

Who Is Watching Out for the Ottawa River?

“Contradictions in human behavior are evident throughout the region. There are beautiful farms and ravaged riverbanks; decimated forests and landscaped community parks; chemical and nuclear waste oozing toward the river and conscientious children cleaning highways. In Canada, extremes in river levels that prevent the existence of both natural ecologies and human enterprises are caused by dams built primarily to meet US energy needs. Diverse and contradictory possibilities appear for the river region of the future: economic stability, ecological integrity and sustainability if people take seriously their responsibilities for God’s earth; ecological disaster and economic depression if current practices remain unchanged...”¹

The above quotation, is taken from a statement by the US and Canadian Catholic Bishops concerning the Columbia River. Entitled *The Columbia River Watershed: Realities and Possibilities*, it was meant to remind citizens on both sides of the border, that “we humans do not live alone in the Columbia watershed. We share our habitat with other lives, members of the community of life – what scientists call the *biotic community* – who relate to us as fellow inhabitants of the watershed, as fellow members of the web of life.”²

This paper is not about the Columbia River, it is about the Ottawa River. What I found interesting about the first quotation is that you could very easily have applied it to the Ottawa River, as well as many other rivers throughout North America. I intend to examine the Ottawa from the perspective mentioned above, that it is a river that can have a future characterized by economic stability, ecological integrity, and sustainability, if we take seriously our responsibilities as citizens. In order to accomplish this, I will seek to do the following:

- Brief review of the geography and history of the Ottawa.
- Analysis of legislation/monitoring & enforcement impacting the river.
- Examination of existing organizations involved with the Ottawa.

- A review/recommendation for models of river stewardship.

OTTAWA RIVER: Geography & History

The Ottawa is approximately 1271 km long and is the chief tributary of the St Lawrence River. It rises in a chain of lakes in the Laurentian Highlands, continues with the Dozois Reservoir, Grand-Lac-Victoria, Lac Granet, Decelles Reservoir, Lac Simard and Lake Timiskaming, entering each slowly and discharging with a heavy rush. South from Lake Timiskaming, it grows broad and forceful, widening into marshy lakes, then constricting into turbulent rapids. At St-Andre-Est, the river expands to form Lac-des-Deux-Montagnes, from which it enters the St Lawrence through Riviere des Prairies and Riviere des Mille-Iles to the East and by a channel to Lac St-Louis to the south.

Tributaries from the northern highlands are often wild and swift, and from the south, gentler:

- **North:** Dumoine R. (129km); Coulonge R (217km); Gatineau R. (386km); du Lievre R (330km); Petite Nation R (97km); Rouge R. (185km).
- **South:** Petawawa R. (187km); Madawaska R. (230km); Mississippi R. (169 km); Rideau R. (146km); South Nation R. (161km).³

The Ottawa has a total basin area greater than 146,300 square km. At peak runoff, flow can reach 3,500 m³/sec, while at low flow it drops to 437 m³/sec.⁴ During the ice age, it was the Ottawa that drained the Great Lakes until the land rose and a new channel was found via the St Lawrence. Fine clay soil from the southern valley was deposited throughout the Ottawa Valley, resulting in rich farms and gentle hills to the south of the river and to the north the forests of the Laurentians.⁵

For several hundred years, the Ottawa was the primary transportation route to the western interior. The river takes its name from the Odawa or Ottawa nation, an Algonquian speaking people who were active traders in this area. Etienne Brule was likely the first European to travel it in 1610, with Champlain coming in 1613. The Ottawa was a prime route for the fur trade, even though it required 18 portages.⁶ The first gristmill and sawmill on the Ottawa were built in 1798. The first paper mill in Canada was built in 1803-05 at St-Andre-Est and the timber industry became the main economic factor for most of the 1800's. However, by 1910, most the valley's strands of pine were gone, causing the mills to convert to pulp and paper, still an important industry today. There are presently over 40 hydroelectric power plants in operation with most of the electricity generated being transmitted to Toronto and elsewhere.⁷ As well, there is the Chalk River Nuclear Plant, located on the Ottawa, 200 km NW of the City of Ottawa.

OTTAWA RIVER: Relevant Legislation & Monitoring/Enforcement

The legislation that impacts on the health of the Ottawa, including all life within it, exists at the federal, provincial, and local levels. The following is a summary of relevant legislation:

FEDERAL

Federal Fisheries Act, R.S.C. 1985, F – 14

The two sections of the Act most commonly used to lay charges are:

Section 35(1) – “No person shall carry out any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat.” Fish habitat is defined as spawning grounds, nursery grounds, feeding areas or migration routes.

Section 36(3) – “No person shall deposit or permit the deposit of a deleterious substance (sediment) of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance results from the deposit.”

