Meeting Minutes

ARCWG Sub-Meeting: Land Use Compatibility

Location:	Caledon Town Hall, Mayfield-Palgrave Room 6311 Old Church Rd, Caledon East, ON
Date:	April 16, 2024
Time:	4:30pm – 6:00pm

In Attendance

Neil Morris (NM), Cheryl Connors (CC), Joe Nethery (JN), Xavier Costa (XC), Marsha Paley (MP), Jane Thompson (JT), David Sylvester (DS)

Guests: Harvey Watson (HW), Alexandra Service (AS)

Regrets
Martin Bamford (MB), Mayor Annette Groves (AG), Steven Burke (SB), Jeff Hignett (JH), Councillor Christina Early (CE), Councillor Lynn Kiernan (LK), Ian Sinclair (IS)

Agenda Items

Meeting Commencement (4:30 p.m.) (4:30PM)

Introductions

- HW land use compatibility engineer working on the Bolton Secondary Plan project for the Town
  - Background: Chemical Eng. at Waterloo
  - Consulting in env. Air Quality and Noise since 2003
  - Completed Over 200 assessments
  - Peer reviewed over 300 assessments
- AS - Town project manager who is developing a Town-wide air monitoring study alongside Ministry of the Environment, Conservation and Parks staff

Harvey's Presentation (4:40 p.m.)

- JT: is this for noise?
- HW: yes, but air is harder to define in terms of sensitive receptors, but still somewhat applies
    - *Categorization (Ministry of Environment: D-Series' Industrial Categorization Criteria)*
        - For each item, decide the most appropriate Class based on the description in each column
        - Count # in each class
        - Decide class to assign
    - *Buffers*
        - Class (1, 2, 3), minimum (m), influence (m)
        - Aggregate pit usually is class 2 or 3
        - If sensitive receptors found within the minimum buffer, a study must be prepared if the facility emits the contaminant (aggregate operation would be required to prepare dust and noise studies. May need vibration study for blasting)
- HW: If there is a sensitive receptor within the minimum and you emit the contaminant, you must do the req. studies
    - CC: I've never seen an application where no studies are required. They all say "can be mitigated". I want to explore that.
    - HW: Designed to be one sided. The area of influence, whoever is doing the study decides whether it will be a problem or not. The person doing the assessment determines if there is enough emission of contaminant based on the minimum
    - *Noise Assessment – NPC-300*
        - 60db was WHO aligned in 1980sc
        - Provincial guidance on how to assess noise in the province
        - Every industry must meet these guidelines regardless of whether D-6 was done and or shows need for noise study
        - Assessment looks at worst-case 1-hour impact for daytime, evening, and nighttime, if appropriate
- CC: what protects people most?
    - HW: Class 3 has lowest exposure limits ("rural"). Next a highway would be different, but, these are average figures.
    - HW: If you can document the noise level normally there is above class x, then the industry only has to go down to that level. Next to a 400 series highway, that wouldn't be a class 3 area.
    - Depending on the existing noise levels of the background is, industry has to meet those
    - Road traffic assessment in terms of noise and other assessments are conducted to determine background noise
    - Someone opening a business would meat about 45-50db. Along Dundas in Mississauga, it would be more like 56db because of higher tolerance.
    - An aggregate file is typically found in a class 3 area.
- CC: the single most horrible thing about living next to a pit was the backup beepers
    - HW: It's an emergency/safety device. Studies show they are annoying (as a "frequency" it's worse).
    - Alternatives include broadband signals, strobe lights, and site designs that avoid or eliminate reverse movements (backing up)
    - Some companies have shifted to strobe lights
    - Metrolinx is enforcing that designs minimize backing up as much as possible
    - Backup beeper noises are extremely intrusive, I agree
    - CC: no interest by the industry to make this better, need Town's help
- HW: (returning to slides) NPC-300 is how you evaluate noise if you are in one of those two zones
    - You could get one loud noise that lasts 10 seconds, but it's averaged over the hour
    - A couple interesting things that can happen with noise

