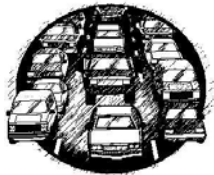


Cleaner Air

- Cleaner air is something we all desire for our families and ourselves. The growth expected in the Edmonton region by 2020 threatens to load our roads with more motor vehicles and increase the levels of harmful pollutants.¹
- All of us will be affected. Children, the elderly and those with respiratory ailments are particularly vulnerable. The effects of vehicle emissions range from climate change to acid rain, higher asthma rates to increased cancer risks.
- Striving for cleaner air is important for everyone!

The Challenges of Growth

- Edmonton's population is expected to grow from 862,000 in 1996 to 1.17 million people by 2020. This 35% increase will be concentrated in suburban areas.² Edmonton's *Transportation Master Plan* forecasts that if current trends continue, we can expect longer commutes and a



tripling of rush hour congestion on our major roads.¹ In

addition to gridlock, this additional traffic will mean more smog in our skies and more toxic pollutants in the air we breathe unless we develop effective solutions today.

Based on a conservative estimate of 12,000 km traveled per year, each of Edmonton's 376,157 cars and light trucks would produce **3 tonnes** worth of emissions annually according to City of Edmonton sources. This totals over **one million tonnes** of vehicular emissions every year.²

Our Health

- Overdependence on the internal combustion engine is killing us... literally. Transport Canada attributes 3,000 deaths and 220,000 serious injuries to motor vehicle accidents each year.³ Health Canada estimates that air pollution is the direct cause of an additional 5,000 annual deaths nationwide and a contributing factor in at least 11,000 more.⁴ Most of the affected live in urban areas where there is ongoing exposure to toxins released into the streets by motor vehicles.
- Based on national data, the Sierra Club estimates 350 premature deaths each year in Edmonton are the direct result of air pollution. In addition to pre-mature deaths, air pollution's toll is felt in rising health costs associated with the treatment of illnesses like asthma and heart disease.

Health Costs are Enormous

- Growing up close to a roadway that carries more than 20,000 vehicles per day increases the risk of certain child cancers by 600% according to one U.S. study.⁵ Freeways in Edmonton like the Whitemud and Yellowhead Trail carry from 78,000 to 112,000 vehicles per day. Sections of 75th, 97th, and 114th Streets, Scona Road, St. Albert Trail and Calgary Trail all carry over 40,000 vehicles daily.² There are most certainly repercussions for the health of those living in proximity.
- In a California study of 9,000 pregnant women published in the *American Journal of Epidemiology*, those who were exposed to the highest levels of smog and carbon monoxide as a result of living near busy freeways were **three times** more likely to bear children with serious birth defects.⁶
- Toxins found in motor vehicle exhaust can:
 - Irritate, inflame and damage the respiratory system
 - Aggravate asthma
 - Increase the risk of certain pneumonias
 - Enter the bloodstream causing heart disease and cancer
- The journal *New Scientist* reports that as many as **one fifth** of all urban lung cancer deaths are caused by miniscule particles of pollution called particulate matter.⁷ Most originate from internal combustion engines. Some of the strongest carcinogens known to man are found in vehicle exhaust.⁸

Climate Change

- The world's climate is changing rapidly, largely because of human activities like the refining and burning of fossil fuels for transportation and industrial use. Climate change is the result of so-called *greenhouse gases* like carbon dioxide which are by-products of combustion. According to Environment Canada, transportation sources account for about 40% of the world's greenhouse gases.⁹
- Dreams of Hawaiian weather for Edmonton aside, climate change is not a laughing matter. The threat of major floods, extreme droughts, shoreline erosion, crop failures and their repercussions on the economy and our standard of living, should make reducing greenhouse gas emissions a priority for all.

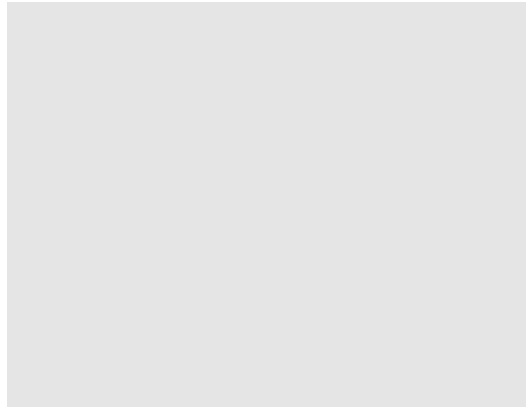


What can be done?

- **Improved public transit can help counter climate change and reduce the effects and costs of pollution!**
- According to the Canadian Urban Transit Association, every 40 Canadians who use transit instead of a private vehicle for a year prevent about 70,000 litres of fuel, 175 tonnes of carbon dioxide and nine tonnes of toxic pollutants from entering our atmosphere.¹⁰
- Each passenger-kilometre traveled by public transit produces 65% fewer greenhouse gas emissions than private vehicle travel.¹⁰
- A full 12 metre transit bus can take the place of 40 to 70 cars. A fully loaded three-car LRT train can take the place of up to 480 private vehicles.
- Toxins in exhaust pose the greatest risk to our health when released in urban streets. Electric transit vehicles like trolleybuses and LRT do not contribute to in-street air pollution and help to reduce transportation-related noise pollution as well.
- Calgary purchases zero-emission wind energy to power its LRT. This represents an annual reduction of **26,000 tonnes** of carbon dioxide or roughly the CO₂ equivalent of 2.5 million trips made by private vehicle.¹¹



Citizens ● for ● Better Transit



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Opinions expressed herein do not necessarily reflect the views or policies of Environment Canada or Health Canada.

Sources: ¹City of Edmonton, *Transportation Master Plan* (1999); ²Data from the City of Edmonton, Department of Transportation and Streets; ³Transport Canada, *Canadian Moto* 20 (2001); ⁴Health Canada, *Toward a Health Future: Second Report on the Health of Canadians* (1999); "High Traffic Streets Linked to Childhood Cancer", *Environmental News* (March 1, 2000);

California," *American Journal of Epidemiology* (2002); Fred Pearce, various publications of the Natural Resources Defense Council and the Centre for Science Change

CUTA,

***Cleaner Air
Better Health***

