

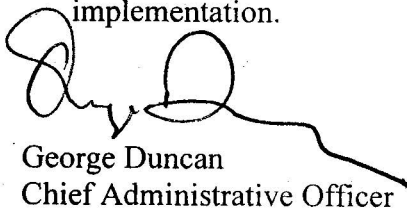


To: General Purposes Committee  
From: George Duncan  
Chief Administrative Officer  
Re: Climate Change Action Charter

TO General Purpose - Apr 21, 2008  
Date: March 25, 2008  
File: 01-0340-03-01/2008-Vol  
01

Staff Recommendation

1. That the City of Richmond sign the British Columbia Climate Action Charter (Attachment 1); and,
2. That an addendum to the Charter be submitted stating the City's Climate Change Response Agenda and Action Initiatives (Attachment 2); and,
3. That Council send a letter to UBCM requesting that the UBCM support the development of a local government climate neutral program which:
  - a. maintains local government flexibility in developing corporate neutral plans and specifically with respect to determining where local offset investments are made;
  - b. is developed as part of comprehensive climate change action, inclusive of both corporate and community-wide initiatives in the areas of emission reduction and adaptation;
  - c. establishes ongoing funding mechanisms; and
  - d. ensures that a reasonable timeline for implementation is provided.
4. That Council send a letter to the Premier with a copy to the Provincial Climate Change Secretariat, Minister of Community Services and Minister of Environment advising that City of Richmond has signed the BC Climate Action Charter and conveying Richmond's interests pertaining to local government flexibility, comprehensive climate change approaches, funding and timelines for implementation.

  
George Duncan  
Chief Administrative Officer

Att. 4

| FOR ORIGINATING DEPARTMENT USE ONLY    |                                                                  |                                        |                                                                  |
|----------------------------------------|------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------|
| ROUTED TO:                             | CONCURRENCE                                                      |                                        | CONCURRENCE                                                      |
| Budgets .....                          | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | Public Works .....                     | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |
| Engineering .....                      | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | Recreation and Cultural Services ..... | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |
| Fleet and Environmental Programs ..... | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | Park Services .....                    | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |
| Facility Management .....              | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | Policy Planning .....                  | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |
| <b>REVIEWED BY TAG</b>                 | YES <input checked="" type="checkbox"/> <i>7.7.</i>              | NO <input type="checkbox"/>            |                                                                  |

## Staff Report

### Origin

The Province is seeking for municipalities to sign the British Columbia Climate Change Charter, an agreement of climate change action among the Province of BC, the Union of British Columbia Municipalities (UBCM) and signatory local governments (Attachment 1). Richmond Council supported the Charter in principle in the Fall of 2007 but has not been a signatory to-date pending further review of potential implications. This report provides this review and identifies recommended action for Council consideration.

### Background

#### City of Richmond Climate Change Action

The City of Richmond has undertaken a wide range of action towards addressing climate change, including international policy advocacy, greenhouse gas (GHG) emission reduction, sustainable community development, early adaptation planning and community outreach. In the Fall of 2007, the City of Richmond adopted a comprehensive Climate Change Response Agenda for establishing an overarching strategic approach and ensuring that all initiatives are being pursued as part of an overall plan<sup>1</sup>. A synopsis of the City's Climate Change program, inclusive of the overarching agenda and action initiatives is provided in Attachment 2.

#### BC Climate Change Action Charter

In the fall of 2007, the Province of BC has enacted legislation committing to reduce BC's greenhouse gas emissions by 33% of current levels by 2020. To achieve this goal, the Province is seeking action across all sectors of the economy. Various initiatives are being pursued including the development of a cap and trade system for industry and establishing GHG emissions reduction requirements for Official Community Plans<sup>2</sup>.

At this stage, the Province has committed to a carbon neutral practice for provincial governmental operations. In support of GHG emission reduction, the Province is seeking for municipalities to commit to the BC Climate Change Action Charter. This Charter is a non-legally binding statement which seeks voluntary commitment from municipalities to 3 goals:

1. becoming carbon neutral in respect to *their own operations* by 2012;
2. measuring and reporting their community's greenhouse gas emissions profile; and
3. creating a complete, compact, more energy efficient community.

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<sup>1</sup> To-date, most action on climate change, including that being taken at the Provincial level, is directed towards greenhouse gas emission reductions. The City's Response Agenda, is comprehensive in nature, setting out a strategic framework for pursuing action concurrently across 3 pillar areas: Empower, Prevent (GHG reduction) and Prepare (Adapting to Change). The City's Climate Change Response Agenda is also linked to the City's broader sustainability framework currently in development. This approach means that while specific climate change response action will be undertaken, proactive effort is also being directed towards charting and pursuing a sustainability development pathway which inherently addresses climate change, avoids the need for specific reactive interventions and meets multiple sustainability objectives concurrently.

<sup>2</sup> Any OCP changes would require new legislation which is not yet prepared. Staff are actively monitoring this process.

## Analysis

### Charter Considerations for the City of Richmond

The City of Richmond has had a long standing commitment towards creating a complete, compact and more energy efficient community. The City's State of Environment reporting program has also identified the importance of GHG emission reporting. As such, it is staff's assessment that the commitments pertaining to complete communities and community GHG inventory are in alignment with current City policies and would be relatively easy for Richmond to fulfill. The commitment of carbon neutrality, however, poses some challenges from an overarching sustainability perspective.