Examples of the kind of activities that could effect the fisheries and violate the Act include: working in or around water; removal of bank vegetation or cover along a stream; placing of fill or heavy equipment in water; installation of structures or culverts; dredging operations; release of a deleterious material via a storm sewer or overland flow to water; sewer/watermain construction/reconstruction and operations/maintenance work; fluctuating water levels; blockage of migration routes; channelization; deteriorating water quality. On the last factor, concerning water quality, the following water quality parameters can impact fish and fish habitat: dissolved oxygen; temperature; velocity; total dissolved/suspended solids; pH; nitrogen, phosphorus; metals; oil/gas.⁸

There are stiff fines and penalties under this Act. Any person/corporation found guilty on summary conviction are liable to a fine up to \$300,000 or to a prison term not exceeding 6 months, or to both. If they are convicted of an indictable offence, they are liable to fines up to \$1,000,000 or to a prison term not exceeding 3 years, or to both. This Act is jointly enforced by the Department of Fisheries and Oceans (DFO), Ontario Ministry of Natural Resources (OMNR), Ministry of Environment (MOE), the Conservation Authorities (CA's) and Parks Canada, (on the Rideau River). It should be noted, that the DFO has 10 Enforcement Officers for all of Ontario.

PROVINCIAL

Ontario Water Resources Act, R.S.O. 1990, c. 0.40

The purpose of this Act is to protect and manage the quality and quantity of surface water and groundwater by: prohibiting the discharge or deposition of material that may impair the quality of water in rivers, streams, lakes and groundwater; regulates the withdrawal of water from water intakes (through water taking permits); regulates the construction and abandonment of wells. Examples of an offence under this Act would be sediment discharged to a stream from construction activity. The MOE can issue an offence notice and seek prosecution under section 30 of the *OWRA*.

Section 30(1) – “Every person that discharges or causes the discharge of any material of any kind into or in any water, or on any shore or bank thereof, or into any place that may impair the quality of the water, or any waters is guilty of an offence”

Section 30(2)- “Every person ...of any kind, and such discharge is not in the normal course of events, that may impair the quality of the water or waters shall forthwith notify the MOE of the discharge.

Like the previous legislation, construction activities in and around water have high potential for violating the Act. If convicted of an offence under section 30(1) or (2), then a person is liable and subject to fines of \$10,000 for a first offence and \$25,000 for subsequent charges. A corporation if convicted, is subject to a \$50,000 first offence fine and \$100,000 for subsequent charges.

Ontario Environmental Protection Act, R.S.O. 1990, C.E.19

This Act prohibits the excessive discharge of a contaminant into the natural environment. Contaminant means any solid, liquid, gas, odour, heat, sound, vibration, radiation or any combination of these resulting directly or indirectly from human activities that may cause an adverse effect. Natural environment means the air, land and water or any combination

or part thereof.⁹ The fines and penalties for violation of this act are identical to the OWRA, except that the corporations can be fined between \$200,000 and \$400,000. In addition, the MOE can issue a remedial order that would require the person or corporation to repair the damage caused by their actions.

If the work being performed is construction related and happens to be close to, adjacent to or in water, then a number of other Acts may also apply in addition to the three main Acts previously discussed. The *Public Lands Act* (PLA) R.S.O. 1990 C.P.43, requires work permits to be obtained in order to ensure that the proper precautions are taken for any work on Crown land. Like wise, the *Lakes and Rivers Improvement Act* (LRIA) R.S.O. 1990, C.L.3 requires work permits for work done on private land which may impact the water course. Both of the above two Acts are enforced by the OMNR.

The *Drainage Act*, R.S.O. 1990, c.D.17 gives authority to agreeing land owners to request local municipalities to develop drainage works and is enforced by the Ministry of Agriculture Food and Rural Affairs. It can delegate much of its authority to the local municipality. The *Conservation Authorities Act*, R.S.O. 1990, c. C.27 allows for the establishment of locally based authorities within a watershed which undertake programs for natural resource management. The potential role that a Conservation Authority (CA) might perform with regard to the Ottawa, will be discussed later in the paper.

LOCAL

Although the *Planning Act*, R.S.O. 1990, c. P.13 is provincial legislation, it lays out the approval process for all local development. Starting with the Regional Official Plan; Local Official Plan; Subdivision/site plans; Stormwater/Sewer Use By-laws, the *Planning Act* delegates approval to the municipalities. The Regional Sewer Use by-law

has a mandate to protect the Region's infrastructure including the sanitary and storm sewers; wastewater treatment plant: (discharges to the Ottawa) and the natural water environment from the discharge of unusual or adverse substances. The Region's Industrial Waste Section enforces this by-law and the Industrial Waste duty officer can be contacted to report a problem. In the case of a spill or discharge, the local office of the MOE should also be notified, as per the OWRA.

Monitoring/Enforcement

As was evident from the discussion so far, enforcement activities are covered off by all levels of government under their respective legislation. Besides the 10 Federal Fisheries Enforcement Officers for Ontario, mentioned earlier, the OMNR Kemptville Region has 13 Conservation Officers (4 per shift) which enforce most of the *Fisheries Act*, except section 35, PLA and the LRIA. The Kemptville Region encompasses the Regional Municipality of Ottawa-Carleton through to the Renfrew County line. The MOE have Enforcement Officers to enforce the OWRA, EPA and section 35 of the FFA. The Region has By-law enforcement officers (Industrial Waste Section) to enforce the Sewer Use By-law and local municipalities have their own by-law inspectors.

