

BACKGROUND

Binational Management of Lake St. Clair

Under the *Great Lakes Water Quality Agreement*, the Four Agency Management Committee established a framework for binational coordination of environmental issues on Lake St. Clair (U.S. Environmental Protection Agency et al. 2004).

The purpose of this management framework was to provide a platform for better coordination of Lake St. Clair issues and efforts so that decision makers may more efficiently and effectively focus their efforts and resources. This framework also enabled participants to have a greater opportunity for consistent interaction and representation of issues at all levels of government.

Five key elements form the basis of the management framework: a Binational Partnership Agreement (Four Agency Letter of Commitment), a binational Four Agency Management Committee, a Binational Working Group, separate local Canadian and U.S. Watershed Coordinating Councils, and a Biennial State of Lake St. Clair Conference.

Binational Partnership Agreement (Four Agency Letter of Commitment)

The basis for the Binational Partnership Agreement is a commitment by the Four Agency Management Committee to binational management roles and responsibilities for the shared binational Areas of Concern (St. Marys River, Detroit River and St. Clair River). The Agreement, in the form of a Four Agency Letter of Commitment, was signed in 1998.

The need for a focus on Lake St. Clair to coordinate and communicate the various on-going programs and to identify areas where work is still needed was recognized by the Four Agency Management Committee and was included under the Four Agency Letter of Commitment in 2000. Under this commitment, a framework for managing Lake St. Clair was completed, a binational monitoring committee was established, and two binational monitoring inventories (Environment Canada et al. 2000, 2002) were published.

Four Agency Management Committee

The Four Agency Management Committee is an existing structure mandated to lead efforts under the Four Agency Letter of Commitment and the *Great Lakes Water Quality Agreement* for the St. Marys, Detroit and St. Clair Rivers, and Lake St. Clair. The Four Agency Management Committee members are directors from Environment Canada, U.S. Environmental Protection Agency, Ontario Ministry of the Environment and Michigan Department of Environmental Quality.

Binational Working Group

The Binational Working Group reports to the Four Agency Management Committee and is comprised of staff from Canadian and U.S. federal and provincial/state agencies with responsibility for the resources and/or natural environment of the Lake St. Clair watershed. The Binational Working Group serves as the binational link between the Canadian and U.S. efforts and works directly in support of both regional and local efforts.

Local Canadian and U.S. Watershed Coordinating Councils

The Watershed Coordination Councils undertake the coordination of activities within their respective Canadian and U.S. watersheds that support the management of the Lake St. Clair ecosystem.

Biennial State of Lake St. Clair Conference

A binational conference, held every two years, provides the opportunity to distribute information to the public regarding activities in the Lake St. Clair watershed within the previous two years, and provides a forum for public input on activities anticipated for the next two years.

The Need for a Binational Management Plan

Lake St. Clair forms part of the international boundary water between Canada and the United States. Its management is complex with responsibilities lying with both federal governments, the Province of Ontario, the State of Michigan and local governments. The efforts of many government programs over the last 30 years have improved the health of the Lake St. Clair watershed. However, the focus of these programs has been on specific areas of pollution or habitat rather than the entire Lake St. Clair ecosystem.

In 1987, the *Great Lakes Water Quality Agreement (GLWQA)* was amended to direct the governments of Canada and the United States to develop Remedial Action Plans (RAPs) for designated Areas of Concern, defined as areas where localized pollution was deemed to impair the beneficial uses of the ecosystem. Within the Lake St. Clair watershed, RAPs were developed for the St. Clair River and the Clinton River. Environmental agencies recognized that efforts to correct specific pollution issues in the St. Clair and Clinton Rivers would benefit Lake St. Clair (Environment Canada et al. 1988a). Significant progress has been made in these Areas of Concern. For example, the St. Clair River RAP 2000 Progress Report (Environment Canada et al. in press) documents a continuing downward trend in contamination.

The *GLWQA* was also amended to include the requirement for Lakewide Management Plans (LaMPs) for each Great Lake. The Lake Erie LaMP recognizes the St. Clair River-Detroit River corridor (including Lake St. Clair) as an important tributary to Lake Erie (Environment Canada and U.S. Environmental Protection Agency 2000).

