

Chapter 5

Assuring the Future of Our Water

We recently read that “freshwater is predicted to become this century’s oil.”¹⁴ Declining water quantity and quality is rapidly emerging worldwide as a critical public policy issue. Drought in portions of Australia, Africa, and the United States has reached alarming proportions. The United Nations says that 700 million people worldwide face chronic water shortages, and predicts this number may exceed 3 billion by 2025.¹⁵ UN Secretary-General Ban Ki-moon recently described unsafe drinking water as a “silent crisis”.¹⁶ The UN declaration of 2005-2015 as the “Water Decade”¹⁷ is compelling evidence of the magnitude and importance of these issues.

These are not the issues of “somewhere else.” Parts of western Canada face severe water shortages. There is anxiety about record low water levels in the Great Lakes. The Walkerton tragedy underlined the importance of clean water to communities.

In 2007, a drought year in central Ontario, we saw first hand the impacts and potential social conflict that can arise from not enough water in the Trent-Severn watersheds. This past summer low water advisories were issued within various parts of the watersheds. Toward the end of our mandate, a large number of wells in the Wilberforce area ran dry. Independent consultant analysis confirmed that this was the result of low ground water levels associated with drought condition but nonetheless a resource essential for life was no longer there.

There is also both anecdotal and statistical evidence that water quality in the lakes and rivers that make up the watersheds is also at risk. Blue-green algae blooms have been reported in recent years on Rice and Cameron lakes. We know that these blooms have been largely localized. Should they expand in area, they can render lakes largely unusable. Collapses in the real estate market have occurred in conjunction with this natural phenomenon when toxic varieties are involved.

The presence of invasive species is leading to water clarification, increasing aquatic vegetation growth and adversely affecting some fish species and recreational enjoyment.

There is also a linkage between water quantity and water quality. The quality of many lakes is dependent on annual flushing during the spring freshet. Having less water flowing through the system will accelerate deterioration of water quality.

These are only today’s challenges. We see the possibility of a future in which climate change could reduce water supply, open up pathways for new invasive species, raise water temperatures, and impair water quality. Add to this development pressure fuelled by growth in the Greater Toronto Area, expansion of hydro facilities and increased industrial use. The scenario is unsettling.

¹⁴ Song, V. “Water, water (not) everywhere. Water, not oil is projected to be the next scarce commodity,” *The Ottawa Sun*, 2 November 2007. Retrieved from the World Wide Web: <http://www.ottawasun.com/News/Features/2007/11/02/4624560-sun.html>.

¹⁵ “Ban Ki-moon urges greater efforts to tackle ‘silent crisis’ of safe water for all,” *United Nations (UN) News Service*, 24 October 2007. Retrieved from the World Wide Web: <http://www.un.org/apps/news/story.asp?NewsID=24397&Cr=water&Cr1>.

¹⁶ *Ibid.*

¹⁷ See <http://www.un.org/waterforlifedecade>.

Many citizens with whom we spoke are both knowledgeable and concerned about water issues. They reminded us that the quality of the water is dependent on what happens on the land – poor land management means poor water. They spoke to us about wetland and habitat destruction, leaking septic systems, herbicide and pesticide use, invasive species and the cumulative effects of development. We heard how conflicting demands for scarce water are pitting Haliburton-area communities against those along the main navigation lakes and rivers. People who live downriver from Peterborough told us about the lasting effects of storm and sanitary sewer overflows that occurred during the Peterborough flood of 2004.

During our three trips on the water this we saw for ourselves the effects of poor water stewardship. We saw hardened shorelines, livestock in the water, weed growth, and erosion. We came to share the apprehension of citizens about fluctuating water levels and their negative impacts on birds and fish.

Our mandate is to offer recommendations with respect to the future of the Trent-Severn Waterway. **Without adequate supplies of clean water, there is little or no future for the waterway.** Hundreds of thousands of citizens will struggle to find enough water to drink. A recreational fishery worth \$300 million annually will be at risk. Property values that currently support \$240 million in property tax revenues will decline. A multi-million dollar boating industry will be affected. Species will be lost.

