





What is Clean Air Sudbury?

- Aims of Clean Air Sudbury:
 - To encourage continuing improvement of air quality in Greater Sudbury
 - To encourage reduction of green house gases
 - To bring together stakeholders
 - To engage public in discussion, education and action
 - To provide timely access to accurate and relevant air quality information



- **Steering Committee**
 - City of Greater Sudbury
 - Xstrata Nickel
 - INCO
 - Laurentian University
 - Northern Ontario School of Medicine
 - Ontario Ministry of Environment
 - MIRARCO
 - Cambrian College
 - Potvin Air Management Consulting
 - Science North
 - Sudbury & District Health Unit
 - Symbioticware
 - Community

Selected Activities



- Let's Drive Green: Vehicle Emissions Inspection Clinic (April 19-20, 2005)
 - Approx 185 local motorists took the opportunity to contribute to cleaner air during this time
 - Vehicle Emissions Inspection Clinic hosted by Clean Air Sudbury, EarthCare Sudbury and Environment Canada
 - Vehicles tested for levels of carbon monoxide and hydrocarbons in their exhaust
 - Results: 89% passed the test, 9% failed, 2% were invalid



Selected Activities

- Public Forum (April 27, 2005)
 - Clean Air Sudbury held their first public Forum
 - The purpose of the forum was to:
 - Present the findings of 'Air Quality Trends: City of Greater Sudbury (1953-2002)'
 - Obtain community perspectives on the proposed goals and actions of Clean Air Sudbury;
 - Showcase air quality initiatives of Clean Air Sudbury Steering Committee members



Selected Activities

- Car Free Day (September 22, 2005)
 - Clean Air Sudbury teamed up with EarthCare Sudbury
 - Goals of the event:
 - Highlighting the links between air pollution, climate change and vehicle use
 - Promoting sustainable transportation alternatives to the private automobile
 - Receive feedback and ideas from the participants on future activities



Selected Activities

- FleetSmart Workshop (December 15, 2005)
 - Clean Air Sudbury partnered with EarthCare Sudbury and NRCan
 - Hosted a fuel management information session for companies that own and operate fleet vehicles
 - Approx 13 companies, some with several representatives attended
 - FleetSmart staff at NRCan Outlined:
 - Fuel management concepts
 - various programs and incentives they offer to companies under their program

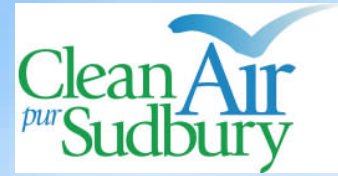


Selected Activities

- Earth Day Festival (April 22, 2006)
 - Encouraged and recognized local environmental achievements and initiatives
 - Encouraged local community to focus on environmental issues and take action by implementing sustainable values and solutions every day
 - Clean Air Sudbury Coordinator sat on the organizing committee



- Sudbury Trip Reduction Network Challenge
 - **Project Objectives**
 - Develop and implement strategies for companies to reduce the number of car trips or drive-alone trips for individuals
 - Find 30 local businesses to participate in the program
 - Encourage employees to set up sustainable transportation through ride-sharing, carpooling or the use of public transportation
 - Encourage participants to bike, walk or use alternate sources of transportation



- Project Results
 - 10 companies participated in the challenge
 - consulting firms, engineering firms, educational institutes, a municipal government group and a provincial government agency
 - Total of 19,930 vehicle kilometers were not driven in the community
 - Emissions decrease of
 - 4,384.6 kg of CO₂ emissions
 - 51.8 kg of nitrogen oxides
 - 31.9 kg of hydrocarbons



- Outcomes of the STNR Project:
 - Enhanced recognition of Clean Air Sudbury
 - its mandate of raising awareness of community air quality issues for Greater Sudbury
 - Communication materials, including a comprehensive Trip Reduction Manual Guide promoting trip reduction programs
 - which can be used by any company in the region



