Upwind Downwind 2010: 
Air Knows No Boundaries
Ministry of the Environment: 
Addressing Transboundary Air Pollution

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Overview

- Transboundary Pollution in Ontario
- Action on Transboundary Pollution
- Action on Smog
- New Opportunities for Improved Air Quality
  - Updated U.S. Standards
  - PM Annex
Transboundary Pollution in Ontario

*Health & Environmental Impacts*

- Transboundary air pollution is responsible for $3.7 billion health and $1.5 billion environmental damages per year.
- Eliminating transboundary air pollution could avoid:
  - 2,700 premature deaths
  - 12,000 hospital admissions
  - 14,000 emergency room visits
Transboundary Pollution in Ontario

- Ontario is located downwind of major smog-causing emission sources in the U.S.
- On high ozone days:
  - in south-western Ontario transboundary air pollution can account for over 90% of ozone levels, and
  - as much as half of Ontario’s ozone pollution is attributable to U.S. emissions.
- Emissions from south-western Ontario can have an impact on northern New England and South Atlantic Region.
Even if domestic emission sources were zeroed-out, Ontario would still exceed ozone Canada wide standards at most monitoring sites because of transboundary air pollution.

Ontario cannot sufficiently control its own smog levels without cooperation from the U.S.

* Background levels of ozone precursors result from natural causes and from global anthropogenic emission.
Legal Interventions in the U.S

- **Mississippi v. EPA**: Ontario participated as amicus curiae, challenging U.S. ozone NAAQS of 75 ppb.

Scientific Research, Monitoring and Modelling

- Advisory Committee on Transboundary Science (ACTS)
- Air Quality Index (AQI)

* Monitoring stations and mobile units record levels of pollutants used for the AQI
Cooperative Agreements

- Agreements with Quebec and New Brunswick on air pollution and climate change
- Letter of Intent with Michigan and NESCAUM

Public Education and Engagement

- Shared Air Summits
- Southwest Ontario and Greater Toronto Area Clean Air Councils
Action on Smog

- **Southwest Greater Toronto Area Air Quality Task Force**
  - Action plan to reduce air emissions from industry, transportation, transboundary and residential sources by June 30, 2010.

- **Transportation Emissions**
  - **Drive Clean**
    - 1999 to 2007, Drive Clean reduced smog-causing emissions from light duty vehicles by an estimated 225,000 tonnes.
    - 2006-2007, Drive Clean reduced PM emissions from heavy duty vehicles by 441 tonnes.

- **Investing in public transit: Move Ontario 2020**
  - Largest transit investment in Canadian history: $17.5 billion.
  - Includes rapid transit projects, tougher fuel standards, and alternate fuels.
Action on Smog

- **Limits for large industrial sources**
  - For industrial and electricity sectors – caps on NO\textsubscript{X} and SO\textsubscript{X}

- **Reducing reliance on coal-fired electricity generation**
  - O. Reg. 496/07: Cessation of Coal Use
  - Green Energy Act
    - Increasing sources of renewable energy, including wind, hydro, solar and biomass generation, to decrease dependence on coal-fired generation.
Opportunities

Updated U.S. Standards
- New U.S. Administration introduced more stringent standards that will help lead to cleaner air in Ontario.
- January 2010
  - EPA strengthens NAAQS for NO₂, adding a 1-hour standard at 100 ppb.
  - EPA proposes 8-hour primary ozone standard of 60 - 70 ppb and secondary standard to protect the environment.

Canada-US Air Quality Agreement
- PM Annex: discussions may begin in 2011.
  - includes primary PM₂.₅ and precursors SO₂ and NOₓ.

“the Acid Rain Program was - and is .... protecting millions of Americans and Canadians from harmful effects of fine particles”.
- Regina McCarthy, Assistant Administrator of the Environmental Protection Agency Office of Air and Radiation

Protecting our environment.
Contact Information

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