Media Release

Risk Assessment of Climate Change Impacts for Victoria Completed: Heat waves, flooding, sea level rise and impacts to natural environment present greatest risks

Date: Friday, August 17, 2012 For Immediate Release

VICTORIA, BC — A risk assessment of climate change impacts for Victoria is now complete and will inform the community-wide climate change adaptation plan that is being developed this fall. The review is based on projected climate change events to 2050.

The science is clear: our global climate is changing. Despite all efforts to reduce greenhouse gas emissions, we will continue to experience weather events and impacts related to climate change over the coming decades, even if all emissions were stopped today.

The climate change adaptation plan will help our community understand and prepare for the opportunities and risks we face from a changing climate. A community-wide energy use and emissions reduction plan is also being developed, along with the adaptation plan.

Climate change events in Victoria to 2050 are projected to include:

- **Warmer temperatures**
  - Increase of 1.0 to 2.3C by 2050s (from 1961-1990 baseline)
  - Increase in hot days (over 30°C)
  - Humidity increase
- **Wetter winters, drier summers**
  - Up to 14% increase in winter precipitation
  - Up to 32% decrease in summer rainfall
- **Sea Level Rise**
  - An estimated sea level rise of 45 cm by 2050, most visible during winter high tides.
  - By 2100, the extreme high estimate of sea level rise for Victoria is 0.89 – 0.94m.
  - **Increased Frequency and Intensity of Storm Events**
  - Increase in the frequency and intensity of storm events by as much as 15%
  - With the increase of intensity and frequency of winter storms, in conjunction with high winter tides, we will also see an increase in storm surges, waves that are pushed onshore from high winds.

Based on current projections, Victoria's greatest risks from climate change are as follows:

- Heat waves are considered the most significant public health risk as our buildings and residents are generally not prepared for hot days over 30 degrees. Impacts of a 72 hour heat wave are likely to worsen, as Victoria's population of older, more vulnerable adults is projected to rise.

- Small localized flooding is a yearly event in the region. Larger floods pose a risk to public health and can create substantial property damage. Combined with other storm related impacts, downed trees, power outages, road closures and insurance losses, the late fall and early winter storm season in Victoria is likely to present higher risks.

- Some buildings and infrastructure may be at risk from sea-level rise and extreme weather events, particularly increased storm frequency and intensity.

- The natural environment is considered to be impacted already and is at further risk from gradual temperature increase and summer drought. Mountain ash and Lawson cypress are in rapid decline and birch and cherry trees are less likely to survive when replanted. Beyond the impacts of climate change, Victoria's urban forest canopy cover will decline about 20% over the next 20 years as over-mature trees are replaced. Tree loss has broad environmental, cultural and physical implications, not least in slowing and reducing the volume of rainfall entering the storm system.

"These impacts and risks are the minimum we should be prepared to address," said Roy Brooke, Director of the Sustainability Department at the City of Victoria. "Where opportunities exist, further steps should be taken to proactively prepare for more severe climate change impacts wherever it makes sense to do so. For example, some adaptations actions will have multiple benefits, and some may save money over the longer term."

The risk assessment process examined a list of potential impacts and identified risks relating to local climate change events as they are currently projected to 2050. For Victoria, the projected impacts of most climate change related events were determined to, individually, have low or medium risk. In reality, our community will experience more than one impact at a time, so this could translate to a larger combined risk.

While the most current and accurate information on climate change was used to perform the risk assessment, there is uncertainty around climate projections and their impacts. Actions based on the outcomes of the risk assessment will consider the inherent uncertainties.

For full details and references please read "Summary Report: City of Victoria Completes the First Two Milestones in ICLEI Local Government Climate Change Adaptation Planning Process".
www.victoria.ca/climateaction

Background attached.

-30-

For more information:

Melinda Jolley
Corporate Communications, City of Victoria
T: 250.361.0288
C: 250.516.4271

Background: Climate Change Adaptation Planning

About the Adaptation Planning Process:

- The City of Victoria, along with 19 other Canadian municipalities and regional governments, including the Capital Regional District, is following the International Council for Local Environmental Initiatives (ICLEI) Canada adaptation planning process.
- There are five milestones in this process that include: research and analysis, plan development, implementation, and monitoring. The City of Victoria has now completed the research and analysis milestones.

About the Community Climate Change Adaptation Team:

- The Community Climate Change Adaptation Team has been involved in the research and analysis phases and is now developing this Community Adaptation Plan.
- This multi-stakeholder team consists of municipal directors and managers, scientists, professionals and university staff including members from the Pacific Climate Impact Consortium (the regional climate service centre at the University of Victoria that conducts quantitative studies on the impacts of climate change and climate variability in our region) and the Pacific Institute for Climate Solutions.

Victoria's Climate and Energy Resiliency Plan:

- The Community Adaptation Plan and the Community Mitigation Plan will both be included in Victoria's Climate and Energy Resiliency Plan that will be completed in January 2013.
- The Climate and Energy Resiliency Plan will include strategies and actions for individuals, businesses, and institutions to a) reduce greenhouse gases generated by buildings, transportation, and the disposal of solid waste; and b) build resiliency to prepare for the impacts of a changing climate.