



**COLE**

NOVEMBER 2019

# MAKING USE OF THE ORM WEBSITE IN CONSULTING

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TEAM LEADER – ENVIRONMENTAL GEOSCIENCE



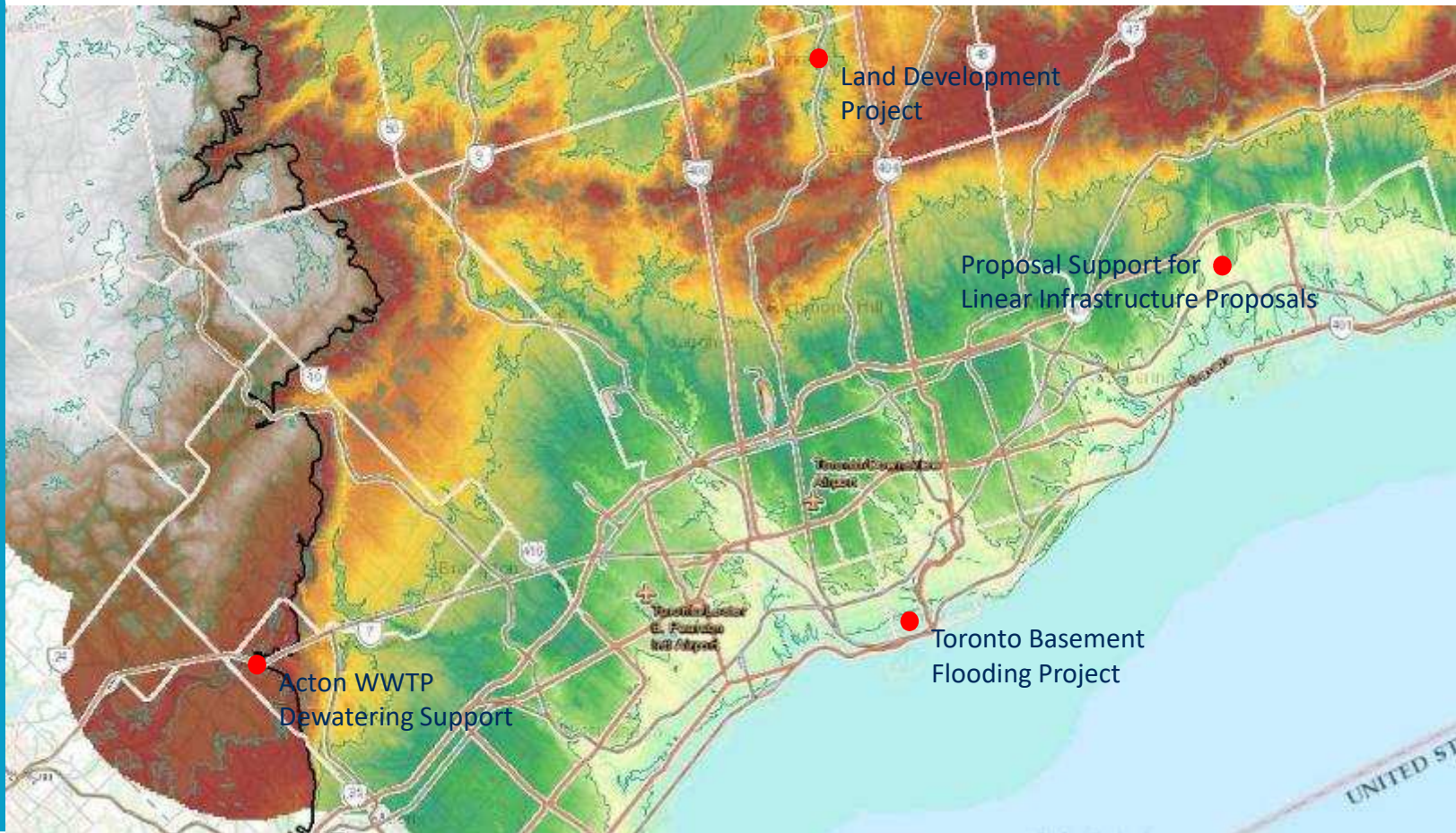
# OVERVIEW

1. PROJECT EXPERIENCE
2. AREAS OF IMPROVEMENT
3. CLOSING REMARKS





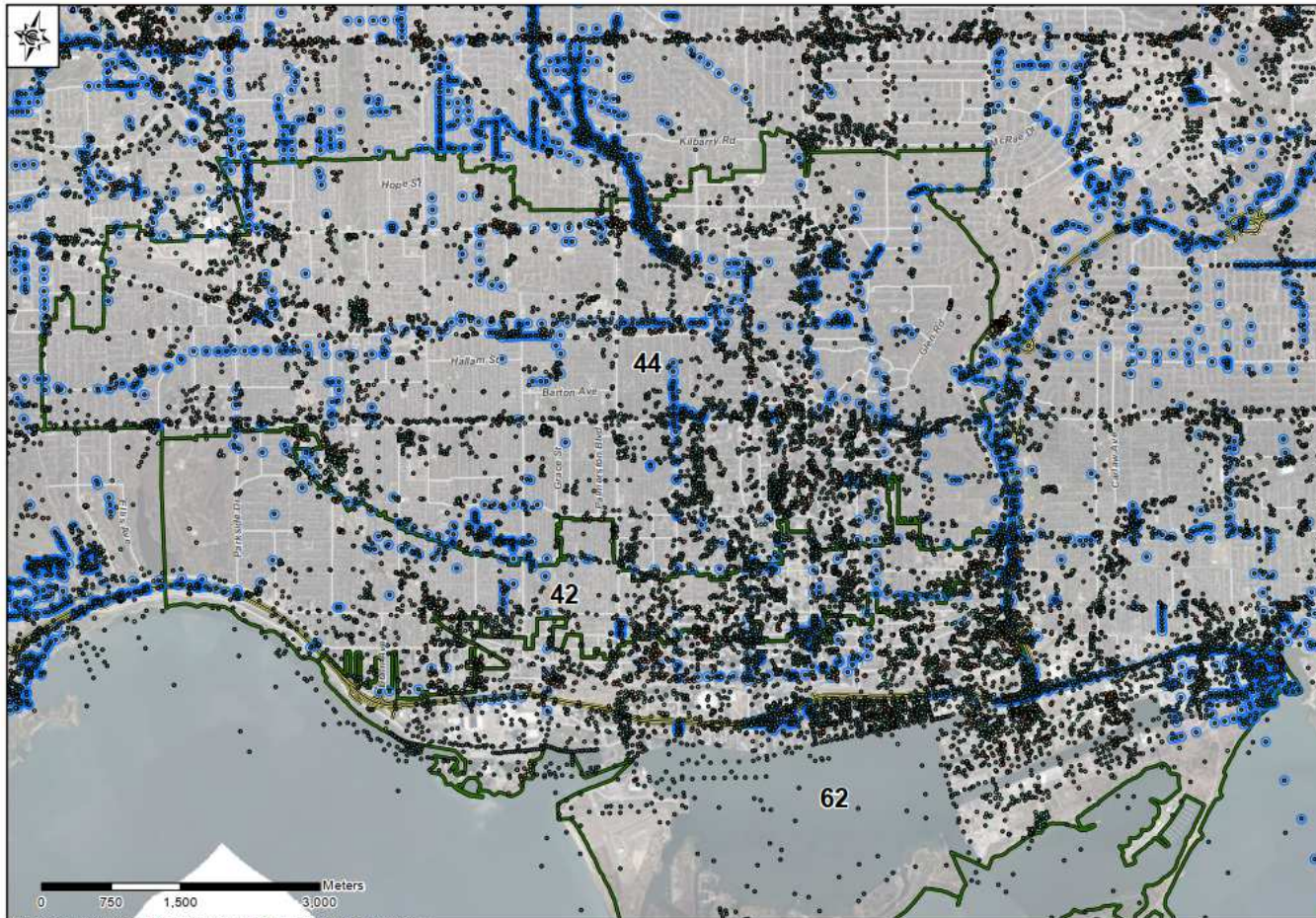
# PROJECT EXPERIENCE





# PROJECT EXPERIENCE

TORONTO BASEMENT FLOODING



Key Map

**Legend**

- City of Toronto Monitoring Well

**Well Primary Purpose**

- Unknown
- Oil and Gas
- Construction
- Government Mapping/Research
- Domestic
- Agricultural
- Commercial
- Dewatering
- Engineering
- Industrial
- Recreational
- Water Supply

