIGURE 3.6	SURFACE WATER ELEVATIONS (2)
FIGURE 3.7	SURFACE WATER ELEVATIONS (3)

LIST OF TABLES (Following Text)

LIST OF APPENDICES

APPENDIX A SECTION 9.0 OF AUGUST 1991 FINAL MONITORING REPORT

(PROPOSED MONITORING PROGRAM) AND FOLLOW-UP

CORRESPONDENCE/APPROVALS FROM MOE AND

MNR RESPONSE TO HARDEN ENVIRONMENTAL COMMENTS

APPENDIX B STRATIGRAPHIC AND INSTRUMENTATION LOGS

APPENDIX C LABORATORY ANALYSES

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) was retained by Dufferin Aggregates [a division of Holcim (Canada) Inc.] to complete the 2012 Annual Monitoring Report for Aberfoyle Pit No. 2. The Site is located on part of the west half of Lots 22 and 23, Concession 9, Township of Puslinch, in the County of Wellington (Figure 1.1).

The area licenced for extraction is 78.1 hectares (ha) (193 acres), of which an area of 68.0 ha (168 acres) will be extracted above the water table, and 53.4 ha (132 acres) below the water table. Prior to May 2000, Dufferin only extracted aggregate above the water table as per the phasing of operations on the Site plans approved by the Ministry of Natural Resources (MNR). Removal of aggregate below the water table was initially conducted between May 1 and December 15, 2000, using a large backhoe, although the majority of mining in 2000 occurred above the water table. Extraction of aggregate during the period of 2001 to 2003, inclusive, occurred from May to December, with mining occurring both above and below the water table. Mining operations only occurred above the water table during 2004. Extraction of aggregate occurred above and below the water table from May to December 2005, April to October 2006, April to November 2007, and May 1 to October 28, 2008. Extraction of aggregate did not occur between 2009 and 2012 inclusive. A Permit to Take Water is not required for the aggregate operation since pumping of groundwater does not occur at the Site.

The initial monitoring program for the Site was originally developed by CRA, and provided in our November 1988 report entitled "Assessment of Mining Impact, Aberfoyle Pit No. 2, Puslinch Township, Wellington County". This program was subsequently approved by the Ministry of the Environment (MOE) and was initiated during the summer of 1990. A final monitoring program, as outlined in Section 9.0 of our August 1991 report entitled "Final Monitoring Report, Dufferin Aggregates Aberfoyle Pit No. 2, Township of Puslinch, County of Wellington" was subsequently prepared and approved, and was to be implemented prior to and during mining below the water table. The monitoring program outlined in the August 1991 Final Monitoring Report and subsequent amendments to the program (based on comments by the MOE and MNR) have been implemented by CRA and Dufferin. Appendix A contains the proposed monitoring program from Section 9.0 of the August 1991 Final Monitoring Report, and follow-up correspondence/approvals from MOE and MNR.

The primary purpose of the monitoring program is as follows:

- Collect water level and water quality information during mining of aggregate, to evaluate the effects of extraction on local shallow groundwater levels
- Provide recommendations regarding the monitoring program as necessary

The monitoring program in 2012 consisted of the following:

- Monthly hydraulic (water level) monitoring (on-Site monitoring wells; off-Site private domestic wells, and on and off-Site surface water locations) by Dufferin
- Groundwater quality monitoring at five on-Site monitoring wells and three off-Site private domestic wells by CRA

The following provides the results of historical and 2012 hydraulic monitoring, water quality, and an interpretation of the results.

2.0 GEOLOGIC/HYDROGEOLOGIC SETTING

The Site occurs within the Horseshoe Moraines physiographic region as defined by Chapman and Putnam, 1984. The Paris and Galt moraines are the two major features which constitute this region. The Site occurs between these two moraines within a spillway channel, which consists of sand, or sand and gravel deposits. These deposits comprise the surficial unconfined (water table) aquifer beneath the Site, which attains a thickness of about 12 metres (m) in the central portion of the Site. The aquifer decreases in thickness towards the southwest. Available information indicates that groundwater flow within the water table aquifer occurs in a general southwesterly direction. The surficial water table aquifer is underlain by fine-grained material consisting of clayey silt to silty clay.

Overburden at the Site is underlain by dolostone bedrock of the Middle Silurian Guelph Formation. The Site occurs near the contact with dolostone of the underlying Amabel Formation. Bedrock occurs at a depth of about 15 to 30 m (50 to 100 feet) below the original ground surface in the vicinity of the Site, and decreases in elevation in a general southwesterly direction. The bedrock aquifer is primarily utilized as a source of domestic water supply in the area.

