Seminar Series 2014 - 2015

Southern Ontario Centre for Atmospheric Aerosol Research
University of Toronto

Why and How we Model Air Quality at the City of Toronto

Christopher Morgan Program Manager

Atmospheric Environment, Environment & Energy Division, City of Toronto



Christopher Morgan will present the case for why Toronto models rather than monitors the City's air quality (AQ), will introduce how that modeling has been undertaken and how it has changed for the better over the past 17 years, as well as identifying what benefits have accrued from the approach employed. He will also explore the challenges surrounding higher public confidence in AQ monitoring and the corollary lack of public confidence in AQ modelling, and the need to undertake both, each to support the other; forthcoming issues of personal, mobile AQ monitors and AQ apps and possible AQ model linkages; and the importance of further development and expression of cumulative health risk assessments (re: carcinogens, toxics and CACs) based on AQ modelled assessments.

Among the more notable results of the City's AQ modelling are the predicted concentration levels of vehicle emissions along highway corridors and in dense downtown urban canyon areas. For remedial actions or for advocacies to be accepted and successfully addressed requires greater confidence in our input traffic data (by location, volume, type and speed etc) which is central to our modeling. We are in the process of improving our field data acquisition but we will also need supporting AQ monitoring that specifically addresses the variability of concentrations with distance from road center lines and verifies or disproves our model results.

March 4, 2015, 3 – 4 PM
Wallberg Building, 200 College Street, Room 407





we study the air you breathe