We believe that governments at all levels must commit to policies and programs that emphasize both water quality and water quantity. We offer some recommendations in that regard.

Promoting Water Quality

Our mandate was not to study water quality. But the more we learned, the more we realized we could not ignore it. We reviewed a number of reports on the issue. The data we saw did not suggest an existing, system-wide crisis in water quality but it did confirm the existence of localized problems and the potential for serious and more wide-spread problems in the future.

A 2005 Parks Canada report on the environmental health of the waterway cited several water quality-related concerns.¹⁸ Continuing wetland loss along the waterway is “of concern” and conditions are “potentially impaired”.¹⁹ The expansion of exotic invasive species along the waterway is also “of concern”.²⁰ Declining water clarity in Upper Buckhorn, Pigeon, and Chemong lakes indicates water quality concerns. A 2006 report indicates that chloride concentrations in the Trent River have doubled over the past 25 years.²¹

It is apparent that governments are working hard to improve water quality. We were impressed with presentations from the Lake Simcoe Region Conservation Authority on its “Watershed for Life” program and a similar presentation from the Trent Conservation Coalition on its source water protection planning program.

¹⁸ Mystic Consulting Services and Ecoplans. 2005. *State of Environmental Health, Vol. 1 of Indicators of Environmental Health and Long-Term Monitoring Strategy, Trent-Severn Waterway National Historic Site*, prepared for Parks Canada.

¹⁹ *Ibid.*, p. 94.

²⁰ *Ibid.*, p. 108.

²¹ Kaltenecker, Georgina and Aaron Todd, Ontario, Ministry of Environment. 2006. *Chloride concentrations in Ontario's rivers and streams*, Ontario Good Roads Association, 2006 Snow and Ice Colloquium, 18-19 October 2006, Mississauga, ON. Retrieved from the World Wide Web: <http://www.ogra.org/lib/db2fil.asp?fileid=15574>.

The former initiative seems well advanced and reflects a science-based and goal driven approach to improving water quality in Lake Simcoe. It recognizes pollution sources and the impacts of watershed development on water quality. Although the Trent Coalition initiative is not as advanced, we could see evidence of a thoughtful program that seeks to address water quality issues within the context of an overall understanding of the watershed water budget – an essential connection in our estimation.

Citizens are contributing too. Almost every lake has a property owners' association. They and the Federation of Ontario Cottagers' Associations promote shoreline stewardship. We were inspired by lake monitoring and planning by the Kawartha Lake Stewards, Lake Scugog Stewards, and citizens on Stoney and Buckhorn lakes. The Ontario Federation of Anglers and Hunters is a key actor in combating invasive species along the waterway. We believe this citizen concern and action reflects a deep personal and emotional attachment to the water and the life-renewing lifestyle it offers.

It is our view that governments, including the federal government, can do more to contribute to the success of the efforts described above.

The Trent-Severn Waterway as a Federal Waterway

We think it is imperative that the federal government, not just Parks Canada, become a prominent supporter of efforts to assure future water quality on the waterway. We have noted earlier that jurisdictions along the waterway are complex. The fact remains, however, that the waterway is a federal entity and has been so in almost all respects since Confederation. The waterway is also the most expansive federal presence in Ontario.

The federal government is responsible for providing quality visitor experiences associated with this heritage treasure. Dozens of presenters at our public meetings spoke emotionally about how poor water quality and excessive aquatic vegetation was affecting their enjoyment of the water.

We believe the waterway offers many opportunities for the federal government to display its commitment to sustainable water management within the province and to showcase a truly national policy agenda. Sustainable water is an important national policy goal as demonstrated by the recent federal contributions amounting to \$30 million toward the health of Lake Simcoe and by the renewal of the Canada-Ontario Great Lakes Agreement.²²

Although the contribution toward Lake Simcoe water quality is no doubt welcome, we are concerned that Lake Simcoe is not seen as part of a much larger federal presence with a significant array of water-related challenges. We believe that the federal government should expand its water quality initiative to embrace and be framed within the context of this *national* historic site. We would also like to suggest that the initiative should support the outstanding work of communities and citizens in addressing their water quality issues. We offer that suggestion because we believe that a key to a sustainable water future lies in individual citizen stewardship.