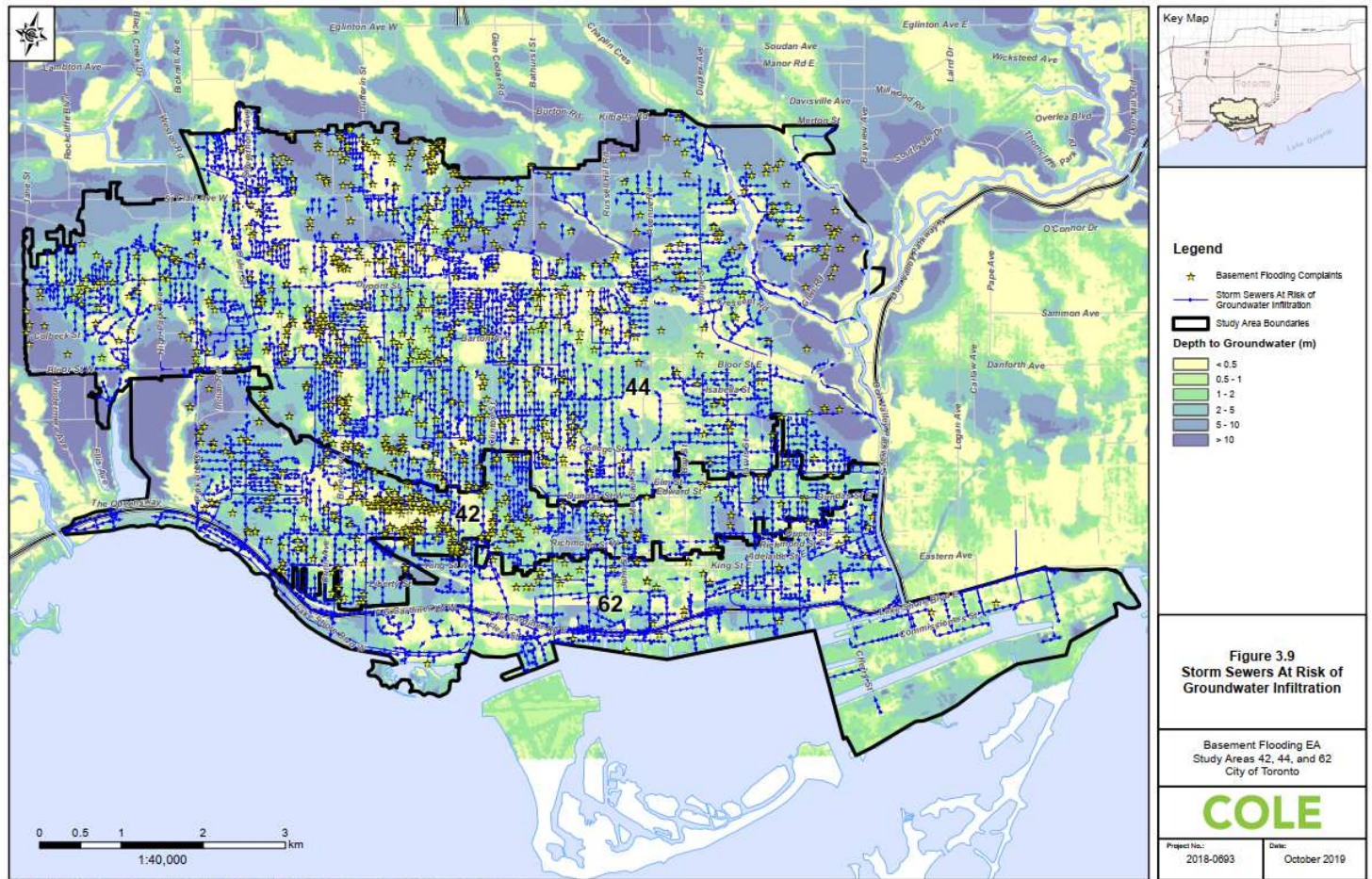
■ Study Area Boundary

Basement Flooding EA  
Study Areas 42, 44, and 62  
City of Toronto

Project No.: 2019-0693      Date: July 2019



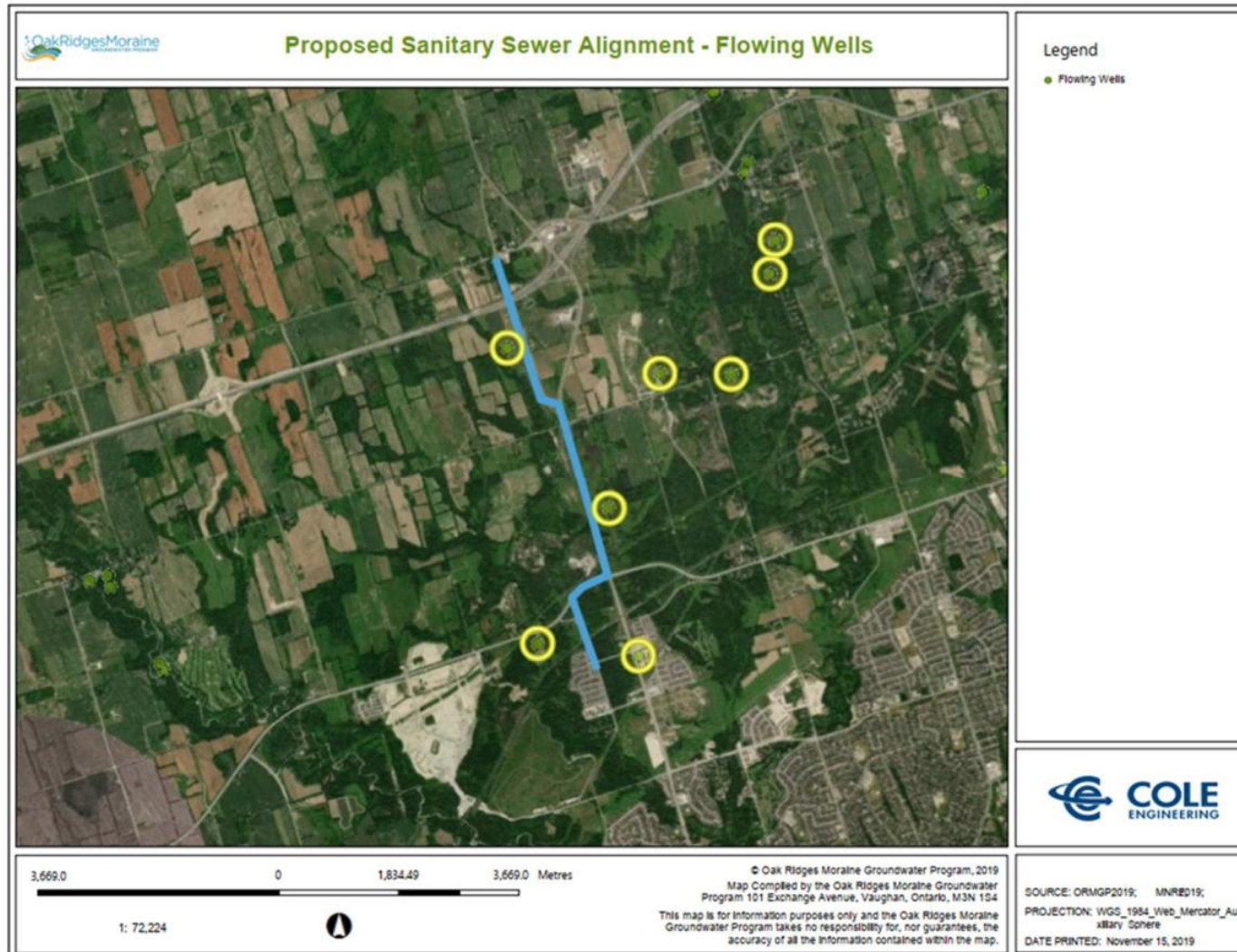
# PROJECT EXPERIENCE



LTS 10/16/2019 W:\A\F\Projects\Projects\180215-0693\000\_02\01\_11\11\Subsurface Assessment\Figure 3.9 - STM Sewers Below GWT Elevation.mxd