#### *Carbon Neutrality – Advantages*

In general terms, carbon neutral refers to having a net zero carbon input into the atmosphere. To achieve carbon neutrality, organizations reduce their greenhouse gas emissions to the extent possible and then offset the remainder by investing in GHG reductions in other emitters. Offsets are supposed to occur in areas where reductions would not have been expected to occur without the aid of the external investment. A main advantage of carbon neutrality is that it begins to internalize a portion of the costs associated with GHG emissions which is consistent with the City's triple bottom line approach. This, in turn, may result in further attention being directed at emission reduction in order to reduce costs.

#### *Carbon Neutrality – Disadvantages*

There are a number of potential challenges posed by pursuing a goal of carbon neutrality, including potential for financial impact for corporate operations and reduced sustainability benefits.

#### **Financial Implications**

A credible climate neutral commitment requires fiscal resources on an annual basis to finance: 1) GHG emission reduction action; 2) offset investments and 3) management of the carbon neutral program.

Preliminary estimates suggest that a full impact scenario (i.e., no proactive response strategy) for City of Richmond, annual expenditures for offset investment and carbon neutral management are estimated to be in the order of \$400,000 in 2012 when the commitment to neutrality commences (Attachment 3). Actual financial impact, however, could be substantially lower depending upon strategies used for achieving carbon neutrality.

#### **Other Implications**

Other challenges which may result in reduced sustainability benefits include:

- creating the perception that action is resulting in atmospheric stability<sup>3</sup>
- directing resources towards carbon accounting rather than direct reduction action and other multiple objective-based climate change action (e.g., adaptation strategies with GHG reduction co-benefits, etc)

<sup>3</sup> Carbon neutrality does not mean that the atmosphere will be stable. In fact, it is highly likely for carbon loadings to increase under a carbon neutral policy approach due to a variety of reasons, including the practice of "neutralizing" loadings with reduction projects which accrue the necessary reduction benefits over many years. This means that while there is the perception that carbon loading is "neutralized" at the time of emission, it actually often takes many years to accrue the equivalent reduction.

- variable interpretations on what is considered to be credible offsets
- directing resources towards reducing GHG emissions from other emitters (who should be pursuing their own action) when corporate emissions persist
- diverting investment away from strengthening likely higher priority corporate and community-based sustainable practices<sup>4</sup>.

### **Potential Impacts**

The relative magnitude of these potential challenges and actual impacts to municipal operational costs and sustainability initiatives largely depends upon how carbon neutrality is actually pursued in practice.

Unfortunately, a key challenge is signing the Charter now is that protocols for implementation have not been developed and as such, there remains many unknowns. Key issues include determining whether community-wide initiatives are able to be used for emission credits and for offset investment. The Province has advised that their preference is for municipalities to direct offset funds to a province-wide third-party Carbon Trust which would then invest funds for reduction initiatives across BC. Under this scenario, there is the potential for local funds to be invested outside of their communities. This approach has the potential advantage of leveraging funds to result in larger reduction projects and potential larger investments in some communities. However, there is also the potential for local loss of investment and reduced ability for municipalities to leverage their own fiscal resources.

The Province and UBCM have initiated a Green Communities Committee (GCC) to develop a common approach to determining carbon neutrality. The City of Richmond has the opportunity to provide input into this Committee.

A key consideration is to ensure flexibility into any carbon neutral program which retain opportunities to pursue multi-objective based initiatives and leverage already existing and planned corporate investments. A key advantage for local governments is their potential capacity to reduce impacts by maximizing GHG reduction and generating offset credits through both through corporate and community-wide initiatives, inclusive of partnership efforts with private development.

### **Action Taken by Other Municipalities**

At present, just over 100 municipalities local governments have signed Charter. Most municipalities have signed from a first-principle basis without a comprehensive evaluation of potential implications. A key determining factor has been the link to Provincial funding. District of Saanich has initiated action towards climate neutrality by depositing funds for into a corporate account. Most municipalities are waiting further development work being conducted by the Green Communities Committee (GCC).

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<sup>4</sup> It is noted that the City of Richmond's corporate GHG emissions account for @0.01% of the total MetroVancouver GHG emissions. As noted, while the City's Climate Change Response Agenda directs action towards corporate GHG emission reduction, it also directs action towards adaptation planning. Given the City's Island context and present major development investments, Richmond Council endorsed the need to place climate change action priority on adaptation planning in the Spring 2007. A key area of priority is to ensure that investments being made today (e.g., civic infrastructure, community developments, etc.) consider potential climate change implications and provide adequate long-term value and security for the community.

## Recommended Action for City of Richmond

### *Assessment of Implications*

It is staff's assessment that because it addresses both emission reduction and adaptation action at the corporate and community-wide level, the City's existing Climate Change Response Agenda (without commitment to carbon neutrality) provides a stronger basis for pursuing meaningful climate change response action for Richmond<sup>5</sup>. This approach enables the City to direct its resources to multiple objectives simultaneously versus narrowly focussing in one area (emission reduction) and failing to place sufficient action on other high priority areas (adaptation, other sustainability priorities, etc.).

