

COUNCIL AGENDA/INFORMATION		
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DISTRICT OF WEST VANCOUVER  
750 – 17<sup>TH</sup> STREET, WEST VANCOUVER, BC V7V 3T3

## COUNCIL REPORT

Date: January 25, 2011 File: 2190-01-01  
 From: Stephen Jenkins, Manager Sustainability and Healthy Communities  
 Subject: **Community Climate Action Plan Update- Report Card**

### RECOMMENDED THAT:

1. Council receive this report dated, January 25, 2011 as the second update on the Community Climate Action Plan.
2. Council request staff to expand the report card system to track broader environmental initiatives within the District.
3. Council request the staff report back in six months on progress.

### Purpose

The purpose of this report is to update Council on the implementation of the Community Climate Action Plan and to propose the report card system be used to track a broader range of the District's environmental initiatives.

### Executive Summary

While the topic of climate change is a complex one, the Community Climate Action Plan outlines practical opportunities for West Vancouver to be a leader at both, mitigating and adapting to the effects of climate change. The municipality has set aggressive targets for reduction of Greenhouse gas emissions between now and 2050. Through the implementation of the 19 recommendations in the CCAP, residents and the municipality will be moving in the right direction in terms of lowering their carbon footprints.

Greenhouse gas (GHG) emissions were the main focus of the Climate Action Working Group led plan and 98.3% of West Vancouver's emissions come from the community, with over 54% of the entire footprint coming from energy consumption for homes. The rest of the GHG emissions come from transportation, waste and water.

The Community Climate Action Plan (CCAP) was presented to Council in June 2010 and this report updates Council on the actions of both the community and the municipality in 2010 with respect to reducing greenhouse gas emissions.

The District is also progressing on a number of other environmental initiatives and a broader report card system will allow staff the opportunity to update Council on those initiatives on a bi-annual basis.

## 1.0 Background

### 1.1 Prior Resolutions

On Monday June 21, 2010, Council voted unanimously to add the community greenhouse gas reduction targets and policies to its Official Community Plan. These targets are a product of the provincial Bill 27. The decision dovetails with the recently completed Community Climate Action Plan, which was finalized earlier in the spring of 2010; and puts West Vancouver at the forefront of province-wide local government efforts to address climate change. The GHG reduction targets are as follows:

- Become carbon neutral with respect to municipal operations by 2012; and
- Reduce our greenhouse gas emissions by at least 33% below 2007 levels by 2020 and at least 80% below 2007 levels by 2050.

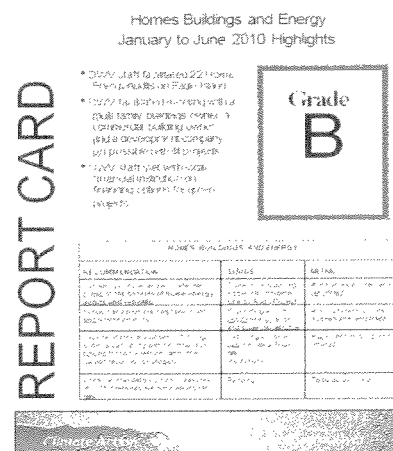
On June 21 2010, Council voted unanimously to approve the following recommendations:

1. Council accept this report and the attached “Climate Action Report Card” dated June 10, 2010, for information.
2. Council instruct staff to report back at the end of 2010 with a second Climate Action Report Card.

### 1.2 History

In July 2010, the first of the report cards on the Community Climate Action Plan was presented to Council. The example to the right is from the “Homes, Buildings and Energy” section. This report card was a snapshot of the achievements to date and grading was based on current efforts as well as previous achievements.

The latest version of the report card is attached as “Appendix 1” to this report. The report card summarizes earlier achievements and highlights actions from the last six months.



## **2.0 Policy**

### 2.1 Policy

While no formal policy exists regarding climate action practices, the District has signed on as a “Partner to Climate Protection” with the Federation of Canadian Municipalities (2000), signed the Climate Action Charter (2008) and adopted changes to its Official Community Plan (2010); all the documents pledge the municipality to greenhouse gas emissions reductions.