# PROJECT EXPERIENCE



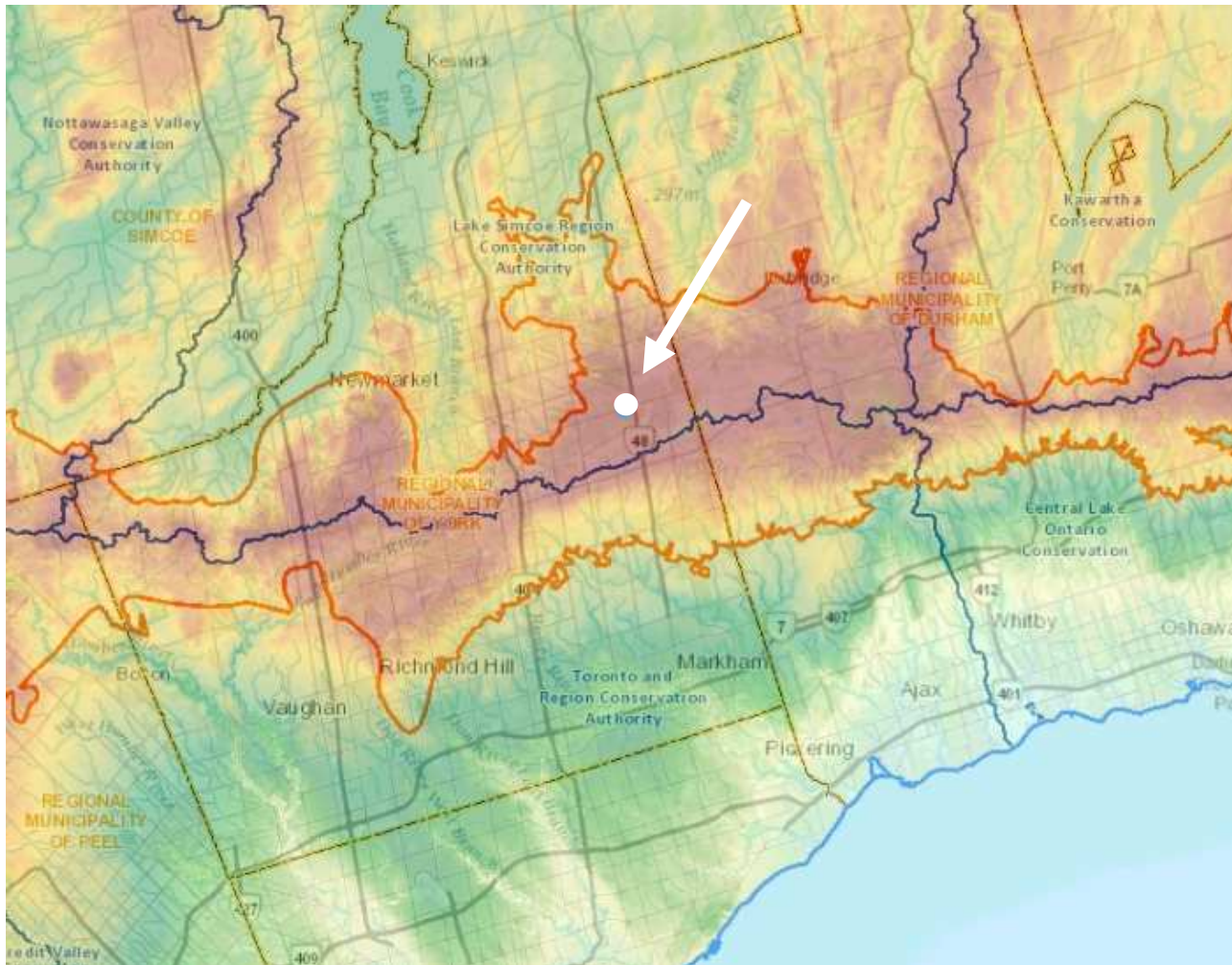


# PROJECT EXPERIENCE



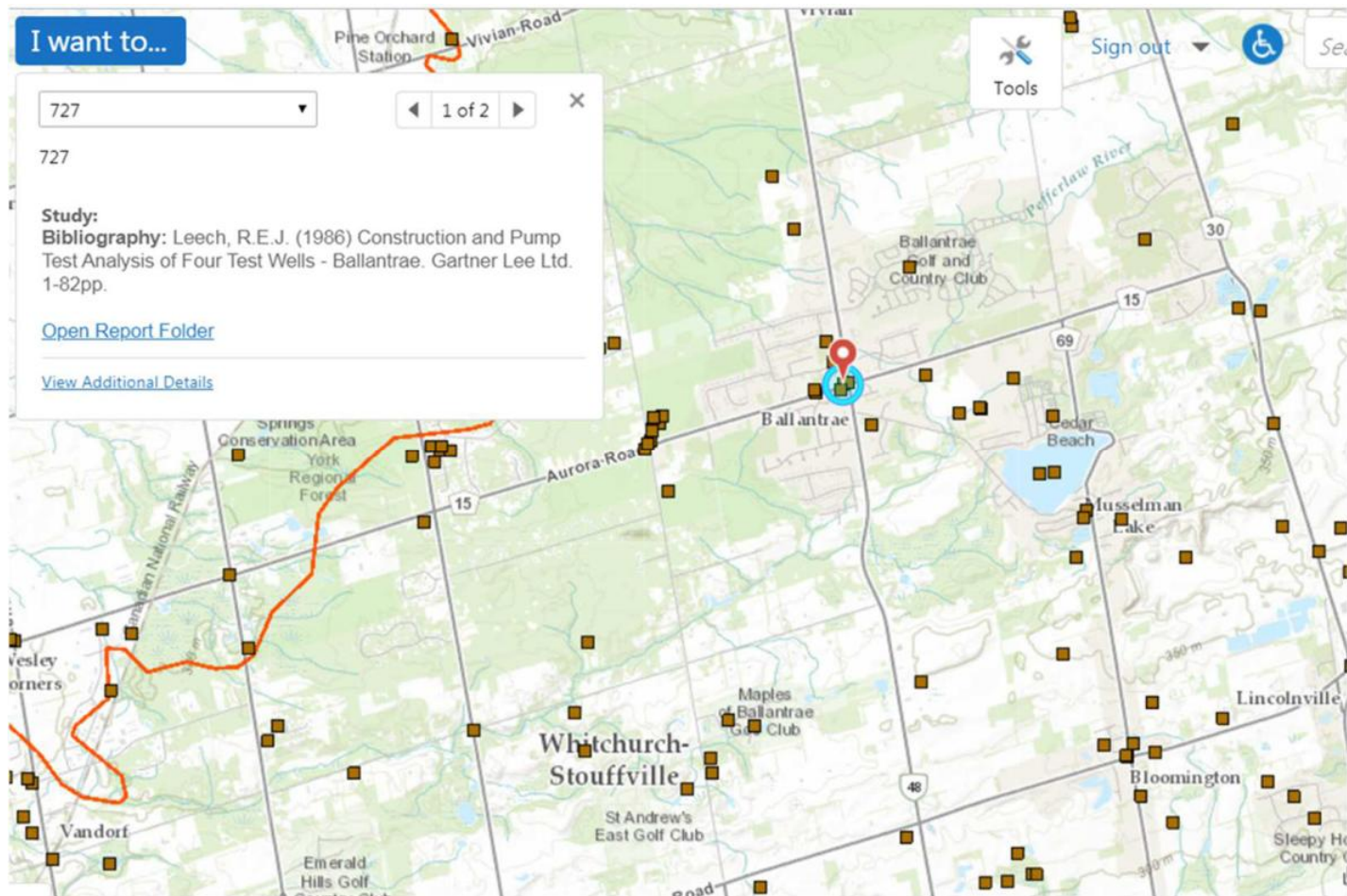


# PROJECT EXPERIENCE



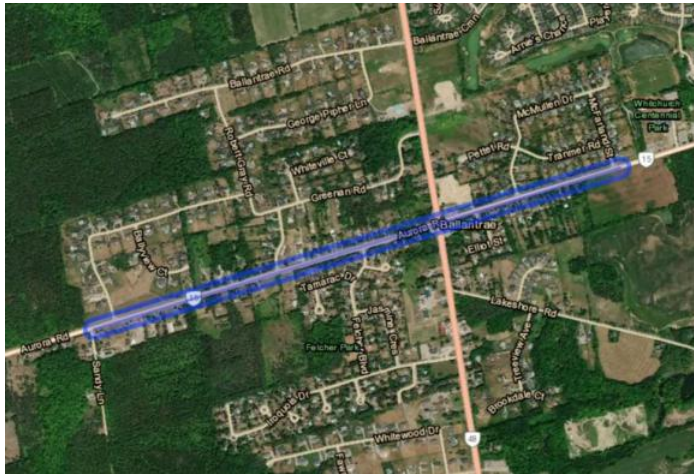


# PROJECT EXPERIENCE

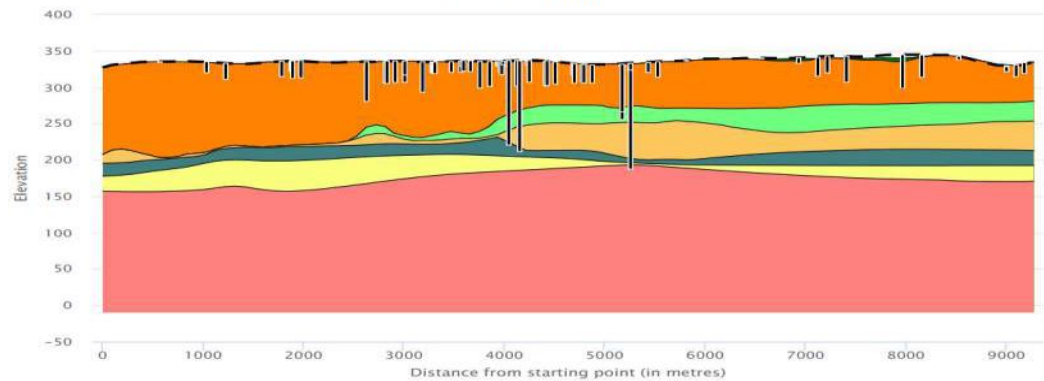




# PROJECT EXPERIENCE



Cross Section



- Halton Till (or equiv. upper till)
- Newmarket Till
- Sunnybrook Drift
- Top of Bedrock
- Wells
- Oak Ridges Moraine (or equiv. upper aquifer)
- Thorncliffe Fm.
- Scarborough Fm.
- Ground Surface