3.0 HYDRAULIC MONITORING PROGRAM

3.1 GENERAL

The hydraulic monitoring program consists of water level measurements in on-Site monitoring wells, off-Site private domestic wells, and at surface water locations, as presented on Figure 3.1. Well construction details for the monitoring wells are provided in Table 3.1, and stratigraphic and instrumentation logs are presented in Appendix B. Water level data collected since aggregate extraction below the water table began in May 2000 is compared with historical water level trends and precipitation data in order to assess potential impacts. Precipitation data is provided in Section 3.2. The hydraulic monitoring activities and a description of trends are discussed in Section 3.3.

3.2 PRECIPITATION DATA

Annual precipitation data was originally obtained from the Ontario Climate Centre, Toronto, Ontario, but more recently from the Environment Canada National Climate Archive website. Precipitation data for the period of 1970 to 1989 was obtained from the Guelph OAC and Arboretum stations. Precipitation data from the Waterloo-Wellington Airport station was used for the period of 1990 to 2012, supplemented by Waterloo-Wellington 2, since the Guelph station was no longer classified as an official station after 1989. Historical total annual precipitation data for the period of 1970 to 2012 inclusive is presented in Table 3.2 and illustrated on Figure 3.2.

The results indicate that the 30-year average annual precipitation for the period of 1970 to 1999 is 895.8 millimetres (mm). During the period of background water level monitoring between 1990 and 1999, the average annual precipitation was 888.1 mm, which is only slightly lower (0.9 percent) than the 30-year mean. Therefore, the 10-year period of background water level monitoring is representative of long-term average precipitation levels. As illustrated on Figure 3.2, the maximum annual precipitation during the 1990 to 1999 period occurred in 1992 (1,056.9 mm) and the minimum, in 1998 (656.5 mm).

Since 2000, when aggregate extraction below the water table was initiated, total annual precipitation has ranged from 632.0 to 1,209.3 mm. The average precipitation over this period (2000 to 2012) was 899.0 mm and thus still slightly above the 10- and 30-year averages of 888.1 and 895.8 mm, respectively. There was a general increasing trend in precipitation between 2002 and 2006, followed by the lowest annual precipitation recorded in the past 40 years in 2007 (632.0 mm). The highest annual precipitation

during the past 40 years was subsequently recorded in 2008 (1,209.3 mm). Precipitation subsequently declined in 2009 and 2010, and then increased in 2011. Total annual precipitation in 2012 was only 753.8 mm, and thus well below the 10- and 30-year averages of 888.1 and 895.8 mm, respectively.

3.3 HYDRAULIC MONITORING

3.3.1 GROUNDWATER MONITORING

Historical groundwater elevations for the monitoring wells and private wells are provided in Table 3.3. Water levels have been monitored since May 1990, with monthly levels generally taken since May 1999. The program currently consists of water level measurements at the following locations:

- Monitoring wells OW1A/B-90, OW2-90, OW3R-05, OW4R-05, OW5-90, OW6-90, OW7-05, and PW1-90.
- Private wells Van Horsigh, Behmann, Hohenadel, and Cox (formerly Gauthier). The Gauthier well was reported as "sealed" during the period of August to November 2002.

All monitoring locations are installed in the sand and gravel (water table) aquifer with the exception of the Behmann, Hohenadel, and Cox (formerly Gauthier) wells. The Hohenadel well is installed in a confined sand and gravel unit. The Behmann well is also believed to be installed in a confined unit based on the measured depth (a well record is not available). The Cox (former Gauthier) well is installed in the Guelph Formation bedrock aquifer.

Wells OW3R-05 and OW4R-05 were completed in September 2005 as replacement wells for OW3-90 and OW4-90. OW3-90 and OW4-90 were installed in the buffer zone so that they would not have to be removed during aggregate operations. However, with the exception of four monitoring events, well OW3-90 had been dry since installation and monitoring well OW4-90 had been continuously dry. The surficial sands and gravels at these two locations were only about 2 m thick, and underlain by fine-grained material. The new wells were installed further east of the dry wells where the sands and gravels are thicker, thus allowing monitoring of water levels in this material. OW3-90 and OW4-90 were subsequently sealed and abandoned during 2007. In addition, new monitoring well OW7-05 was also installed in September 2005 to allow monitoring of groundwater levels within the eastern part of the Site.

