

CHAPTER 5: SUSTAINABLE RESOURCE USE AND CLIMATE CHANGE RESPONSE

While climate change and energy security are often thought of as the domain of senior governments and local governments have a significant role to play. Buildings, infrastructure and transportation are among the largest consumers of fossil fuels and consequently also the largest producers of greenhouse gases (GHG) and other emissions. Community planning and land use decisions on a local level strongly influence the location and types of buildings where people live, work, study, shop and gather, and how they travel between these destinations. Significant energy and GHG implications are associated with all this activity.

The City of Port Moody has taken action on a number of levels to reduce the consumption of non-renewable resources and the generation of GHG emissions and other air pollutants. In 1996 Port Moody joined the Federation of Canadian Municipalities' Partners for Climate Protection (PCP) Program which supports municipalities in their efforts to develop energy and emissions inventories and develop plans to increase energy efficiency and reduce greenhouse gas emissions. In 2007, Port Moody became signatory to the B.C. Climate Action Charter thereby committing to a voluntary goal of becoming carbon neutral in its corporate operations by 2012. This commitment also involves measuring and reporting on Port Moody's greenhouse gas emissions and creating a compact and more energy efficient community.

The Local Government Statutes Amendment Act now requires that local governments include greenhouse gas emission reduction targets, policies and actions in their official community plans.

This chapter reflects the importance of GHG and sustainable resource use in Port Moody's Official Community Plan with implications for all aspects of community life including housing, economic development, the natural environment, neighbourhood design, infrastructure, transportation and overall livability.

5.1 PARTNERS FOR CLIMATE PROTECTION PROGRAM

Participation in the Partners for Climate Protection Program involves the completion of the following five Milestones in municipal and community-wide activity:

MILESTONE 1:

Conducting an inventory and forecast of greenhouse gas emissions for municipal operations and community-wide emissions.

MILESTONE 2:

Establish reduction targets for both municipal operations and the community.

MILESTONE 3:

Develop and adopt action plans that reduce energy use and emissions from municipal operations and across the community.

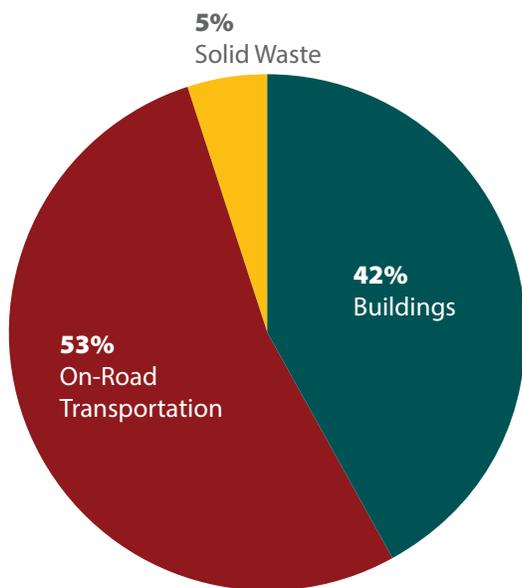
MILESTONE 4:

Begin implementation of measures within the action plans to reduce greenhouse gas emissions.

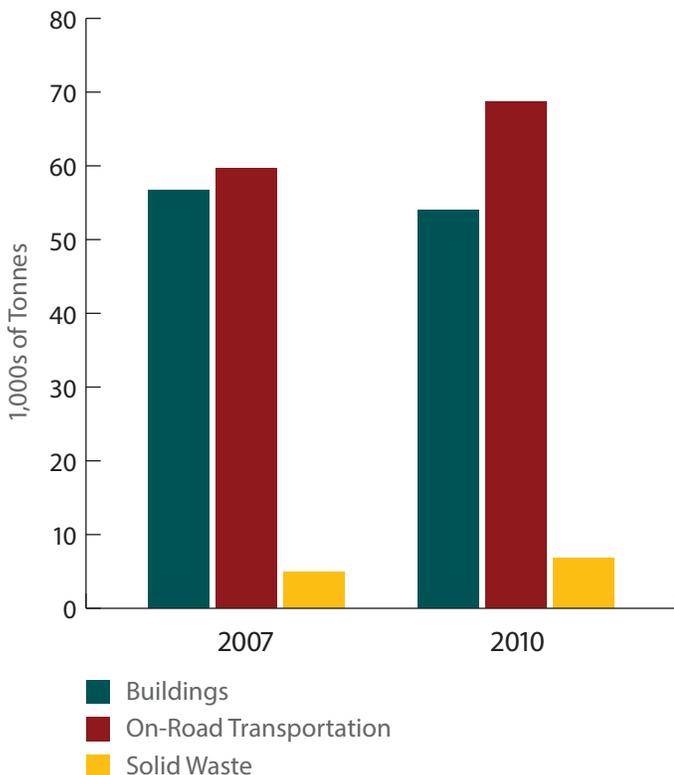
MILESTONE 5:

Continue to monitor, verify and report greenhouse gas reduction achievements and amend action plans accordingly to reflect new strategies on both municipal and community-wide levels.

2010 GHG EMISSIONS SOURCES



GHG EMISSIONS COMPARISON



5.2 COMMUNITY-WIDE GHG EMISSION REDUCTION TARGET

In 2010, the city's community emissions were approximately 130,000 tonnes CO₂e, a number that could continue to grow as population increases. The community energy and emissions plan encourages action to curb the growth in emissions with reduction initiatives focusing on those sectors over which the city has influence: buildings, transportation, solid waste, as well as land use. The overall success of the implemented plan will come down to individual actions to put reduction actions into practice.

Upon completion of a community GHG and energy management plan, the City of Port Moody will move into Milestone 4 of the PCP program when action on local measures to reduce GHG emissions will take place.

A community GHG emission reduction target of 10 percent below 2007 levels by 2017 has been identified. This target is included here as an interim community GHG emission reduction target pending Council endorsement of a community GHG and energy management plan. It is recognized that many of the reduction related actions and strategies included here and outlined in a plan will require cooperation with senior governments. The community GHG emission reduction target of 10 percent below 2007 levels by 2017 may be subject to change in the future as new data and technologies become available.

POLICIES

ENERGY AND CLIMATE PREPAREDNESS – MUNICIPAL OPERATIONS

1. The City will continue to promote energy efficient building design and practices for all City-owned buildings and operations through the following targets and policies:

(a) The City will conduct an inventory of energy and greenhouse gas emissions from municipal operations, set corporate emission reduction targets, and develop and implement an action plan for meeting targets.

(b) The City will include considerations within the Corporate Purchasing Policy to reduce lifecycle GHGs as well as increase its use of products and services that are cost-competitive, socially just and environmentally responsible in their production, use, transportation, packaging and disposal.

(c) The City will consider linking energy and GHG emissions to the City's asset management system to allow for integrated life cycle decisions with respect to facility and infrastructure management and fleet maintenance.

(d) The City will explore and implement measures to increase municipal resiliency to climate change, including but not limited to designing climate change resilient infrastructure.

(e) Sustainable building best practices that pertain to design, operation and long term maintenance will be followed for all new and renovated civic facilities.

(f) Build new City buildings and undertake retrofits to existing facilities to meet a high standard for sustainable building performance.

(g) The City will develop energy use and GHG reduction targets for its corporate buildings and explore demand-side reduction strategies, increasing use of renewable energy sourcing and other sustainable energy options.

(h) The City will develop energy use and GHG reduction targets for its corporate fleet and explore demand-side reduction strategies, and other sustainable transportation options including carpooling incentives for City employees.



SUSTAINABLE TRANSPORTATION

2. The City will encourage transit and a network of walking and cycling routes to improve affordability, reduce resource consumption, improve air quality and reduce greenhouse gas emissions.

NEW AND EXISTING BUILDINGS

3. The City will develop a Community-wide Sustainable Building Policy to encourage the renovation of existing buildings and the creation of new development that meets a high standard of sustainable building performance with features that may include but are not limited to:

- (a) Alternative transportation facilities;
- (b) Sustainable landscaping;
- (c) Building retention and re-use;
- (d) Passive building systems;
- (e) Energy efficiency technology;
- (f) On-site renewable energy technology;
- (g) District renewable energy systems; and,
- (h) Efficient plumbing fixtures and systems.

