

ACHIEVING GREENHOUSE GAS REDUCTIONS FROM PASSENGER VEHICLES

TAC's New Vision for Urban Transportation calls for land use that reduces travel demand and supports transportation alternatives, travel choices that reduce dependence on single occupant automobiles and user pay financing methods that dedicate revenues to transportation system improvements. Vancouver has supported these directions in its transportation and land use plans, which strive to build compact and complete communities that support transit, walking and cycling and other alternatives to driving alone.

Recent data has shown successes in implementing these plans – while significant population growth has occurred, auto driver mode shares have decreasing slightly, and transit, walking and cycling modes have shown substantial increases. In 2003, the City approved another measure that will further support these initiatives, with a new development cost levy that includes transportation alternative projects.

During 2004, the City developed a Community Climate Change Action Plan, for reducing greenhouse gas emissions generated by Vancouver residents and businesses, in order to comply with the Kyoto Protocol. This Plan responds to the call by the Federation of Canadian Municipalities (FCM) for municipalities to support the federal government's ratification of the Kyoto Protocol. In Vancouver, buildings and vehicles were found to contribute to the majority of the community's greenhouse gas emissions (industry accounted for only about 7% of the total emissions).

Vancouver passenger vehicles (i.e. cars, vans, pick-up trucks and SUVs) account for over one-quarter of the community's greenhouse gas emissions. Vehicle emissions were estimated using regional fuel sales, and allocating Vancouver's share based on the actual miles driven by Vancouver registered vehicles. This involved considerable effort, in matching odometer readings from a very large (8 million record) database that was provided from the region's Common Air Contaminant monitoring program. Analysis showed that although average distances traveled per vehicle went down between 1990 and 2000, total emissions increased due to the consumer preferences towards heavier vehicles.

The Climate Change Action Plan recognizes that the best opportunities to reduce the City's greenhouse gas emissions are related to passenger vehicles. Accordingly, over 60% of the Plan's emission reduction target for 2012 is to come from passenger vehicle initiatives. The Plan provides a new framework that builds on existing sustainable urban transportation initiatives, and outlines new actions to achieve a substantial reduction in vehicle use and gasoline consumption. Fundamental to the Plan are new and expanded City roles in Transportation Demand Management, working with regional, provincial and federal partners, and new initiatives to promote efficient vehicles and fuels. The strategies and actions for providing facilities and services that encourage increased use of

transportation alternatives (walking, cycling, transit, etc.), and promoting more efficient vehicles and fuels are focused on transportation alternatives (reduction target – 90,000 tonnes CO₂ / year) and vehicle and fuel efficiency (reduction target – 160,000 tonnes CO₂ / year).