



Annual Report 2003/2004

Presentation to Planning & Development Committee

Brian McCarry, CAH Chair

January 18, 2005

Clean Air Hamilton

- Initiated as implementation committee to act on recommendations in 1997 HAQI Reports.
- Community Initiative directed at:
 - Researching Air Quality & Health Issues
 - Examining Policies that Affect Air Quality
 - Encouraging Emission Reductions Strategies
 - Educating the Public
- Stakeholders include:
 - MOE, Envir. Can., Dofasco, Stelco, Green Venture, McMaster, Citizens, City Staff

Clean Air Hamilton

- City provides financial support
- Leverage expert volunteer support
- Leverage funding from other sources
- Programs include:
 - Upwind/Downwind Conference
 - Tree Planting
 - Commuter Challenge
 - Hamilton Air Monitoring Network
 - Visioning Exercise

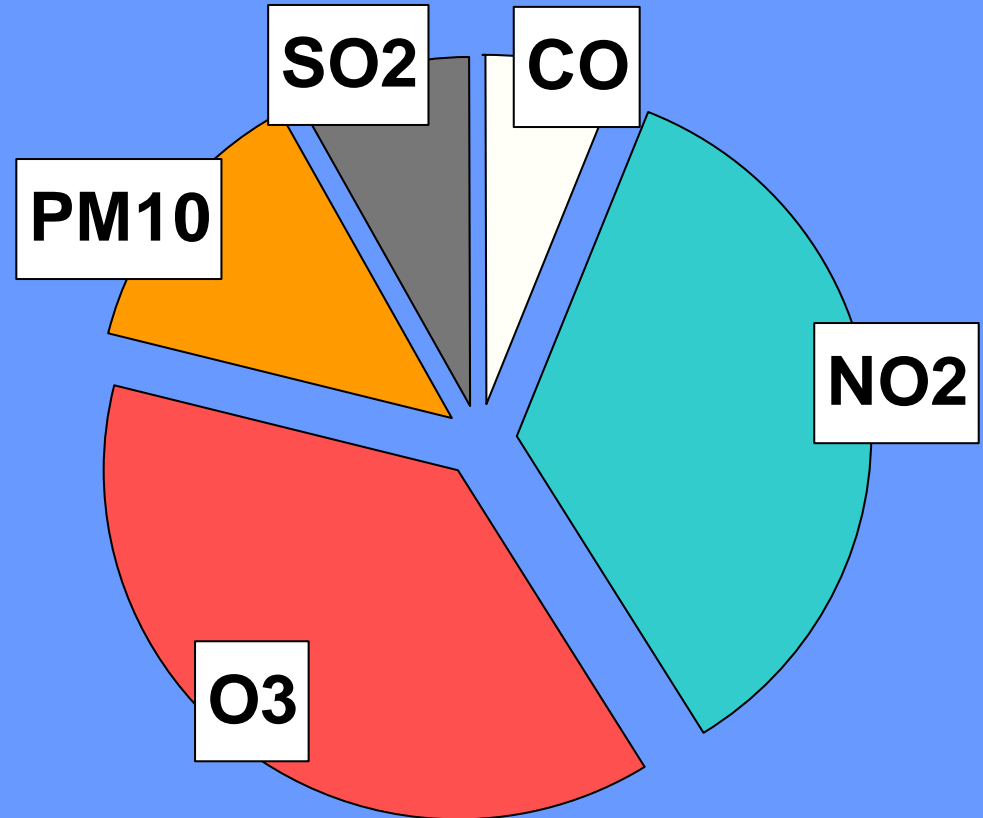
Clean Air Hamilton Report

- Visioning Exercise Outcomes
- Report on Upwind/Downwind Conference
- 10-Year Trends in Air Quality Data
- Comparisons to Data from other Ontario Cities
- Emissions Inventory for the City
- Plans for the Future

