

## **Canada's Water**

By Elizabeth Fleming

The National Council of Women of Canada's two-year Common Programme on Water wound up with a splash at the AGM in Regina. Thanks to the work of NCWC Vice-President for Environment, Gracia Janes, the public heard a panel of six well-qualified water specialists discuss various aspects of "Canada's Water".

Dr. Dave Sauchyn is Professor of Geography and PARC-Manitoba Hydro Research Professor, Prairie Adaptation Research Collaborative at the University of Regina.

Dr. Sauchyn noted that there is never a "normal" year for water on the Prairies. Most of the water on the western Prairies comes from the Rockies and, in Saskatchewan, from the North and South Saskatchewan Rivers. Water drains towards the northeast, away from where most Canadians settle in the south. Immigrants have lived on the Prairies for about 120 years. We know there were especially dry years in the 1980s and 1930s but we have limited experience of longer term climate change. To examine earlier wet and dry changes, researchers studied diatoms in the mud collected from three lakes on the Prairies and the rings of Lodgepole pine trunks found in old log buildings. These studies reveal at least fifteen previous periods of significantly prolonged drought.

Although there has been a natural variation in temperature over the centuries, the added affect of people has led to a much steeper increase in temperature and CO<sub>2</sub> .

Computer modelling indicates that we can expect a mean annual temperature increase on the Prairies. The effect on precipitation is less clear. We could have a longer summer but with less precipitation at the time when crops need water the most. Snow is a tremendous source of water. The dry years of 2001 and 2002 cost Saskatchewan \$2.4-billion in crop losses.

For-warned is for-armed. Much can be achieved through adaptation, that is, adjustments in practices, processes or structure of systems to projected or actual changes of climate. Farmers work on soil and water conservation.

Climate change is an opportunity to develop new and better policies, technology, institutions and infrastructure.

Dr. Sauchyn is hopeful. He and his wife have started a vinery on their Alberta farm.

Dick Peters is Network Coordinator for KAIROS, Prairies North Region. Mr. Peters is retired from a career in the industrial risk and insurance management field in Canada.

KAIROS started a water campaign in 2005. This year they are still raising awareness and campaigning against the privatization of water. 180 municipalities in Canada have signed a statement that water is not a commodity.

The development of the Alberta tar sands present huge profits for the developers but at the cost of watershed damage; large lakes of contaminated water; and concern about cancer rates in Fort Chipewyan on the shore of Lake Athabasca. Free access has been granted by government to the industry.

Enormous amounts of steam and water are needed to separate the sand from the oil. The Pembina Institute has noted a 3-foot drop in the level of the Athabasca River

Darrin Qualman is Director of Research for the National Farmer's Union and works with the Saskatchewan Environmental Society on water issues.

There is a real threat to divert waters south but there is time to change.

The plan started 50 years ago with the Gardiner Dam on the South Saskatchewan River followed by twenty more reservoirs. Diversions are very close to - but not yet across - the boundary with the United States.

The Highgate Dam proposal on the North Saskatchewan River near North Battleford is part of a larger plan to build several dams in Saskatchewan and to divert northern water south. Agrivision Corporation has put forward a multi-billion dollar plan to build four big dams (21 were originally proposed) at a cost of \$20-billion.

What is not going to get built if we proceed? The environmental cost is huge fragmented ecosystems and loss of diversity; lost habitat upstream and down; mercury contamination; CO2 emissions from reservoirs; and altered water temperatures and chemistry.

We need a global conversation on dams. There is a World Commission on Dams.

Margot Hurlbert has practiced law in the private sector and at SaskPower in Regina. Ms. Hurlbert is currently an Assistant Professor in the Faculty of Arts, University of Regina, specializing in critical legal studies, Environmental Justice (climate change and water) and Aboriginal Justice.

The British North America Act (1867) did not deal with water. In 1930, jurisdiction for natural resources was transferred to the provinces.