Industrial sectors and/or sites regulated under the FFA are required to undertake Environmental Effects Monitoring (EEM) as an integral part of their responsibilities under the regulations. (Appendix I) This type of monitoring, which is required for the pulp and paper mills on the Ottawa, was put in place because "the application of regulations based on uniform effluent standards alone may not, in all cases, provide protection of the receiving environment. Furthermore, acute lethality tests on effluent do not accurately predict the effects of persistent chemicals that bioaccumulate, the

cumulative effects on fish of lifetime effluent exposure, or the influence of environmental conditions on effluent toxicity.”¹⁰ Therefore, the overall adequacy of effluent regulations is assessed by monitoring for environmental effects at each receiving water site. The EEM program requirements are meant to ensure consistency in data collection, analysis, and interpretation and at the same time address site-specific concerns in a meaningful way. One of the ways this is accomplished is through the use of a specific set of sampling variables which may include “core” and “site-specific” elements; core elements are those variables which apply to the entire industrial sector while site-specific elements are those which apply to select components of a sector based on selection criteria.¹¹ The mill being monitored is responsible for designing and implementing the EEM sampling program, in conjunction with the Regional Authorization Officer of the Ministry.

The Surface Water Quality Branch (SWQB) is an operational branch of the Water Environment Protection Division (WEPD), of the Environment and Transportation Department of the RMOC. In late 1990, Regional Council established the SWQB and empowered it to monitor and manage water quality within the Ottawa-Carleton area and to co-ordinate initiatives within the Region.

The concept of baseline monitoring of surface waters was initiated in 1991 and now involves monitoring at over 100 baseline sites throughout the Region, 19 of which are directly on the Ottawa. Water quality analysis includes: “microbiology, general chemistry, nutrients, anions, suspended solids, metals, dissolved oxygen, dissolved organic carbon, chlorophyll-a, phytoplankton, zooplankton, sediment, and fish index sites.¹²

The results of the above monitoring program are published yearly. Although the report is well laid out with many charts and graphs, one would have to be an experienced naturalist or engineer to understand the document. Also, the average citizen simply wants to know whether the fish are all right to eat, can I swim at the beach with my children and does the river always smell like that? The answers to these questions could be yes or no, depending on where on the Ottawa the person is situated and what time of the year it is. Likewise, people expect that the various law and regulations impacting on the river, are being enforced. The previous discussion illustrated that much of the enforcement is on a complaints or self-reporting basis. There does not seem to be resources for significant proactive enforcement. The following excerpt from the 1998 Baseline Report best summarizes the challenge of “watching out” for the Ottawa:

“Ottawa-Carleton has a population greater than 700,000 and covers 276,000 hectares in Eastern Ontario. All of the water flowing through Ottawa-Carleton eventually drains to the Ottawa River. The Ottawa River is a major source of drinking water and hydro-electrical energy, the disposal site for treated wastewater, the receiver of stormwater drainage and a major water recreation area in the Region. Within Ottawa-Carleton three major watersheds drain to the Ottawa River: the Mississippi, South Nation, and the Rideau River systems. The amount of land covered by various types of habitat changes over time as development occurs, farming practices change and natural communities evolve.¹³

The last line of the above quotation is significant. We now know, that the health of a river depends on much more than ensuring that spills are cleaned up expeditiously, wastewater is treated before reentering the river, etc. As important as these may be, it is the health of the watershed that is key to a healthy river. A watershed is a natural unit of land defined by the area that drains into a river and its tributaries. Watershed management means managing wisely upstream so that downstream remains natural and healthy. According to Conservation Ontario, a network of 38 Conservation Authorities in

Ontario, the watershed is now recognized worldwide, as one of the premier natural ecosystem units on which to manage resources.¹⁴ For the purposes of analyzing which organizational model is best suited to protecting the Ottawa, I will use the “watershed” as a starting point.

OTTAWA RIVER: Existing Organizations

Ottawa River Regulation Planning Board

On March 2, 1983, Canada and the provinces of Quebec and Ontario entered into an *Agreement Respecting Ottawa River Basin Regulation*. This agreement led to the establishment of the Ottawa River Regulation Planning Board (ORRPB), as well as Regulation Committee and Secretariat. The goal of the ORRPB is to ensure integrated operation of the principle reservoirs in the Ottawa River basin leading to the reduction of flood damages while taking account of other interests.¹⁵ These other interests are the hydro electric companies operating on the river.

The Board of the ORRPB is made up of appointees from the environmental ministries of the two provinces as well as Canada. Also there is participation by both Quebec and Ontario Hydro and the Canadian Coast Guard. It is clear both from it's mandate as well as Board composition, that the ORRPB does not fit within the parameters of watershed management, as defined earlier. Flood control is certainly important for industry and residents along the river, but the maintenance of proper water levels for electricity generation is not necessarily always compatible with conservation centred management.