Representative hydrographs for wells located in the upper sand and gravel are plotted against annual precipitation on Figure 3.3. The locations include OW1B-90 and OW7-05, located along the northeastern (upgradient) property boundary of the Site; OW2-90 and OW4R-05, located near the southwestern (downgradient) property boundary; and the Van Horsigh well located further cross-gradient of the Site. Water levels in the remaining private wells are plotted on Figure 3.4.

Review of Figure 3.3 indicates that water levels in the upper sand and gravel wells typically exhibit a similar trend each year. In general, groundwater levels increase each year during the spring, with surplus precipitation relative to potential evaporation. Levels typically decrease toward the latter part of the year which is attributed to a water deficit, and often increase near the end of the year in response to increased precipitation during the fall.

Prior to extraction of aggregate below the water table, water levels generally increased during the period of early 1995 to early 1997, with a subsequent overall decline in levels until about October 1999. The overall trend in water levels generally follows the trend in total annual precipitation with some degree of lag time. For example, the decline in water levels between 1997 and 1999 can be attributed to the decline in precipitation from well above average in 1996 (1,043 mm) to average in 1997 (861.8 mm) and then to well below average in 1998 (656.5 mm).

During the 2000 to 2008 period (i.e., during extraction of aggregate below the water table), water level elevations upgradient of the extraction area (i.e., OW1B-90 and OW7-05) appear to have remained relatively stable, possibly moderated by the water levels in the adjacent active area pond. Water levels between 2009 and 2012 inclusive (no extraction period) generally exhibit an overall declining trend in response to declining annual precipitation between 2008 (1,209.3 mm) and 2010 (826.7 mm), and during 2012 (753.8 mm).

Water level elevations at locations downgradient of the extraction area (i.e., OW2-90 and OW4R-05) generally reflect trends in total annual precipitation. A somewhat greater degree of fluctuation in water levels at these locations is also observed, from 2005 onward, possibly because water levels at these locations are not moderated by water levels in the active area pond. Between 2000 and 2003, water levels were relatively stable, with fluctuations being similar to those in the upgradient wells. Between 2004 and 2006, water levels generally increased in response to an increasing trend in precipitation between 2004 and 2006. Water levels declined during 2007 in response to

below average precipitation in 2007, and then water levels increased to 2008 in response to higher precipitation.

Water levels between 2009 and 2012 inclusive (no extraction period) generally exhibit an overall declining trend in response to declining annual precipitation between 2008 (1,209.3 mm) and 2010 (826.7 mm), and during 2012 (753.8 mm). The water levels in OW2-90 and OW4R-05 during late summer 2011 were the lowest since fall 2007 and thus approached historical lows. Extraction of aggregate has not occurred at the Site since October 2008, and therefore any changes in water levels since that time can be attributed to climate or other influences. No significant deviations in seasonal or overall long-term water level trends are evident since aggregate extraction below the water table was initiated in May 2000. This is corroborated by an overall increasing trend in water levels at OW2-90 and OW4R-05 during the extraction period.

Water levels in the Van Horsigh well are less variable than those in the monitoring wells, however, they show the same seasonal trends and generally the same longer term trends during the extraction period as the downgradient monitoring wells. An overall trend of slightly increasing water levels is apparent in the Van Horsigh well from 1999 to 2012.

Figure 3.4 indicates that water levels in the lower (confined) sand and gravel wells (Behmann and Hohenadel) and the bedrock well Cox (formerly Gauthier) typically exhibit trends similar to those in the on-Site monitoring wells. Some of the apparent differences, particularly in the Behamnn and Hohenadel wells are due to the wells being in use and the absence of data during certain time periods. Water levels between 2009 and 2012 inclusive (no extraction period) generally exhibit an overall declining trend in response to declining annual precipitation between 2008 (1,209.3 mm) and 2010 (826.7 mm), and during 2012 (753.8 mm).

It should be noted that aggregate is also extracted above and below the water table at the Tikal pit owned by CBM, located immediately north and adjacent to Dufferin Aggregates Aberfoyle Pit No. 2. A pond is now located at the Tikal pit near the northwestern boundary of the Dufferin site. Review of available water level elevations for the closest Tikal monitoring well to OW1B-90, indicates a similar water level trend. In addition, for the most recent period from 2009 to 2011 inclusive (no extraction at Aberfoyle Pit No. 2), maximum and minimum water level elevations for these two locations are similar.