COMMUNITY-WIDE ENERGY AND CLIMATE PREPAREDNESS PLANNING

- 4. The City will report community-wide energy and greenhouse gas emissions inventory as conducted by the Province.
- 5. The City will develop, implement and regularly update a community GHG and energy management plan as a means to plan for an energy-wise and low-carbon future where energy demand is reduced and needs are met through sustainable practices through the community and by sustainable energy systems (e.g., renewable, affordable, reliant, efficient, etc.).
- 6. The City will explore opportunities for implementing adaptation strategies to reduce the risk of property damage and harm and loss of life to residents, and increase community resiliency to climate change.
- 7. The City will integrate provincially established sea level rise estimates into appropriate municipal regulations to protect the community and future development from the impacts of rising sea levels.



NEIGHBOURHOOD PLANNING AND DESIGN

8. Support carbon sequestration through various means including tree protection and the integration of carbon retention objectives into key policies, plans and programs (e.g. Environmentally Sensitive Areas Strategy, Parks and Recreation Master Plan, development permit area guidelines, tree retention/protection bylaw).
9. The City will continue to participate in the development of integrated stormwater management plans for all watersheds in the City to address extreme storm events and prevent subsequent erosion in streams.
10. The City will encourage the planning, design and construction of efficient neighbourhoods and buildings to minimize resource consumption, increase use of renewable resources, increase alternative modes of transportation, reduce greenhouse gas emissions and prepare for climate change. This includes, but is not limited to:
 - Sustainable area and subdivision planning and design;
 - Informed site planning, including building orientation;
 - High performance building design;
 - Use of renewable energy sources;
 - Naturescape landscaping;
 - Transit-friendly access;
 - Incorporating car-free areas;
 - The provision of bicycling facilities (bike lanes, racks and storage);
 - Encouraging higher density mixed use commercial and residential development;
 - Encouraging a balance between jobs and the resident labour force; and
 - Encouraging transit-oriented development.
11. The City will encourage local low carbon energy systems, including district energy, as part of larger developments and within areas expected to experience significant redevelopment.

12. The City will encourage sustainable project development by applying the Sustainability Checklist, including energy considerations, to assess the relative strengths of a development proposal from a sustainability perspective and encourage the most sustainable project possible.
13. The City will review its development permit area guidelines to incorporate sustainable energy and climate change adaptation considerations.
14. To encourage strong energy performance, the City will consider incentives for developers including variances, density bonusing, modified/alternative development standards or other appropriate mechanisms available under the Local Government Act.
15. The City will work to provide information to local developers, builders and homeowners about energy efficient building practices and available incentives and funding programs.

COMMUNITY ENGAGEMENT

16. The City will work with the community to improve local and regional air quality, and reduce greenhouse gas emissions by:
 - (a) encouraging residents and businesses to investigate and adopt new behaviours and technologies;
 - (b) continuing to regulate open air burning;
 - (c) developing a formal “No Idling” policy or bylaw to limit unnecessary marine vessel idling;
 - (d) supporting the air quality monitoring programs of federal, provincial and regional agencies in order to achieve a sufficient database to establish and evaluate air quality objectives and determine the need for changes to air quality regulations;

- (e) encouraging the upgrade and cleaner operation of Burrard Thermal by BC Hydro.

SOLID WASTE AND RESOURCE RECOVERY

- 17. The City will continue to work to exceed its original goal of 70% waste diversion by 2015 through the implementation of organic pick up and resource recovery for residential, industrial, commercial and institutional sectors.
- 18. The City will support senior governments in limiting the manufacturing of non-recyclable products and the use of wasteful packaging, and promoting manufacturer accountability for product handling and recycling.

WATER CONSERVATION

- 19. The City will consider water conservation initiatives to reduce water consumption among residential, commercial and industrial users.

PARTNERSHIPS

- 20. The City will partner with Metro Vancouver, member municipalities, senior governments and agencies, utilities, non-profit organizations and businesses, as appropriate, to reduce energy consumption and increase renewable energy use through land use, transportation and buildings, and solid waste.
- 21. As a signatory to the British Columbia Climate Action Charter, the City will work with the Province to develop strategies and take actions to achieve carbon neutrality with respect to City operations.
- 22. The City will work with other partners and agencies in the transportation and development fields to reduce energy consumption and GHGs.
- 23. The City will participate in relevant senior government programs that address climate change impacts and that help municipalities adapt to climate change.
- 24. The City will continue to participate in the Partners for Climate Protection Program.

