

title **Eau Canada**
The Future of Canada's Water

author **17 essays by 26 authors; one photo essay**
edited by Karen Bakker
University of BC Geography Professor
<http://www.eaucanada.ca/>

category Canada's water governance issues

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who will be interested in this book?

Anyone interested in Canada's water – how much? how is it managed and governed? where are we going in the future?

why read this book?

A detailed up-to-date discussion of Canada's water meant for the serious reader, but many parts should be read by all Canadians for a clear perspective of the water issues that face everyone.

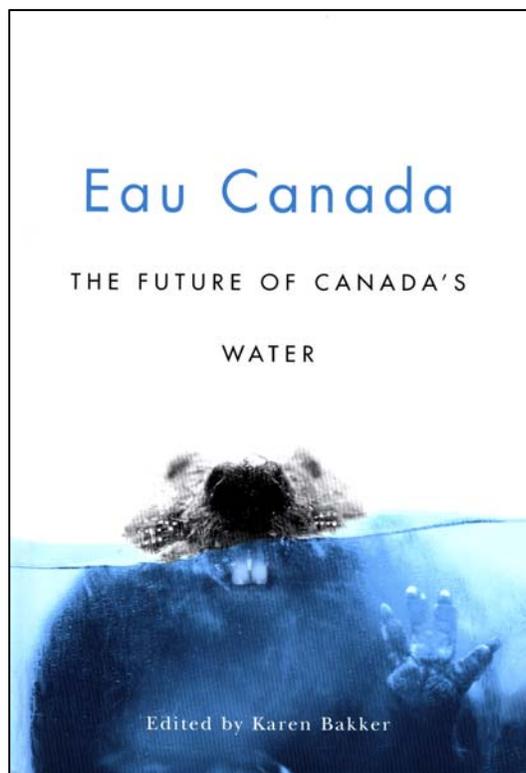
The 17 essays can stand alone and be read in any order that suits the reader. There are detailed end-of-chapter notes and three appendices, information on the 33 contributors, as well as an index. In addition, chapters have various sidebar stories giving examples of the water issues being discussed.

review / outline by Lance Brown, vistadelsol@telus.net

Overview

This book is a detailed look at Canada's current water situation, from resource to governance. The 17 essays, organized in 5 parts, are written by 26 different authors, all experts in various aspects of water issues in Canada. Although multiple authors can create some repetition it is minimized here.

Likely of particular interest to all readers will be Part 1 (chapter 2 on the myth of water abundance in Canada – a must read, and chapter 4 on ground water); Part 3 (chapters 9, 10, 11 on water rights and markets); and Part 4 (chapters 13 and 14 water pricing and conservation).



Seventeen Chapters, Authors, and Points of Interest

1. *Introduction*

by Karen Bakker

Part 1 Muddy Waters: How Well Are We Governing Canada's Water?

2. *Great White North? Canada's Myth of Water Abundance*

by John B. Sprague

- myth of water abundance in Canada – confusion of volume versus supply
- while we have about 20% of freshwater volume (lakes, ice, etc), supply is precipitation
- Canada & US have about same supply (precipitation) but 60% of Canada's flows north away from population
- impacts of water diversions (mostly for power generation)

3. *On Guard for Thee? Water (Ab)uses and Management in Canada*

by Dan Shrubsole and Dianne Draper

- a historical look at Canada's water use & management
- between '94 and '99, 1 in 4 municipalities had water shortages
- high water use – domestic, industrial, agricultural - & low water costs
- 1894 North-West Irrigation Act allowed water to be diverted to non-riparian land
- 1925 BC declared ownership of it's water; 1930 feds transferred natural resources to Manitoba, Sask., Alberta

4. *Out of Site, Out of Mind? Taking Canada's Groundwater for Granted*

by Linda Nowlan

- ground water is mostly unregulated & neglected resource
- more is known about oil & gas reservoirs than water reservoirs
- ground water supplies about 1/3 of Canada's drinking water – 80% of rural residents
- laws have treated ground water as a "mysterious substance"
- Rule of Absolute Capture – landowners extract regardless of injury to neighbours (still in effect in Texas)
- in Canada, only BC doesn't regulate ground water use
- some provinces require annual reporting of ground water use

5. *Challenging the Status Quo: The Evolution of Water Governance in Canada*

by Rob de Loe and Reid Kreutzwiser

- environmental governance is process & institutions we use to make decisions, including governments, citizens, NGO's, businesses
- emergence of local involvement, such as Round Tables in BC
- less "top down" and more "distributed" governance
- source protection planning in Ontario

Is Canada's Water Safe? A Photo Essay

Part 2 Whose Water? Jurisdictional Fragmentation and Transboundary Management

6. *Whose Water? Canadian Water Management and the Challenges of Jurisdictional Fragmentation*

by J. Owen Saunders and Michael M. Wenig

- fragmented responsibilities; fed/provincial governance and constitutional issues
- arguments for federal involvement in water management
- 1970 Canada Water Act