Based on the similarity of water level trends at the off-Site private domestic wells and the closest Tikal monitoring wells, trends in on-Site monitoring wells located near the Behmann and Hohenadel private wells, and since CBM is extracting aggregate closer to the Van Horsigh and Cox (formerly Gauthier) properties, monitoring of private domestic wells Van Horsigh, Behmann, Hohenadel, and Cox should be discontinued. As previously noted of these wells, only the Van Horsigh well is believed to be completed in the water table aquifer.

3.3.2 SURFACE WATER MONITORING

Historical surface water elevation data are provided in Table 3.4. Water levels have been monitored since June 1990, with monthly levels generally taken since May 1999. The 2012 surface water monitoring program and historical locations no longer monitored are outlined below:

- The surface water monitoring program in 2012 consisted of monthly water level measurements at Pond 1, Pond 2, and SW6-03. Pond 1 receives water from an adjacent well. SW6-03 is located within the on-Site pond.
- Historical surface water monitoring locations have included SW1-90, SW2-91, SW3-91, SW4-91, and WP1-93. These locations were required to be monitored, however the property owner denied access for monitoring beginning in June 2008. Monitoring was resumed in February 2012, however WP1-93 was determined to be blocked and therefore no longer suitable for monitoring.
- Historical location SW5-01, located at the headwaters of Aberfoyle Creek, was an additional location recommended by the MOE in January 1992. Permission to monitor was acquired in 2001 and monitoring was conducted between November 2001 and February 2006, after which the property owner denied access for monitoring.

Hydrographs for the surface water monitoring locations which are cross-gradient of the Site are presented on Figures 3.5 and 3.6. Review of these figures to May 2008 for all locations except Pond 2 (Figure 3.5) indicates that the locations generally exhibit similar water level trends. Monitoring could not be conducted between June 2008 and January 2012 as previously noted, but lower trending levels would be expected as lower total annual precipitation was recorded during two of the last three years including 2012. Surface water levels during the latter part of 2012 occurred within the lower end of the historical range of levels. On an annual basis, maximum water elevations typically occur in the spring and minimum elevations in the fall or winter. The longer term water level trends correspond well with trends in annual precipitation.

Water levels in Pond 2 (Figure 3.6) also typically decline between spring and fall each year and subsequently recover. The range of water levels in Pond 2 is generally similar to those measured prior to below water table extraction. Surface water levels between 2009 and 2012 inclusive (no extraction period) generally exhibit an overall declining trend in response to declining annual precipitation between 2008 (1,209.3 mm) and 2010 (826.7 mm), and during 2012 (753.8 mm).

As noted, access to WP1-93, SW2-91, SW3-91, and SW4-91 was not permitted by the property owner between June 2008 and January 2012. This is not considered to be limiting, as Pond 2 water levels are representative of water levels in this area.

The water levels at off-Site location SW5-01, at the headwaters of Aberfoyle Creek, are presented on Figure 3.7. Water levels measured between November 2001 and February 2006 generally increased over time. No evidence of deviation from seasonal or overall long-term surface water level trends has been observed since extraction below the water table began in May 2000. As noted, access to SW5-01 is no longer permitted by the property owner.

4.0 WATER QUALITY MONITORING RESULTS

4.1 BACKGROUND

The potential water quality influence of aggregate extraction below the water table is evaluated by comparing background water quality in the on-Site monitoring wells and off-Site private domestic wells, with water quality in these wells during aggregate operations. The groundwater quality is also compared to available MOE Ontario Drinking Water Standards, Objectives and Guidelines, revised June 2006. Section 4.2 presents the sampling program; a summary of the results is provided in Section 4.3. Copies of all laboratory analyses for 2012 are provided in Appendix C.

4.2 <u>SAMPLING PROGRAM</u>

Prior to initial extraction of aggregate below the water table in May 2000, groundwater sampling was conducted to determine background water quality. In general, three sampling events were conducted for the monitoring wells (OW1A/B-90, OW2-90) and two or three events were conducted for the private domestic wells (Behmann, Hohenadel, Van Horsigh) between 1990 and 1999. Samples were subsequently collected twice per year during 2000 and 2001, and on an annual basis during the fall commencing in 2002.