²² Environment Canada and Ontario Ministry of Environment. 2007. *Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem*, revised.

RECOMMENDATION 7

Recognize and reflect federal stewardship obligations by expanding the Lake Simcoe water quality initiative to encompass the entire waterway and by directing investments toward supporting “on the ground” initiatives by communities and citizen organizations.

Protecting Federal Interests

In addition to operating the dams and locks, the federal government is also a major landowner along the Trent-Severn Waterway. The lakes and rivers that make up the system cover several thousand square kilometres – an area larger than many national parks. The federal government, in our view, owns the beds of those lakes and rivers. There are more than 120,000 properties located along the nearly 5,000 kilometres of shoreline when all the islands are included. Activities on those properties have the potential to impact on the federally owned bed.

Ownership by the federal government conveys jurisdiction, and jurisdiction, as we stated earlier, “is the essential path to defining both authorities and fiduciary responsibilities for the management of the waterway in the public interest.”²³

In its simplest terms, this requires the ability to exercise control over use and occupancy of the land. We believe that the federal government is not currently meeting a reasonable standard with respect to that responsibility and that this has adverse impact on water quality and future sustainability.

The *Navigable Waters Protection Act*, *Canal Regulations*, *Historic Canals Regulations*, the *Fisheries Act*, the *Canadian Environmental Assessment Act* and, more recently, the *Species at Risk Act*, provide the authorities that permit the federal government to exercise its responsibilities. Of these, the *Historic Canals Regulations* and the *Fisheries Act* permit the government to exercise controls over usage that might adversely affect the integrity of natural and cultural resources.

The *Historic Canal Regulations* can only, in our view, be regarded as a relatively primitive tool to assist the government in its work compared to legislation elsewhere. They are rarely enforced. They are not well known in the legal and judicial communities. Our broad sense is that they are out of date and lack the enforcement teeth to ensure compliance. The maximum penalty for non-compliance, for example, is \$400 while offences under other Parks Canada legislation such as the *National Parks Act* have fines exceeding \$100,000. It is sometimes cheaper to pay the fine than to pay the cost of obtaining permission, if permission would be granted at all.

Many citizens with whom we spoke complained of building activities such as the construction of docks, boathouses and similar structures that are occurring without any form of approval. They told us about excessively long permitting processes that encourage some to ignore the regulatory requirements. Parks Canada staff related the story of an individual who bulldozed a lengthy section of the canal bank near Lake Simcoe – a portion of the waterway that has the highest level of historic designation – with negligible punitive consequences. This individual was ultimately convicted under provincial trespass legislation in some measure due to inadequacies with the historic canal regulations.

²³ Panel Secretariat. 2007. “Jurisdiction for the Waterway – Authorities and Responsibilities,” op. cit., p. 1.

Municipalities also advised us that the federal government needs to enhance its capacity to work with them in reviewing applications for development along the shoreline. They observed that early intervention in the development process would serve to better protect essential shoreline values to the benefit of both federal and municipal governments.

On the positive side, we note the recently developed Parks Canada policy statement governing circumstances under which “dredge and fill” permits can be issued. Although they have not yet reached the highest standard of shoreline protection, this policy statement represents welcome progress.

Recently, Parks Canada has considered bringing commercial users of the bed under some form of tenure. We think this is a good step toward the exercising of jurisdiction. A similar requirement has been in place for Provincial waters for a number of years.

The proposal has met resistance, in part because it extends licensing beyond provincial requirements. Resistance also comes from a very broad range of perceived inequities in the proposed water lot licensing program. Why require it of commercial operations and not private cottage owners? What about private owners who rent their own cottages and thus receive a commercial benefit? Commercial property owners also cited the premium they already pay in property taxes by virtue of being on the water.

