

## Strategic Priority: **CLIMATE CHANGE AND THE ENVIRONMENT**

The City of New Westminster is committed to doing its part in national and international efforts to protect the natural environment, reduce greenhouse gas emissions and to address the effects of climate change within our City.

According to the United Nations Intergovernmental Panel on Climate Change (a group of over 2,500 internationally recognized scientists) the world's average surface temperature is expected to increase by 1.4 to 5.8°C over the period 1990 to 2100. The use of fossil fuels in transportation, manufacturing, heating, cooling and electricity generation represents the largest source (70 to 90 percent) of greenhouse gases (GHG's).

In 1999, British Columbia produced almost 16 tonnes of GHG's per person, mostly through the burning of fossil fuels. According to the "Indicators of Climate Change for British Columbia 2002" report, during the 20<sup>th</sup> century many properties of the climate have changed, affecting marine, freshwater and terrestrial ecosystems in British Columbia. For instance, between 1895 to 1995 the average annual temperature warmed by 0.6°C on the coast, 1.1°C in the interior and 1.7°C in northern BC. The following is a list of some of the trends that have been observed:

- night-time temperatures increased across most of BC in spring and summer;
- precipitation increased in southern BC by 2 to 4 percent per decade;
- lakes and rivers became free of ice earlier in the spring;
- sea surface temperatures increased by 0.9°C to 1.8°C along the BC coast;
- sea level rose by 4 to 12 cm along most of the BC coast;
- the Fraser River discharged more of its total annual flow earlier in the year;
- water in the Fraser River has been warmer in summer.

**ISSUES** It is impossible to predict with certainty what the impacts of climate change will mean to the City of New Westminster; however, the following is a listing of some of the potential implications:

- the Lower Fraser Valley is projected to experience some of the most significant climate change impacts in BC. Warmer, drier summers include periods of hot, stagnant weather that will lead to more severe smog episodes (David Suzuki Foundation, 2004);
- the Fraser River, one of Canada's largest salmon producers, often reaches temperatures of 22°C while salmon are returning to spawn. If the temperature increases by an additional one or two degrees, most of the returning salmon will likely die before spawning;
- flooding is expected to increase due to increased storm intensity, wetter winters and ocean level rise;
- according to the David Suzuki Foundation, the health care costs of air pollution in the Lower Fraser Valley alone was estimated to be \$830 million in 1990 and is projected to rise to \$1.5 billion by 2005 (David Suzuki Foundation, 2004)

**Desired OUTCOMES** The Federation of Canadian Municipalities (FCM) through its Partners For Climate Protection (PCP) Program recommends that local governments adopt the following greenhouse gas emission reduction targets:

- a 20 percent reduction below its baseline year for **Municipal Operations** within 10 years, and;
- a 6 per cent reduction below its baseline year for the **Community** within 10 years.

The PCP Program consists of five milestones as follows:

*Milestone 1 – Creating a greenhouse gas emissions inventory and forecast*

*Milestone 2 – Setting an emissions reduction target*

*Milestone 3 – Developing a local action plan*

*Milestone 4 – Implementing the local action plan*

*Milestone 5 – Monitoring progress and reporting results*

To-date, there are approximately 112 Canadian municipalities registered with the FCM PCP Program. The City of New Westminster is a member.

## **Potential STRATEGIES**

There are numerous potential strategies that the City of New Westminster can adopt for reducing greenhouse gas emissions within Municipal Operations and the Community as a whole. In addition, there are a number of initiatives that have recently been undertaken or completed.

It is recommended that the City first undertake a detailed GHG emissions inventory (Milestone 1), establish GHG reduction targets (Milestone 2), and then develop a local action plan (Milestone 3). The following is a listing of potential and current strategies should be considered for incorporation in the City's action plan:

- *promote mixed-use sustainable development within the historical downtown area, and adjacent to skytrain stations;*
- *promote redevelopment of brownfield sites; encourage high density, and mixed use infill development over suburban sprawl;*
- *purchase fuel efficient / alternative fuel vehicles for the City Fleet;*
- *develop a pedestrian charter – encourage walking by improving sidewalks, pedestrian corridors and crosswalks.*
- *invest in on-street and off-street bicycle paths;*
- *reduce parking standards in residential and commercial neighborhoods well served by public transit;*
- *require bicycle storage and end-of-trip facilities in all new residential, commercial, institutional and industrial development;*
- *encourage transportation demand measures to reduce reliance on auto travel and provide alternatives i.e. car pooling, auto cooperative network etc.;*
- *perform energy audits and implement energy efficient lighting retrofits on all municipal buildings and facilities (currently underway);*
- *promote and encourage new development to be Leadership in Energy and Environmental Design (LEED) certified;*
- *encourage alternative heat sources for new buildings i.e. geothermal, solar, sewer heat extraction, community heating systems etc.;*
- *maintain and promote healthy urban forests and street trees;*
- *expand recycling programs (participate in Metro Vancouver's Zero Waste Challenge). Implement organic and yard debris collection / composting;*

## **Resources / References**

**Indicators of Climate Change for British Columbia 2002.** Ministry of Water, Land and Air Protection.

**Climate Change: British Columbia,** David Suzuki Foundation –

[http://www.davidsuzuki.org/Climate\\_Change/Impacts/British\\_Columbia/Impacts.asp](http://www.davidsuzuki.org/Climate_Change/Impacts/British_Columbia/Impacts.asp)

**Adapting to Climate Change – An Introduction for Canadian Municipalities**  
Canadian Climate Impacts and Adaptation Research Network – [http://www.cciarn.ca/adapting\\_e.html](http://www.cciarn.ca/adapting_e.html)

**Partners for Climate Protection Program –**  
<http://www.sustainablecommunities.ca/Partners-for-Climate-Protection>

**Green Action Plan for New Westminster – A municipal approach to address global warming and help Canada achieve its commitment to the Kyoto Protocol – Council resolution – January 15, 2007**

**Smart Growth Development Checklist – City of New Westminster Planning Department, 2004**

**Smart Growth BC –** [www.smartgrowth.bc.ca](http://www.smartgrowth.bc.ca)

**Smart Growth On The Ground –** [www.spog.bc.ca](http://www.spog.bc.ca)

**New Urbanism –** [www.newurbanism.org](http://www.newurbanism.org)

**Smart Bylaws Guide –** [www.wcel.org/issues/urban/sbg](http://www.wcel.org/issues/urban/sbg)

**National Centre for bicycling and walking –** [www.bikekwalk.org](http://www.bikekwalk.org)

**E3 Fleet -** [www.e3fleet.com](http://www.e3fleet.com)

**Idle Free BC –** [www.idlefreebc.ca](http://www.idlefreebc.ca)

**Toronto Pedestrian Charter –** [www.toronto.ca/pedestrian](http://www.toronto.ca/pedestrian)

**Walkable Communities –** <http://www.walkable.org/>

**Energy Star –** [www.energystar.gov](http://www.energystar.gov)

**American Council for and Energy Efficient Economy –** [www.aceee.org](http://www.aceee.org)

**Infraguide –** [www.infraguide.ca](http://www.infraguide.ca)

**Community Energy Association –** [www.communityenergy.bc.ca](http://www.communityenergy.bc.ca)

**Canada Green Building Council –** [www.cagbc.org](http://www.cagbc.org)

**Green Building Initiative –** [www.thegbi.org](http://www.thegbi.org)

**Architek –** [www.architek.ca](http://www.architek.ca)