Canadian laws follow British law regarding the right to use water. Each province developed similar laws on water allocation associated with property rights, land titles, etc.. Use is ranked with public consumption highest followed by industrial and other "lesser" uses like irrigation.

The federal government has jurisdiction over water in federal parks; on First Nations (although the latter would argue that they have jurisdiction); and over fisheries and oceans; international boundaries and international flows of water across boundaries. The federal government can pass environmental laws and laws over peace, order and good government. The provinces have delegated responsibility for drinking water to municipal governments.

The public needs to remain diligent on water exports. Canada responded to public pressure in 1998 with federal legislation to prevent the diversion of water from our water bodies.

Canadians see water as sacred, not as an economic good or commodity. Saskatchewan and Alberta measure up quite well against the World Water Policies and Best Practices document. Canada has a predictable system in regard to water. We have public participation through local advisory councils on water.

Rather than concentrate on the quantity of water, we should pay more attention to the fragmentation of water quality and quantity. For example, an industry wants to start a business using water but we need to mind the effect downstream.

Susan Howatt is National Water Campaigner with the Council of Canadians. Previously, Ms. Howatt was an international campaigner based in Jakarta, Indonesia for the Mining Network.

We are in a global water crisis. 2.6 billion people, one third of the world's population, do not have access to basic water. According to Environment Canada, 25% of our municipalities are facing water shortages.

Climate change and the tar sands are driving the drain in Alberta. Extraction requires a ratio of between 2 - 6 of water to produce one barrel of oil. We are also neglecting to maintain our water infrastructure, e.g. replace water pipes. About one third of First Nations do not have basic water services. We face water pollution and contamination such as happened in Walkerton and North Battleford. Canada does not have a national water policy. There is a patchwork of provincial jurisdictions. Municipalities are under pressure to deliver water. A national water policy should include municipalities.

There is the threat of treating water as a commodity. The bottled water industry is booming. The legal case of a B.C. company that sued when it was ordered to stop bulk water export is stalled.

The Council of Canadians is pushing to have more openness around the Security and Prosperity Partnership discussions that are being held outside the Canadian, U.S. and Mexican parliaments. The 1948, U.N. Declaration of Human Rights did not include water. Unfortunately, it was Canada that voted in 2002, 2003 and 2006 against recognizing water as a human right. Many people are becoming involved in WaterWatch groups.

Timothy Morris, a lawyer, is National Water Campaigner for the Sierra Club of Canada. Mr. Morris is a Ph.D. candidate at the University of British Columbia. His graduate research relates to policy reforms for adapting to climate change impacts on water resources.

The Sierra Club is preparing a paper, Changing the Flow. It is a blueprint for Federal Action on a National Water Policy. Climate change, tar sands, dams, crumbling infrastructure, water quality, bulk water exports, rapid urban growth are all dislocated from Canada's hydrological picture. Dr. David Schindler has pointed out that we don't have as much water as we think we have.

John Sprague, in his book, "Eau, Canada", writes about the myth of abundance. We have a lot of glacier water but it is not replaceable. Canada has 20% of the world's freshwater but we waste water and have the highest individual consumption of water after the U.S..

There is a lack of water governance in Canada, especially at the federal level. The Conference Board of Canada has said we are not ready for the challenges ahead, including economic growth and climate change. There is a mixed bag at the provincial level with some good things happening. We need to preserve the national re-charge or else we could face the water failures seen in the Murray-Darling watershed in Australia and the Aral Sea in Asia.

After the deep cuts to federal water programmes in the 1990s, we have hit a low point. Canada now needs federal action involving all levels of government to develop a National Water Strategy to share in stewardship.

The key areas are:

1. Climate crisis
2. Drinking water
3. Boundary water/ trans-boundary waters

Europe, Australia, South Africa and New Zealand have worked to develop coordinated approaches to water. Benefits are improved coordination, greater government accountability, more effective information sharing and greater equity in access to water.

All of the other panelists responded positively to the call for a National Water Strategy. They then took questions from the floor.