Notwithstanding these concerns, controlling the occupancy and use of the bed is essential to responsible water stewardship. We believe that all those who derive a private benefit from the use of a public resource, a benefit that other citizens do not receive, should pay in some measure for that benefit. Citizens should receive equitable treatment in respect of that benefit and this requires a consistent standard between the waterway and elsewhere in the province. The federal and provincial governments jointly need to develop a model based on these principles.

In summary, the goal of environmental sustainability of the waterway demands that the federal government significantly enhance its capacity to exercise appropriate management and control over the land under its ownership and stewardship. To do this, it needs to improve its supporting legislation; increase investment in monitoring and enforcement; work more actively with municipalities; control occupancy and use; and enter into partnerships with others.

Recommendations overleaf

RECOMMENDATION 8

Significantly enhance capacity to protect and manage federal waterway lands in the public interest by:

- (a) Reviewing and amending the *Historic Canal Regulations* to provide a modern and effective tool to control occupancy and use by all users of the bed of the waterway;
- (b) Entering into agreements with municipalities and conservation authorities where appropriate to allow them to administer the permitting provisions of the regulations on a cost recovery basis or, alternatively, enhancing the permit administration capacity of Parks Canada on a cost recovery basis;
- (c) Considering a harmonized Canada/Ontario approach to the licensing of all private occupiers of Crown-owned water beds;
- (d) Increasing investment in monitoring and enforcement of the *Historic Canal Regulations* and other relevant legislation to a level similar to that of a national park of similar size and complexity;
- (e) Implementing an environmental monitoring program for lands under federal stewardship that is similar in concept and scope to that implemented for national parks; and,
- (f) Enhancing federal planning and development review capacity to permit work with municipalities and others earlier in their planning processes.

Housing and Communicating Environmental Monitoring Data

To better understand the water quality concerns brought to us by citizens, we looked for information on the subject. We found evidence of considerable data collection and analysis by a myriad of government and citizens' organizations. The results, however, were often difficult to obtain. It is not surprising perhaps that, in the absence of readily accessible information, citizens have been left with a degree of disquiet about water quality.

We think it is essential that methodologies and information from these different sources be centralized and made more accessible for decision-makers and citizens. We would like to see a central repository established to house and report on environmental studies and monitoring in the watersheds. The proposed Trent-Severn Heritage Region Council could play a role in this. It could also take on the important responsibility of ensuring that these studies and monitoring efforts are broadly communicated to citizens and decision-makers.

Municipalities also reminded us that a central repository could also play an important role in ensuring that water quality data are collected in a highly standardized fashion to assure accuracy and facilitate comparison among studies.

RECOMMENDATION 9

Make environmental information accessible and understandable for citizens by establishing a central repository under the aegis of the Trent-Severn Heritage Region Council to collect the results and methodologies of environmental monitoring along the waterway and ensuring they are communicated to citizens and decision-makers.

Consistent Approaches to the Management of Shoreline Development

The Trent-Severn Waterway including its watersheds is a mosaic of differing jurisdictions, philosophies, strategies and rules governing development along the shoreline.

Parks Canada has recently developed new policies governing work that occurs on the bed of the waterway. The City of Kawartha Lakes and other municipalities have undertaken similar initiatives with respect to their shorelines. The province's Greenbelt and Oak Ridges Moraine plans provide waterfront policies for portions of the waterway along Simcoe, Scugog, and Rice lakes. The District of Muskoka has adopted rigorous policies that tie development intensity to the sensitivity of individual lakes. The north bank of Severn River falls under these policies.

But while some jurisdictions have new policies in place, others don't. And even the updated policies reflect considerable variation in approach. Sometimes federal policies actually conflict with local policies.