Hamilton Air Quality Health Assessment, 2002

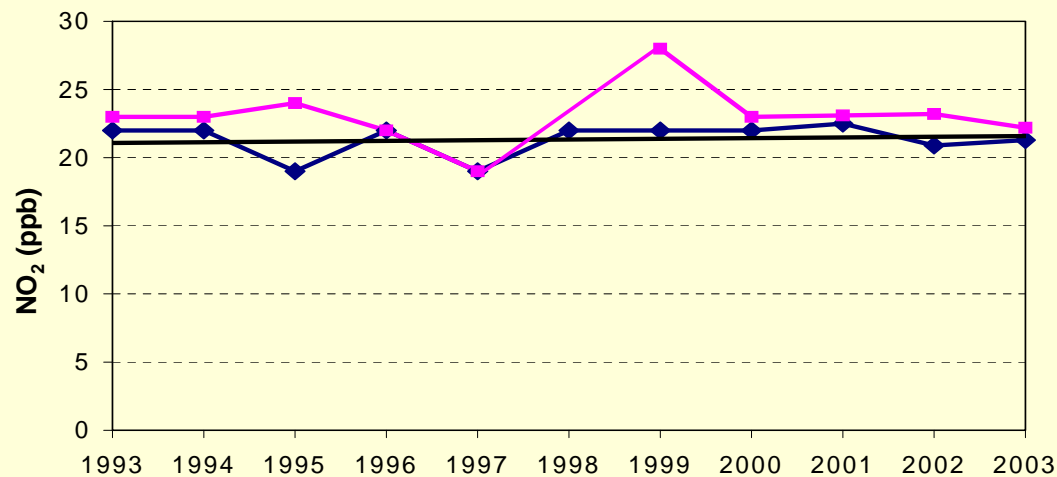
5 Key Air Pollutants have the following health effects outcomes in Hamilton each year:

- 100 premature deaths
- 620 respiratory & cardiovascular hospital admissions



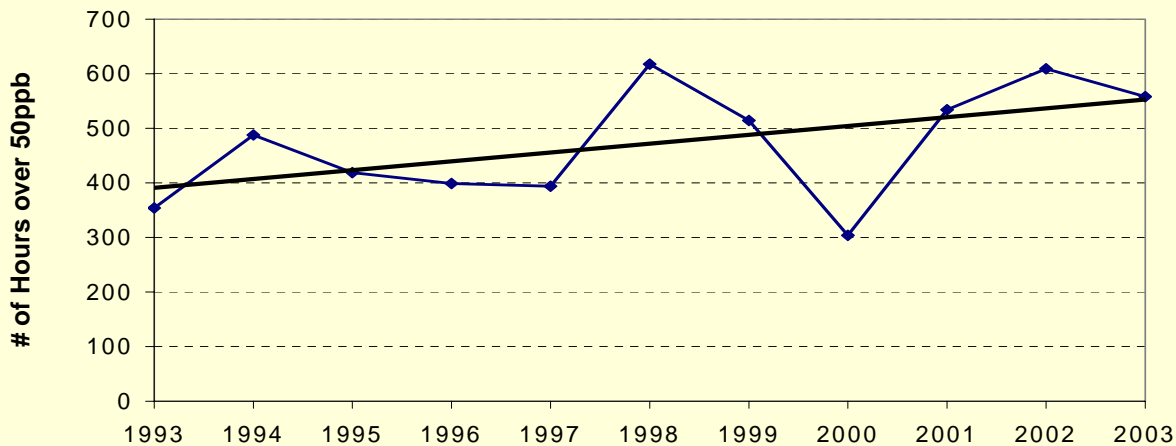
10-Year Air Quality Trends- Ozone and NO₂

Annual Average Nitrogen Dioxide (NO₂)



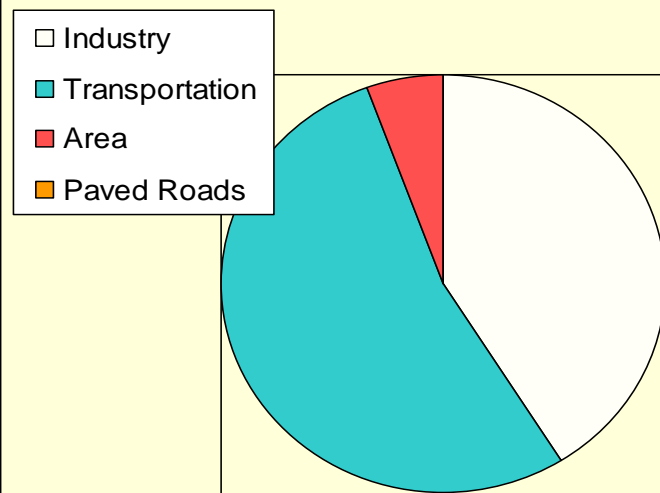
◆ Average Population Exposure ■ Industrial Impact Zone
— Trendline (Average Population Exposure)