- provincial water allocation / instream flows / fisheries impact
- 1977 fed Fish Act section 35(1) adopted (harmful alteration, disruption or destruction) – by policy is grand fathered for pre-1977 water users
- 1948 Prairie Water Board created
- 1909 Boundary Waters Treaty with US
- current Columbia River pollution issue (Teck-Cominco mine at Trail)

7. *Drawers of Water: Water Diversions in Canada and Beyond*

by Frederic Lasserre

- Canada is one of the largest diverters of water in world (diverted within provincial boundaries); 97% of volumes for hydroelectric systems
- maps & tables of major diversions in Canada & US; details of Great Lakes diversions

8. *Thirsty Neighbours: A Century of Canada-US Transboundary Water Governance*

by Ralph Pentland and Adele Hurley

- we have it; US needs it; high growth rate in western US where water is fully developed
- N. American Water & Power Alliance (NAWAPA); GRAND canal
- how real is the thirst? a look at demand management options
- water export from Canada / NAFTA / policy issues

Part 3 Blue Gold: Privatization, Water Rights, and Water Markets

9. *Commons or Commodity? The Debate over Private Sector Involvement in Water Supply*

by Karen Bakker

- private builders, owners, operators of water supply systems / CUPE
- public utilities / private sector / cooperatives, and mixes of these; P3
- is water a commons or a commodity? does private ownership of supply conflict with public interest? or is it preferred?

10. *Liquid Gold: Water Markets in Canada*

by Theodore M. Horbulyk

- “virtual” or “embedded” water – water necessary to produce goods
- as water becomes scarce, cost pressure will impact water-intensive goods
- example given of US summer electricity demand making it favorable for southern Alberta hydroelectric operators to release water (through generators) benefiting the downstream irrigators and instream needs
- markets for water or water rights can respond to temporary or permanent imbalances in water supply or demand; “water bank” describes water transfers among users
- requires legislation to allow; monitoring & enforcement?; can a market be formed?
- since 1999, southern Alberta has had a water market to help alleviate water shortages; water; permanent transfers are allowed; buyers must already have a water license
- Alberta’s Irrigation Districts Act allows temporary transfers (leases) - 222 occurred in St. Mary River Irrigation District in 2001

11. *Trading our Common Heritage? The Debate over Water Rights Transfers in Canada*

by Randy Christensen and Anastasia M. Lintner

- Hotel Lake on Sunshine Coast water transfer on hold due to community appeal
- explanation of water rights transfers – good or bad? – can environmental interests compete for water? – problem of assigning water a monetary value
- transfers for environmental reasons are done - in Nevada, the Nature Conservancy has purchased 30,000 ac-ft of water rights since 1989 for wetlands restoration

- “higher value uses” – “water flows uphill to money” – “commodifying” water, speculation, and hoarding water rights for future profit
- water transfers in California (“no injury rule”; must actually give water up – can’t be unused paper right) are up to 1.2 million ac-ft per year; up to 1/3 to meet enviro needs
- but an issue is the \$400 million per year taxpayer cost to maintain water delivery
- 1981 Chile privatized water rights and treats water rights as a marketable commodity

Part 4 Waterwise: Pathways to Better Water Management

12. *A Tangled Web: Reworking Canada’s Water Laws*

by Paul Muldoon and Theresa McClenaghan

- the 1909 Boundary Waters Treaty; the 1987 Federal Water Policy
- milk water export; Devils Lake, N. Dakota; water quality issues
- federal / provincial water jurisdictions; Canadian Council of Ministers of the Environment
- forming a Canadian Water Governance Strategy

13. *Are the Prices Right? Balancing Efficiency, Equity, and Sustainability in Water Pricing*

by Steven Renzetti

- 37% of Canadian households pay a flat rate & use 70% more than users paying by use
- water pricing should – generate revenues to support costs; - inform users of full costs of their use; - contribute to protecting environment; - satisfy basic principles of fairness

14. *Moving Water Conservation to Centre Stage*

by Oliver Brandes, David Brooks, and Michael M’Gonigle

- changing from supply management (water is not a limiting factor to growth) to demand management (use less water for same benefit)
- cost savings of more efficient water use; water reuse and recycling; social marketing
- efficiency (a means - use still continues – should it?) & conservation (an end)
- efficiency and sufficiency – limits to growth
- “soft approach” – long term planning; treat water as a service rather than an end itself
- shift from “getting” to “governing”

Part 5 Water Worldviews: Politics, Culture, and Ethics

15. *The Land Is Dry: Indigenous Peoples, Water, and Environmental Justice*

by Ardith Walkem

- legal recognition of indigenous peoples’ right to water
- federal reserves but federal / provincial jurisdiction over water
- effects of colonization on indigenous peoples’ access to water