    - HW: Working with a town, the pit was operating for multiple decades and now being filled, so noise has returned
- CC: Fill is not an aggregate use and should not be used under the license
    - Fill operation only conducted after license has been surrendered
- HW continues slides:
    - *Air Quality Assessment – O.Reg. 419/05*
        - A provincial regulation on how to assess air quality in the province
        - Every industry must meet these guidelines regardless of whether D-6 was done and or shows need for noise study
        - Assessment must meet criteria at property line for everything except dust and odour
        - Odour not normally an issue for aggregate pits
    - Dust becomes an issue to Ministry with dust fall, PM2.5 is when you get health effects
    - Ministry of env. conservation, and parks only regulates total dust
    - Dust created at an aggregate pit, vast majority is large
        - Proponent must agree to dust management practice
        - We will make sure the dust does not leave our property and if it does we'll do something about it

Questions and Comments

- JT: monitoring—how is it done? can you monitor for PM2.5?
    - HW: it is possible, that equipment exists.
- NM: are there any requirements for monitoring PM2.5?
    - HW: No
- HW: Currently have 6 pieces of monitoring equipment out at Metrolinx right now
    - Capable of resolving ± micrograms per m^3
- JT: Is that real time or average? Under 10µg means it can't leave the property?
    - HW: not the rules, only fine particulate regulation in Ontario is in Oakville
    - HW: vast majority of aggregate dust is big
- CC: one only sees big, can't see small. Can't see silicate either. No real-time air monitoring happening. CC: gravel watch monitor found ample <2.5
    - HW: The meter will give us answers multiple times per minute
    - Metrolinx requires every 15min; Province only requires every 24hrs
- JT: can we have a by-law about monitoring?
    - HW: Oakville—there's no step 2, only study requirement, nothing further
- CC: we should be using purple air monitor system
    - HW: purple air monitors are low-cost, not without challenges
    - MECP mobile unit is six-figures; a fixed unit is likely $100,000
- AS: Town is completing an air monitoring student with in-kind support from MECP
    - Addressing request for continuous real-time monitoring particularly regarding aggregate operations
    - Initiated out of an AMO delegation 2022 requesting a comprehensive AQ study
    - AS to share station images and info with JN
    - We are measuring
        - MP 2.5
        - Black carbon
        - Nitrogen oxide (NO_x, NO_2, NO)
    - MECP is providing one of their air pointers, Town acquired an additional unit
    - Two stations, one on Charleston fire station and Town Hall (which move to Bolton in a few months)
    - 5-minute intervals for data collection to facilitate continuous data collection
    - Not a point source study
    - Installed in December
- DS: what's the intention or purpose?

    - AS: Looking at ambient air quality in specific areas regarding truck traffic
    - DS: what's the cost of this study?
    - AS: the Town has put forward $100,000, Region has supplied $100,000, plus in-kind support from MECP
- JT: we want to get ahead of this, we want to find out what's happening now and what a new application will add
    - HW: that's a really tough thing to do because there's so many variables, you would have to spend a long time collecting data
- DS: question of measuring ambient air quality in a given location: why would it be so difficult to monitor in spring months in an area with aggregate operations?
    - HW: that's less difficult
    - If you have one monitor at point A and another at point B, but the wind is travelling at x speed in x direction, and you would have to time shift your readings by x
- AS: results expected 2024
- **Webpage for Caledon Air Quality Study**
  https://www.caledon.ca/en/living-here/air-quality-monitoring.aspx
- NM: requirement for robust peer review
- JT: peer review is often very narrow so you can get at all these problems, but still agree it's critical

Policy Considerations

- Aggregate Advisory Committee
- How to develop policies around impacts on human health?
- Real-time monitoring—noise and air quality
    - Is the air quality different from when there is and isn't activity at an aggregate operation
- What areas can the town provide technological leadership?
- Are there alternative on-site safety treatments? Specifically backup beepers
- How can exceedances be recognized and reflected on an accurate basis in policy
- What would a PM 2.5 by-law look like and contain?
- Commercial filling only being allowed on site where the license is surrendered or transferred to public ownership
- Proponent funded peer review—funding requirement and mechanism for original work as part of an assessment
- EA style AQ assessment as an application
    - Truck traffic not in O. Reg 4191
    - Factors in exceedances