Ottawa River Navigable Waterway Corporation

Since 1993, the Ottawa River Navigable Waterway Corporation (ORNWC) has been working to open the river for boats from Lake Temiskaming to Montreal, a distance of 800 km. Currently, by using trucks and special boat trailers, it is possible to travel about 500 km upstream from Arnprior. There are tens of thousands of boats along the Ottawa, but historically, a series of dams and rapids has made it virtually impossible to go more than a few dozen kilometers. There are four main barriers to navigation between Parliament Hill and the Britannia Yacht Club, and preliminary estimates say \$70 million would be needed to build locks around the turbulent water.¹⁶ A group of government MP's are supporting an application by ORNWC to the federal government for a \$1 million feasibility study. They state that the advantages in terms of economic benefits, tourism enhancement and environmental improvement, justify exploring the project further. The article does not discuss what possible environmental improvements are envisioned.

Community Groups

The Ottawa, as was discussed previously, is a massive watershed with hundreds of kilometers of tributaries, each impacting on the River. It is beyond the scope of this paper to inventory all the organizations whose efforts are somewhat connected with the Ottawa. Besides the various Federal and Provincial ministries with a mandate on the river, you can add dozens of municipalities on both sides, all along it's 1200 km length, who are involved with the River in someway. This can consist of surface water monitoring, beach management, shoreline rehabilitation, shoreline development for tourism, etc. As well, there are dozens of community based citizens groups who have

organized around a particular stretch of the Ottawa, such as a local beach, or an environmentally sensitive or endangered piece of shoreline. Groups such as the Westboro Beach Community Association are making attempts to deal with constant beach closings at Westboro beach. They have been frustrated by the need to deal with three levels of government on this issue. The group is starting to reach out to neighbouring associations so that a more concerted effort may be made to get action on river issues.

Another group in Kanata, successfully lobbied their local government to protect some shoreline that was in danger of being sold to the private sector for housing. The Britannia Park coalition has worked to block a hydro dam at the Deschenes rapids, to protect Mud Lake, and began a campaign to obtain Heritage River status for the Ottawa. (Since abandoned). There have been other efforts, such as the Friends of Petrie Island in the eastern part of the Region; Biodiversity shoreline walks, etc.

In discussing the issue of “watching out” for the Ottawa with several community activists, I found a consistent theme became apparent. They felt that the role of their community groups or associations should be one of vigilance. They felt the community should define what they feel is acceptable, and then demand accountability. How to do this on a river the size of the Ottawa is the dilemma. It was felt that the various groups, which though not large, are dedicated, needed to share resources, ideas, and that they should coordinate their efforts. Possible models for how this can be accomplished will be examined in the next section.

OTTAWA RIVER: Models for River Stewardship

My research into this area led me to three different types of stewardship models that might be applied to the Ottawa. In examining these models I applied the following criteria:

- **Community Based/Collaborative Approach**
- **Watershed Management**
- **Experienced/ Knowledgeable Full time staff**
- **Volunteer Board of Directors**
- **Strong Advocacy/Enforcement Capacity**

I will examine the conservation authority (CA) model; the Canadian Heritage River System; and the RiverKeeper model. After a review of their characteristics, I will conclude this paper with an analysis of which model would be most appropriate for the Ottawa. The above criteria will aid in accomplishing this task.

Conservation Ontario

Conservation Ontario is a network of 38 Conservation Authorities (CAs) in Ontario. As mentioned earlier, CAs are community- based organizations dedicated to conserving, restoring, developing and managing natural resources on a watershed basis. CAs, in partnership with the province, member municipalities and non-government organizations have been conserving and managing natural resources for over 45 years.¹⁷

The CAA (Appendix III) provides the basic mechanisms for establishing and administering a CA. Section 20 defines the objects of the Authority while Section 21 sets out a broad range of powers to accomplish those objectives. Both the founding principles

of the legislation and the legislation itself embody three fundamental strengths of every CA:

Local Initiative

People living near the problems must not only recognize them, they must be willing to work towards their solution. A CA can only be formed in Ontario at the request of the residents of an area. In asking for an authority, the local people face the responsibility of running it.

Cost Sharing

Municipalities within the CA and the provincial government share project costs. This means that an Authority flourishes only when the local people have enough enthusiasm and conviction to support it financially.

Watershed Jurisdiction

CAs can have jurisdiction over one or more watersheds. While this stewardship covers all aspects of conservation, it is of critical importance in water management since decisions or actions in one location can have a major impact throughout a watershed.¹⁸ Some examples of the type of program activities which are found in CAs throughout Ontario are: reforestation and sustainable woodlot management; watershed strategies and management; ecosystem regeneration; environmental education and information programming; land acquisition; flooding and erosion protection; outdoor recreation; water quality & quantity; soil conservation; environmental land use planning; habitat protection; agricultural and rural landowner assistance; sensitive wetlands, flood plains, valley lands protection.¹⁹

Section 2.2. (1)(2)(3) and **Section 3.3. (1)** of the CAA, deal with the formation of CAs. Membership on the Authority is designated by municipal population. In the case of a regional municipality like the RMOC, it shall act in place of the local municipalities for the purpose of appointing representatives to the Authority. (**Section 4.4 (1)**). People appointed to the Board of Directors, and the various advisory boards and committees, are citizens of the municipality who have an interest or expertise relevant to the CA.

