

Subject: Strada: Gasport Aquifer Actual vs Virtual Inferred Model 6 Water Level Results - Proposed Quarry Infiltration / Injection Areas.

From: Garry Hunter <ghunter@hunter-gis.com>

Date: 2024-09-23, 3:30 p.m.

To: Natalie Kotyck <nkotyck@gmail.com>, Carl Cosack <cosack@zing-net.ca>

Natalie,

We enclose two additional Figures for Strada to consider relative to the Proposed Quarry Infiltration / Injection Area locations.

Fig H.25 (updated from Peer Review H.2)

The Strada Grounwater modellers inferred zone of Hydraulic Conductivity (Fig 4:30 from Appendix E) is overlayed on this Peer Review previously prepared Fig H.2 utilizing Strada's 10 to 20 cm accuracy high quality downhole static water level database for Model Layer 6 plus OW19 C inserted from Model Layer 4 and other synthetic patches within monitor well data gaps. Contour interval is one meter.

Strada's inferred zone of virtual Higher Hydraulic Conductivity (underground Stream see prior Fig H.24.1) is off centre compared to Strada's real groundwater data on Fig H.25. Strada has no equivalent spatial analysis.

Fig H.2 also demonstrates that there are an insufficient number of monitors to define this underground stream.

Fig H.26

Fig H.26 consists of Strada's Fig 4.30 from Appendix D overlayed on Strada's Fig 3.5 Appendix E. Fig H.26 clearly demonstrates that Strada's 5 m groundwater static level contours are informed by the modellers virtual inferred zone of higher Hydraulic Conductivity and not by it's A/B high quality site downhole static water level data available for Model Layer 6.

Furthermore the real contours and static water levels at Monitors OW 25C and OW 24C (compare with Fig H.25) are 5 m below the virtual model contours.

Conclusions

As indicated early in the Matrix, the Virtual Model interpolations

are not appropriate for Site Plan development purposes. These inferred virtual model features may also be part of the reason for this Peer Review difference in conclusions with the Strada Scenario One Extraction Model with regard to location of the fundamental Northeastern versus Melancthon Pit No 1 centered eastern Groundwater Infiltration / Injection Facilities (prior Fig H.3).

The question still remains, despite frequent Matrix comments, why aren't the modellers using the site specific Model Layer high quality downhole static water level data collected by Strada at great expense? We have previously requested the Model input information for audit purposes but have been denied.

If the Modellers are working on improving their model at this time, NDACT in the spirit of this iterative Peer Review, may wish to expediently advise Strada of this communication.

Yours truly,

Garry T. Hunter M.A.Sc. P.Eng.
President

Hunter and Associates / Hunter GIS
2285 Dunwin Drive, Unit 18
Mississauga, ON L5L 3S3

Tel (905) 607-4120

Fax (905) 607-1132

Email ghunter@hunter-gis.com

Website <http://www.hunter-gis.com>

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Subject:Strada: Gasport Ground Water Level

Date:Mon, 23 Sep 2024 13:49:01 -0400

From:Rachel Li rlri@hunter-gis.com

To:'Garry Hunter' ghunter@hunter-gis.com

Hello Garry,

As requested, I attached the two PDF files showing two version of Gasport groundwater contours.

Thank you,

Rachel

— Attachments:	
Fig H.26 Average Baseline L6 Gasport Potentials (masl).pdf	4.7 MB
Fig H.25 Gasport Aquifer Ground Water Level Contours - 'D1' Monitors.pdf	3.0 MB