Meeting Minutes

FUTURE CALEDON

ARCWG Sub-meeting: HPMARA Mapping Methodology

Location:	Caledon Town Hall, Mayfield-Palgrave Room 6311 Old Church Rd, Caledon East, ON
Date:	March 18, 2024
Time:	1:00pm – 2:30pm

In Attendance

Marsha Paley (MP), Laura Handley (LH), Jeff Hignett (JH), Peter LeBaron (PL), David Sylvester (DS), Robert Cormier (RC), Aylise Cooke (AC), Neil Morris (NM), Learie Miller (LM), Abigail Burt (AB), Joe Nethery (JN), Xavier Costa (XC), Cheryl Connors (CC), Councillor Christina Early (CE), Ian Sinclair (IS)

Regrets
Ryan Mason (RM), Steven Burke (SB), Mark Dorfman (MD), Glenn Pothier (GP), Jane Thompson (JT), Martin Bamford (MB), Mayor Annette Groves (AG), Councillor Lynn Kiernan (LK)

Agenda Items

Laura Handley (1:30PM)

Intro and Presentation
- PL – a facilitator between municipal planners and MMAH
    - No regulatory authority over aggregates
    - "Science-based organization"
- LH – geologist with Provincial OGS
    - Field testing involved in mapping these area
    - Provides historical review of aggregate resource mapping in Ontario
    - ARIP Mapping Methodology—case study presented
    - ARIP aim is to identify areas of potential resources
    - Aim is to assist decision makers in ensuring these resources are sustained
    - Fieldwork ground truthing methods
        - Examination of granular material

- Visit pits in the study area
- Hand auguring
- Detailed synopsis of how aggregate quality is evaluated
  - Limitations of natural aggregates
    - Percent gravel or sand
    - Fines – excessive fine material – limit potential use
    - Oversize material – must be crushed or removed
    - Lithology – i.e., chert, siltstone…
  - Deposits are classified into 3 levels, primary, secondary, tertiary
    - Deposit thickness
    - % gravel content
    - Tonnage estimate
    - Aggregate quality
    - Aerial extent
    - Level of significance
  - Sand and gravel tonnage calculation
    - Tonnage = area*avg. thickness*density factor
    - Only estimates used to guide land use planning
    - Not calculated for secondary or tertiary sites
- Bedrock Resources Map
  - Paleozoic bedrock resources only
  - Examination of bedrock material
  - Visit quarries in the study area
  - Hand auguring
  - Outcrops
  - Collect bulk samples for analysis
- Drift thickness map
- Same tonnage calculation
- Longer haul routes often permitted due to value of bedrock
- ARIP Methodology Report
- Case Study: Peel Region bedrock resources map updated
  - 2009 – original peel region ARIP
  - 2015 update
- OGS does not deal with land use authority, only the science of the rocks and mapping

Questions and Comments
- CC: how often does this happen in the province and how often is data updated
  - LH: We get industry data on the Precambrian side. Newer system for aggregates.
  - LH: OGS staff have to verify the dataset depending on the data that comes in. (Process explanation provided.)
- CC: In the ARIP mapping, does it include the entire province?
  - Provincial coverage is available to view through the mapping available (mapping is not complete across Ontario at this time)
- CC: What point in this process do social and spatial considerations happen?
  - LH: Only speak to the science of aggregates, constraint mapping is local

- IS: Water wells, how do you filter the accuracy of them
  - LH: We refine it based on location—refine the dataset
- IS: Ground water elevation—Do you look at groundwater levels in terms of bedrock extraction? Where does dewatering factor into this work? It really matters where the water elevation lies.
  - LH: Outside of our scope. Infrastructure location does factor into mapping.
- IS: ARIP, do you still map all 3 categories?
  - LH: We do identify and quantify all but emphasize work is on primary resources

- DS: watershed—are you suggesting that you do consider the credit when doing this mapping?
    - LH: Cultural setbacks, any waterway or infrastructure we use setbacks – factored into ARIP. A spreadsheet will be sent to DS with measurements of setbacks
    - PL: basically, an inventory, mineral aggregate protection uses the words long term use: As a science-based group, we want the most complete inventory possible even if there are any constraints nearby

Marsha Paley (2:00PM)

Intro and Presentation
- Marsha Paley—has presented information on mapping methodology previously
    - Potential mineral aggregate area is based on 1996 ARIP
    - Constraints applied are in the hands of the Town of Caledon to refine further
    - 2009 and 2015 ARIP information:
        - Did not make any significant changes to the sand and gravel
    - Took that information and added/deleted areas
    - The Peel Region mapping is as science based and evidence based as can be
    - Is in Town hands for further refinements, which must be supportable

Questions and Comments
- CC: Is there a specific list that outlines why areas have been added or removed?
    - MP: Written mapping methodology was a document that was provided at the beginning of the process
    - "Financial feasibility" a consideration. Site removed if determined not feasible. Some fragments remained
    - Review of the mapping methodology was written
    - Will send Joe the items mentioned above (mapping, reasoning, presentation)
- IS: What extent is protection needed? What does protection for the long-term mean? Committee needs to get into this deeply.
    - Fragments:
        - Original CPPs had directed it was a land use designation AND be rezoned – heavy handed
        - Caledon Committee needs to consider Brampton Ester, NW Brampton (Queenston shale)
- CC: Would like to see the specific reason of the addition and removal of areas in the mapping

- List of Issues Identified
    - JN:
        1. **Laura's mine constraints (slide)**
        2. **Constraint mapping is local, if there are questions in there that need to be answered**
        3. **What does protection long-term mean? - CC**
        4. **Economy and practicality of mining bedrock - IS**
        5. **Methodology to complete**
    - CC: Happy to confirm that it's the responsibility of Caledon to look at the constraints within the mapping – a constraints mapping window
    - IS: Accepts the work of the scientists, but more concerned with the political economy of it and the oppression of the landscape
    - DS: Methodology to complete
        - Preliminary mapping work to be finalized
        - What is the methodology of this?