TOWNSHIP OF
PUSLINCH
EST. 1850

October 29, 2025 Public Information Meeting

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Addition to the Agenda Questions received from Council seeking additional information and the corresponding responses provided by staff regarding the October 29, 2025 Public Information Meeting agenda items.

Presentation does not address contamination of groundwater and associated issues ie.
-water not potable on site as per the Due Diligence Risk Assessment Report.
Staff notified the applicant to be prepared to discuss this aspect of the application.

Documentation does not address
-extent of contamination of groundwater with cobalt beyond property line
-short and long term effect on water quality on the property and downstream
-whether all the cobalt has leached from the soil and continue to contaminate the groundwater
Staff notified the applicant to be prepared to discuss this aspect of the application.

Due Diligence Risk Assessment – 7504 McLean Road, Puslinch, Ontario May 14, 2025
-p. 1420 please explain what this clause means "The RA is being conducted as part of due diligence and while the format generally follows that of a risk assessment conducted under Ontario Regulation 153/04 (O. Reg. 153/04) (as amended) that would be used to support a Record of Site Condition (RSC) the DDRA will not be submitted to the Ontario Ministry of the Environment, nor be used to support the filing of an RSC."
The fundamental distinction lies in regulatory oversight and legal liability. A regulatory RA for an RSC is a formal, ministry-approved process that culminates in legal indemnification for the property owner. It is governed by and must strictly follow the requirements of Ontario Regulation (O. Reg.) 153/04, including full, vertical, and horizontal delineation of impacts to soil and groundwater quality.

In contrast, a DDRA is a client-driven assessment intended for informational purposes during a business transaction and does not provide formal legal protection from regulatory liability. It can be scaled down to focus only on specific issues that are of concern to the parties. For example, does not have to include the full, vertical, and horizontal delineation of impacts to

groundwater quality. It also does not have to follow the sampling method, sampling frequency, administrative requirements or reporting format specified in O, Reg. 153/04.

-p.1446 re "The HHRA concluded that no unacceptable risks were present in association with soil. In the case of groundwater, the calculated HQ was above the MECP's target HQ of 0.2 for cobalt and as a result it was concluded that there may be unacceptable risks from the ingestion of potable groundwater. Therefore, measures need to be in place to reduce or eliminate exposure to groundwater via the ingestion of potable groundwater. As a result, there is the requirement to have a restriction on the installation of potable wells at the Site. With this risk management measure in place no unacceptable risks are present due to groundwater at the Site."

What is the extent of the plume of water beyond the property line with the high concentration of cobalt?

The off-site extent of the elevated cobalt concentrations in shallow groundwater has not been investigated and is unknow.

Is the plume likely to migrate and affect neighboring wells?

The available information is insufficient to determine if there is a plume or if the elevated concentrations of cobalt in the shallow groundwater are widespread, i.e., we do not know if the Site is the source, or the only source of cobalt in shallow groundwater, or if cobalt is naturally present in shallow groundwater at elevated concentration.

Based on the information summarized in the attached table, the domestic water wells in the vicinity of the Siet are deep, (between 25.9 m and 79.25 m, while the shallow groundwater investigated at the Site was reported to be between 2.1 and 6.5 m below ground surface (bgs). As such, there is no evidence that shallow groundwater is being used for potable/other domestic purposes.

Since the deeper groundwater was not investigated as part of the Site investigation, its quality is not known. Furthermore, it is not known if there is an interaction between the shallow and deep groundwater on or in the vicinity of the Site.

Trace April 30, 2025

-p548 what does the recommendation mean?

The investigations completed by the proponent indicated that the excess soil/fill brought to the Site does not meet the applicable **generic** ESQS, which requires that the soil is either removed from the Site, or it must be shown that the soil quality meets the **site-spec**ific soil quality standards derived using the BRAT or a RA. The proponent-completed DDRA, dated March 31, 2025, identified the potential risks and recommended risk management measures; however, it did not include the site-specific soil quality standards. As such, Trace recommended that the proponent updates the DDRA to include the site-specific standards. The re-submitted DDRA, dated May 14, 2025, includes these site-specific standards.

