

Fort Air Partnership Relocates Lamont County Air Monitoring Station to the Town of Lamont

Fort Air Partnership (FAP) is relocating its current Lamont County continuous air monitoring station into the Town of Lamont in late October or early November 2022. The decision follows a one-year-long monitoring project in the Town that collected data from a portable air monitoring station between August 2021 and August 2022.

The data analysis showed that substance measurements between the two sites are comparable. The new Town location will also better enable FAP to meet its monitoring objectives and will provide air quality information for the Town of Lamont, which was the largest population centre in the FAP Airshed with no continuous monitoring station. The new site is also nearer to the eastern border of the Airshed and better situated to provide information on air quality, leaving the Airshed when winds blow in from the western quadrants.

"Moving the Lamont continuous air monitoring station into the Town helps us better meet a key monitoring objective for FAP, which is to conduct air monitoring where people live," said Nadine Blaney, FAP's Executive Director. "The new location also improves overall regional air monitoring in the Airshed."

The new station will monitor and collect data for the same parameters as the previous Lamont County station: sulphur dioxide, nitric oxide, nitrogen dioxide, oxides of nitrogen, hydrogen sulphide, total hydrocarbons, non-methane hydrocarbons, methane, ozone, and particulate matter, plus weather information. It will also continue to provide the data required to calculate a daily Air Quality Health Index (AQHI) and forecast.

The current Lamont County station is located approximately six kilometres west of the Town of Lamont on a farmland site. The site was originally selected in 2003 in response to modelling results indicating that this area of the Airshed may experience higher measurements of sulphur dioxide (SO₂). However, the Lamont County data assessment showed no exceedances of the SO₂ Alberta Ambient Air Quality Objectives (AAAQOs) since the station was established in 2003. The highest one-hour average measured in 20 years was approximately 40% of the AAAQO.

The Provincial Government, as a member of the Fort Air Partnership, approved the relocation.

"On behalf of FAP, I would like to thank the Town of Lamont for their support in securing a permanent site for the station," Blaney said. "And many thanks as well to the landowner of the Lamont County site for accommodating a monitoring station on your property for the last 19 years."

The forecasted and daily Air Quality Health Index for the Fort Air Partnership Airshed can be found at <u>fortair.org</u>. The website also has a live data feed for a variety of substances that FAP measures, as well as weekly, quarterly and annual AQHI results.

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(See detailed results of the one-year-long monitoring project comparing the two sites below.)

Comparison Results between Lamont County Station and portable station situated in the Town of Lamont – August 2021 to August 2022

A comparison of the monthly averages from both sites shows that measurements are comparable between the two sites:

- Fine particulate matter (PM_{2.5}) varied by an average of 0.1 ug/m³ between the two sites, with an equal distribution of higher and lower measurements at each site.
- Nitrogen dioxide (NO2) was an average of 1.2 ppb higher in the Town of Lamont compared to the more rural Lamont County site.
- Sulphur dioxide (SO₂) in the Town of Lamont was, on average, 0.23 ppb lower than the Lamont County site, as the modelling in 2002 suggested.
- Hydrogen sulphide (H₂S) varied by an average of 0.01 ppb between the two sites, with most months recording minimally higher measurements at the Town of Lamont site.
- Total hydrocarbons (THC) varied by an average of 0.01 ppm between the two sites, with most months either being equal or the Town of Lamont site recording minimally higher measurements.