16. *Half-Empty or Half-Full? Water Politics and the Canadian National Imaginary*

by Andrew Biro

- water and Canadian culture
- myths of water abundance and scarcity

17. *Rising Waves, Old Charts, Nervous Passengers: Navigating toward a New Water Ethic*

by Cushla Matthews, Robert B. Gibson, and Bruce Mitchell

- an ethic is a set of moral principles that guides decisions – one is needed for water
- recent approaches to a water ethic are outlined
- six components of a water ethic

18. *Conclusion: Governing Canada's Waters Wisely*

by Karen Bakker

- Canada's approach to water management urgently needs reworking
- renew federal water policy; clarify fed/provincial roles; drinking water management; indigenous peoples' water rights
- how should we handle multiple and competing uses of water?
- at what scale should we manage water?
- what is the role of communities in watershed-based management?
- should Canadians have a human right to clean water?
- where to from here?

other review

ABC Book World, Spring 2007

by Shane McCune, a freelance writer in Pender Harbour

Eco-guru David Suzuki refuses bottled water at his many speaking engagements, requesting tap water instead. In a recent CBC interview he cited the waste and pollution associated with plastic containers, but he also noted the defeatism implicit in Canadians' embrace of packaged water. "I think that we've got to drink the water that comes out of our taps, and if we don't trust it, we ought to be raising hell about that," he said.

A couple of dozen academics and activists do just that, in their eggheaded way, in *Eau Canada: The Future of Canada's Water* (UBC Press \$29.95), a collection of 17 essays (and one photo essay) edited by University of B.C. geography professor Karen Bakker. It isn't light reading, more textbook than polemic, but *Eau Canada* is a handbook for every citizen worried about the safety and security of a substance on which literally every life depends. It should be required reading for legislators at every level, from rural councils balancing the needs of development and agriculture to federal ministers and bureaucrats dickering with the U.S. over free trade.

You might think you know at least the fundamentals of water politics, but the authors torpedo many cherished myths on the subject. Most of us learned as children that we were the stewards of the world's largest supply of fresh water, and as we grew up many of us came to believe the greatest threat to that supply is the covetous United States. And despite our addiction to bottled water, the deaths in Walkerton, Ont. and boil-water advisories spreading like pine beetles, Canadians still cling to the notion that our water supply is basically safe.

Wrong, wrong, wrong, say the authors of *Eau Canada*. In "Great Wet North? Canada's Myth of Water Abundance," John Sprague, a former fisheries researcher working as a consultant from his Salt Spring Island home, points out that while Canada may have 20 per cent of the planet's lake water, it has only 6.5 per cent of its renewable water — the stuff that falls from the sky, follows its path through rivers, lakes and aquifers to the sea, and evaporates to start the cycle again.

As for the thirsty giant to the south, it may surprise you to know that agricultural demand for water in the U.S. Southwest has been stagnating for two decades. In his fact-packed chapter on water diversion Laval University's Frédéric Lasserre attributes this to such factors as the high cost of large-scale diversion projects, the rising popularity of desalinization, the flight of agribusiness from the U.S. in the face of foreign competition and urban demand that makes it more profitable for farm owners to sell their water rights to cities than to irrigate low-value crops.

It turns out most of the water diversion on the continent is done by Canadians — six times more by volume than the Americans. Our own beaverish obsession with damming and diverting "makes our resistance to water exports less defensible," Lasserre warns.

We may be good at rerouting water, but we're lousy at monitoring and maintaining its quality. Researchers at Simon Fraser University ranked Canada 26th out of 28 of the world's wealthiest countries in terms of water stewardship. And within the nation, the Sierra Legal Defence Fund's most recent provincial rankings placed B.C. near the bottom, thanks in part to the high incidence of boil water advisories in its small communities.

Eau Canada's authors are depressingly thorough at spelling out the haphazard patchwork of water governance in Canada, the looming conflicts among different user groups and the tragic effects of neglect, especially on First Nations reserves.

The fear of Yankee guzzling seems to be part of our collective psyche, and the authors of Eau Canada are not immune to this phobia. Several suggest it would only take one province to authorize bulk exports of water to make every drop in the nation a tradable "good" under NAFTA, giving Americans the right to buy and sell it. This phobia sometimes trumps reason, as it does in the overwrought "Half-Empty or Half-Full? Water Politics and the Canadian National Imaginary" [sic] by Andrew Biro, an assistant professor of political science at Acadia University in Wolfville, N.S. Struggling to define the significance of water in Canadian culture, Biro presses the usual buttons (Susanna Moodie, the Group of Seven, Ian and Sylvia) to illustrate our traditional nature-based nationalism, then contrasts that with the ironic, apolitical mindset of Today's Youth, as evidenced by a song by satirical group The Arrogant Worms and — wait for it — the "I am Canadian" guy from the Molson's ads.