Signing the Charter now also means committing the municipality to a specific target without the ability to assess triple bottom line benefits and impacts, and the relative value of alternative approaches for reducing corporate GHG emissions.

However, a decision to not sign the Charter could result in a variety of negative implications for Richmond, including:

- a perception from the local and broader community that the City of Richmond is failing to take responsible action
- a potentially reduced collective action towards climate change
- a potentially reduced ability for Richmond to access Provincial funding<sup>6</sup>
- a potentially lost opportunity to participate in a voluntary reduction program resulting in increase potential for legislative requirements<sup>7</sup>.

### *Recommended Action*

Accordingly, to avoid potential misconceptions, retain options for Provincial funding, avoid restrictive legislative corporate reduction requirements and support momentum on collective action, it is staff's recommendation that:

1. the City of Richmond sign the Climate Action Charter
2. staff develop a Carbon Neutral Response Strategy for Council consideration
3. Richmond Council request that the UBCM advocate for:
  - a. local government flexibility for developing their own corporate neutral plans to enable municipalities to meet the Charter's intention while address local community sustainability priorities,
  - b. a climate neutral program to be prepared as part of a comprehensive climate change approach, inclusive of both corporate and community-wide initiatives in the areas of emission reduction and adaptation, and
  - c. municipal funding sources to support wide range of action, inclusive of corporate GHG reduction and innovative local community-wide offset strategies
  - d. a common approach as articulated in clause 7 of the Charter is developed in a timeframe which provides reasonable timeframes for local government implementation.

<sup>5</sup> City staff have spoken with representatives from the UBCM who concurred that Richmond's objective to pursue a comprehensive and strategic approach is a valid concern and have indicated that they will be bringing it up to Green Communities Committee responsible for developing the climate neutral program.

<sup>6</sup> The Province has advised that commitment to the Charter will be used as one of the evaluation criteria in the review of municipal applications for Provincial infrastructure programs.

<sup>7</sup> It is noted that the Province has indicated that it has elected to pursue a voluntary program with the Charter rather than to legislate reduction targets; however, failure to make satisfactory progress would increase likelihood of a legislative framework.

4. Council send a letter to the Premier with a copy to the Provincial Climate Change Secretariat, Minister of Community Services and Minister of Environment advising that City of Richmond has signed the BC Climate Action Charter and conveying Richmond's interests pertaining to local government flexibility and comprehensive climate change approaches, and requesting that the Province identifies intended timelines for the development of the intended common approach to carbon neutrality.

It is staff's recommendation that the City of Richmond proceed with developing a response strategy without waiting for the completion of the common approach. This approach is recommended because it enables the City to develop a model which best addresses City interests and places the City in a position to proactively influence the direction of the common approach.

The proposed response strategy will be developed to minimize any additional cost to the municipality and target revenue neutrality. Consideration will be given to approaches which:

- leverage and support already existing initiatives, programs and budgets;
- maximize GHG emission reduction action (to avoid continual payment for offsets, reduce vulnerability to escalating offset costs, maximize local sustainability benefits, etc.);
- prioritize action which support carbon neutral while generating future revenue options and financial returns on investment (e.g., district utilities, energy efficiency improvements, etc.);
- integrate costs into business activity generating emissions; and
- support multiple-objectives and sustainability priorities for the corporation and local community.

A detailed financial plan will be developed as part of the response strategy. An assessment of alternative action is provided in Attachment 4.

## **Next Steps**

### *Carbon Neutral Response Strategy*

It is recommended that the Carbon Neutral Response Strategy be developed in 2 phases:

1. Early Opportunities (2008)
2. Carbon Neutral Plan (2009).

This approach enables the City to identify and pursue immediate opportunities and focus on influencing current Provincial direction. If necessary, funding in support of developing the Carbon Neutral Plan funding will be pursued as part of the 2009 capital program budget process. The Carbon Neutral Response Strategy will be integrated into the City's Climate Change Response Agenda and will be developed in a manner which best supports the broader comprehensive approach. Efforts will be coordinated through the City's Sustainability Office.

## **Financial Impact**

### Immediate – Signing of the Charter

There is no immediate financial impact to signing the Charter and it is noted that the commitment is non-legally binding.

### Carbon Neutral Implementation (2012 and beyond)

Based on a full financial impact scenario (i.e., without a proactive response strategy), the budgetary impact to the City is estimated to be in the order of \$400,000 per year to meet the carbon neutral

commitment based on current level of service (Attachment 3). This amount would be expected to increase over-time if the City continued to expand its services at a rate higher than emission reduction.

Actual impact, however, may be significantly lower depending on the Richmond's Response Strategy. The financial impact of implementing a carbon neutral program will be provided in the Response Strategy being developed for Council consideration. The non-legally binding aspect of the Charter provides Council the flexibility to review and re-assess commitments to carbon neutrality once the Response Strategy has been developed and detailed costs implications are better known<sup>8</sup>.

