

## Background

Green buildings are buildings that require less energy to operate, contribute fewer emissions to the environment, conserve water, generate less solid waste, and provide more comfortable and productive environments for their inhabitants.

The advancement of green building practices was identified at the RDN Saturday, April 3, 2004 Sustainability Workshop<sup>1</sup> as one of the possible ways of making the region a more sustainable place to live.

The RDN Board approved an exploratory Green Buildings Project in 2005 for the purpose of becoming informed about green buildings and making a decision about future work to encourage the construction of green buildings in the region.

The exploratory Project included an educational tour of fifteen exemplary green buildings in the Victoria and Vancouver areas for selected RDN Board members and staff in June of 2005, a report to the Board about other local government green building work in October of 2005, and the development of this action plan for future RDN green building work.

## Goal

***To increase the number of green buildings in the Regional District of Nanaimo.***

## Objectives

The objectives are:

- to maintain and enhance RDN staff and elected official awareness and knowledge about green buildings;
- to establish policy regarding green buildings for the region;
- to influence others to support the construction of green buildings in the region;
- to build partnerships to advance green building practices in the region;
- to inform residents about the benefits of green building practices and ways to incorporate

<sup>1</sup> The Sustainability Workshop was conducted as a part of the Sustainability Project that the Regional District is currently undertaking. The Sustainability Project is being conducted to assess the region's progress towards sustainability, to make residents aware of the region's progress towards sustainability and to provide more and better opportunities to involve residents of the region in that assessment.

green building technology into existing and new buildings in the region;

- to inform the development and construction industry active in the region about green building theory and practice, the benefits of green building practices and ways to incorporate green building technology into existing and new buildings in the region;
- to identify barriers to the implementation of green building practices in the region, and to identify ways of reducing or eliminating these barriers; and
- to identify and consider incentives to encourage the construction of green buildings;
- to provide research to support green building construction.

## Actions

### 1. Developing Green Building Policy

- a) The RDN will consider approval of a policy to specify that any new buildings it constructs will achieve a specific green building standard (e.g. Leadership in Energy and Environmental Design NC Gold).

RDN Board approval of a green building policy would ensure that the RDN leads by example for other owners and developers of buildings in the region.

- b) The RDN will consider approval of a policy to commit it to evaluating the “green-ness” of existing buildings according to a specific green building standard for existing buildings and to upgrading existing buildings to achieve a specific green building standard for existing buildings (e.g. Leadership in Energy and Environmental Design EB Gold).

Existing RDN buildings that could be considered include:

- The administration building on Hammond Bay Road;
- The transportation services building on Applecross Road;
- The wastewater treatment offices in Nanaimo and French Creek;
- The office facilities at the regional landfill and at transfer stations;
- The swimming pool in Qualicum Beach; and
- The arenas in the City of Parksville.

- c) The RDN will consider approval of a resolution to encourage the four municipalities in the region to pass resolutions or adopt policies to specify that any new buildings they construct will achieve a specific green building standard.
- d) The RDN will consider approval of a resolution to encourage all private sector development and construction companies that do business in the region to become informed about green buildings, to incorporate green building methods and theories into their practices, and to commit to greening their current and future building construction projects.
- e) The RDN will consider approval of a resolution to encourage the Provincial Government of British Columbia to adopt a policy to specify that any buildings it constructs achieve a specific green building standard.
- f) The RDN will consider approval of a resolution to encourage the Federal Government of Canada to maintain its policy for new buildings to achieve a specific green building standard.

## 2. Building Partnerships

- a) The RDN will consider continued participation as a member of the LEED BC Steering Committee. The purpose of the LEED BC Steering Committee is to pool resources and knowledge to undertake projects that promote and assist green building construction. The LEED BC Steering Committee presently includes representation from the Greater Vancouver Regional District, the City of Vancouver, the Regional District of Nanaimo, Canada Mortgage and Housing Corporation (CMHC), BC Hydro, Terasen, Natural Resources Canada, the Canada Green Building Council, the Cascadia Chapter of the US Green Building Council, and the Sustainable Communities Centre. The LEED BC Steering Committee meets approximately once per month, in Vancouver.
- b) The RDN will consider the establishment of a local Green Buildings Advisory Committee. The purpose of the Advisory Committee would be to identify key goals, strategies and actions to increase the number of green buildings in the RDN. The Advisory Committee could include representatives from the following types of organizations:
  - The development, construction and building management industry (e.g. the Urban Development Institute, the Building Owners and Managers Association of BC, Oceanside Development and Construction Association, etc.);
  - Professional services (e.g. Architects Institute of BC, Association of Professional Engineers of BC, Planning Institute of BC);
  - Local providers of architectural, engineering and building design services;
  - The RDN and member municipality building and planning departments;
  - Relevant provincial government ministries and bodies (e.g. Ministry of Community Services, Ministry of Energy, Mines and Petroleum, BC Hydro) and relevant federal government ministries and bodies (e.g. Natural Resources Canada, Canadian Mortgage and Housing Corporation, Environment Canada);
  - Other related groups (e.g. SmartGrowth BC, Union of BC Municipalities, Federation of Canadian Municipalities, Canada Green Building Council, BC LEED Steering Committee, Sustainable Building Centre).