Biro refers to Lasserre's essay, but seems to have missed the part about all diverted Canadian water staying north of the 49th parallel. After pointing to China and Spain as nations that employ massive water diversions as a show of national strength and pride, he writes: But, in Canada, such a massive system of hydraulic transfers can be (and indeed has been) imagined only for the purpose of diverting Canada's water resources south to the United States. Here, a transformation of the national waterscape would serve to indicate not Canadian national strength but, rather, its subservience to American interests, or the relative weakness of the Canadian nation state.

Yes, every so often some hydrological Barnum imagines a scheme to sell water to the U.S. But every proposal for a southbound canal or pipeline has been vaporized by a double whammy of public fury and mind-boggling expense that no politician, no matter how lavishly bribed, would dare to confront.

Even Lasserre yields to this fear, insisting that the support of Brian Mulroney and Robert Bourassa for a 1985 scheme to dike James Bay and steer its watershed south via the Great Lakes shows that "to date" politicians are undaunted by the scale of continental water diversion — even though, to date, the GRAND Canal has been dead for more than 20 years and Bourassa for more than 10.

If some contributors fear that Americans will regard water as a commodity, at least one thinks Canadians should do so. In a crisply written chapter asking "Are the Prices Right?" Brock University economics professor Steven Renzetti offers the book's most sweeping and practical conservation measure: Charge consumers a price that reflects water's value, and jack it up in the summer when use is heaviest. That's certainly one way to test Canadians' vaunted love for their aqua pura.

Editor Bakker calls on Canada to follow the European Union example of basing water governance on "integrated watershed management" (something provinces could do) and wonders if it should also follow South Africa and Uruguay in granting its citizens a constitutional right to clean water.

Stuffed to its post-graduate gills with facts, footnotes and those awful interrogative main titles ("On Guard for Thee?" "Out of Sight, Out of Mind?" "Commons or Commodity?"), Eau Canada is a much-needed wake-up call to complacent Canadians, even though it will never grace the bestseller rack at the drug store or even the next round of "Canada Reads" on CBC radio. And after all, who needs to know this stuff apart from legislators, policy wonks and anyone who drinks water?

other reviews **from UBC Press** <http://www.eaucanada.ca/pages/reviews.htm>

As the sustainability of our natural resources is increasingly questioned, Canadians remain stubbornly convinced of the unassailability of our water. Mounting evidence suggests, however, that Canadian water is under threat. Eau Canada assembles the country's top water experts to discuss our most pressing water issues. Perspectives from a broad range of thinkers – geographers, environmental lawyers, former government officials, aquatic and political scientists, and economists – reflect the diversity of concerns in water management.

Arguing that weak governance is at the heart of Canada's water problems, this timely book identifies our key failings, explores debates over jurisdiction, transboundary waters, exports, and privatization, and maps out solutions for protecting our most important resource.

Canadians love our vast and beautiful expanses of water but know next to nothing about them. Eau Canada is a myth-busting, fact-based, comprehensive collection on all facets of our water that every Canadian should own. Without the knowledge contained in this book, we could lose the right to control our water in an increasingly thirsty world.

Maude Barlow is National Chairperson, Council of Canadians, and co-author of Blue Gold.

We Canadians display a passionate concern about water and about our stewardship of this resource, but sadly we know very little about either. Read this book and fix that problem. Looking at the state of Canada's water resources and Canadian water policy, Eau Canada gives us the facts about both, and shows what we need to do to care for this priceless resource better. Lots of surprising information. Lots of good ideas. Well written. What more could you ask for? A good book to buy.

David Cameron, Professor of Political Science at the University of Toronto and a Fellow of the Royal Society of Canada. He completed a major research study for the Walkerton Inquiry.

Canada's leading water experts paddle upstream against the flow of conventional wisdom in this excellent book. They are frank about Canada's water problems and forceful in describing the solutions that exist but aren't being implemented. Mandatory reading for all people concerned about the future of fresh water in Canada.

David R. Boyd, environmental lawyer, Trudeau Scholar, and author of Unnatural Law: Rethinking Canadian Environmental Law and Policy.

The volume skillfully brings together the perspective from 28 of Canada's top water experts who debate Canada's most critical water issues and resolutions...The public at large, the academic community, water supply managers, environmental and water policy analysts, government officials, community groups and politicians from across Canada will find this book a high-quality read...The resulting product gives the interested by non-technical reader a straightforward tool for use in understanding the insidious and complex problems plaguing water governance in Canada.

Connie Delisle, Strategic Advisor, Policy Research Initiative, Government of Canada, Horizons, vol. 9, no. 1, July 2006.