## Conclusion

The Province is seeking for local governments to sign onto a Climate Change Charter which commits municipalities to achieving carbon neutrality in their operations by 2012. Becoming Carbon Neutral, however, has the potential divert resources away from investments with more immediate and greater benefits for community sustainability and impact existing operational budgets. In order to best avoid this possibility and to support collective action, this report recommends that the City of Richmond sign the BC Climate Change Charter on the basis that the City will be developing a City response plan which strives to support both the intent of the Charter and best meet current local sustainability priorities, inclusive of minimizing adverse operational impacts.



Margot Daykin, M.R.M.  
Sustainability Manager

MD:md (4130)

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<sup>8</sup> It is noted that a comprehensive financial impact would also consider costs of not pursuing carbon neutrality. Such an assessment is not possible given the level of uncertainty in actual outcomes and difficulty in quantifying actual costs. Recent economic reviews have indicated that lack of action on climate change is expected to result in significant social and financial impact.

## Attachment 1: UBCM Climate Change Charter

**THE BRITISH COLUMBIA CLIMATE ACTION CHARTER**  
**BETWEEN**  
**THE PROVINCE OF BRITISH COLUMBIA (THE PROVINCE)**  
**AND**  
**THE UNION OF BRITISH COLUMBIA MUNICIPALITIES (UBCM)**  
**AND**  
**SIGNATORY LOCAL GOVERNMENTS**  
  
**(THE PARTIES)**

**(1) The Parties share the common understanding that:**

- (a) Scientific consensus has developed that increasing emissions of human caused greenhouse gases (GHG), including carbon dioxide, methane and other GHG emissions, that are released into the atmosphere are affecting the Earth's climate;
- (b) the evidence of global warming is unequivocal and the effects of climate change are evident across British Columbia;
- (c) reducing GHG emissions will generate environmental and health benefits for individuals, families, and communities;
- (c) climate change and reducing GHG emissions are issues of importance to British Columbians;
- (d) governments urgently need to implement effective measures to reduce GHG emissions and anticipate and prepare for climate change impacts;
- (e) protecting the environment can be done in ways that promote economic prosperity; and
- (f) it is important to take action and to work together to share best practices, to reduce GHG emissions and address the impacts of climate change.

**(2) The Parties acknowledge that each has an important role in addressing climate change and that:**

- (a) The Province has taken action on climate change, including commitments made in the 2007 Speech from the Throne, the BC Energy Plan, and the Western Climate Initiative on climate change;
- (b) Local Governments have taken action on climate change, including planning livable, sustainable communities, encouraging green developments and transit oriented developments, and implementing innovative infrastructure technologies including landfill gas recapture and production of clean energy; and
- (c) these actions create the foundation for the Parties to be leaders in affecting climate change.

**(3) This Charter acknowledges that:**

- (a) The interrelationship between each Order of Government's respective jurisdictions and accountabilities with respect to communities, and activities related to and within communities, creates both a need and an opportunity to work collaboratively on climate change initiatives;
- (b) both Orders of Government have recognized a need for action, both see that the circumstances represent a Climate for Change in British Columbia, and both are responding; and
- (c) the actions of each of the Parties towards climate change will be more successful if undertaken jointly with other Parties.



- (4) **The Parties share the common goals of:**
- (a) Fostering co-operative inter-governmental relations;
  - (b) aiming to reduce GHG emissions, including both their own and those created by others;
  - (c) removing legislative, regulatory, policy, or other barriers to taking action on climate change;
  - (d) implementing programs, policies, or legislative actions, within their respective jurisdictions, that facilitate reduced GHG emissions, where appropriate;
  - (e) encouraging communities that are complete and compact and socially responsive; and
  - (f) encouraging infrastructure and a built environment that supports the economic and social needs of the community while minimizing its environmental impact.
- (5) **In order to contribute to reducing GHG emissions:**
- (a) Signatory Local Governments agree to develop strategies and take actions to achieve the following goals:
    - (i) being carbon neutral in respect of their operations by 2012, recognizing that solid waste facilities regulated under *the Environmental Management Act* are not included in operations for the purposes of this Charter.
    - (ii) measuring and reporting on their community's GHG emissions profile; and
    - (iii) creating complete, compact, more energy efficient rural and urban communities (e.g. foster a built environment that supports a reduction in car dependency and energy use, establish policies and processes that support fast tracking of green development projects, adopt zoning practices that encourage land use patterns that increase density and reduce sprawl.)
  - (b) The Province and the UBCM will support local governments in pursuing these goals, including developing options and actions for local governments to be carbon neutral in respect of their operations by 2012.
- (6) **The Parties agree that this commitment to working together towards reducing GHG emissions will be implemented through establishing a Joint Provincial-UBCM Green Communities Committee and Green Communities Working Groups that support that Committee, with the following purposes:**
- (a) To develop a range of actions that can affect climate change, including initiatives such as: assessment, taxation, zoning or other regulatory reforms or incentives to encourage land use patterns that promote increased density, smaller lot sizes, encourage mixed uses and reduced GHG emissions; development of GHG reduction targets and strategies, alternative transportation opportunities, policies and processes that support fast-tracking of green development projects, community gardens and urban forestry; and integrated transportation and land use planning;
  - (b) to build local government capacity to plan and implement climate change initiatives;
  - (c) to support local government in taking actions on becoming carbon neutral in respect of their operations by 2012, including developing a common approach to determine carbon neutrality for the purposes of this Charter, identifying carbon neutral strategies and actions appropriate for the range of communities in British Columbia and becoming reporting entities under the Climate Registry; and,
  - (d) to share information and explore additional opportunities to support climate change activities, through enhanced collaboration amongst the Parties, and through encouraging and promoting climate change initiatives of individuals and businesses within communities.
- (7) Once a common approach to carbon neutrality is developed under section (6)(c), Signatory Local Governments will implement their commitment in 5 (a) (i).
- (8) To recognize and support the GHG emission reduction initiatives and the climate change goals outlined in this Charter, Signatory Local Governments are invited by the other Parties to include a statement of their initiatives and commitments as an appendix to this Charter.
- (9) This Charter is not intended to be legally binding or impose legal obligations on any Party and will have no legal effect.