Number of Hours Ozone over 50 ppb



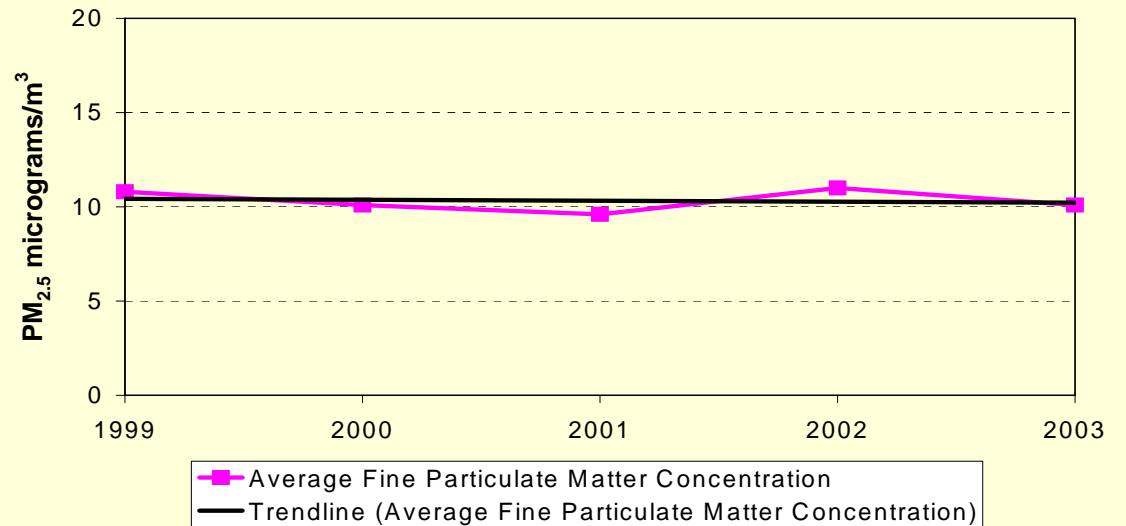
◆ Average Number of Criteria Exceedances
— Trendline (Average Number of Criteria Exceedances)

NO₂ Emissions by Sector

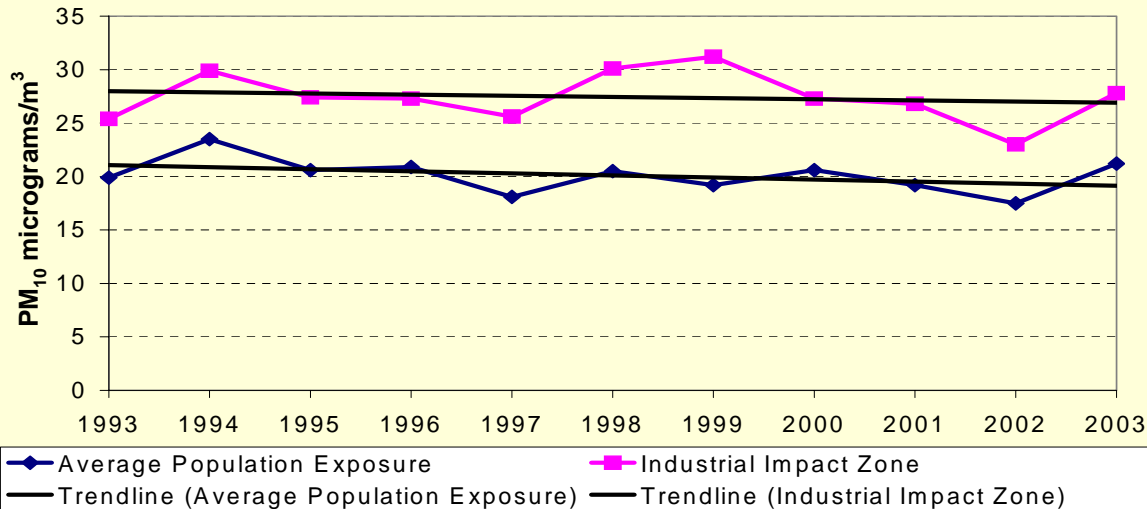


10-Year Air Quality Trends- Particulate Material

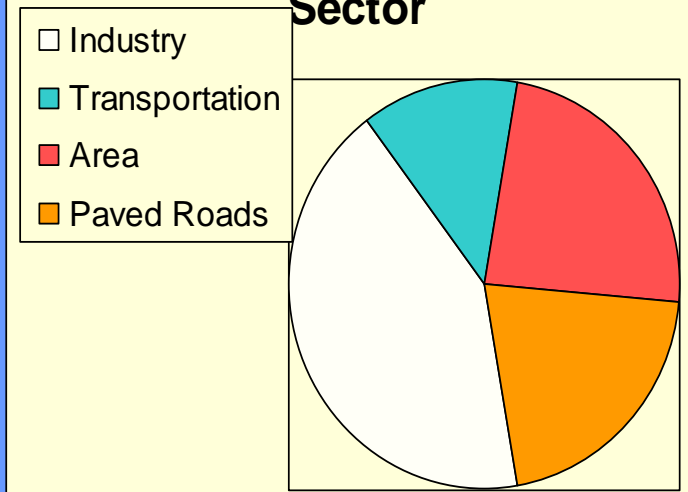
Annual Average Respirable Particulate Matter (PM_{2.5})



