

Air Quality

CityPlan

Riley Park/South Cambie RPSC

Air quality is related to local issues such as public health and international issues such as climate change. The key air quality issues are: ground level ozone (smog), and fine particulate and carbon dioxide production from energy use (global warming).

Air Pollution

Fossil fuel burning is probably the most significant activity to adversely affect air quality in Vancouver.

The primary contaminants of concern are: Sulphur Oxides; Nitrogen Oxides; Particulate; Carbon Monoxide; Ozone; and Volatile Organic Compounds.

Sources of these contaminants are:

1. Mobile Sources such as cars, trucks, trains, vessels and aircraft contribute 75% of the total pollutants, as listed above, in the air. (Cars and trucks contribute 61%.)
2. Point Sources such as wood, paper & allied products, non-metallic minerals, refined petroleum and chemical industries contribute 7%.
3. Area Sources such as agricultural, commercial, industrial institutional and residential space heating, and solid waste incineration contribute 18%.
4. Gasoline Marketing contributes 1%.

These contaminants have negative affects on human health, wildlife, water quality and fish, vegetation, and, damage property and obscure visibility.

Grade/trends/plans

Air quality received a FAIR-GOOD

rating in the 1995 State of the Environment Report Card*. There should be an improvement over the next decade due to advances in emission technologies.

Clearly the maintenance of air quality depends largely on the control of emissions from motor vehicles since they contribute approximately 75% of the total air pollutants emitted in the GVRD.

Car ownership in the region shows an increasing trend. Therefore, the new motor vehicle emission control standards and the AirCare vehicle emission inspection/maintenance program are not enough to reduce emission pollutant levels by the targeted amounts. Supplementary "Transportation Control Measures" (TCM) are necessary to accomplish this task.

TCM programs are designed to decrease dependency on the automobile by shifting people to other modes of transport (such as transit, cycling or walking), increasing the effectiveness of motor vehicle use (ride sharing and High Occupancy Vehicle Lanes) and decreasing the need to travel (reducing demand). TCMS do not include technology based measures such as new auto emission standards, development of clean fuels, and the AirCare Program.

Trees

There is an increasing awareness of the positive effect of trees and plant life on the quality of the urban environment: They stabilize soil, moderate temperatures, and remove pollutants from air and water - to a far greater degree, in fact, than trees in the wild. Urban trees are 5 to 15 times more effective than wilderness trees in reducing air pollution simply due to

their close proximity to areas of high emission. Unfortunately, the urban environment is not nearly as beneficial to its ecosystems - the average life span of a city tree is one fifth that of a tree in the wild.

Government Roles

Federal - has the mandate to define air pollution and to set standards for air quality.

Provincial - regulates the federal standards. The provincial government may redefine the application of federal objectives, as long as their requirements are at least as stringent as the federal requirements.

Regional - helps the provincial government to redefine the application of federal objectives.

Municipal - enforces the provincial standards. GVRD report in June 1995 provided information on progress towards goal to date and future problems.

City of Vancouver Initiatives

The (1990) City of Vancouver Task Force on Atmospheric Change was created by City Council to study climate change as it relates to global warming and ozone depletion and subsequently to develop specific actions that the City could undertake to resolve such climate change problems.

One of the recommendations by the Task Force was for City Council to adopt the following:

Target Specific Emissions

This includes measures to phase out all uses of ozone-depleting chemicals, to reduce present sulphur dioxide

levels and to accelerate methane gas collection.

Transportation Planning and Traffic Management

The objective is to reduce the number of trips, to encourage non-automobile transportation such as bicycling, and to lower gasoline/diesel consumption.

Land Use Planning

The City should develop energy efficient land use policies (restrict sprawl, encourage pedestrian and transit friendly design, i.e., neighbourhood centre) and incentive programs in areas such as ecological development, proximity policies, and residential intensification.

Energy Conservation and Efficiency

Recommended measures include residential and commercial retrofit by-laws, infrared scanning for energy leakages, low interest energy conservation loans, energy efficient light standards and energy efficient regulations.

Assume Leadership Position

The City should examine its transportation and energy use with the goals of: achieving energy conservation; exploring the use of cleaner fuel; and, encouraging its employees to adopt commuting alternatives. In addition, the City should also implement environmentally sound business practices and policies.

Tree Inventory

The City should encourage the protection, retention and planting of trees on private and public property.

*The 1995 State of the Environment Report is an accounting of where the City of Vancouver is in the stewardship of our natural environment. The report identifies a number of key indicators to chart the City's progress in protecting the environment.

Sources

City of Vancouver:
1995 State of the Environment Report

Douglas College
Institute of Urban Ecology
Green Links Project Overview