**SIGNED** on behalf of the **PROVINCE OF BRITISH COLUMBIA** by:

\_\_\_\_\_  
The Honourable Gordon Campbell  
Premier of British Columbia

Date: September 26, 2007

\_\_\_\_\_  
The Honourable Ida Chong Minister  
of Community Service and Minister  
Responsible for Senior's and  
Women's Issues

Date: September 26, 2007

**SIGNED** on behalf of the **UNION OF BRITISH COLUMBIA MUNICIPALITIES** by:

\_\_\_\_\_  
Councillor Brenda Binnie and  
President of the Union of British  
Columbia Municipalities

Date: September 26, 2007

**SIGNED** on behalf of the **SIGNATORY LOCAL GOVERNMENT:**

\_\_\_\_\_  
(NAME OF LOCAL GOVERNMENT)

by:

\_\_\_\_\_  
Mayor/Chair

Date \_\_\_\_\_

**Appendix**  
**GHG reduction initiatives or commitments of Signatory Local Government**

*Note: Local Governments that choose to become Signatories may also choose to provide a statement of their individual commitments in a customized addendum to the main body of the Charter. Below is a sample version of the proposed addendum*

SAMPLE

Addendum to  
The British Columbia Climate Change Action Charter  
For  
[Name of Local Government]  
is committed to

1. Implementing existing plans

*Local Governments could list here plans they have developed and are in the process of implementing; for example:*

- Community energy plan
- Greenhouse gas emissions inventory
- Official Community Plan – Smart Growth
- Community Action on Energy Efficiency Initiative (CAEE)
- Partners for Climate Protection, Federation of Canadian Municipalities
- District Energy System
- Eco-Industrial Project
- Transit Oriented Development Plan
- Landfill Gas Utilization

2. Continue to pursue activities

*Local Governments could list here recent projects they have implemented; for example:*

- Bio-diesel fleet vehicle conversion
- E3 Fleet Program
- Greenhouse Gas Reduction Strategy
- Carbon Neutral Municipal Operations
- Organics Recovery
- Recycling and waste management plan
- Greenhouse gas local action plan
- Energy Efficient Municipal Operations
- Employee car-pooling
- Air quality planning

3. Preparing new plans, bylaws, policies, etc.

*Local Governments could list here plans, bylaws, policies they are committed to develop; for example:*

- Plan for being carbon neutral in respect of their operations by 2012
- Anti-idling bylaw
- Green Buildings BC for Local Governments
- Smart Growth Development Checklist
- Green Building Program – Built Green and LEED standards
- Micro-generation projects (hydro, wind power, etc)
- Sustainable Community Servicing Plan
- Green Roof Policy
- Greywater recycling policy and standards
- Pedestrian and transit friendly community design
- Local Purchasing Policy
- Streamlined Green Building Application Process

## Attachment 2: City of Richmond Climate Change Program - Synopsis

### 1. Overarching Plan – Climate Change Response Agenda

In fall 2007, Richmond City Council adopted an overarching framework for guiding corporate action on climate change ([http://www.richmond.ca/cityhall/council/agendas/council/2007/091707\\_minutes.htm](http://www.richmond.ca/cityhall/council/agendas/council/2007/091707_minutes.htm)).

This Agenda (see attached) is based on pursuing initiatives concurrently under 3 pillars of action:

- **Empower** - increase corporate and community capacity for addressing climate change;
- **Prevent** - reduce greenhouse gas (GHG) emissions; and
- **Prepare** - implement strategies for adapting to unavoidable changes.

### 2. City Action – Key Initiatives 2007/2008

The City of Richmond has undertaken a variety of initiatives in effort to advance sustainability-based community development and corporate activity. Many of these initiatives support the City's Climate Change response objectives by reducing emissions and strengthening capacity to respond to change. A summary of core City initiatives which support climate change action is provided in attached table. Key initiatives being conducted through 2007/2008 work period are outlined below.

#### i. Empower

The City is currently working in partnership with BC Sustainable Energy Association (BC SEA) to raise awareness of climate change and its solutions in Richmond schools. BC SEA are conducting a series of workshops through their **Climate Change Showdown** program in a variety of Richmond schools throughout the 2007/2008 school term.

The Corporate Sustainability Initiative has been organizing a **Sustainability Speaker Series** for Richmond staff. Among a suite of other issues and topics, this series has included presentations and films on climate change. The City's Engineering Department incorporated climate change considerations in its annual departmental workshop for 2007. Work included presentations from guest speakers and small group brainstorming sessions on potential strategies for addressing climate change impacts on the department.