### 2.2 Bylaw = N/a

## **3.0 Balanced Scorecard**

<b>STRATEGIC INITIATIVES</b>	<b>2010 MILESTONE</b>	<b>2011 MILESTONE</b>
Complete and implement District Climate Action Plan and initiate methodology for combating climate change as per the Partners for Climate Protection from the Federation of Canadian Municipalities.	<ul style="list-style-type: none"> <li>• Conduct Baseline GHG emissions inventory and forecast</li> <li>• Adopt emissions reduction targets</li> <li>• Complete the Climate Action Plan for reducing emissions</li> <li>• Develop report card on climate action</li> <li>• Amend OCP for Bill 27 compliance</li> </ul>	<ul style="list-style-type: none"> <li>• Implement policies and measures identified in the Climate Action Plan</li> <li>• Implement the report card on climate action and integrate to one report card</li> </ul>

## **4.0 Analysis**

### 4.1 Discussion

Climate change is recognized as a global imperative, and local governments are well positioned to help lead efforts to reduce greenhouse gas emissions. These GHG's have been scientifically linked to global warming. The efforts of our citizens and staff in responding to climate change have placed West Vancouver in the forefront of the practical application of mitigation and adaptation strategies.

The Climate Action Working Group's work led to the "Community Climate Action Plan," that plan had six sections and nineteen recommendations which focussed on practical activities that achieve not only GHG reductions objectives, but improve the community's environmental, social and financial positions.

The six sections of the plan are:

1. Homes, Buildings and Energy
2. Transportation and Land Use
3. Waste, Water and Sewer
4. Adaptation
5. District of West Vancouver Operations
6. Strategic Management

From a review of the emissions numbers, 98.7% of GHG emissions come from the community and 54% of those GHG's come from homes. There are approximately 17,000 units in West Vancouver with roughly 10,000 of those being single family residential. Therefore; retrofitting homes is one of the only viable options to turn back the clock on emissions. Each home in West Vancouver emits an average of 9 tonnes of carbon/year as calculated from one gas connection and one electrical connection.

In British Columbia, the average size of a new single-detached house is the largest in Canada at 2,550 square feet (Altus, 2007). Resource consumption is proportionate to house size, with larger homes resulting in more land occupied and increased impermeable surface, which in turn results in more storm-water runoff, rise in construction costs, and energy consumption increases (Wilson & Boehland, 2005). In West Vancouver, we could assume the average house size is much larger than 2550 square feet.

Approximately 2000 homes a year must undergo a retrofit for the next 10 years in order for West Vancouver to make its target of 33% reduction by 2020. Similar scenarios exist in all of the municipalities of British Columbia, only differing by types of dwellings, industry and transportation challenges.

Uptake may be challenging so the goal for 2011 and 2012 is to demonstrate that retrofits are viable and contribute to the community in ways that are not just quantitative in terms of emissions reductions, but also qualitative in terms of quality of life. It is with the success of these initial projects that uptake should proliferate and targets be met by 2020.

To monitor progress raised in the CCAP, a report card system was implemented. Staff is aware that the Environmental Strategy and other District initiatives are underway that would benefit from a similar monitoring process. To this end, staff has set in motion an internal task team to incorporate all environmental sustainability initiatives on one report card system. If supported by Council, staff expects this more comprehensive reporting to be a part of the next Council update.

## 4.2 Sustainability

### Financial

There is a question whether or not the provincial government will be charging local governments for GHG emissions the same way the province is charging Public Service Organizations under Bill 44. If the charges do begin under the current Bill 44 rate structure, West Vancouver would be paying approximately \$60,000 for emissions in 2010. The rate is proposed to rise until 2012 when it will be \$30/tonne. That would mean that based on the current emission profile that West Vancouver would be paying \$90,000 for emissions in 2012. This is specific to District of West Vancouver operations and does not include the community emissions.

Currently there is a carbon tax on all fossil fuels in BC, and the rate has risen since being introduced in 2008. An example is gasoline that started at \$.024/liter in 2008 to \$.0445/liter currently and is proposed to be at \$.0667/liter by July of 2012. All fossil fuels have a carbon tax and rates are available at the following web address.