These policies govern what tens of thousands of owners can do on their part of the shoreline. Can they build a boathouse in the water? Should they have a buffer between the shoreline and the landscaped portions of their properties to absorb nutrients that run off the lawns and gardens? Can they dredge channels and remove rocks and stumps thereby affecting fish habitat? Should they be allowed to build shore walls that block the movement of many species between the land and water? What development densities are appropriate in a shoreline environment?

Meanwhile, development is intensifying within this highly variable planning framework. A 2007 Parks Canada study indicates more than 46,000 new residential units are planned within five kilometres of the waterway between Trenton and Port Severn (half of these are associated with growth just south of Lake Simcoe).²⁴ New types of development in the form of condominiums, fractional ownership, and large resorts are challenging current planning policies. Not all municipalities have the capacity to fully respond. And we don't know the cumulative effects of future development already on the books much less that which will inevitably follow in the decades to come.

We believe that enlightened management of development and use of the land and water along the shoreline is one of the most important contributions that governments can make to assure the future of the waterway. Management of setbacks, buffers, waste water systems, and storm water should be part of strong, consistent shoreline policies. These tools should be supported by modeling, indicators, and monitoring.

We believe that environmentally sustainable management of development along the waterway requires a consistent philosophy and a policy base that recognizes the immense ecological importance of shorelines. At the earliest opportunity, a planners' forum should be convened to begin the process of moving toward a more consistent approach.

RECOMMENDATION 10

Improve ecological protection of shorelines by convening a planners' forum involving Parks Canada, Fisheries and Oceans Canada, the provincial government, conservation authorities and municipalities to explore opportunities to move toward a consistent, rigorous approach to managing waterfront development throughout the watersheds.

²⁴ Catalyst Environmental Group. 2007. Appendix I: Development within 5 km buffer of Trent-Severn Waterway, in *Threat Assessment for Species at Risk*, prepared for Trent-Severn Waterway, Parks Canada.

Water Management

Most people think of the waterway in terms of boats and locks. Yet it is clear to us that the most important aspect of the waterway is the management of water storage and flows. Water management has shaped the development, character and economy of southern Ontario's largest watershed, and continues to do so via a network of more than 160 federal dams and other control structures. This network controls water levels and flows in hundreds of lakes, rivers and streams – including most of the Haliburton lakes – extending over an area of 18,000 square kilometres.

Originally, this massive water control system was designed for the movement of logs. By the beginning of the 20th century, it evolved into a network of reservoirs from which water was released to maintain navigational levels on the waterway. Since that time, the system has become much more. It provides a reliable source of drinking water for communities and individual homes throughout central Ontario. It enables water-based recreation and maintains water levels that controls flooding. It generates economic opportunities, including supporting 18 hydro-electric plants.

The more things change...

In the 1840s to 1870s, disputes over water privileges along what today is known as the Trent-Severn Waterway became common. Millers, loggers and steamboat operators pressured governments to regulate water to suit their own specific needs. Through these years, there were constant complaints to government about the control of water levels. Waterway superintendents of the day frequently found themselves in the centre of conflicts over water rights without any government policy to provide guidance. Some of these problems arose because water levels at many dams were regulated by local mill owners who drew off as much water as they pleased.

Some cottagers and business owners claimed that they “get no benefit from the existence of the waterway.” They may have forgotten that, without the dams and water management system that the waterway embodies, many of the lakes and rivers would be substantially smaller and would not support through navigation and many other uses. In some locations, the high water mark in May or June might be hundreds of metres offshore in August.

As we noted earlier, Parks Canada manages the storage and flow of water throughout the system, while the province issues permits to take water for municipalities, quarries, and other uses.

Our consultations and studies have emphasized that this system is not working well. The physical infrastructure of the waterway is old and leaking. It relies for the most part on slow and labour-intensive log changes to manage levels and flows. It is guided by a management model developed for navigation that leaves an overworked staff struggling to deal with modern and often competing demands.