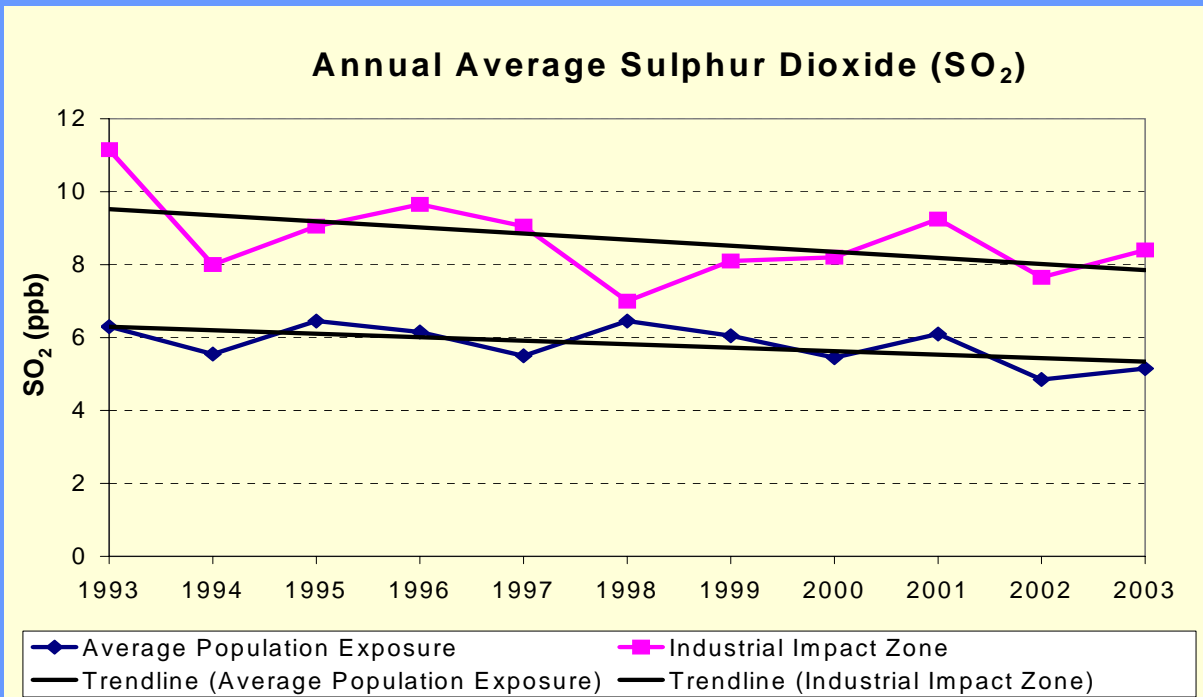
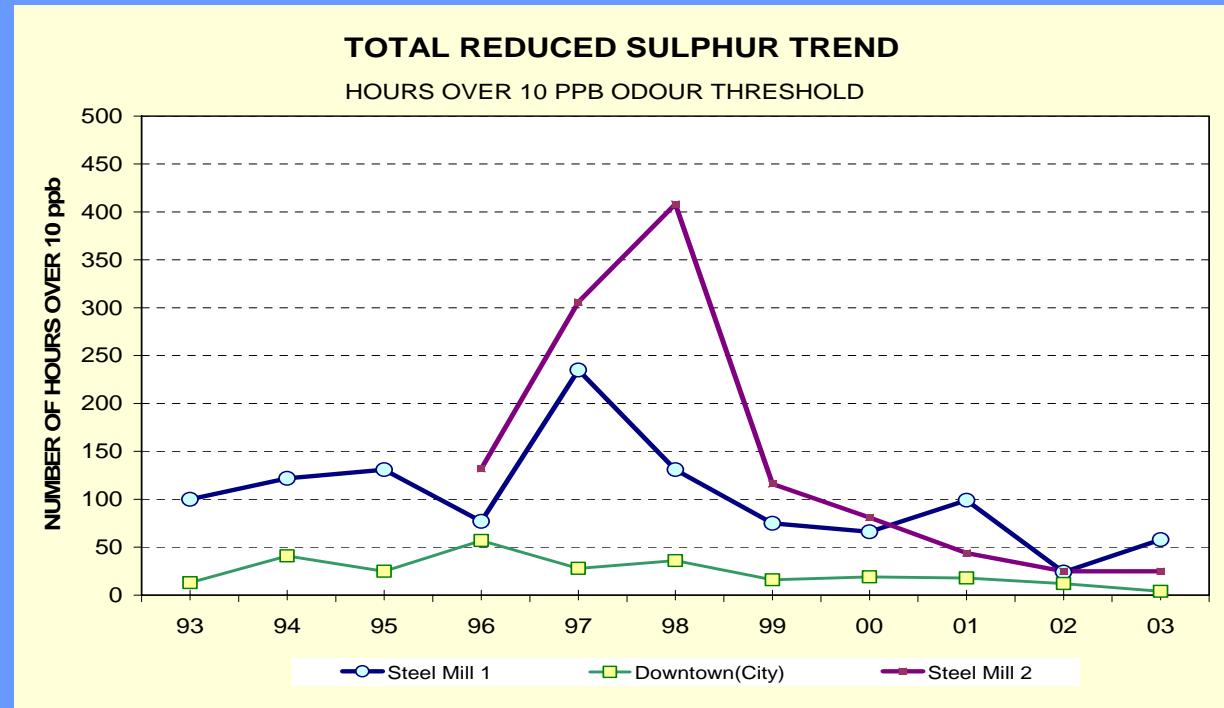
Annual Average Inhalable Particulate Matter (PM₁₀)