[http://www.sbr.gov.bc.ca/documents\\_library/shared\\_documents/Carbon\\_Tax\\_Rates\\_by\\_fuel\\_Type\\_from\\_Jan\\_2010.pdf](http://www.sbr.gov.bc.ca/documents_library/shared_documents/Carbon_Tax_Rates_by_fuel_Type_from_Jan_2010.pdf)

On a more constructive level, financial institutions are beginning to participate in funding mechanisms to help with home retrofits and other energy related projects. West Vancouver staff have met with a number of banking institutions with interests in helping finance projects. This will continue to evolve and more details should be available by the July 2011 report card.

## Social

While climate change and global warming remain topics for debate, some people are taking action today. These residents are working together to look for common solutions to address issues from the global level right down to community issues. For example on Eagle Island, 24 of 31 residents have begun the process of retrofitting their homes to reduce GHG emissions. West Vancouver staff has been working with the islanders to understand the challenges and opportunities in order to see what learnings are transferable to the rest of the municipality. This has included having the fire department participate in a thermal imaging program that may lead to a revenue opportunity for the municipality.

## Environmental

The effects of climate change are becoming more evident around the world. The latest being devastating floods in the state of Queensland, Australia which have left an inland sea the size of Germany and France. The 30-foot rise of three rivers has affected 200,000 people and over 40 cities and towns.

In West Vancouver, the effects of climate change are slower but will be felt in the future. Loss of snowpack will affect drinking water supplies and stream flows in the summer months, rising sea levels will affect homes and vital infrastructure such as sanitary lines, roads and the seawalk.

Mitigation strategies will help lower future emissions but also needed is a comprehensive adaptation strategy which will look at the potential impacts and opportunities to change practices to better plan for a changed climate. The work along the shoreline presents examples of adaptation work in action. New strategies for upland issues will be considered in the coming years.

### 4.3 Consultation

The formation of the Climate Action Working Group made consultation an integral part of the plan. The group conducted numerous outreach sessions and workshops introducing concepts and requesting feedback.

The ongoing works strive to be as inclusive as possible. The work with Eagle Island is a good example of where staff, residents, business and the Council representative of the Climate Action Working Group have all been collaborating on the pilot project.

Internally, a group is being formed to look at the corporate operations and decide how to best move forward on reduction strategies for the District of West Vancouver.

#### 4.4 Communications Process

The "Community Climate Action Plan" serves as the foundation for communicating the District's work with respect to this topic. The bi-annual report card that communicates this to Council is a good "check-in" that work is continuing in this regard.

Other efforts to broaden the awareness of DWV works are also underway with some interest from the United Nations regarding a presentation in New York in April. There should be an indication whether this will happen by the end of January.

The website also remains as the primary source for information regarding DWV work.

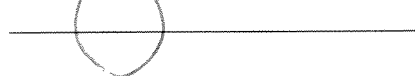
#### 5.0 Options

- 5.1 Council receive this report and request staff to report back in 6 months
- 5.2 Council request more information and staff report back.

Author:



Concurrence  
(optional)



Appendices:

Appendix 1 – Report Card on Community Climate Action Plan

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Climate Action Report Cards 2010

TRANSPORTATION & LAND USE			Recommendations	Timeframe	Highlights	Grade
	<ul style="list-style-type: none"> <li>Implement the recommendations of West Vancouver's Strategic Transportation Plan</li> <li>Ensure that land use decisions reflect transportation impacts by promoting lively, walkable neighbourhoods with local amenities and abundant transportation. Such decisions</li> <li>Encourage local food production initiatives site at the West Vancouver Community Centre</li> </ul>	January-June 2010	<ul style="list-style-type: none"> <li>Strategic Transportation Plan presented to Council</li> <li>Spirit Trail from Squamish Nation lands to 13<sup>th</sup> Avenue almost complete</li> <li>Road widths being minimized in new Rodgers Creek development</li> <li>Edible garden underway at Community Centre</li> </ul>	B		
	<ul style="list-style-type: none"> <li>Encourage local food production initiatives site at the West Vancouver Community Centre</li> </ul>	July-December 2010	<ul style="list-style-type: none"> <li>Spirit Trail continues to be built refer to document number 431267 for more implementation details.</li> <li>"Table Matters" Food forum very well attended</li> </ul>	B		