-report is silent on groundwater contamination

The elevated concentrations of cobalt reported in the on-site shallow groundwater exceeds the Ministry's generic standard which assumes that this groundwater is being used for potable purposes. As discussed above, there is no evidence to suggest that the shallow groundwater is being used as a source of potable groundwater on-site or in the vicinity (within 500 m) of the site (see the attached Table 6). As such, the elevated concentration of cobalt in shallow groundwater is not an environmental concern and does not affect the use of the Site or the surrounding properties. Also, the information provided in support of the application is not sufficient (and it was not intended) to conclude if the Site is the source of the elevated cobalt concentration reported by the applicant's consultants. Furthermore, the deeper groundwater, used as the source of potable water in the vicinity of the Site, has not been ivestigated and its quality is not known.

p. 922 A&A Report #8296 – BVD Puslinch HG – VER 2.0 July 25, 2025

-p. 1009 the report does not identify cobalt as an issue in the groundwater. Why are the cobalt concentration amounts significantly less than in their Report #8368 – March 6, 2024? Why are the types and levels of contaminants of concern different in both studies?

I have not seen the March 6, 2024, report, so I cannot comment on the specifics related to the cobalt concentrations reported in the two reports. However, usually, the significant, i.e., orders of magnitude, differences in metal concentrations are due to one or more of the following reasons (this is not necessarily a complete list) :

- Different sampling methods

- Insufficient well development and/or purging resulting in significant amount of sediment in the sample
- Analyzing groundwater samples for total metals vs. dissolved metals
- New source(s) of impacts
- Seasonal groundwater fluctuations
- Lab errors
- Cross contamination

My main concern is the effect on the ground water. While the proponents indicate that there will be no potable water sourced on the site because of the contamination, there should be an assessment made to determine to the extent water quality downstream has been affected and will be affected in the short and long term if the contaminated soil remains on site.
Staff received the following response from the Township's Hydrogeologist:
All the local businesses rely on groundwater for their water supply. The Scobie report suggests a restriction on the installation of potable wells at the site to eliminate the risk from groundwater consumption. This is due to the Hazard Quotient of Cobalt exceeding the recommended value of 0.2 It is also concluded that the fill material is the likely source of exceedances noted in soil and groundwater (Section 2, Scobie, 2025).

Our questions to be answered by the applicant are:

1) *The shallow groundwater is not generally targeted as a drinking water supply. The majority of local wells target either the bedrock Guelph Dolostone formation or the Gasport Formation. Should the restriction be that shallow dug wells are not recommended at the site or are all wells (even deep drilled wells) at risk?*
2) *Given that the area is also a Significant Groundwater Recharge Area, what are the risks associated with the transport of Cobalt to greater depths and being transported via subsurface pathways to other local wells?*

The site and the surrounding properties are expected to be serviced by the domestic wells. Therefore, the domestic wells need to be taken into consideration during construction to make sure they are not impacted by the development.

Table 6 – Water Wells on and within 0.5 km of the Proposed Development

Well No.	UTM Coordinate Zone 17T		Date Drilled	Total Depth	Water Level	Water Use
	Easting	Northing		(mbgs)	(mbgs)	
7291402	569850	4812531	2017	N/A	N/A	Not listed
7199708	569956	4812447	2012	N/A	N/A	Not listed
6709384	570809	4812624	1988	50.29	48.77	Commercial
6708700	570797	4812633	1986	40.54	39.62	Commercial
6703496	569944	4812433	1969	25.91	25.30	Domestic
6709478	570658	4812485	1988	56.69	38.10	Domestic
7214833	570123	4812596	2013	61.26	48.77	Domestic
7214832	570160	4812622	2013	60.96	60.96	Domestic
6715246	570450	4812869	2004	42.98	31.39	Domestic
6716008	570566	4812683	2006	74.37	74.37	Domestic
7341679	570718	4812446	2019	79.25	54.86	Domestic Commercial
6714198	570790	4812414	2002	48.77	48.16	Domestic Industrial
6710048	570834	4812414	1989	37.49	36.58	Industrial
6711872	570240	4812553	1995	73.15	67.06	Industrial
7046280	570583	4812680	2007	42.67	42.67	Industrial
7122497	569890	4812610	2008	7.62	N/A	Monitoring
7214719	570082	4813059	2013	3.96	N/A	Monitoring
7214720	570126	4813068	2013	3.96	N/A	Monitoring
7214721	570071	4813023	2013	3.96	N/A	Monitoring
7214722	570126	4813068	2013	5.79	N/A	Monitoring
7394717	569861	4812403	2021	10.67	6.40	Monitoring
7412599	570282	4812616	2022	15.24	12.80	Monitoring
7412600	570246	4812408	2022	16.76	15.24	Monitoring
7412601	570380	4812541	2022	16.76	N/A	Monitoring
7201847	569892	4812501	2013	21.95	N/A	Other
6707585	569874	4812423	1981	28.96	27.43	Livestock Domestic
7159585	570072	4812572	2011	8.84	N/A	Test hole