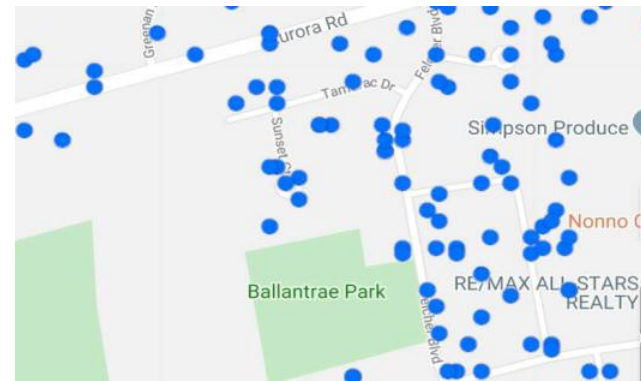
# PROJECT EXPERIENCE

LAND DEVELOPMENT STUDIES  
WATER WELL RECORD SEARCH



ORM Tool

VS



Ontario Well Record Tool



# PROJECT EXPERIENCE

Surface Water

**LOC ID:** -193196486

**NAME:** Eh5

**ALTERNATE NAME:**

**STUDY:** LSRCA - Spot Flow Survey

**EASTING:** 636641.63

**NORTHING:** 4876272.08

**STATUS:**

**SPOT FLOW READINGS:** 1

**SPOT FLOW (Start Date):** Jun 6, 2004 8:00 PM

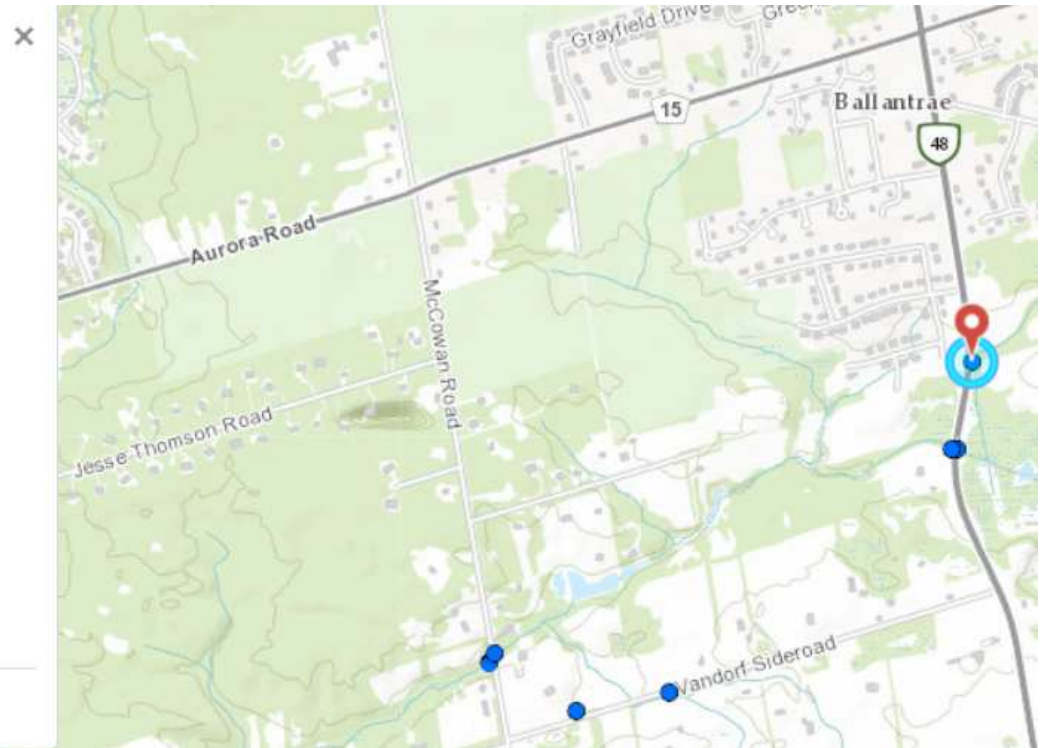
**SPOT FLOW (End Date):** Jun 6, 2004 8:00 PM

**AVERAGE MEASURED FLOW (m3/day):** 0

**MAX MEASURED FLOW (m3/day):** 0

**MIN MEASURED FLOW (m3/day):** 0

[View Additional Details](#)