Reservoir lake residents want less fluctuation and more equity with main system shoreline residents. Citizens and natural resource managers want fish and wildlife habitat needs to be formally considered. Power generators want less “wastage” of water that could otherwise generate electricity. Above all, those interested in water management want to see major improvements in communication and want to be engaged to an appropriate degree in decision-making.

Almost everyone we spoke to understands that the system was never designed to do what it needs to do now. They also understand that the funding and staff resources to operate and maintain the system have been entirely inadequate.

How Water is Managed in the Trent and Severn Watersheds

The Trent and Severn watersheds contain a system of approximately 160 dams that is used to manage water levels in the Trent Severn Waterway. This system is an aging artifact dating mostly from the 19th century.

Simply put, in the Trent watershed, water is stored during the later winter and spring in the Haliburton and north Kawartha lakes, often referred to as the “reservoir lakes”. This water is gradually released during the summer as evaporation lowers the lake and river levels along the waterway navigation channel. In practice, it is a very complex process.

Parks Canada's waterway Water Control Engineer has access to information on water levels and flows – mostly from manual readings at lock and dam locations. In recent years, a program has been initiated to convert a limited number of manual gauges to automated stations accessed by computer that can be analyzed on a daily and sometimes hourly basis. Decisions to store or release water take into consideration a range of priorities such as public safety, navigation requirements, flood mitigation, community water supplies, water quality, protecting natural resources, green power generation, and water for recreational activities.

Adjustment of levels and flows throughout the Haliburton area is generally accomplished through the annual removal or addition of one foot stop logs, although six inch steel beams are used when finer adjustments are required. Along the main system, many dams have hydraulic log lifters and there is a number of mechanized dams. Decisions usually apply to a number of dams in a series to prevent flooding of the sections between dams.

Although each year is a little different, there is a typical, annual cycle of operations for the Trent watershed based on over 100 years of recorded water levels, flows and weather data. The cycle varies somewhat depending on what part of the system is involved. In the reservoir lakes, for example, water is drawn down in the autumn so that the lakes can accommodate spring run-off without flooding. Through the late winter and spring, levels of these lakes are raised to their maximum levels.

During the summer, the lakes are gradually drawn down to provide water to maintain navigation levels in the main waterway. This is accomplished on an “equal draw down” basis. Depending on the height of the dam at its outlet, this draw down may lower levels vertically anywhere from a couple of feet to as much as twelve feet. In a normal year, 50 per cent of storage capacity in reservoir lakes is needed to maintain the Kawartha Lakes at regular operating levels.

The Kawartha Lakes are drawn down from January to March 15 to bring the lakes to their low levels prior to the spring run-off. In the summer the focus shifts to maintaining water levels in the navigation channels using as little water as possible from the reservoir lakes.

As well, sufficient flow needs to be maintained to ensure water quality.

Water management in the Severn watershed is different because of the size of Lake Simcoe. Water in this area is managed using an approach that has been in effect since 1918. Basically flows are increased if the lake is above normal levels, or decreased if levels are lower than normal. Lake Simcoe is also managed to reduce spring flooding along the Severn River.

Competition for water has caused conflict and debate throughout the watersheds. Now, however, the real possibility of a future with less water and increasing demand is changing that debate. It is no longer “the needs of the waterway versus those of Haliburtons.” It is no longer “us” and “them”. It is and should be, “how water management can best serve the sustainability of the entire watershed.”

In the face of these challenges, we believe that the responsibility for water management is not an appropriate job for Parks Canada. Parks Canada does not have the mandate, legislative and policy instruments or the resources and expertise to do that job well. Moreover, with its responsibility for navigation, Parks Canada should be viewed as a single water user among many.

Although there is currently a legal requirement to maintain a six foot draft, managing water in such a way that navigation trumps, or is perceived to trump, all other demands makes little sense in the 21st century.