#### ii. Prevent

Richmond completed **corporate greenhouse gas (ghg) emission inventory** for the years 1995 and 1999 and has undertaken a number of initiatives which reduce ghg. The City is currently conducting an updated inventory study of corporate emissions which will incorporate the past years data and include emissions inventory for 2003 and 2006. Once the City has an up-to-date inventory, work can proceed with setting targets and strategic reduction planning. The inventory work is anticipated to be completed by Spring 2008.

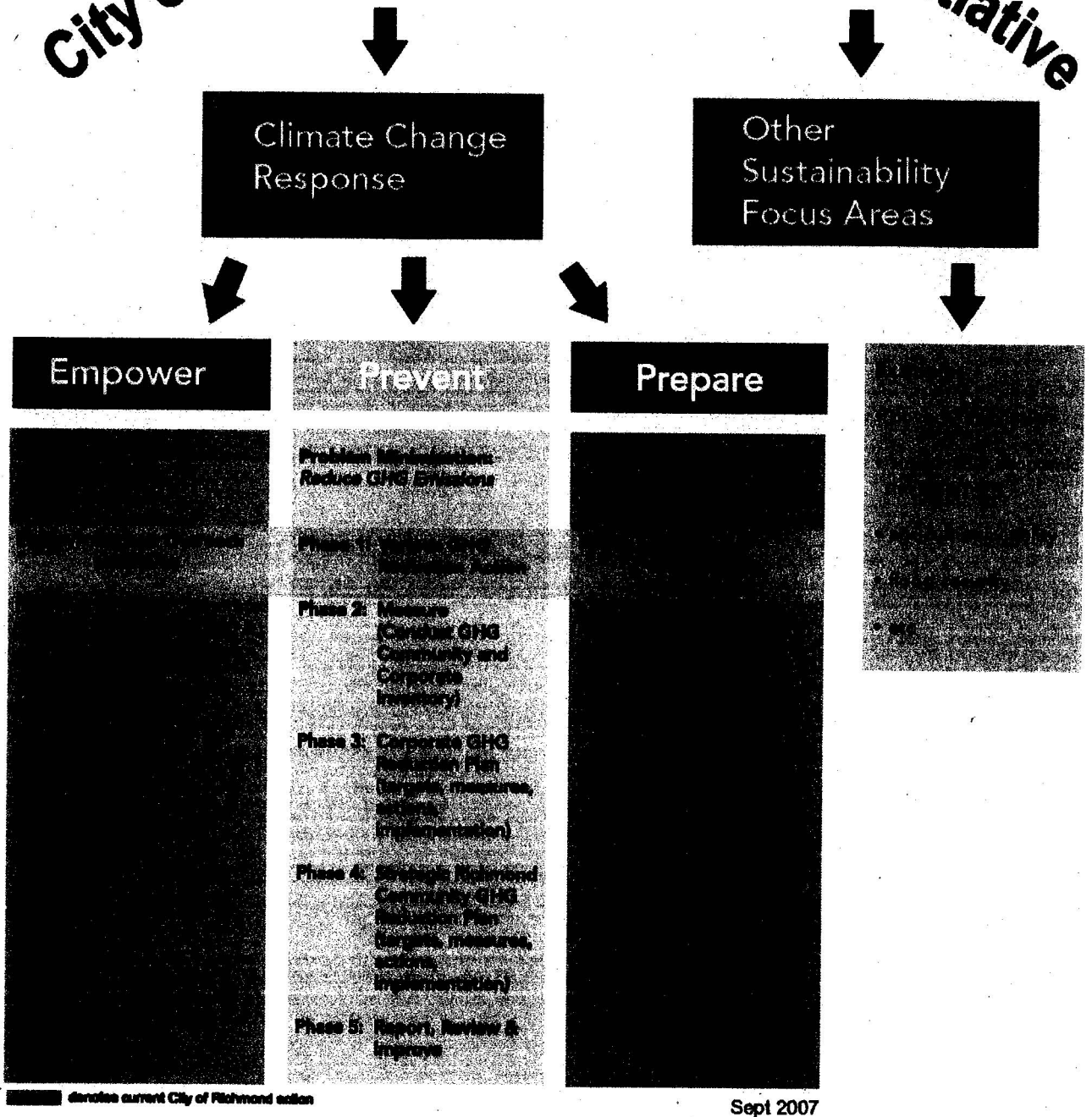
#### iii. Prepare

In the fall of 2007, the City initiated action in preparing the municipality to better adapt to unavoidable climate change impacts with the launch of the **City of Richmond - Impacts & Early Adaptation Study**. The purpose of the Study is to consolidate existing knowledge on potential changes, identify potential local impacts and identify early adaptation strategies. The Impacts & Early Adaptation Study is a joint effort among the City of Richmond, Environment Canada and University of British Columbia. A key aspect of the Study is to identify adaptive approaches that also reduce greenhouse gas emissions and ultimately, support long-term sustainable community development. An interdepartmental staff team was assembled in the fall of 2007 to provide oversight and strategic advice in guiding the Impacts & Early Adaptation Study<sup>9</sup>. A detailed work plan is provided in the Study's Terms of Reference (REDMS 2237556).