PM_{2.5} Emissions by Sector

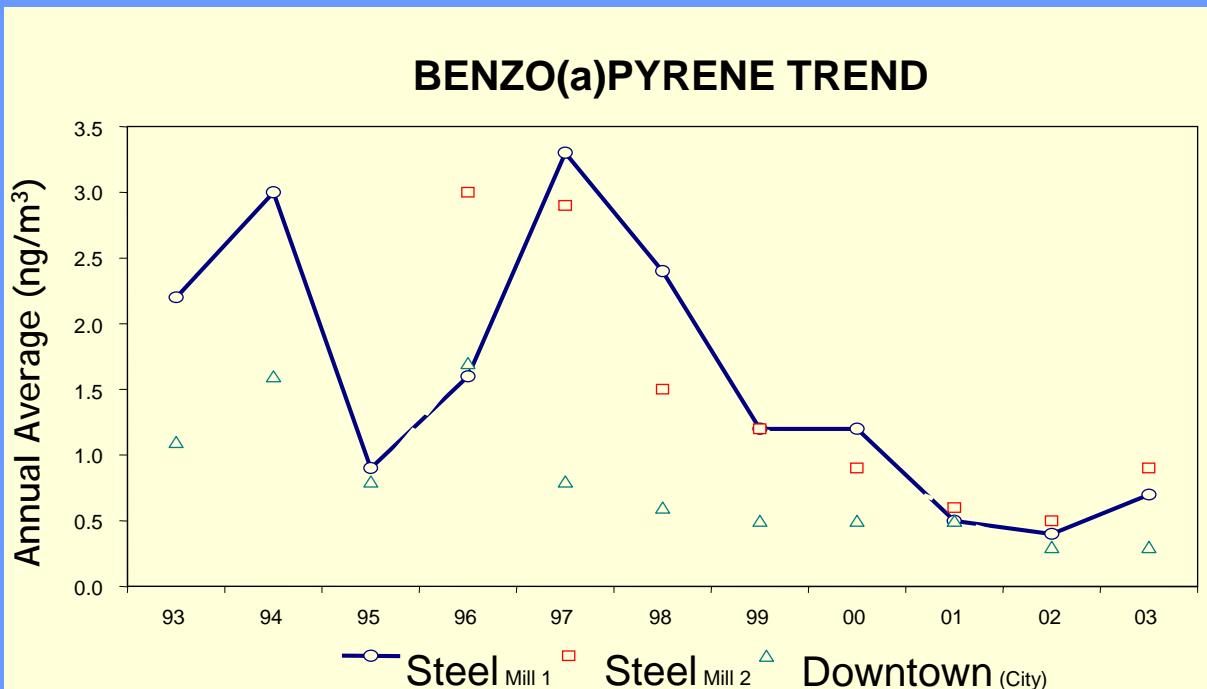
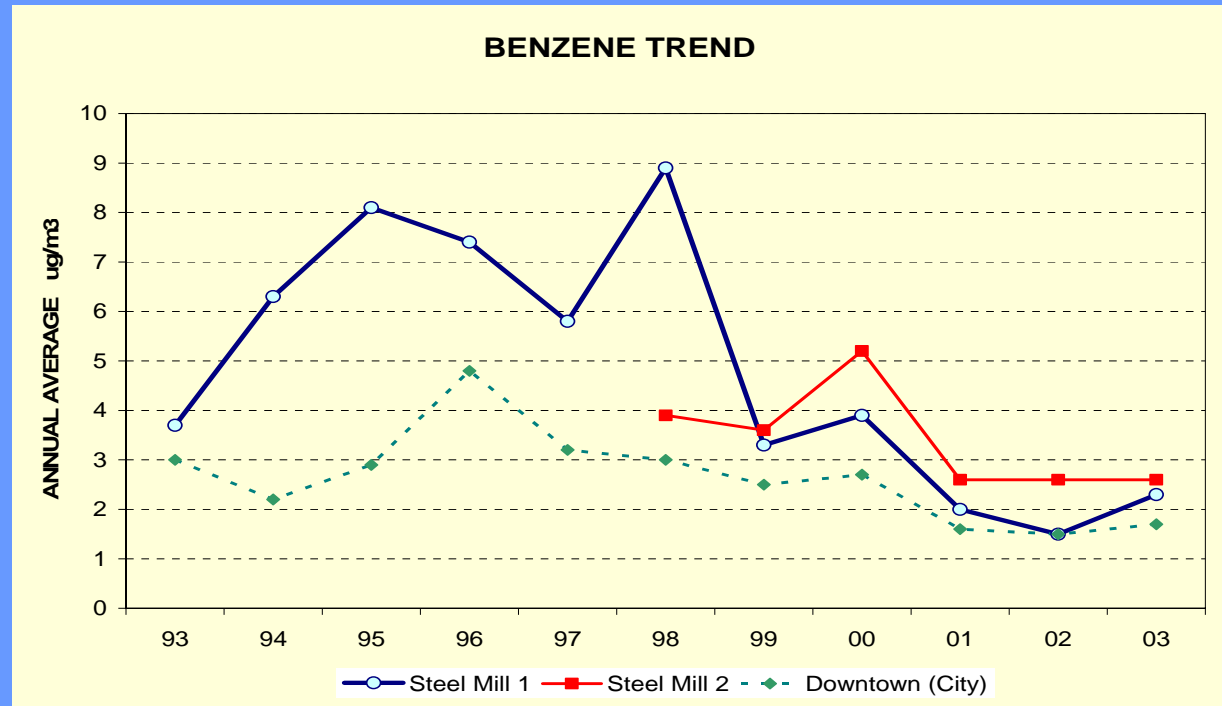