Sampling was conducted on December 18, 2012. Groundwater samples were collected from on-Site monitoring wells OW1A-90, OW1B-90, OW2-90, OW3R-05, and OW4R-05 and the Behmann, Hohenadel, and Van Horsigh private domestic wells. All water samples were analyzed for general chemistry and metal parameters. Total petroleum hydrocarbon (TPH) analysis was also performed on samples from OW1B-90, OW2-90, and OW3R-05. The water quality results for the monitoring wells and domestic wells are presented in Tables 3.5 and 3.6, respectively.

Samples collected from the monitoring wells and private domestic wells for analysis of metals parameters were filtered and preserved by the laboratory. Samples collected for general chemistry and TPH analysis were not filtered. All samples were stored in containers issued by the receiving laboratory, and placed in an ice-filled cooler for sample preservation. The samples were analyzed by ALS Laboratory Group, Waterloo, Ontario.

4.3 WATER QUALITY ASSESSMENT

The following provides a summary of the water quality results for the on-Site monitoring wells and off-Site private domestic wells. Historical water quality data is summarized in Table 3.5 (monitoring wells) and Table 3.6 (domestic wells).

Upgradient Groundwater Quality

Nested monitoring wells OW1A-90 (deeper water table) and OW1B-90 (shallower water table) are located in the northern part of the Site, and adjacent to the initial area of extraction below the water table. The water quality for these wells is considered to represent background conditions, based on groundwater flow in a general southwesterly direction beneath the Site.

Concentrations of conductivity, chloride, sodium, iron and calcium are typically higher at OW1B-90 than at OW1A-90. In December 2012, parameter concentrations for well OW1B-90 met ODWSs with the exception of iron (1.58 milligrams per litre [mg/L]), which is considered to be naturally occurring. Iron concentrations prior to extraction below the water table ranged from 0.24 to 2.51 mg/L. As such, the iron level in 2012 occurred within the range of background levels. With the exception of chloride and sodium, all other parameter concentrations are also within the range of background concentrations.

Levels of chloride and sodium at OW1B-90 exhibited a general increasing trend until 2008, but subsequently declined and generally stabilized to 2012. The chloride concentration between 1990 and 1999 (prior to extraction below the water table) ranged from 14.0 to 19.0 mg/L and reached a maximum of 51 mg/L in 2008. The chloride level subsequently declined and stabilized between 36.4 and 39.8 mg/L during 2010 to 2012 inclusive. The sodium concentration between 1990 and 1999 (prior to extraction below the water table) ranged from 3.4 to 8.4 mg/L. Levels increased in 2004, but stabilized between 17.6 and 21.0 mg/L during 2006 to 2012 inclusive. It should be noted that use of calcium chloride for dust control was discontinued at the Site as of spring 2008.

The concentration of TPH (gas/diesel) at OW1B-90 was 440 μ g/L in December 2012, and TPH (heavy oils) was non-detect. In light of the detected level of TPH (gas/diesel), monitoring well OW1B-90 was resampled on April 12, 2013 for both TPH (gas/diesel) and TPH (heavy oils). Levels of both TPH (gas/diesel) and TPH (heavy oils) were non-detect.

With the exception of iron (1.07 mg/L), concentrations of all other parameters at deeper well OW1A-90 met their respective ODWSs. Elevated total phosphorus concentrations have been measured in this well since December 2003, which are significantly higher than the concentrations measured in shallower well OW1B-90. In December 2012, the total phosphorus concentrations in OW1A-90 and OW1B-90 were 1.04 and 0.068 mg/L, respectively. There is not an overall increasing trend in concentrations. It should be noted that there is no ODWS for phosphorus in groundwater.

All parameter concentrations except iron at OW1A-90 were within the range of background concentrations. The chloride concentration between 1990 and 1999 (background) ranged from 2.7 to 9.0 mg/L. Between 2002 and 2007, chloride levels increased from 2.2 to 7 mg/L and were a maximum of 20 mg/L in 2008. The chloride level subsequently declined with a level of 13.0 mg/L in 2012. With the exception of iron, concentrations of all other parameters at OW1A-90, including sodium, occurred within the historical range of concentrations. TPH (gas/diesel) and TPH (heavy oils) are not analyzed at OW1A-90.

Cross-Gradient and Downgradient Groundwater Quality

Monitoring wells OW2-90, OW3R-05, OW4R-05 are located in the water table aquifer and close to the southwestern (downgradient) property boundary.