WATER WASTE AND SEWER			Recommendations	Timeframe	Highlights	Grade
	<ul style="list-style-type: none"> <li>Promote Metro Vancouver's waste diversion program with the intent of meeting the "Zero Waste Challenge"</li> <li>Build on the success of the water metering system to promote the broader benefits of conservation</li> <li>Looking for innovative, low carbon solutions for upcoming replacement of the Lions Gate Wastewater Treatment Plant</li> </ul>	January-June 2010	<ul style="list-style-type: none"> <li>Food Scraps pilot project being conducted in West Vancouver to improve solid waste diversion rates</li> <li>Implemented innovative climate friendly storm water techniques to the latest area of the Rodger's Creek development plan</li> </ul>	B		
	<ul style="list-style-type: none"> <li>Looking for innovative, low carbon solutions for upcoming replacement of the Lions Gate Wastewater Treatment Plant</li> </ul>	July-December 2010	<ul style="list-style-type: none"> <li>Working on ISMP for next 5 creeks west of Rodgers</li> </ul>	C+		

## Climate Action Report Cards 2010

ADAPTION	Recommendations	Timeframe	Highlights	Grade
	<ul style="list-style-type: none"> <li>Continue with foreshore protection and restoration in keeping with the 2008-2011 Shoreline Protection Program</li> <li>Prepare an assessment of climate related vulnerabilities (including water and infrastructure) and work on the West Vancouver waterfront in response to the rising sea level</li> <li>Continue with work on 2011 and report to council annually</li> </ul>	<p>January-June 2010</p> <p>July-December 2010</p>	<ul style="list-style-type: none"> <li>Completed 6 intertidal and subtidal projects that build resilience to climate change</li> <li>Added two more privately funded jobs</li> <li>Worked with homeowners on complimentary foreshore enhancement projects to adapt shoreline to climate friendly condition</li> <li>Parks Department completed a "climate change resilient" addition to the seawalk</li> <li>Works continue to be undertaken and as project profiles are developed more private investment is occurring</li> <li>Presentation to Vancouver Island group in November at Qualicum Beach</li> </ul>	B

DISTRICT OF WEST VANCOUVER OPERATIONS	Recommendations	Timeframe	Highlights	Grade
	<ul style="list-style-type: none"> <li>Working toward carbon neutrality as committed to under the BC Climate Action Charter</li> <li>Review DWV operations using a report card system to be developed in 2010</li> <li>Find anomalies and ensure efficacy of numbers</li> </ul>	<p>January-June 2010</p> <p>July-December 2010</p>	<ul style="list-style-type: none"> <li>Finance Department applied for carbon tax rebate</li> <li>Need to update green house gas inventory for reporting towards objective of carbon neutrality by 2012</li> <li>Biodiesel in municipal vehicles at 20%</li> <li>Report card in draft for January to June 2010</li> <li>Finished corporate inventory 2007-1010</li> </ul>	C



## Climate Action Report Cards 2010

Climate Action Report Card	Recommendations	Timeframe	Highlights	Grade
<b>HOMES, BUILDINGS AND ENERGY</b>	<ul style="list-style-type: none"> <li>• Support, promote and educate public on benefits of home energy audits and retrofits</li> <li>• Support and promote neighbourhood retrofit projects</li> <li>• Work with Utility Companies on retrofit projects</li> <li>• Further explore alternative funding for retrofits with financial institutions</li> <li>• Consider mandatory policy measures in 2015 if retrofits not meeting targets</li> </ul>	January-June 2010	<ul style="list-style-type: none"> <li>• DWV staff facilitated 22 Home Energy Audits on Eagle Island</li> <li>• DWV facilitated meeting with commercial and residential building owners on possible retrofit projects</li> <li>• DWV staff met with local financial institution on financing options for green projects</li> </ul>	B
		July-December 2010	<ul style="list-style-type: none"> <li>• Coordinated and conducted thermal imaging of homes with WV Fire Department</li> <li>• Working on SEAL program with BCIT</li> </ul>	C+