## 3. Conducting Educational Seminars about Green Buildings

- a) The RDN will consider conducting one or more educational seminars about green buildings for residents. The purpose of the educational seminars to provide general information about:
  - the defining characteristics of a green building;
  - the similarities and differences between green buildings and conventional buildings;
  - how green buildings contribute to the sustainability of the region;
  - tips for constructing a new green home (i.e. methods of reducing operational energy requirements, reducing emissions to the environment, reducing water consumption, reducing solid waste generation, creating a healthier indoor environment);
  - tips for renovating existing homes to make them greener (i.e. methods of reducing operational energy requirements, reducing emissions to the environment, reducing water consumption, reducing solid waste generation, creating a healthier indoor environment).
- b) The RDN will consider conducting one or more educational seminars about green buildings for the local construction industry. The purpose of the educational seminars to provide technical information about:
  - the defining characteristics of a green building;
  - the similarities and differences between green buildings and conventional buildings;
  - how green buildings contribute to the sustainability of the region;
  - the LEED certification system and process;
  - Specific methods of obtaining particular LEED credits or best practices regarding particular LEED credits (i.e. methods of reducing operational energy requirements, reducing emissions to the environment, reducing water consumption, reducing solid waste generation, creating a healthier indoor environment).

#### **4. Publishing Educational Brochures about Green Buildings**

- a) The RDN will consider publishing one or more educational brochures about green buildings. The purpose of the brochures is to provide information about:
- the defining characteristics of a green building;
  - the similarities and differences between green buildings and conventional buildings;
  - how green buildings contribute to the sustainability of the region;
  - tips for constructing a new green home (i.e. methods of reducing operational energy requirements, reducing emissions to the environment, reducing water consumption, reducing solid waste generation, creating a healthier indoor environment);
  - tips for renovating existing homes to make them greener (i.e. methods of reducing operational energy requirements, reducing emissions to the environment, reducing water consumption, reducing solid waste generation, creating a healthier indoor environment).
- The brochures would be made available to the public on the RDN web site, at the RDN offices, and potentially in other public places, such as the offices of each RDN member municipality and local libraries.

#### **5. Conducting Research about Green Buildings**

- a) The RDN will consider commissioning a report to identify the opportunities for green building construction in the RDN. The report will provide information about the amount of new built space anticipated in the region during the next 20 years, and provide information about the impact of this construction if it is constructed to a specific green building standard versus conventional standards.
- b) The RDN will consider commissioning a report to identify and define the barriers to green building construction in the region, and to provide recommendations regarding possible methods of removing these barriers.
- c) The RDN will consider commissioning a report to identify funding programs available for green building construction in the region.
- d) The RDN will consider commissioning a report to identify ways of renovating the existing predominantly single family housing stock to make it greener, and to identify ways of creating new single family housing stock that is greener.

#### **6. Providing Incentives for Green Buildings**

- a) The RDN will consider commissioning a report to identify incentives the RDN and member municipalities could provide to encourage the construction of new green buildings and the renovation of existing buildings to a green building standard. Incentives could include, but are not limited to, such provisions as an expedited permitting system where green buildings are “fast-tracked”, lower development cost charges for green buildings and higher development cost charges for conventional buildings given that green buildings place fewer demands on services, and density bonuses for green building developments.
- b) The RDN will consider providing the above identified incentives for green buildings.

#### **7. Participating in Complementary Initiatives**

- a) The RDN will continue to participate in the Federation of Canadian Municipalities Partners for Climate Protection Program.

As a part of this program the RDN is presently compiling an inventory of greenhouse gas emissions in the region, developing targets for greenhouse gas emission reductions in the region, and developing a plan to reduce greenhouse gas emissions in the region.

- b) The RDN will participate in the Ministry of Energy, Mines and Petroleum Resources Community Action on Energy Efficiency pilot program.

The program is based on the Provincial strategy document "Energy Efficiency in Buildings: A Plan for BC" which establishes the following energy efficiency targets for the year 2010:

- For new detached, single family and row houses: Achieve an EnerGuide for New Houses rating of 80, reducing the average energy consumption in new homes by 32%;
- For new multi-unit residential buildings: achieve energy performance 25% better than the Model National Energy Code for Buildings, reducing the average energy consumption in new homes by 37%;
- For new commercial, institutional and industrial buildings: achieve energy performance 25% better than the Model National Energy Code for Buildings, reducing average energy consumption in new buildings by 20%;
- For existing, detached, single family and row houses: reduce the energy consumption in 12% of existing homes by an average of 17%;
- For existing multi-unit residential buildings: reduce the energy consumption in 16% of existing homes by an average of 9%;
- For existing commercial, institutional and industrial buildings: reduce the energy consumption in 20% of existing buildings by an average of 14%.

Although the CAEE program has suggested adoption of one or more targets, RDN staff wish to test these targets and consult with member municipalities before asking the Board to commit to target(s) that may not be achievable. Accordingly, the RDN has proposed to undertake the following tasks to determine which CAEE targets can be supported: 1) review existing CAEE policies/tools; 2) estimate CAEE reductions; 3) develop implementation plan with full cost accounting; 4) develop board report; and, 5) hold information session with RDN and City of Nanaimo staff.

- c) The RDN will consider participating in other governmental and non-governmental programs that it becomes aware of that will: reduce the amount of energy required to operate buildings in the region, reduce the amount of emissions to the environment generated by buildings in the region, reduce the amount of water consumed in buildings in the region, make buildings in the region generate less solid waste, and make buildings in the region more comfortable and productive for their occupants.

## **Budget**

The RDN Board will consider the allocation of funds to implement selected components of the Action Plan as a part of the budget approval process for each year.

The estimated cost of each action item is up to approximately \$20,000.

## **Timeline**

The RDN Board will consider undertaking one or more action items each year, starting in 2007, as a part of the budgetary process for each year.