



Climate Change Resources for B.C. Planners

Past and Future Climate Change Data

The **Pacific Climate Impacts Consortium (PCIC)** provides climate information including past historic climate trends and future climate change projections. Their *Regional Analysis Tool* can be found at: <http://pacificclimate.org/tools/regionalanalysis/>

Climate Impacts Group (CIG), U. Washington: <http://cse.washington.edu/cig/>

Environmental Trends 2007 (MoE): <http://www.env.gov.bc.ca/soe/et07/index.html#>

Indicators of Climate Change for British Columbia, 2002 (MoE)

<http://www.env.gov.bc.ca/air/climate/#ccbccan>

Case Studies

NRCan and CIP's Municipal Case Studies

A joint study examined the planning process and climate change in five municipalities across the country. The case studies address a sample of the major climate change impacts facing Canadian communities. These include water resource depletion, coastal erosion due to higher sea levels, and permafrost melting. The plain language summaries are available on CIP's website at:

<http://www.cip-icu.ca/web/la/en/pa/FDD921FC64CB4439A096528BFD59E779/template.asp>

The case studies include:

- **City of Calgary**: Municipal Water Supply
- **Corporation of Delta** Case Study: Sensitivity of the Roberts Bank Tidal Flats to Accelerated Sea Level Rise and Intensified Storminess
- **Graham Island** Case Study: Impacts of Sea Level Rise
- **Southeastern New Brunswick Coastal Communities** Case Study: Impacts of Sea Level Rise
- **Salluit** Case Study: Impacts of Degrading Permafrost

UKCIP's Database of Case Studies

The *UK Climate Impacts Programme*, UKCIP, hosts an excellent website of resources on climate change adaptation geared to local governments in the UK. Among the resources are a database of case studies that describe impacts and adaptation responses, and the *Adaptation Wizard* that walks you through the steps of an adaptation planning process and links the user to relevant resources.

- The **Base for Research, Adaptation, Impacts and News (BRAIN)** is available at: http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=226
- The **Adaptation Wizard** can be found at: http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=147&Itemid=297

EKOS Communications Inc. Videos on Climate Change

Two videos feature mayors, councillors and senior policy advisors supported by clips from highly respected climate scientists to highlight the impacts of climate change on water-related infrastructure in municipalities. Both videos are set in B.C., one in the rural setting of the Fraser Basin and the second in the urban setting of the Lower Mainland. They can be viewed on the EKOS Communication website: <http://ekoscommunications.com/taxonomy/term/55>

Atlin <http://www.taiga.net/nce/initiatives/workshops/atlin2007/index.html>

Kimberley & Elkford (Columbia Basin Trust pilots) <http://www.cbt.org/climatechange/>

Adapting to Climate Change: Lessons for London

<http://www.london.gov.uk/climatechangepartnership/adapting-jul06.jsp>

Clean Air Partnership (Toronto) <http://www.cleanairpartnership.org>

- *Time to Tackle Toronto's Warming*
- *Climate Change Adaptation Options for Toronto's Urban Forests*
- *A Scan of Climate Change Impacts on Toronto*
- *Cities Preparing for Climate Change: A Study of Six Urban Regions*

Assessment Reports

IPCC's Fourth Assessment Report (AR4): Synthesis Summary for Policy Makers

The Intergovernmental Panel on Climate Change (IPCC) is a body of the United Nations. The IPCC reviews the work of hundreds of climate scientists around the world to produce a report on the state of climate change. The IPCC is widely recognized as an authoritative voice on climate change. Their latest report, the Fourth Assessment Report, or AR4, includes a Summary for Policy Makers which can be found at <http://www.ipcc.ch/>.

Government of Canada's

From Impacts to Adaptation: Canada in a Changing Climate 2007

NRCan coordinated a nation-wide scientific assessment of climate change impacts and adaptation that is complementary to the IPCC's 2007 Assessment Report. It discusses current and future risks, and opportunities that climate change presents to Canada. There are regional chapters including a chapter on B.C.. It can be located at http://www.adaptation.nrcan.gc.ca/assess/2007/index_e.php

Climate Overview 2007: Hydrology and Future Climate Impacts in B.C.

The Pacific Climate Impacts Consortium's (PCIC) assessment report for B.C. reviews historical climate trends and future climate projections using both global and regional climate models, where regional models take into account local geographic features that influence climate such as mountain ranges. It can be found at <http://pacificclimate.org/resources/publications/>

Information About Climate Change and Its Impacts:

SOUTHEASTERN B.C.

- **Climate Change in the Columbia Basin: Starting the Dialogue.** CBT (2006) <http://www.cbt.org/climatechange/pdfs/Climate%20Change%20in%20the%20Canadian%20Columbia%20Basin%20-%20Starting%20the%20Dialogue.pdf>
- **Preliminary Analysis of Climate Variability and Change in the Canadian Columbia River Basin: Focus on Water Resources.** CBT (2006) <http://www.cbt.org/climatechange/pdfs/Preliminary%20Analysis%20of%20Climate%20Variability.pdf>
- **Implications of Climate Change in B.C.'s Southern Interior Forests.** CMIAE (2005) http://www.cmiae.org/conferences-past.htm#Implications_of_Climate_Change
- **Climate Change in the Columbia Basin.** CMIAE (2003) <http://www.cmiae.org/climatechange2003/summaryTOC.htm>

