CommunityAIR - working towards a clean, green waterfront

October 15, 2013

Dr. David McKeown
Toronto Medical Officer of Health

By email: publichealth@toronto.ca

Re: BBTCA Health Impact Assessment Air Modelling Study

Dear Dr. McKeown:

It is with dismay that CommunityAIR learned last week at Public Health's Health Impact Assessment (HIA) Workshop that the HIA, in conjunction with the city's Billy Bishop Toronto Centre Airport Review (Review), has elected to forego an empirical study for the sake of expediency.

Public Health's consultants, Golder Associates Ltd. in its air quality study has eschewed air monitoring in favour of air modelling in order to advise on the health risks facing those living, attending school or daycare or playing in the vicinity of the airport.

It is CommunityAIR's position that an air modelling study has the potential to short change those affected by the by-products of the combustion of leaded and unleaded aviation fuel around the nearby airport. A study that includes air monitoring, the capture and analysis of samples, would eliminate any potential oversight.

On June 17, the City's Waterfront Secretariat first public consultation at city hall heard from a deputant who voiced her concern about the black oily substance that covered her boat and sails after only a few days in the dock. She moored at a club by the airport. Her concern was not isolated. Informal observations are numerous. Neighbourhood residents reported noticing a black greasy substance on the outside of their windows when Porter first started flying, then inside the windows as the airport ramped up activity. The black oily substance has yet to be analysed.

In 2003, the Toronto Port Authority's consultants RWDI conducted an air quality study (copy attached). RWDI used air modelling, not monitoring. The computer air-modelling

program RWDI did not have the capability to measure particulate matter. Neither was lead accounted for. No air samples were taken for this study.

In October 23, 2006, Porter Airlines started service with 20 daily landings and take-offs[1]. On November 1, 2010, Porter was up to 124 daily landings and take-offs (Spreadsheet Attached). In November 2010, RWDI did a second air quality study (copy attached) again using air modelling. The study was to ascertain the effect on air quality from 2010 to 2016 based on a greater increase in activity at the airport.

The study estimated but did not measure particulate matter or lead. As the report says, "…aircraft emissions of particulate matter are currently not available in the Emission and Dispersion Modeling System (EDMS) Page 2, and concluded that expected activity at BBTCA will not result in adverse effects in local air quality overall. No air samples were taken for this study.

In 2003, RWDI's air modelling did not foresee air quality deterioration from increased airport activity. Ditto for 2010. Yet, visitors and residents report oily black deposits around where they work and play. Is there a disconnect between what the air modelling studies conclude and what airport neighbours report?

In 2011, Golder Associates produced a report, *An All Sources Cumulative Air Quality Impact Study of South Riverdale – Leslieville – Beaches*[1]. Golder used a modelling system to investigate air pollution issues in the stated areas, electing to use databases and computer programs to project what was in the air people were breathing.

Nevertheless, in their report Golder cited monitoring stations as the benchmark. Benchmark or not, Golder will not be using air-monitoring stations for the Board of Health BBTCA study. Instead, Golder will be using receptor points in a computer program, receptor points which extrapolate findings based on assumption.

Interestingly, Golder, in a caveat about monitoring, notes that local monitoring in the study area may not identify issues in the study area unless the air monitoring stations are immediately adjacent to sources coming from that area.

Isn't that the point of the study, to learn what's in the air around the airport from taking samples and analyzing them? Instead, Golder plans on using computer models and if the Riverdale study is anything to go by, the results are sure to raise questions.

Golder's Riverdale study, Section 8.3 Potential Modelling Improvements, points out shortcomings. Included is the observation, Para 3, that the U.S. data was from 2002 or nine years old. How can this possibly compare to real time data from monitoring samples?

The Riverdale study also notes in Section 8.2.1 Findings points out,

> "The model **over- predicted** Nox levels and **underpredicted** PM2.5 levels." *Emphasis added.*

With modelling that uses stale data and over-predicts and under-predicts, how much confidence can residents of and visitors to the island airport neighbourhood have in the results in Golder's upcoming study?

CommunityAIR urges Public Health to give those living, attending school or daycare or playing in the vicinity of the airport the assurances they deserve about the air they're breathing.

Please don't settle for estimates and predictions based on estimates and predictions courtesy of a computer program. Please insist that Golder Associates Ltd. take and analyse air samples from the airport neighbourhood to establish actual, not virtual, benchmarks and let the airport's neighbours know what's in the air they're breathing and especially if its components exceed provincial air quality standards.

Yours truly,

Chair, CommunityAIR

Copied to

sgower@toronto.ca

mcampe2@toronto.ca

boh@toronto.ca

[1] https://www.flyporter.com/About/News-Release-Details?id=f78293a4-c010-4dbb-ad08-f8cceab2553e&culture=en-CA