Surface Water - Spot Flow



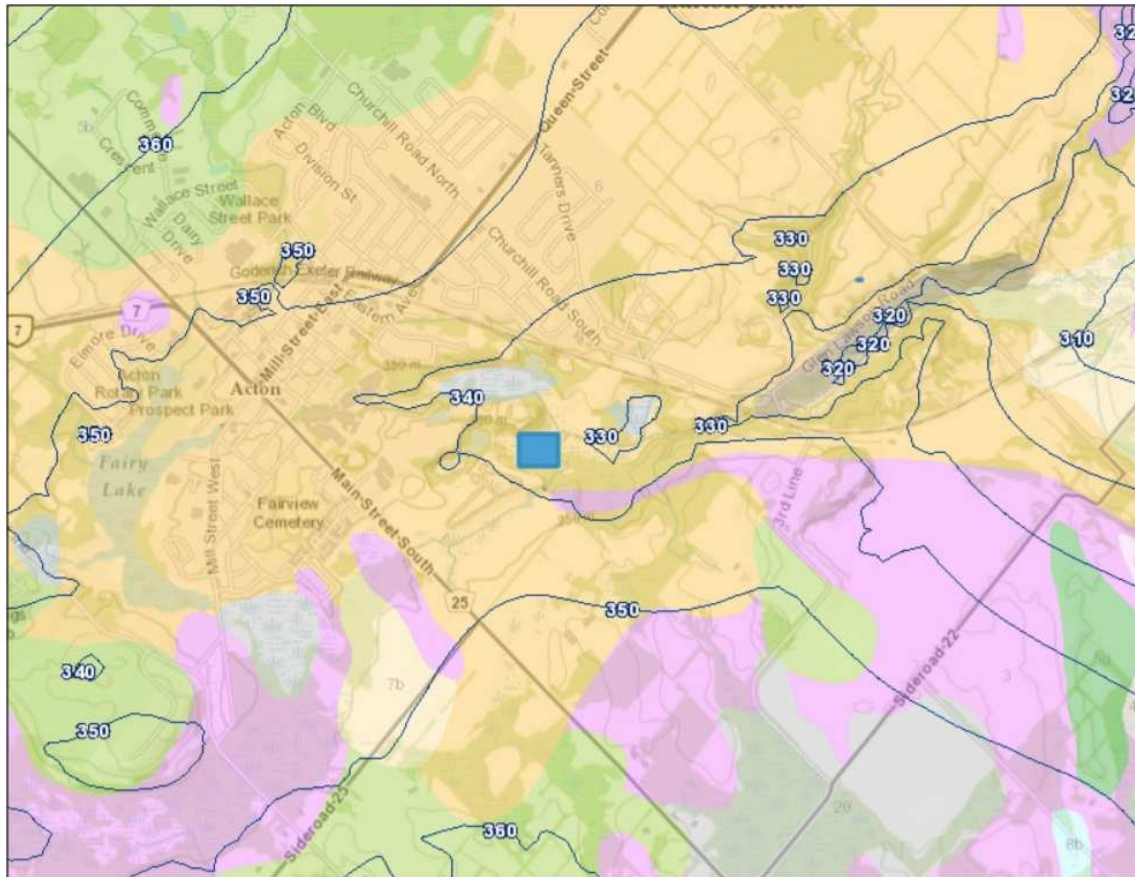
## PROJECT EXPERIENCE



- Active dewatering related to construction – 11 dewatering wells
- Planning to stop dewatering