Clean Air Sudbury Upcoming Events

- Spare the Air Day (Tentative for the end April, 2007)
 - Air Quality Education day for Secondary students
 - Held at Dynamic Earth
 - Goal:
 - Have a hands on, interactive learning experience for students
 - Offer a series of demonstrations, experiments, and screen an engaging film to help students better understand atmospheric science
 - Encourage ongoing action for community air quality improvements

**AIR QUALITY TRENDS
CITY OF GREATER SUDBURY,
ONTARIO
1953 – 2002**

**Potvin Air Management Consulting
June 2004**

Objectives of the Report

- Summary of the results of air quality monitoring programs in the Sudbury area since the mid-1950s
- Comparisons with other urban centers in Ontario (Toronto, Hamilton, Ottawa, Sault Ste Marie and Thunder Bay for the period 1990 to 2002)

Key Findings

- Sulphur dioxide concentrations in the City of Greater Sudbury decreased by 50% immediately following the abatement measures undertaken in 1972
- Since 1999, the frequency of exceedance of the 1-hour criterion has fallen 85% from the early 1990s
- For the period 1990 to 2002, Sudbury had the 3rd highest composite SO₂ mean from seven Ontario cities selected for comparison
- Sudbury had the highest composite annual ground-level ozone concentrations of the cities selected for comparison

Key Findings (Continued)

- The levels of suspended particulate matter were generally low and well within provincial criteria
- Concentrations of TSP gradually decreased by about 36% from the early 1970s
- The levels of inhalable particles were also low and fell by 33% from the early 1990s.
- Compared to other selected cities, Sudbury had the 3rd lowest composite mean for TSP and the lowest composite mean for inhalable particulate
- During the period 1989 to 2001, good to very good Air Quality Index readings were reported more than 94% of the time.

Next Step

- Update the Report
- The update will include recent information and data regarding TSP, PM₁₀ and SO₂ since the last report, 2002
- Also, will include the respirable fraction (PM_{2.5})

Why it needs to be Updated?

- Poor image of the Air Quality around Sudbury
- Constant need to keep the community aware that their involvement can better our air quality

Ontario Trillium Foundation Grant Approval



**Community Air Quality Monitoring in School
Yards in the Sudbury Area**

Objectives:

- Undertake a research project to monitor air quality in and around selected school yards in the Sudbury area
- Project Objectives and Goals
 - Incorporate aspects of research including:
 - Monitoring, data gathering, statistical analyses and report production
 - The project will be combined with an educational component:
 - Entails student/teacher interaction, curriculum enhancement and presentations by local air quality professionals
 - Allow students to become familiar with state-of-the-art air quality and meteorological monitoring equipment
 - A demonstration will be done on how the equipment is used by professionals
 - To measure air quality and ultimately link results to potential to impacts on humans and the surrounding ecosystem

- **Project Details**

- The project will be undertaken in two segments
 - Air monitoring equipment will be set up at two schools in the Sudbury area in early March and will run for a period of one month
 - Lockerby Composite High School
 - Confederation High School
 - A second monitoring session will be held in the spring (April) at two different schools in the Sudbury area
- Grade 11/12 level has been chosen to host the project
- The classes will learn:
 - about the equipment,
 - how to gather and process the data
 - summarize results in charts and graphs.

- The Students Will -
 - Sound research, critical thinking and communication skills as they utilize the analytical equipment
 - An understanding of why data is collected and will discuss the implications of that data for the community
 - Knowledge of potential future career in ecological monitoring and evaluation
 - Develop practical skills that can easily be transferred to the workplace
 - Teach youth about existing local air quality issues and their potential impact on human health and the ecosystem

Funding Secured for the Project

- Ontario Trillium Foundation
 - \$73,000
- INCO
 - \$7,000
- Xstrata Nickel
 - \$7,000
- Requested from City of Greater Sudbury
 - \$7,000 (Trillium Project)
 - \$5,000 (Air Quality Report)
 - \$3,000 (Ongoing CAS projects)