<sup>9</sup> Members include: Terry Crowe, David Brownlee, Lorin Gaertner, June Christy (Policy & Planning); Robert Gonzalez, Siu Tse, Jim Young, Joanne Powell (Engineering); Suzanne Bycraft, Neil Chura (Fleet & Environment); Dave Semple (Parks & Public Works); Margot Daykin (Sustainability Office)

City of Richmond – Climate Change Response Agenda

# City of Richmond: Sustainability Initiative



**Table 1 - Overview – City of Richmond’s Climate Change Action Initiatives**

| <b>City of Richmond: Climate Change Action Initiatives</b> |                                            | <b>Initiatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Action Area</b>                                         |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Empower</b>                                             | Community Engagement                       | <p><i>Local Community Outreach</i></p> <p>Raise awareness and support community action for reducing energy consumption and greenhouse gas (GHG) emissions</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                            | Supporting Global Action                   | <p><i>International Government Liaison</i></p> <p>Support international efforts for reducing GHG emissions globally</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Prevent</b>                                             | Sustainable Community Planning             | <p><i>Community Planning</i></p> <p>Reduce energy consumption and GHG emissions through community planning, transportation-demand management and natural resource protection.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                            | Richmond Community GHG Emissions Reduction | <p><i>City Servicing</i></p> <p>Reduce the amount of GHG emissions produced from the consumption and production of potable water. Reduce the amount of GHG emissions produced from landfills.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                            | Richmond Corporate GHG Emissions           | <p><i>Procurement</i></p> <p>Reduce energy consumption and GHG emissions from City supplies</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                            |                                            | <p>Anti-idling School Campaign</p> <p>Recycling and Water Conservation Education</p> <p>1-Tonne Community Challenge (complete)</p> <p>Alternative Transportation Activities (e.g., Island City by Bike, etc.)</p> <p>Climate Change School Program</p> <p>Council support for Kyoto Protocol</p> <p>Council endorsement of the Toronto Declaration and Communiqué</p> <p>Urban development policies for reducing car-dependency (OCP policies for reducing urban sprawl, encouraging compact complete communities, supporting light rail transit, encouraging alternative forms of transportation, bike and greenway planning, etc.)</p> <p>Dedication of Richmond Nature Park</p> <p>Tree Protection Bylaw</p> <p>ESA Development Permit</p> <p>Urban Forest Management Strategy</p> <p>Water Metering Program</p> <p>Curbside Recycling Program</p> <p>Environmental Purchasing Policy/Guidebook</p> |

| City of Richmond: Climate Change Action Initiatives |                                                                                                                                      | Initiatives                                                                                      |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Action Area                                         |                                                                                                                                      |                                                                                                  |
| Prevent                                             | Reduction<br><i>Building &amp; Lighting Energy</i><br>Reduce energy consumption and GHG emissions from City buildings and facilities | High Performance Building Policy <sup>1</sup>                                                    |
|                                                     |                                                                                                                                      | Energy Management Program                                                                        |
|                                                     | <i>Green Fleet</i><br>Reduce City vehicle fleet's GHG emissions                                                                      | Use of LED Street Lighting                                                                       |
|                                                     |                                                                                                                                      | Green Fleet Policy                                                                               |
| Prepare                                             | Research & Innovation<br><i>Engineering Services</i><br>Reduce energy consumption and GHG emissions of engineering services          | Resolution to Purchase Hybrids/Smart Cars                                                        |
|                                                     |                                                                                                                                      | Works Yard Idle-Free Campaign                                                                    |
|                                                     | <i>Advancing GHG Emission Reduction</i>                                                                                              | City Car-Pool program                                                                            |
|                                                     |                                                                                                                                      | Use of 5 % Biodiesel                                                                             |
| Protection Measures                                 | Strategic Planning<br><i>Understanding Richmond Risks &amp; Vulnerabilities</i>                                                      | Use of Directional Drilling Practices (reduces material needs and transport of material to site) |
|                                                     |                                                                                                                                      | Biodiesel Demonstration Project                                                                  |
|                                                     | Flood Risk Management<br><i>Flood Protection Measures</i>                                                                            | District Geothermal Utility System Exploration                                                   |
|                                                     |                                                                                                                                      | Eco-Industrial Networking Study                                                                  |
|                                                     |                                                                                                                                      | Climate Change Scoping Study                                                                     |
|                                                     |                                                                                                                                      | Flood Management Strategy                                                                        |
|                                                     |                                                                                                                                      | Dyke Management Program                                                                          |

<sup>1</sup> Target established to meet or exceed LEED gold for new facilities > 2000 m2 and meet performance standards of LEED Silver certification as a minimum requirement for major renovations to existing facilities and new City Buildings smaller than 2000 m2. A variety of varying initiatives are undertaken to meet LEED standards and may include measures such as use of alternative energy sources (solar, geothermal), energy efficiency techniques (daylighting, energy efficient lighting, etc.), stormwater management (detention ponds, green roofs, etc.), water conservation techniques (e.g., low-water use toilets/fixtures; use of grey water, etc.) and use of environmentally-preferred products (locally produced, low toxicity, etc.).