Concentrations of all parameters at OW2-90 met their respective ODWSs during December 2012. All parameter concentrations were also less than or within the range of background concentrations. There are no overall increasing trends in the concentrations of any parameters. Chloride levels have steadily declined since 2007. Concentrations of TPH (gas/diesel) and TPH (heavy oils) were non-detect.

OW3R-05 and OW4R-05 were initially sampled in 2005 (i.e., no data is available prior to extraction below the water table). The concentration of all parameters at these locations met their respective ODWSs during the December 2012 monitoring event. Parameter concentrations were within the range of historical (2005 to 2011) concentrations. An overall trend of increasing levels is not apparent. The concentrations of TPH (gas/diesel) and TPH (heavy oils) were non-detect at OW3R-05 in December 2012. These parameters are not analyzed at OW4R-05.

The Behmann and Hohenadel wells are deep overburden wells located downgradient of the Site. The Hohenadel well is installed in a confined sand and gravel unit underlying the till. The Behmann well is also believed to be installed in a confined unit based on the measured depth (a water well record is not available). With the exception of iron, parameter concentrations in the Behmann well met their respective ODWSs during the December 2012 monitoring event. Parameter concentrations were also within, or lower than the range of background concentrations, with the exception of sulphate (45.8 to 51 mg/L background; 53.7 mg/L in 2012), magnesium (31.6 to 32.1 mg/L background; 34.5 mg/L in 2012), and iron (0.53 to 0.87 mg/L background; 0.949 mg/L in 2012). Levels of the above three parameters were only slightly above the background range. The sulphate level has stabilized between 52 and 57 mg/L since 2004. There is no overall increasing trend in parameter concentrations.

Parameter concentrations in the Hohenadel well met their respective ODWSs during the December 2012 monitoring event. Parameter concentrations were also within the range of background concentrations, with the exception of chloride (1.54 to 5.0 mg/L background; 14.0 mg/L in 2012). The chloride level has stabilized between 12 and 16 mg/L since 2004, including during the period of no extraction between 2009 and 2012. There appears to be a gradual increase in the concentrations until 2008, but a decrease or general stabilization thereafter. There is no overall increasing trend in parameter concentrations.

The Van Horsigh well is a shallow overburden well, likely installed in the surficial sand and gravel, and is located about 0.6 km west and cross-gradient of Aberfoyle Pit No. 2. Concentrations of all measured parameters at this location met their respective ODWSs during the December 2012 monitoring event, however, conductivity, chloride, sodium, and nitrate concentrations are notably elevated relative to other monitoring locations. Chloride, nitrate and sodium levels occurred within the historical range during December 2012. Based on the flow direction and location of the well near County Road 34, it is most likely that groundwater quality in this area has been and continues to be impacted by road salting activities. As such, mining of aggregate at the Site has not impacted groundwater quality in the shallow Van Horsigh overburden well.

Of the three private wells monitored for water quality, only the Van Horsigh well is a shallow overburden well, likely installed in the surficial sand and gravel. The water quality trends in the wells installed within deeper underlying units, and distant Van Horsigh well are not indicative of influences due to extraction of aggregate from the surficial unit. As such, monitoring of the above-noted private wells should be discontinued.

Summary of Groundwater Quality

Water quality monitoring was conducted at OW1A/B-90, OW2-90, OW3R-05, OW4R-05, and at the Behmann, Hohenadel, and Van Horsigh wells during December 2012. Parameter concentrations generally met ODWSs and occur within the background (pre-extraction below the water table) range of concentrations. Exceptions include:

- Elevated iron and sodium at shallow, upgradient well OW1B-90. The iron concentration exceeds the ODWS, but is consistent with background concentrations and is therefore believed to be naturally occurring. The chloride and sodium concentrations are elevated relative to background concentrations. However, the sodium level has been relatively stable for the past seven years, and chloride for the past four years. These concentrations are believed to be related to the application of road salt upgradient of the Site.
- Elevated total phosphorus and iron concentrations at deeper upgradient well OW1A-90. The total phosphorus concentration has been elevated relative to background concentrations since December 2003, however an overall increasing trend in concentrations is not observed. The source of the elevated total phosphorus is not known. There is no ODWS for phosphorus.
- Elevated conductivity, chloride, and sodium levels at the shallow Van Horsigh well relative to other monitored locations. These parameters occur within respective ODWSs and historical ranges. Given the position of the well relative to the Site (cross-gradient) and the similarity of concentrations to historic values, the concentration of these parameters is not related to on-Site activities. It is believed that application of road salt is influencing the conductivity, chloride and sodium concentrations.
- A low level of TPH (gas/diesel) was measured at OW1B-90 during December 2012. The well was resampled in April 2013, and the level of TPH (gas/diesel) was non-detect. Monitoring well OW1B-90 is considered to be located upgradient of the existing operation, and aggregate extraction has not occurred at the Site since October 2008. As such, the occasional measured trace or low level is not of concern.