It is clear that water management is a complex and important issue. It is vital to the environment and economy and to the quality of life of hundreds of thousands of people whose lives are shaped by the water. A number of improvements in water management performance are required to reduce potential threats to the environment, public safety, private property, and economic opportunity, and to reduce the level of public frustration. These include:

- Automated monitoring of levels and flows;
- Development of a new allocation and management model;
- Enhanced stakeholder engagement and communication including distribution of real time information to citizens;
- Establishment of a central automated watershed control centre;
- Modernized dams to permit finer and remote control; and,
- A water conservation strategy, including a water pricing regime.

We have looked at models from other watersheds and recommend that an independent water management agency similar to that of the Lake of the Woods Control Board be considered. Both it and the Ottawa River Regulation Planning Board were established by federal-provincial agreements involving two provinces, so the Trent-Severn offers a less complicated entity to establish.

Through this agency, the federal government would continue to own and fund the water control infrastructure; revenues would cover operations. It is absolutely essential in our view that those who manage water coming into the system should be responsible for what is taken out of it. As such, this agency would assume responsibility for issuing water-taking permits consistent with the above-noted assertion of “rights in waters.” Finally, it is our view that Parks Canada should be at “arm’s length” from the agency and we therefore recommend that the agency report through a ministry not responsible for the Parks Canada Agency – perhaps the federal Minister of Natural Resources.

In Appendix C we describe the principles that should guide the agency’s operations, and provide suggestions for governance, required expertise, staffing levels, and funding.

RECOMMENDATION 11

Improve management of water by creating and appropriately funding an independent water management agency, reporting to the federal Minister of Natural Resources, to assume responsibility for managing water storage, flows, allocation and use in the Trent and Severn watersheds.

We strongly believe that a culture of conservation and an integrated approach to water management embracing ground and surface water are the fundamental principles by which water must be managed by this authority and indeed by all in the watersheds. Citizens, businesses, and industries must also be engaged in decision-making, timely communications, knowledge creation, and education about water and its management.

The mandate of the water management agency must include the fostering of a Heritage Region-wide conservation ethic. We are attracted by the “soft path approach.”

We also believe that the pricing of water can be a powerful conservation tool. For decades experts have been saying that water in Canada is woefully under-priced. Canadians are profligate water users, only second to the United States on a per capita basis. And we know that water abundance is a myth – 60 per cent of Canadian water flows north to the Arctic and is far away from the population centres of southern Canada.

Some provinces are starting to heed the experts. Prices are beginning to reflect the value of water, the range of users falling under pricing regimes is expanding, and the minimum extraction volumes at which pricing begins are dropping. Ontario will introduce water royalties in 2009. And Quebec is considering charging royalties for the commercial and industrial use of groundwater.

Many residents don't know how much water they use because it is not metered. We think that surface and ground water users should know how much they use and that water should be priced to encourage conservation. The concept of “accountability” reinforces the need for such responsibilities by consumers exercising their rights of consumption.

The Soft Path Approach

For many, water has been regarded as an inexhaustible resource. In recent years, there has been increasing recognition that it is really a finite resource and conservation measures that manage demand have been introduced. The “soft path” of water management goes one step further by adapting human use of the water to respect the long-term ecological sustainability of the watershed. It considers water a service rather than a commodity. It asks “Why use it at all, why in this way and why of this quality?” It encourages efficiency, equity and sustainability in water allocation, distribution and use. And it involves local communities in making decisions about water. In doing so, the “soft path” fosters long term ecological, economic and social sustainability.

See Brooks, David B., 2007, “Reversing the Flow,” *Alternatives Journal* 33:4, p. 9.

Accordingly we recommend that the water management agency work, in consultation with the Province, toward establishing a harmonized, water pricing regime and that revenues be used to support its operations and foster a conservation-based water ethic throughout the watershed.

RECOMMENDATION 12

Better assure adequate water supplies throughout the Trent-Severn Heritage Region in the future by:

- (a) Promoting an integrated approach to water management;**
- (b) Fostering a strong water conservation ethic as part of the formal mandate of the water management authority; and,**
- (c) Implementing a Canada/Ontario harmonized water pricing regime that helps to offset water management costs and encourages water conservation.**