# PROJECT EXPERIENCE



- Water table and surficial geology maps

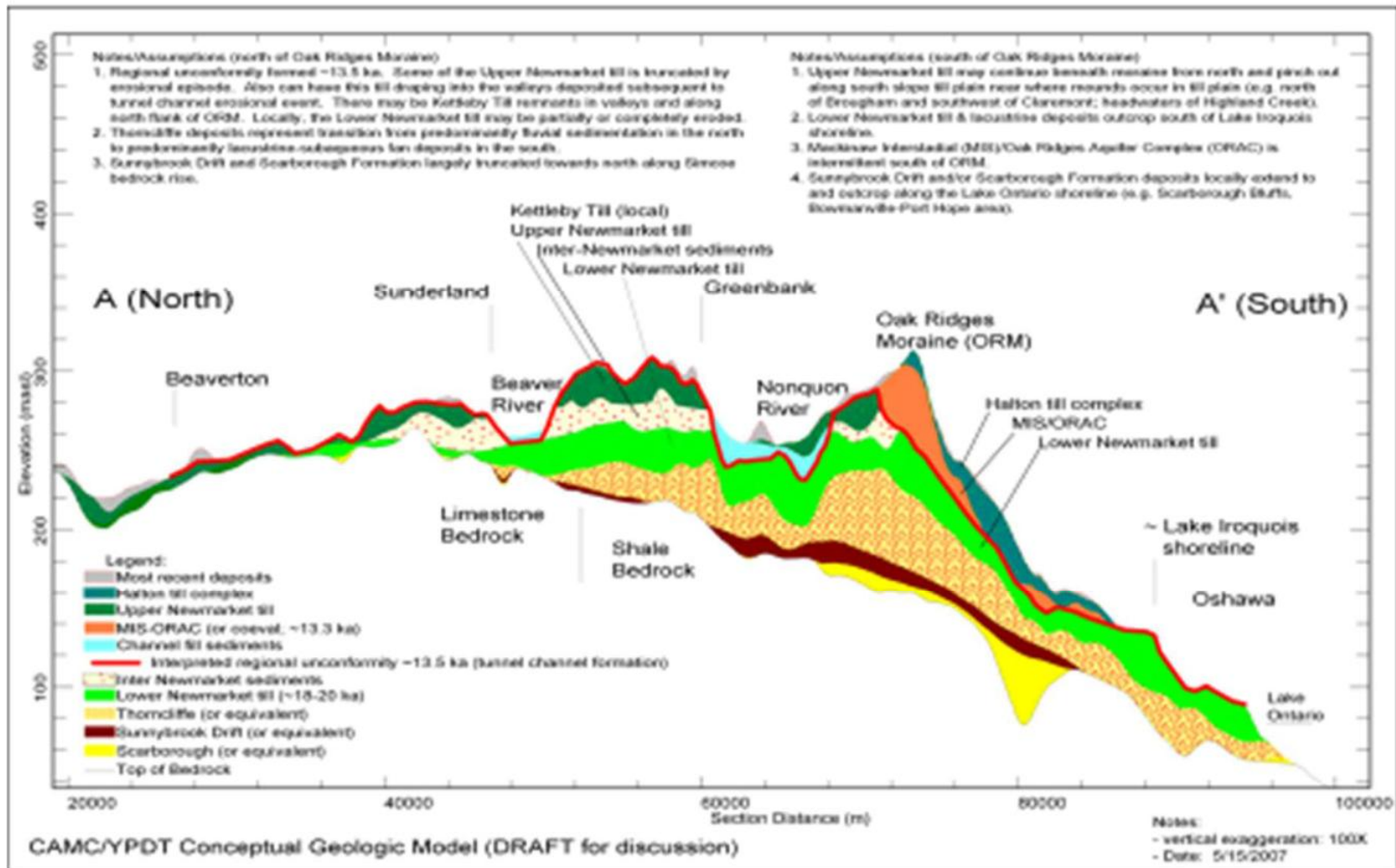


# AREAS FOR IMPROVEMENT





# REGIONAL EXTENT OF HYDROSTRATIGRAPHIC LAYERS

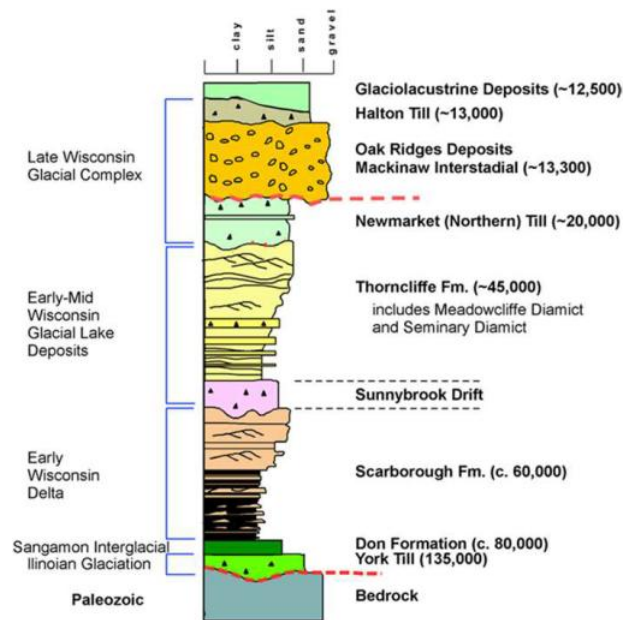




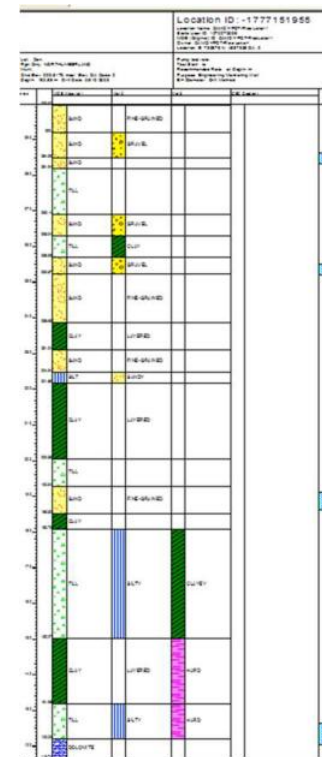


# EXAMPLE – RICE LAKE AREA DEEP BOREHOLE

## Scarborough Bluffs




## Centreton





# EXAMPLE – AREAS ABOVE THE ESCARPMENT

  
Ontario  
Division of Mines

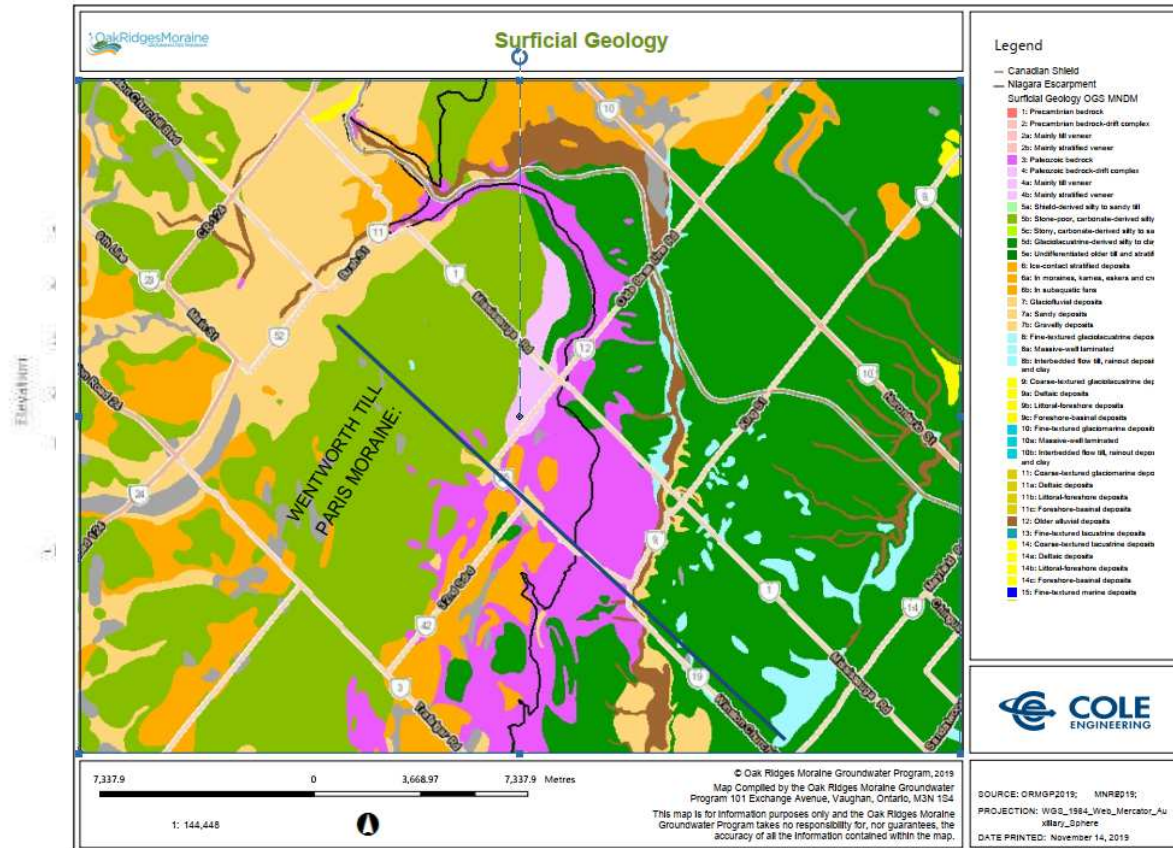
HONOURABLE LEO BERNIER, Minister of Natural Resources  
Dr. J. K. REYNOLDS, Deputy Minister of Natural Resources  
C. A. Jovan, Executive Director, Division of Mines E. G. Pyle, Director, Geological Branch