There are three CAs in the RMOC. Rideau Valley (RVCA), South Nation, and Mississippi, all of which drain into the Ottawa. The RCVA is the largest and most well known, with a Board of Directors of 12, three Conservation Advisory Boards, with approximately 30 board members, and over 33 staff members. Its member municipalities include the 11 cities and townships within the RMOC, as well as 29 towns, villages and townships outside of the Region. Funding for the CA is apportioned across all participating municipalities. Revenue is also raised from fees for such things as septic approvals, conservation parks, Fill, Construction and Alterations to Waterways Permits, etc. As well, the Rideau Valley Conservation Foundation was established to do fundraising work for the Authority.

Community involvement and partnerships are fundamental to implementing a consistently successful watershed management strategy. Watershed boundaries transcend political jurisdictions and the Authorities' work in conservation and stewardship of renewable natural resources requires an understanding of political as well as ecosystem management complexities.²⁰ The Conservation Ontario model which involves elected and appointed municipal officials working with volunteers, local

organizations and businesses is “the signal of the shift to a new, more entrepreneurial way of conducting environmental business...”²¹

Canadian Heritage River System

The Charter of the Canadian Heritage Rivers System (CHRS) states that the CHRS is a “framework for co-operation between Canada and the Provinces and Territories [hereinafter “the parties”] to recognize, protect and manage, in a sustainable manner, Canada’s important rivers and their natural heritage, human (cultural/historical) heritage and recreational values.”²² The framework agreement was originally signed in 1984, and has been revised several times since. The final draft document, *Policies and Guidelines of the Canadian Heritage Rivers System* (Appendix IV) consists of three parts: the CHRS Charter; Policies and Principles; and Operational Guidelines. This document supercedes all previous documents containing the policies and guidelines of the CHRS.

Section III of the Charter defines the Principles of the CHRS, which forms part of the CHR Board:

- Participation in the CHRS is voluntary.
- Participants in the CHRS will retain their traditional jurisdictional powers over rivers included in the system including ownership of land, the choice to nominate a river to the System and the right to continue to operate and manage designated rivers in accordance with the objectives of the System.
- All participants in the CHRS will respect the rights and concerns of communities, Aboriginal peoples, land owners and other stakeholders in the nomination, designation and management of Canadian Heritage Rivers.
- Rivers, or sections of rivers, included in the CHRS will meet the spirit of the heritage and recreational value selection guidelines as set out by the CHR Board.
- River nominations and designations will be jointly approved, on the recommendation of the CHR Board, by the Minister(s) of the nominating jurisdiction(s) and the Minister for Parks Canada.

- Provincial and territorial governments will continue to make a substantial commitment to the CHRS through assuming the long-term operational and management costs of having rivers within their jurisdictions designated to the System.²³

Section 3 of Part 2 of the document deals with how a river gets nominated for the CHRS. Rivers will be selected according to several principles: natural heritage values, cultural values, and recreational values. If a nominated river meets one or more of the natural or cultural selection guidelines, as well as a set of “Integrity Guidelines,” then it is eligible to be included in the CHRS. The natural heritage values guidelines deal with the river’s evolutionary history, biotic and abiotic natural phenomena, as well as plant and animal habitat of Canadian interest and significance. The cultural values refer to the role the river played in Canada’s historical development, through a major impact upon the region in which it is located, as well as, if it contains historical or archaeological structures, works or sites which are unique, or rare. Recreational values include opportunities for canoeing and other forms of boating, swimming, angling, camping, hiking, wildlife viewing, and natural and cultural appreciation which may be part of a river-touring experience.²⁴

The key elements of the Integrity Guidelines are that the natural aesthetic value of the river is not compromised by human developments, and that the nominated area contains those ecosystem components required for the continuity of the species, features or objects to be protected.

Before formal designation to the CHRS, the jurisdiction that has nominated a river will submit a designation document to the CHR Board. This document should have been prepared with the involvement of local communities, First Nations and other stakeholders, and must be approved by the appropriate ministries involved in

implementing the management plan. This document is reviewed by the Technical Planning Committee to determine the extent to which its technical content meets the Board's requirements for managing the river. After designation as a Heritage River, the managing jurisdiction and the Board, review it's status yearly, and will sponsor an independent assessment every ten years. A Heritage River can be removed from the CHRS at the request of the managing jurisdiction or if the CHR Board is of the opinion that the particular river is threatened or no longer appears to possess the values for which it was designated.