OKANAGAN

- **Climate Change and Water Management in the Okanagan Basin,** British Columbia. Cohen et al (2001, 2004, 2006) http://www.ires.ubc.ca/aird/projects_completed.html
- **Implications of Climate Change in B.C.'s Southern Interior Forests.** CMIAE (2005) http://www.cmiae.org/conferences-past.htm#Implications_of_Climate_Change



B.C. COAST

- **British Columbia's Coastal Environment.** MoE (2006)
<http://www.env.gov.bc.ca/soe/bccea/>
- **Living on the Edge: A study of climate change and salmon in Lang Creek.** MoE (2004)
http://wlapwww.gov.bc.ca/sry/p2/eq/special_studies/lang_creek/lang_creek.pdf
- **Adapting to Climate Change in the Coastal Pacific Northwest: Challenges for Ecosystems, Communities, Industries and Institutions.** AWMA et al (2003)
http://www.env.gov.bc.ca/air/climate/pdfs/cc_proceedings_mar03.pdf

NORTHERN B.C.

- **Preparing for Climate Change in the Fraser Basin: How can our water management systems adapt?** FBC (2007)
http://www.fraserbasin.bc.ca/programs/climate_workshop.html
- **Planning for Impacts and Adaptations, Resources North** (2006)
<http://www.resourcesnorth.org/rna/381/ccc+workshop>
- **Adapting to Climate Change in Northern British Columbia,** MoE et al (2003)
http://www.env.gov.bc.ca/air/climate/pdfs/northernbc_proceedings.pdf

Climate Change Planning Guides

Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments is a comprehensive guide to preparing for and responding to climate change. It was jointly produced by the Climate Impacts Group at the University of Washington, King County, Washington, and ICLEI - Local Governments for Sustainability. This excellent reference document may exceed the capacity of smaller local governments, but it serves as a useful resource. It is available at
<http://www.iclei.org/index.php?id=7066>

Adapting to Climate Change: An Introduction for Canadian Municipalities outlines a process for planning for climate change, and includes an array of case studies that illustrate how communities are responding to climate change. It is available at
http://www.c-ciarn.ca/adapting_e.html.

Adapting to Climate Change: A Risk-Based Guide for Ontario Municipalities takes a risk-management perspective from risk estimation, risk evaluation, risk controls and adaptation decisions to implementation and monitoring. It is available at
http://adaptation.nrcan.gc.ca/projdb/pdf/176a_e.pdf.

Climate Change for Planners. This best practice guide for planners is under development and is being prepared by CitySpaces Consulting for CIP. Look for more information from PIBC and CIP:
<http://www.cip-icu.ca/web/la/en/pa/2FB342DC6E004C9DB8F652BB21C90F9D/template.asp>

Considering Climate Change in Your Community: A Start-up Guide for B.C. Communities
http://www.c-ciarn.ca/pdf/startup_guide_communities_responding_to_cc_final.pdf

Climate Change Planning Tools for First Nations Guidebooks, Center for Indigenous Environmental Resources (2007)
<http://www.cier.ca/information-and-resources/publications-and-products.aspx?id=412>

Halifax ClimateSMART Developer's Risk Management Guide
<http://www.halifax.ca/climate/index.html>



Sample Plans That Include Climate Change Actions

Ahead of the Storm: Preparing Toronto for Climate Change

<http://www.toronto.ca/teo/adaptation.htm>

City of Calgary. Climate Change Action Plan 2006. Available at http://www.calgary.ca/docgallery/bu/environmental_management/climate_change_program/target_50_climate_change_action_plan.pdf (as of June 2008).

City of Ottawa Official Plan (white paper: Climate Change and the Official Plan review) Available at: http://www.ottawa.ca/residents/public_consult/beyond_2020/papers/white/climate_en.html (as of June 2008)

Regional Climate Change Centres, Governments, Universities & Organizations

To understand climate impacts in a specific location, in more detail and/or in a particular sector, e.g., coastal erosion or water supply, it may be advisable to bring in specialized expertise. There are hundreds of scientists, researchers and others working in regional climate centres, governments, universities and organizations across the country. Currently, there is no centralized agency that facilitates access to these individuals or institutions. Below you will find a list of organizations and institutions that might be working in your region. Also investigate local provincial and university departments that are working on climate change.

Adaptation and Impacts Research Division (AIRD), Environment Canada
<http://www.ires.ubc.ca/aird/index.html>

Alliance for Resilient Cities – <http://www.cleanairpartnership.org/arc.php>

B.C. Environment, Climate Change Section – <http://www.env.gov.bc.ca/air/climate/>

Canadian Forest Service, NRCan – <http://cfs.nrcan.gc.ca/?lang=en>

Columbia Basin Trust – <http://www.cbt.org/climatechange/>

Fraser Basin Council – <http://www.fraserbasin.bc.ca/>

Institute for Catastrophic Loss Reduction – <http://www.iclr.org>

Natural Resources Canada (NRCan), in particular the Climate Change Impacts and Adaptation Program – http://adaptation.nrcan.gc.ca/index_e.php

Pacific Climate Impacts Consortium – <http://pacificclimate.org/>

Resources North – <http://www.resourcesnorth.org/>

Water & Climate Impacts Research Centre (W-CIRC) <http://w-circ.uvic.ca/english/index.php>