In 1999, the United States Congress authorized the development of a Lake St. Clair – St. Clair River Comprehensive Binational Management Plan as part of the U.S. *Water Resources Development Act*. The management plan was to be written for a general public audience. The United States Army Corps of Engineers (U.S. ACE) was designated as the lead agency and began work in 2001. While this plan is a U.S. ACE document, the need for binational participation was recognized early on in the process.

Using the Four Agency Letter of Commitment as a conduit into the Canadian agencies, the Lake St. Clair Canadian Watershed Coordination Council, led by Environment Canada, contributed summarized technical information to the U.S. ACE for inclusion in the Lake St. Clair – St. Clair River Comprehensive Binational Management Plan. However, it was decided that the Lake St. Clair Canadian Watershed Coordination Council would not contribute recommendations for the Canadian watershed until a detailed technical report for the Canadian watershed was drafted and recommendations were developed in consultation with Canadian stakeholders.

The U.S. ACE Lake St. Clair – St. Clair River Comprehensive Binational Management Plan (U.S. Army Corps of Engineers in preparation) provides a brief and strategic overview of the issues affecting the binational Lake St. Clair watershed. It is intended to be a starting point from which more detailed action plans will be developed.

The Need for a Canadian Watershed Management Plan

In 2002, Environment Canada established a technical working group, the Lake St. Clair Canadian Watershed Coordination Council, comprised of agencies with a responsibility for the environmental health of the Canadian portion of the Lake St. Clair watershed. The Lake St. Clair Canadian Watershed Coordination Council was tasked with gathering and interpreting the Canadian information to be included into the U.S. ACE Lake St. Clair – St. Clair River Comprehensive Binational Management Plan.

Quite early on the Lake St. Clair Canadian Watershed Coordination Council recognized that although U.S. actions impact the Canadian Lake St. Clair ecosystem (and vice versa), Canadians only have the ability to manage actions within the Canadian watershed. In order to determine what remedial or program actions were needed, the Lake St. Clair Canadian Watershed Coordination Council first needed to document the current state of the Canadian watershed and identify ongoing Canadian environmental programs. Only after the current state of the watershed was described could management issues be identified and recommendations developed.

The Lake St. Clair Canadian Watershed Coordination Council approach to developing recommendations required the completion of the technical report followed by stakeholder consultation process to obtain input into the development of the Canadian watershed recommendations. The consultation with stakeholders and the development of the recommendations are expected to be completed by 2006. The final product will be a Lake St. Clair Canadian Watershed Management Plan that will complement efforts in the United States portion of the Lake St. Clair watershed.

The Canadian Planning Approach for the Lake St. Clair Watershed

The approach for the Canadian watershed management plan involves three steps:

1. determine the state of the ecosystem in the Canadian portion of the Lake St. Clair watershed and identify management issues;
2. complete a comprehensive consultation of responsible government agencies, First Nations, landowners, and interested non-government organizations to solicit comments on the management issues identified and on possible management recommendations; and
3. develop a Canadian watershed management plan including an implementation plan.

The Lake St. Clair Canadian Watershed Draft Technical Report: An examination of current conditions satisfies step one of this planning approach. It provides detailed technical information on the environmental conditions within the Lake St. Clair Canadian watershed, describes some of the environmental programs being implemented, and identifies management issues. This report is presented as Background, Basin Characteristics, Stressors on the Environment, Effects of Stressors on the Environment, and Monitoring the Environment. Management issues are presented at the end of each section.

The 2004 Lake St. Clair Canadian Watershed Draft Technical Report contains information readily available to the Lake St. Clair Canadian Watershed Coordination Council, summarizing the best available information. It was recognized that more information existed for some topics or geographic regions than for others. The Lake St. Clair Canadian Watershed Draft Technical Report does not, at this time, contain information regarding the current conditions within the significant land holdings of Walpole Island First Nation. A data sharing agreement between Environment Canada – Ontario Region and the Walpole Island Heritage Centre, on behalf of Walpole Island First Nation, will facilitate the inclusion of this information at a later date.

This approach focused on the needs of the Canadian Lake St. Clair watershed. The Lake St. Clair Canadian Watershed Coordination Council recognized that communication and partnerships with the U.S. Lake St. Clair Watershed Coordination Council will be needed to ensure that the entire Lake St. Clair ecosystem is managed cooperatively.