Based on the available data, the water quality at the monitored locations does not appear to be impacted by mining of aggregate at the Site.

Based on the results of the 2012 annual monitoring program, the following conclusions are provided:

- The period of background water level measurements (1990 to 1999) reflects long-term average precipitation levels. Precipitation between 2000 and 2006 has exhibited a general increasing trend, followed by the lowest (2007) and highest (2008) annual precipitation recorded during the past 40 years. Precipitation declined in 2009 and 2010, increased in 2011, and declined in 2012 to the lowest amount since 2007. The total annual precipitation recorded during 2012 was 753.8 mm, and thus well below the 30-year average of 895.8 mm (1970 to 1999), the average precipitation from 2000 to 2012 (899.0 mm), and the 10-year background period from 1990 to 1999 (888.1 mm).
- Water levels in the on-Site monitoring wells, off-Site private domestic wells, and surface water locations are influenced by seasonal fluctuations in precipitation. In general, water level trends correspond well with trends in total annual precipitation. The water level trends in the private domestic wells are similar to those at the downgradient property boundary of the Site. Groundwater levels have not been adversely affected by extraction of aggregate below the water table.
- The groundwater quality results indicate that the measured parameter concentrations generally occur within the historical range of concentrations and met available ODWSs. As such, it appears that water quality in the area has not been impacted since initiation of aggregate extraction below the water table.





6.0 **RECOMMENDATIONS**

Based on the results of the 2012 annual monitoring program, the following recommendations are provided:

- The Van Horsigh, Behmann, Hohenadel, and Cox (formerly Gauthier) private wells be deleted from the monitoring program. The Van Horsigh private well is a shallow overburden well, and the Behmann and Hohenadel wells are deep overburden wells. Historical monitoring results indicate that water levels and water quality at these locations have not been affected by mining of aggregate at the Site. In addition, the existing overburden monitoring wells located near the southwestern property boundary (OW2-90, OW3R-05, and OW4R-05) are suitably located to enable evaluation of water levels and overburden groundwater quality between the mining operation and off-Site private wells. The Cox (formerly Gauthier) well is installed in Guelph Formation bedrock. Water level fluctuations at this location are also similar to those in on-Site monitoring wells, and water quality is not monitored at this location.
- Surface water monitoring location SW5-01 is formally deleted from the monitoring program since the property owner has refused permission to access the property since February 2006.
- The blockage in WP1-93 be removed and if not possible, the monitor be replaced.
- With the exception of the above-noted private wells and surface water locations, the 2012 hydraulic and water quality monitoring program be continued during 2013.

All of Which is Respectfully Submitted, CONESTOGA-ROVERS & ASSOCIATES



Wendy Best, B.Sc., P. Geo.



Greg M. Pucovsky, M.Sc., P. Geo.

7.0 REFERENCES

- Conestoga-Rovers & Associates, August 2012. 2011 Annual Monitoring Report - Dufferin Aggregates Aberfoyle Pit No. 2, Township of Puslinch.
- Conestoga-Rovers & Associates, October 2011. 2010 Annual Monitoring Report - Dufferin Aggregates Aberfoyle Pit No. 2, Township of Puslinch.
- Conestoga-Rovers & Associates, October 2010. 2009 Annual Monitoring Report - Dufferin Aggregates Aberfoyle Pit No. 2, Township of Puslinch.
- Conestoga-Rovers & Associates, May 2009. 2008 Annual Monitoring Report Dufferin Aggregates Aberfoyle Pit No. 2, Township of Puslinch.
- Conestoga-Rovers & Associates, May 2008. 2007 Annual Monitoring Report Dufferin Aggregates Aberfoyle Pit No. 2, Township of Puslinch.
- Conestoga-Rovers & Associates, August 1991. Final Monitoring Report, Dufferin Aggregates Aberfoyle Pit No. 2, Township of Puslinch, County of Wellington.
- Conestoga-Rovers & Associates, November 1988. Assessment of Mining Impact, Aberfoyle Pit No. 2, Puslinch Township, Wellington County.
- Ontario Ministry of the Environment, June 2003, revised June 2006. Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines.