It appears that a particular river that qualifies for inclusion in the CHRS may benefit in the following ways:

- **Co-ordinated River Management:** The process of preparing a management strategy focuses on the heritage and recreational values of the river and its valley. It is not a general land-use plan. The process coordinates the planning and management activities of all the stakeholders, governmental and non-governmental, which have environmental, heritage or recreational responsibilities on the river. This inevitably results in better co-ordination of existing programs, in reducing conflicts among different river users and in creating more effective new programs for the river.
- **Greater Environmental Protection:** Brings a focus to environmental issues, allowing for local governments to adopt policies that will enhance protection of the river.

- **Water Quality Improvement:** All of the features for which the CH River is nominated must be monitored, including water quality. This allows for the parties to keep a close watch on the state of the river.
- **Focus for Government Programs:** Many federal and provincial government programs can affect the heritage and recreational features of a river. Each government agency needs criteria to select areas for their programs. Government agencies can, and have used the designation of a CH River as a deciding factor in choosing where their programs should be located.²⁵

The inclusion of a river in the CHRS does not mean a loss of property rights for landowners. As the primary goal in managing a CH River is to protect the heritage features, timber harvesting, mining and other industrial activities can continue so long as they do not affect these heritage features. Potentially damaging developments within the management area may however, be restricted by local or other government authorities acting under existing laws and regulations.

Thirty-three rivers have been nominated to the CHRS, totaling 8295 kms. Of these, twenty-five have been formally designated, with management plans having been filed with the CHR Board. Each of these rivers has chosen their management structure to fit their particular needs. Typical of these organizations is the Restigouche River Management Committee whose membership includes: Provincial officials, fishing camp managers, First Nations, Crown Timber Licensees, canoeists, naturalists, recreational outfitters, museums, fish and wildlife associations, local municipalities, and the general public.²⁶ Presently, the Rideau River is awaiting Ministerial approval for its designation as a Heritage River.

The Chairperson of the CHR Board for 1999, Gordon Prouse, summarized the role of the CHRS as a “national conservation program which, like the rivers it protects, also connects people and communities...[with] landowners, local businesses, community associations, Aboriginal peoples, historical societies and other interested members of the public, all working toward a vision for their river.”²⁷

Water Keeper Alliance

The KEEPER concept started on the Hudson River where a coalition of commercial and recreational fishermen mobilized in 1966 to reclaim the Hudson from its polluters. They constructed a boat to patrol the river and used the winnings from anti-pollution lawsuits to hire the first full-time riverkeeper in 1983. This program is modeled after the riverkeepers of the British Isles who looked after private trout and salmon streams, usually for estates, manors and private fishing clubs. It was the idea of Robert Boyle, then President of the Hudson River Fishermen’s Association, to establish a riverkeeper on the Hudson to work in the public interest as an ombudsperson, someone who would be the eyes and ears of the public on the river. Since 1983, the KEEPER concept has spread quickly, with over 40 KEEPER programs on rivers, bays, channels, sounds, and coasts in the US and in Canada. The Canadian KEEPER Program is on the Petitcodiac River in New Brunswick. The Water Keeper Alliance was formed in 1999 to oversee the formation of new KEEPER programs and works on national issues that individual KEEPER programs hold in common.

According to John Cronin and Robert F. Kennedy, Jr., authors of the book *The RIVERKEEPERS*, the early success of the Hudson commercial fishermen was due to the

fact that New York State law stated that the people of New York State own the waters and the fish in the Hudson. Although this right was set forth in New York State's Constitution, it was actually based on the common law Public Trust Doctrine (PTD), which establishes public ownership of certain natural resources and is one of two ancient legal principles that underlie modern environmental law and virtually all Riverkeeper's work.²⁸

According to the PTD, the public owns common or shared environments –air, water, dunes, tidelands, underwater lands, fisheries, shellfish beds, parks and commons, and migratory species. Government trustees are obligated to maintain the value of these systems for all users- including future generations. Like other rights, PTRs are said to derive from “natural” law and they cannot be extinguished.²⁹ The PTD was affirmed in two landmark U.S. Supreme Court cases: *Illinois C.R. Co. v Illinois*, 146 US 387, 452 [1892] and *United States v Chandler-Dunbar Water Power Co.*, 229 US 53, 69 [1913]. Both Cronin and Kennedy claim that the Supreme Court affirmed that under the PTD, the “waterways and fisheries and other public resources of America are owned by the public, and no one has the right to use them in a way that will diminish their use and enjoyment by others.”³⁰ Unfortunately, according to the authors, American courts increasingly exercised their interpretive powers to uphold the right of legislators to promote private uses of these lands so long as some public good could be claimed. Subsequently, the PTD, although not repudiated by the courts, has been weakened significantly. It was not until the passing of federal environmental legislation such as The Clean Air Act, The Clean Water Act, the Endangered Species Act and the National Environmental Policy Act, that “new life had been breathed into the moribund Public Trust Doctrine.”³¹

The Water Keeper Alliance states that a KEEPER is a full-time, privately-funded, non-governmental ombudsperson whose special responsibility is to be the full-time public advocate for a water body. Each KEEPER program reflects the needs of the water body and community it represents. At minimum, it is the KEEPER's job to "advocate compliance with environmental laws, respond to citizen complaints, identify problems which affect his or her body of water and devise appropriate remedies."³² The objective is to have a diverse set of tools that allows the KEEPER to carry out the mandate set for them by the non-profit organization supervising and funding the KEEPER Program. KEEPERS throughout the Alliance are involved in everything from investigating and prosecuting polluters, water quality monitoring, participating in coastal planning, educating the public and devising solutions with those who caused problems for their particular water way.