10-Year Air Quality Trends- Odours and SO₂



Sources:
Primarily operations at
integrated steel mills

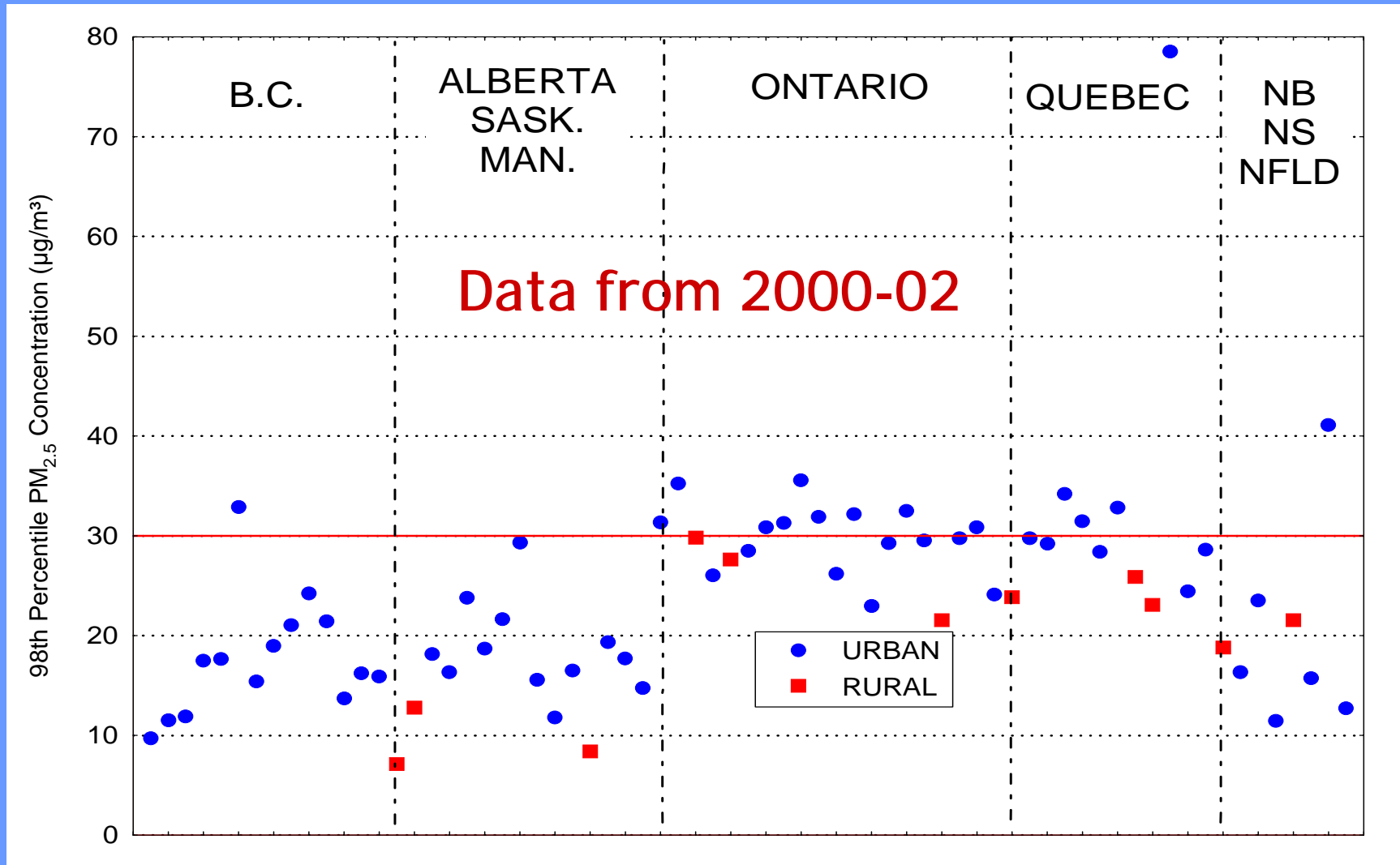
10-Year Air Quality Trends- Coke Oven Emissions