### Attachment 3: Full Financial Impact Assessment Without Proactive Response Strategy

The following estimates are based on gross approximations and are intended to provide a relative order of magnitude of potential impact under a worst case scenario basis (i.e., no proactive response strategy to reduce GHG emissions and generate offset benefits).

#### Current Assessment - 2008

$$\text{Financial Impact Current} = \text{Administrative Cost}^{10} + \text{Offset Amount}$$

$$\text{Offset Amount} = \text{Current Corporate GHG Emissions} * \text{Market Price of Carbon}$$

$$\text{Offset Amount} = 9,783 \text{ tonnes} * \$25$$

$$\text{Offset Amount} = \text{approx } \$250,000$$

$$\text{Administrative Cost} = \text{approx } \$50,000 \text{ (part-time position)}$$

$$\text{Financial Impact Current} = \text{approx. } \$300,000$$

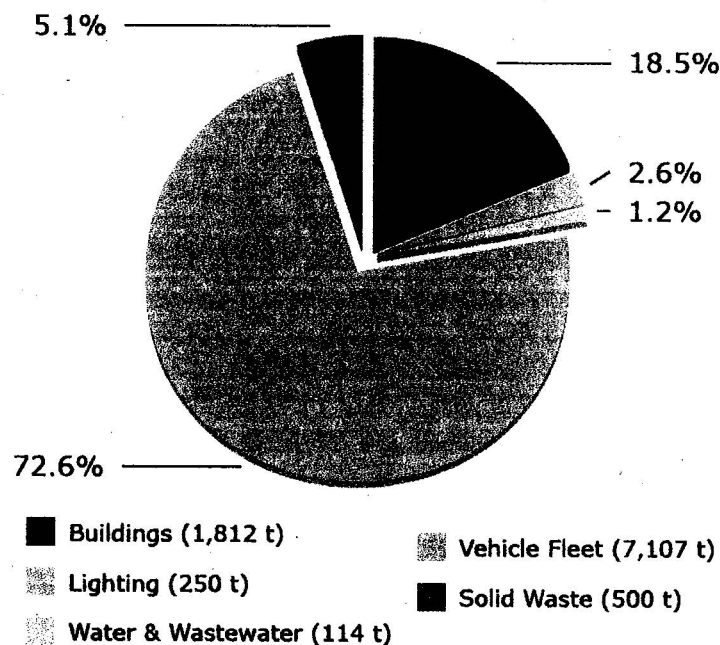
#### Project Assessment - 2012

$$\text{Financial Impact 2012} = \text{Financial Impact Current} + \text{Projected Increase Approximation}^{11}$$

$$\text{Financial Impact 2012} = \$300,000 + \$100,000$$

$$\text{Financial Impact 2012} = \text{approx. } \$400,000$$

#### 2007 City of Richmond Corporate GHG Emissions<sup>12</sup>



<sup>10</sup> Administrative costs incorporates expenditures for corporate accounting and management of offsets.

<sup>11</sup> Costs are expected to increase over time due to inflation and anticipated increases in price of carbon. Projected costs do not incorporate potential changes to corporate GHG emissions.

<sup>12</sup> Emission inventory provided from preliminary inventory study being conducted by Hes Ltd.



**Attachment 4: Assessment of Alternative Action**

An assessment of alternative action is provided in the following table.

**Table 1: Assessment of Alternative Response Action to the Climate Action Charter for the City of Richmond**

| Action                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Not Sign the Charter                                                            | Not recommended because of potential: <ul style="list-style-type: none"> <li>• loss in securing Provincial funding</li> <li>• reduced ability to influence Provincial requirements for GHG emission reduction</li> <li>• reduced collective action in GHG emission reduction and lost opportunity to reduce climate change risk for Richmond</li> </ul>                                                                                                                                                                                                                                                                    |
| 2. Seek Equivalency                                                                | Staff attempted this approach. While there was support at the technical level, our assessment senior support from the Provincial Climate Change Secretariat was low.<br><br>Not recommended because: <ul style="list-style-type: none"> <li>• since there is currently no allowance for this, it is staff's assessment that this approach would likely require significant investment without potential for no measurable benefit towards climate change</li> <li>• remains a potential strategy to incorporate into the Carbon Neutral protocol development being currently conducted by the Province and UBCM</li> </ul> |
| 3. Sign and Wait for Provincial Direction on Compliance                            | Not recommended because: <ul style="list-style-type: none"> <li>• puts Richmond in a reactive position</li> <li>• reduces ability to influence Provincial direction</li> <li>• delay in action is likely to result in increase costs</li> <li>• direction is likely to be narrowly focussed and reduces Richmond's ability to maximize benefits across multiple objectives</li> </ul>                                                                                                                                                                                                                                      |
| 4. Sign the Charter and Develop Proactive Response Strategy ( <i>Recommended</i> ) | Recommended because: <ul style="list-style-type: none"> <li>• places Richmond in a proactive position</li> <li>• likely to result in lowest cost impact to the City</li> <li>• provides maximum flexibility to the City to develop a carbon neutral program to meet the suite of municipal objectives and provides maximum benefit and value to the City and Richmond community</li> </ul>                                                                                                                                                                                                                                 |