Ministry of Transportation

Engineering Office Environmental Section West Region

659 Exeter Road London, Ontario N6E 1L3 Telephone: (519) 873-4601 Facsimile: (519) 873-4600 Email: Karolina, Krol Contario, ca Ministère des Transports

Bureau du génie Section de l'environnement Région de l'Ouest

659, rue Exeter London (Ontario) N6E 1L3 Téléphone: (519) 873-4827 Télécopleur: (519) 873-4800



via email: brendal@puslinch.ca

September 4, 2013

Brenda Law CAO/Clerk-Treasurer Township of Puslinch 7404 Wellington Road #34 R.R. #3 Guelph, ON N1H 6H9

Dear Ms. Law:

RE: Noise By-Law Exemption for Construction

Highway 6 Resurfacing from Highway 401 to Clair Rd.

City of Guelph, Township of Puslinch, Ontario

GWP 3112-10-00

The Ministry of Transportation (MTO) is undertaking the resurfacing of Highway 6 (Hanlon Expressway) in 2014, subject to funding and approvals. The project limits are from Hwy 401 northerly to south of the Clair Rd. intersection and is currently scheduled to start on June 23, 2014 and be completed by August 22, 2014. The work generally consists of milling the existing pavement followed by echelon paving.

Traffic through the construction zone will be redirected to single lanes northbound and southbound at night to avoid generating long traffic queues during the day. This is a continuously progressing operation, where construction activities will be localized for a relatively short period of time and then progress onto the next section, so disturbance to local residents will be minimized. The noise generated from this project will be that associated with the operation of dump trucks, pavers, milling and rubber/steel rollers (including their backup warning devices). During this time MTO recommends the Brock Road interchange as an alternate route.

The following intersections along Highway 6 will be affected by this work: Hwy 401 interchange, Wellington Rd 34, Maltby Rd. W/Concession 4, and Clair Rd W./ Cooper Dr.

MTO will provide advance notification of construction through signage and advisories along with direct correspondence to emergency service providers that operate within and in proximity to the area, including fire, police and ambulance services.

Please accept this as a formal request for the Township to grant a Noise By-Law exemption within the project limits noted above.

Sincerely,

K.K

Karolina Krol, MSc, EIT West Region

c: Ron Meertens, Project Manager, MTO
Adele Mochrie, Environmental Planner, MTO
Jennifer Graham-Harkness, Manger Operations, MTO

August 29, 2013

Township Of Puslinch

7404 Wellington Rd., #34

Guelph, ON N1H 6H9

Re: Permission regarding Food Vendor

I am seeking permission from Puslinch Township Council to set up my food trailer on Township Property. My inquiry is to address being on site for Ball, Hockey and Soccer Tournaments or other outdoor events that are scheduled on weekends.

In consideration to the Township or Optimist events, I would not be on site unless asked by the person in charge of coordinating an event.

I ask your assistance in how to proceed with this process and a list of information the Township will require.

RECEIVED

AUG 3 n 2013

Township of Puslinch

Thanking you in advance.

Yours truly

Ken Roth

It's FRY-DAY!

CLERK'S DEPARTMENT
TO
Copy
Prease Handle
For Your Information
Council Agenda
File

Donna Tremblay

From:

Sean Galbraith <sgalbraith@proliferategroup.com>

Sent: To: September-11-13 10:45 PM Donna Tremblay; Dennis Lever

Subject:

C4328 - Rogers - Final Revised Location

Attachments:

C4328-Rogers_Final_Revised_Location.jpg

Hello Mayor Lever,

We are pleased to let you know that Rogers has gone back yet again to our landlord and that they have agreed to accept the proposed tower in the area behind the barns on the property.

This new location is shown on the attached aerial photograph. It provides a separation distance of 210m (3x tower height) from the southern and western frontages. This ensures that the public consultation already undertaken remains valid for purposes of municipal concurrence.

As this was one of the locations that was proposed by the Bennett's, we trust that this will resolve any outstanding concerns that Council has with the proposal, and that municipal concurrence can be provided at the next available Council meeting.

If you have any questions, please do not hesitate to ask.

All the best, Sean Galbraith, MCIP, RPP Municipal Affairs Manager

Proliferate Consulting Group, Inc. 21A Price Street, Toronto, ON M4W1Z1

Cell: (416) 732-5069 Fax: (416) 981-7248