Significant reductions
in coke oven emissions
over past 6-7 years.

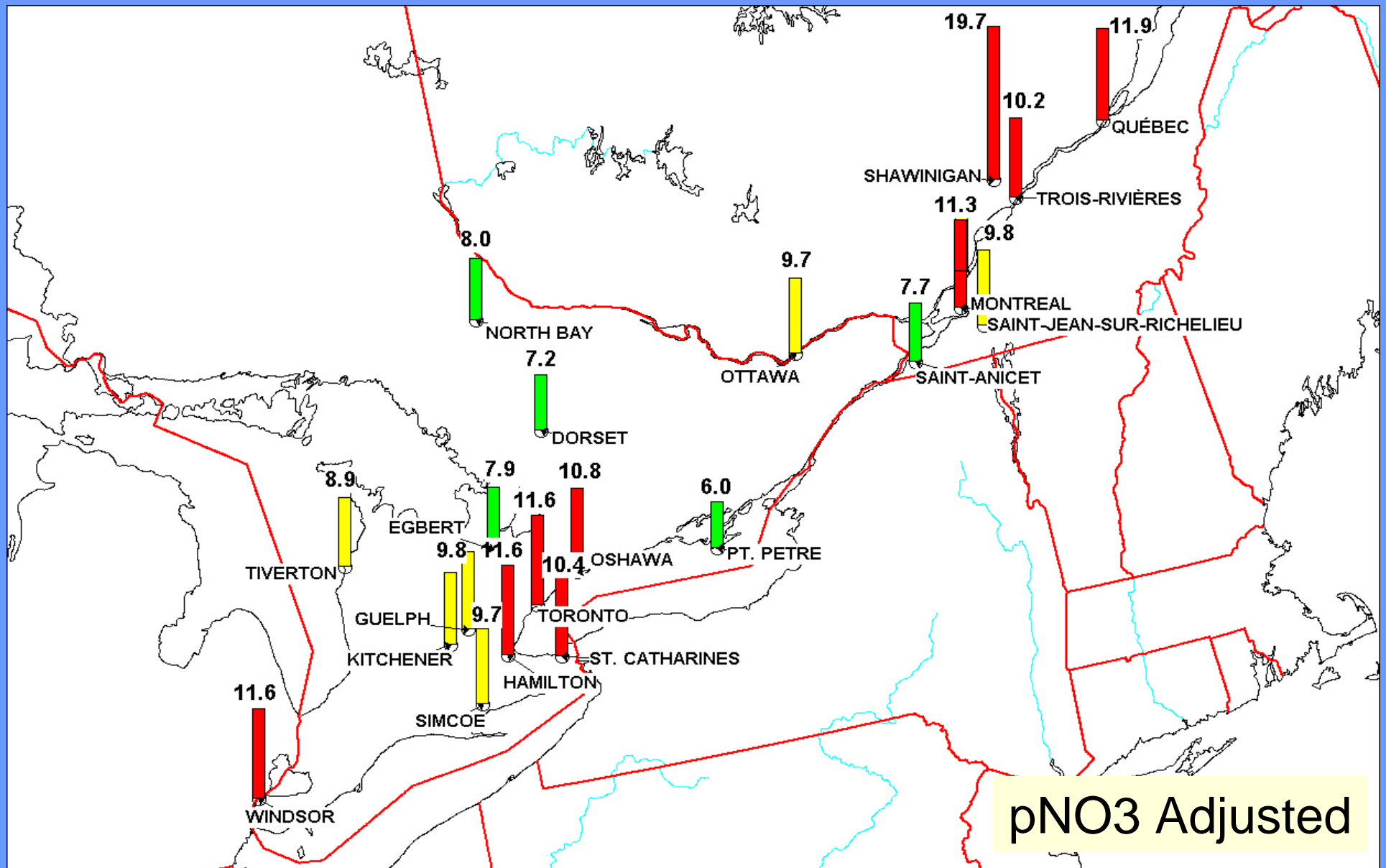
Levels have remained
unchanged for past 3 years.