To become a member of the WaterKeeper Alliance and establish a KEEPER program, an organization, either newly formed, or an existing sponsoring one, sends a proposal to the Alliance which explains what you hope to accomplish on your water body, what condition and special problems it faces, and why a KEEPER program is uniquely suited to this water body. As well, how you will implement KEEPER advocacy and how your KEEPER will be funded must be explained. (Appendix V)

OTTAWA RIVER: Conclusion

The purpose of this paper was to recommend a possible model(s) for stewardship of the Ottawa River. In order to accomplish this I examined briefly the geography and history of the Ottawa, as well as existing legislation necessary for a healthy watershed. I

concluded this analysis with a review of organizations involved with the River presently, and possible organizational models that could be of benefit to it. I will analyze these models now.

The first option of course is to do nothing. It appears from the reports I examined as well as conversations I had with several RMOC water quality officials, that the Ottawa's water quality in the main channel is excellent. One of them told me you could even drink it! My review indicated that there was a significant amount of legislation which covers all aspects of the River's watershed; that there was significant water monitoring being done both by the RMOC and the pulp mills through the EEM Program. The results of this monitoring are made public yearly. As well, although there is no CA for the Ottawa directly, the three tributaries that run through Ottawa-Carleton all have very active CA's. Finally, there are several small, but dedicated citizen's groups working on various projects to enhance the Ottawa, throughout the RMOC.

Having said all that, there are some significant drawbacks to the "do nothing" approach. The citizen's groups mentioned have expressed frustration at having to deal with three levels of government to move their projects forward. One group mentioned that workers from one level refused to pick up garbage on the other side of the pathway because it was on National Capital Commission land! We hear from RMOC staff that the water is drinkable in the main channel, but this doesn't explain why two of Ottawa's largest beaches are consistently closed after a rainfall. The system presently, except for some token enforcement, is largely complaint based, and although there seems to be good co-ordination between levels of government on the Ontario side, there is little

interprovincial and no municipal cooperation. I believe that the “do nothing approach” will not achieve the goals stated at the beginning of this paper. What then, will?

Of the three models discussed, the CA model was for me, the most comprehensive and effective vehicle for protecting the River’s watershed. It had the power of provincial legislation behind it, significant funding, participation from all interested stakeholders, full time, professional staff, and a tremendous array of programs. As well, it has over 50 years of experience, and is recognized as a world leader in watershed management. The problem with the CA approach in the context of the Ottawa is two-fold: Firstly, the watershed of the Ottawa, is massive, involving over 11 smaller rivers, each with their own watersheds. In theory, this is not insurmountable, as the legislation sets out a process that would require a minimum number of municipalities in the watershed to sign on. But in practice, there are literally hundreds of municipalities in the Ottawa watershed. Secondly, many of these municipalities are in the Province of Quebec. The CAA is Ontario legislation which, does not apply interprovincially. For these reasons, I don’t believe the CA model is feasible for the Ottawa, although the expansion of CA’s onto other tributaries of the Ottawa would be beneficial to it’s health.

The CHRS model had many attractive elements to it. Firstly, it was a federal program that required provincial sponsorship and funding to be eligible. It allowed for joint interprovincial or even international river management agreements. This opens the door to joint action with Quebec on behalf of the Ottawa. Also, by focussing on historic, cultural, economic and recreational elements of the river, as well as the environmental, I believe the CHRS has a more exciting vision of the place of the river in our society, and reflects the goals I mentioned earlier. Finally, there is an extensive nomination process,

which requires studies of the river, participation of all relevant stakeholders, and commitments of the sponsoring provinces to carry out the management plans they have submitted. Furthermore, the CHRS program requires yearly monitoring and independent assessments every ten years.

This is an exciting model for the Ottawa, as it is one that is capable of coordinating action from all stakeholders from both sides of the river. It is a process that allows for a watershed planning approach, if the stakeholders wish, and it is one that requires governmental commitment and resources. The problem unfortunately, is that present, the Government of Quebec has been reluctant to get involved in any federal program which celebrates “Canadian Heritage”. Attempts several years ago, by local citizens in Ottawa, were discontinued due to Quebec inaction. The other drawback to this program, is the amount of work and effort that must be put into preparing a submission. It requires extensive organizing, which is evidenced by the fact that money is available to prepare the various plans. However, if the problem with the Government of Quebec could be resolved, an application for CHRS would be a valuable thing to pursue on behalf of the Ottawa.

