CASA Meeting – November 25, 2019

- Approximately seventeen people attended the meeting including representatives from the Ministry of the Environment, Conservation and Parks (MECP), Sarnia-Lambton Environmental Association (SLEA), industry, Aamjiwnaang First Nation, Lambton Public Health, the City of Sarnia, and the Wallaceburg Advisory Team for a Cleaner Habitat (WATCH).
- The ministry presented an update about the CASA website and improvements to the monitoring network. Specific topics in the presentation included:
    - CASA website analytics
    - CASA user feedback
    - Improvements to the Sarnia Air Monitoring Network
    - Temporary air monitors (Air Pointer 1 and 2) relocation
    - Other additions to the CASA website
    - Property line monitoring on the CASA website
    - Suggestions for other CASA website improvements

Questions and Discussion:

1. What is the purpose and process for identifying new locations in Sarnia area for air quality monitoring?
    - Generally, it is preferred for CASA air monitoring stations to be in residential or community areas to understand population exposure
    - New monitoring locations are identified to fill gaps in the network and also to be locations that are anticipated to have more elevated levels in order to better understand the areas of greatest risk to populations
    - New monitoring locations are selected with the objectives of CASA in mind but are not necessarily presented to the CASA group for consensus (in part due to difficulties finding appropriate locations).

2. How is meteorological data collected by the Air Pointers? What is the minimum wind speed threshold?
    - The Air Pointers determine wind speed and direction by producing and measuring the speed of ultrasonic signals. This is a different technology than the anemometers used at other stations in the network. It has a low minimum wind speed threshold (approximately 0.3 - 0.5 m/s, exact value to be confirmed).
    - The Air Pointers measure the wind conditions at a height of about 2 m, which is lower than the preferred height of 10 m. As a result, the wind

data may be more influenced by local terrain features, depending on where the Air Pointer is located.
    - When reviewing data from the Air Pointer, the wind data is typically compared to other met data measurements in the area to understand how local terrain may be impacting the results.
    - When wind speeds are low, the wind directions tend to fluctuate and the measured wind direction may be less reliable.

3. Will the temporary air monitoring data be posted on the CASA website? What will be the format? Will it be posted in real-time?
    - The ministry is planning to post the hourly data from the temporary air monitoring stations on the CASA website in excel and pdf formats.
    - Currently the plan is to post data from these stations on a roughly quarterly basis.
    - In the future the ministry would like to also have the concentrations from these stations available in near real-time on the CASA website. There may be additional technical challenges in making the benzene data available in near real-time.

4. What are the technical challenges in making the benzene data available in near real-time?
    - Benzene is measured in the Air Pointer by a small gas chomatograph. Some of the parts in the instrument slowly degrade over time resulting in a decreasing signal in detecting benzene (drift). This downward drift in the benzene signal is tracked through nightly internal checks and confirmed through manual calibrations. The data is reviewed and adjusted based on the amount of drift observed through the internal nightly checks alongside the manual calibrations.
    - The benzene measurements from the Air Pointer are reliable after this data review and correction process, but as a result it can be difficult to appropriately interpret in real-time.

5. Going forward how often should the CASA group meet?
    - In the future, SLEA and the ministry will plan to set up 3 or 4 CASA group meetings per year.

6. Would the CASA group like to receive updates on the Sarnia-Lambton Environmental Health study?

- There was a general interest in the study and agreement to share updates at future CASA meetings (we will invite contacts leading the Sarnia Area Environmental Health Project to attend).