SW Ontario's PM_{2.5} is among the Highest in Canada

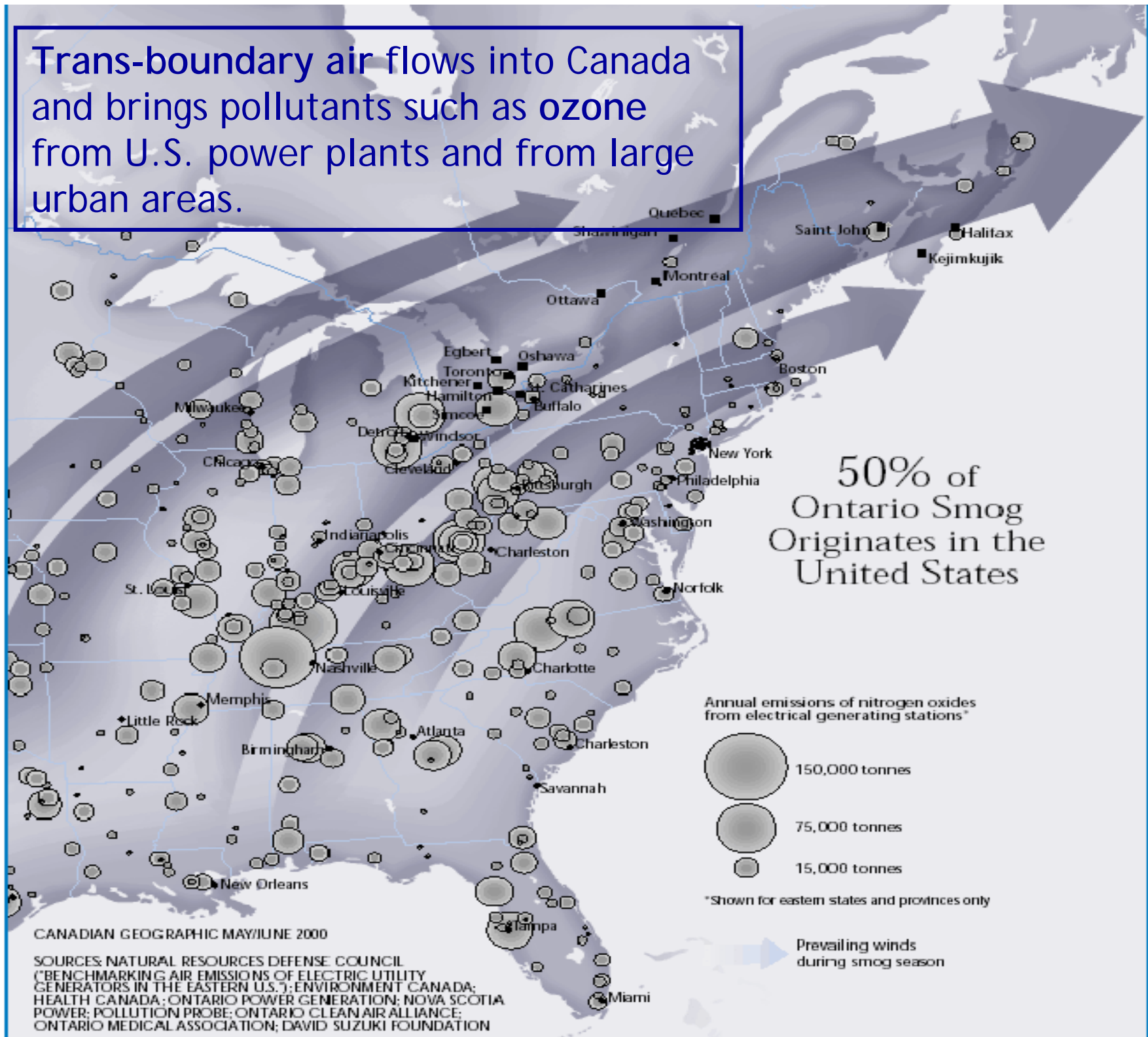


W E

2000-2002 Average PM_{2.5}



Trans-boundary air flows into Canada and brings pollutants such as ozone from U.S. power plants and from large urban areas.



Further Actions Needed

- Health Impacts & Air Quality Trends suggest need for continued reductions in NO₂, PM & ozone.
 - PM, NO₂, SO₂ and odours are locally generated, i.e., locally manageable.
- Needs:
 - Compact, sustainable urban developments
 - Public transit
 - Improved energy efficiencies: vehicles, homes, etc.
 - Alternative fuels & energy technologies for on-road & off-road equipment, power generation, etc.
 - Continued reductions from industry sector
 - Reductions from US coal-fired power plants needed to reduce local ozone.