Quaternary Geology  
of the  
Orangeville Area  
Southern Ontario

By  
W. R. Cowan

Geoscience Report 141

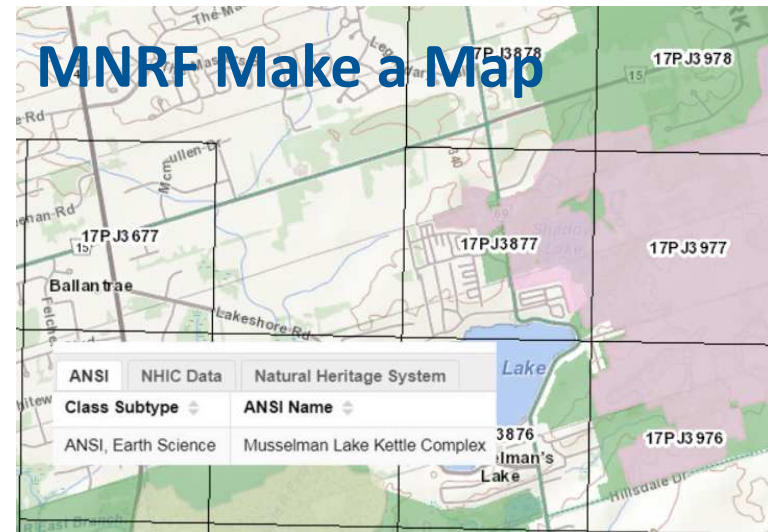
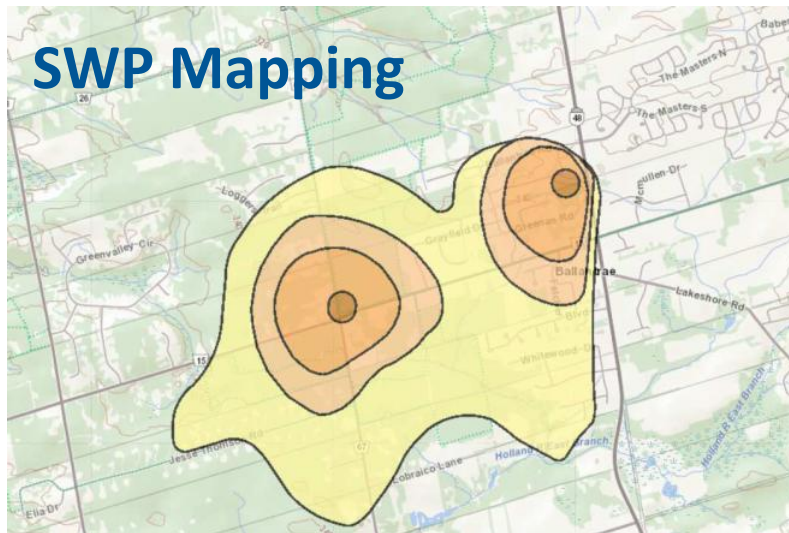
TORONTO  
1976





# ADDITIONAL DATA SOURCES

Not quite a one-stop shop...



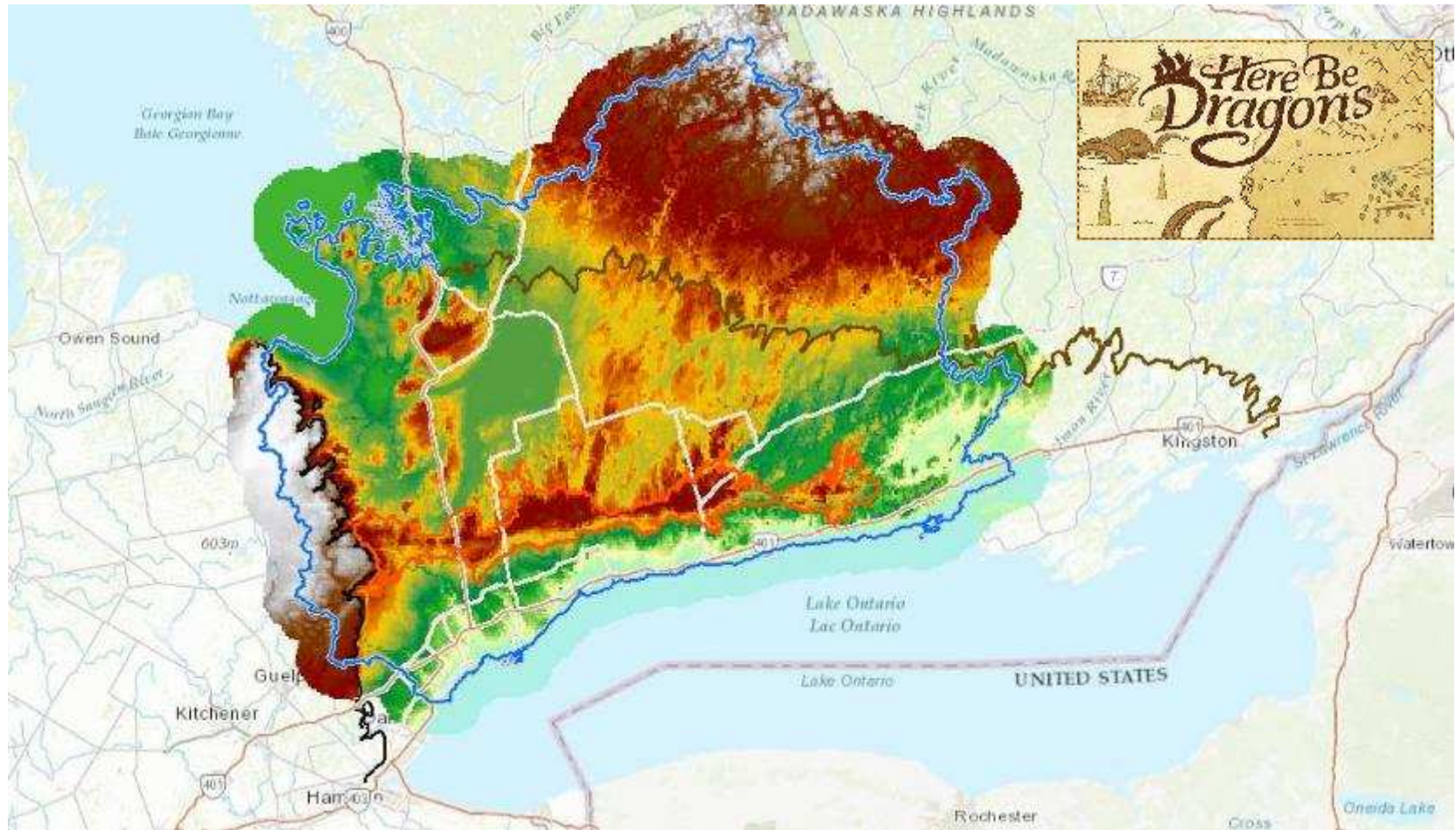
- OGSEarth, thermal mapping etc.

*And also....*

- Vertical exaggeration functionality for the cross-section tool



# JURISDICTION





# TRAINING / MANUALS



- Many tool, a lot of functionalities
- A lot to learn
- Training videos, training manual – available

SPECIALTY TOOLS AND ANALYSIS

NAVIGATION AND LOCATION

MARKUP

TASKS

FEEDBACK AND HELP



Feature Request



Error Reporting

Feedback



Users Manual



Tutorial Videos



Reference

Help



## CLOSING REMARKS

- Invaluable tool with a wide range of applications on most projects
- Helps with proposal preparation, project planning, project execution and reporting
- Important to understand the limitations of the model layers
- A “one stop shop” for geoscience data would be helpful
- Could this tool be expanded geographically?
- Online training is available and helpful

