

been significant decreases in annual ambient values from 1971 to 1974 and again in 1980 (from 1975 to 1979, there was no significant decrease in annual values of suspended particulate matter).

The Ontario Ministry of the Environment Annual Reports on Ambient Air Quality in Windsor, Ontario show a high correlation between elevated concentrations of suspended particulate matter and winds from the direction of Wayne County, Michigan. It would appear, therefore, that local and mesoscale transboundary flow of suspended particulate matter occurs from Wayne County to Windsor; 90% of the emissions of particulate matter in that area come from the Wayne County area.

Alkaline particulate material introduced into the atmosphere from wind blown dust and fugitive dust from industrial or mining activities may neutralize acidic particles and may modify the chemical conversion processes even on the local to mesoscale. There is evidence, for example, of emissions of alkaline dust from cement plants in the vicinity of Syracuse, New York raising the pH of precipitation sampled in their vicinity.

10.1.6 Fluorides

There has been documented evidence of the transport of fluorides emitted by aluminum smelters located near Massena, New York into the neighbouring area of Cornwall Island, Ontario.

10.2 Survey of Local and Mesoscale Models

The Regional Modeling Subgroup Report (2F-M) includes a detailed