At this time, one must ask what can be done which has the potential to achieve the goals and meets the criteria set out for the Ottawa earlier in this paper. I believe the RiverKEEPER model, a full time ombudsperson for the Ottawa, could accomplish much of what has been discussed throughout this paper. Such a person could do much of the organizing work in the preparation of the CHRS application. They would deal with the governments on both sides of the river as well as the relevant Federal Departments. Even if there was no desire to apply to the CHRS, a RiverKEEPER would be invaluable in

working with citizen's groups to cut through the government "red tape" to get action on their concerns. Such a person could help facilitate the Region's Rural Clean Water Program, which co-ordinates the surface water education programs of all three local CAs. As an ombudsman, an Ottawa RiverKEEPER would hopefully have the skills to examine the yearly EEM Monitoring Reports, and the Region's surface water quality reports, and put the results in a "user friendly" format for local stakeholders to examine. But more importantly, a RiverKEEPER would be vigilant. And with vigilance comes the ability to advocate. A River can do so much for the biotic community, but if it is in distress, all it can do is die, and all the life that depends on it also.

It is my belief that the Ottawa could benefit from and should have, a RiverKEEPER. I believe that the Ottawa, with it's historical importance, environmental significance, and natural beauty more than qualifies as a Heritage River, and should be part of the CHRS. Finally, I believe that when it comes to caring for the health of the Ottawa, a watershed approach should be taken at all times.

Having said the above, I feel that local citizens groups need to be exposed to the KEEPER model, and encouraged to take the next steps toward obtaining the services of an Ottawa RiverKEEPER. The Ottawa deserves it!

ENDNOTES

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2. *Ibid.* at 3.
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4. *1998 Baseline Programme*, (Ottawa: Region of Ottawa-Carleton, 1998) at 8.
5. *Supra* note 3 at 1596.
6. *Ibid.* at 1597.
7. *Ibid.* at 1597.
8. Craig Reid, Surface Water Quality Branch Seminar (Ottawa: Region of Ottawa-Carleton, 1999) at 10.
9. *Ibid.* at 13.
10. "Aquatic Environmental Effects: Monitoring Requirements" (Ottawa: Environment Canada: National EEM Office, 1997) at 1.
11. *Ibid.* at 2.
12. *Supra* note 8 at 1.
13. *Ibid.* at 1.
14. "The Conservation Ontario Story" (Manotick: Rideau Valley Conservation Authority, 2000).
15. "Annual Report 1997-98" (Ottawa: Ottawa River Regulation Planning Board, 1998) at 2.
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17. "Rideau Valley Conservation Strategy" (Manotick: Rideau Valley Conservation Authority, 1992) at 1.
18. *Ibid.* at 1.
19. *Supra* note 14 at 1.
20. *Ibid.* at 2.
21. *Ibid.* at 2.
22. "Policies and Guidelines of the Canadian Heritage Rivers System" (Ottawa: Parks Canada, 1997) at 1.
23. *Ibid.* at 1-2.
24. *Ibid.* at 12.
25. "What are the Benefits of Canadian Heritage River Designation?" (Ottawa: Department of Canadian Heritage, 1994).
26. "The Canadian Heritage Rivers System- Annual Report" (Ottawa: The Canadian Heritage Rivers Board, 1999) at 22.
27. *Ibid.* at 4.
28. John Cronin, Robert F. Kennedy, Jr., *The Riverkeepers*, (New York: Scribner, 1997) at 140.
29. *Ibid.* at 141.
30. *Ibid.* at 143.
31. *Ibid.* at 145.
32. Waterkeeper Alliance Information Package, (New York: Pace Environmental Litigation Clinic, 2000) at 2.

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Planning Act, R.S.O. 1990, c. P.13

Drainage Act, R.S.O. 1990, c.D.17

RMOC Sewer Use by-law

Reports

RMOC Surface Water Quality Programme: 1998 Baseline Programme.

This report summarizes the 1998 Baseline Water Quality Monitoring results within the Region. In 1998, the Surface Water Quality Branch modified the Baseline Programme to embrace the ecosystem approach which offers better watershed management and decision-making information.

Ottawa River Regulation Planning Board(ORRPB): Annual Report 1997-98.

This report states that the ORRPB in 1997-98, has directed its efforts toward an integrated management of the Ottawa River basin with the goal of providing protection against flooding along the Ottawa River and its tributaries, while maintaining the interests of the various users, particularly hydroelectric production.

Canadian Heritage Rivers System(CHRS): Various Documents.

CHRS Objectives, Principles and Procedures

Policies and Guidelines of the CHRS

CHRS Annual Report 1998- 1999

CHRS Nomination Document for St. Croix River

St. Croix International Waterway: Long-term Cooperative Management Plan

Water Keeper Alliance

Information of the KEEPER program and what steps a community must follow to become officially designated as part of the Alliance. (Appendix V)

Miscellaneous Information

Rural Wetlands in Ontario...A guide for landowners.

Ottawa River Public Information Flood Risk Map
On the Waterfront- part of healthy watersheds education program
Rideau Valley Conservation Authority (RVCA)- 1996 Annual Report
RVCA Conservation Strategy
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The Canadian Encyclopedia, vol. III, 2 ND. (Edmonton: Hurtig Publishers, 1998).

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