The Canadian Governance System for the Lake St. Clair Watershed

In Canada, a combination of federal and provincial laws and policies, together with the controls exercised by local municipal authorities, provide for the protection of water resources, public health and the environment. The division of responsibilities for water and other environmental issues is complex and responsibility is often shared.

By virtue of the *Constitution Act*, the provinces own water resources and have the authority to legislate areas of water supply and pollution control. Water on federal lands and on the reserves of Canada's aboriginal peoples falls under federal jurisdiction. The federal government has specific responsibility for fish habitat as well as for navigation, international undertakings, and native affairs. While the two levels of government cannot transfer any of their powers to each other, "administrative delegation" provides important flexibility to allow the administration of a federal or provincial act to be delegated.

Federal Government

Canada is a signatory to several treaties and agreements with the United States dealing with waters that flow along or across the common boundary. Canada has signed International Protocols and North American Regional Action Plans to address contaminants, such as persistent organic pollutants and mercury that can bioaccumulate in the aquatic environment. The federal government has a fiduciary responsibility to the First Nations within the Lake St. Clair watershed.

The Boundary Waters Treaty established the International Joint Commission (IJC) in 1909 and set the basic principle for guiding boundary water relations between Canada and the United States. Article 4 of the Treaty anticipated concern about water quality with a provision that neither party should cause pollution that would injure the health or property of the other side. Prompted by concern about waterborne disease, an investigation on water pollution began in 1912. The IJC report was submitted in 1919 but the recommendations were not acted upon. In 1946, the IJC was asked to report on increasing pollution levels in the St. Marys, Detroit, St. Clair, and Niagara Rivers and Lake St. Clair. A 1950 report recommended urgent action to set objectives for boundary water quality control and the *Great Lakes Water Quality Agreement (GLWQA)* grew directly out of a joint 1964 reference to pollution in lakes Erie and Ontario. The IJC is not a regulatory agency but evaluates the efforts of both governments to reduce

pollution and improve the environment. The primary responsibility for the coordination and/or delivery of programs to achieve the objectives of the Agreement rests with the two principal federal environmental agencies, Environment Canada and the U.S. Environmental Protection Agency (U.S. EPA).

Environment Canada has a mandate under the *Department of the Environment Act* to preserve and enhance the natural environment, carry out the objectives of the *GLWQA* and co-ordinate federal environmental policies. The *Canada Water Act* provides for management of the water resources of Canada in co-operation with the provincial governments. In 1978, Environment Canada was assigned responsibility for Section 36(3) of the *Fisheries Act* that prohibits the deposit of a deleterious substance in water frequented by fish. Enforcement of this Section has led to several regulations such as the Petroleum Refinery Liquid Effluent Regulations that together with provincial regulations provide environmental controls for Canadian refineries located on the St. Clair River. Under the *Canadian Environmental Protection Act (CEPA)*, Environment Canada and Health Canada share the task of managing risks associated with toxic substances and fill gaps for environmental protection where there is no coverage under other federal acts. Work under the *CEPA* has resulted in the Toxic Substances List and a Toxic Substances Management Policy to severely limit or ban 12 persistent organic pollutants. The Great Lakes Binational Toxics Strategy provides a framework for actions to reduce or eliminate persistent toxic substances, especially those that bioaccumulate, from the Great Lakes basin. Environment Canada and the U.S. EPA, in consultation with other federal departments and agencies, Great Lakes states, the Province of Ontario, tribes, and First Nations, are working towards a goal of virtual elimination of a designated list of persistent toxic substances resulting from human activity. While this is the long-term objective, the current focus is on a framework that will achieve specific reduction actions over ten years, from a period that began in 1997 through 2006. Information on the strategy is available at www.binational.net. Sections of the *CEPA* outline the responsibilities of the federal Minister of the Environment to deal with both water and air pollution issues that have international impacts.

The Canadian Wildlife Service (CWS) branch of Environment Canada handles federal wildlife matters under the *Migratory Bird Convention Act* that implements the 1916 treaty between Canada and the United States. The *Canada Wildlife Act* gives the federal government the authority to acquire habitat for migratory birds such as the St. Clair National Wildlife Area that is managed by CWS.

The *Species at Risk Act (SARA)* received Royal Assent in December 2002 and came into force in July 2003. Under *SARA*, there is increased protection for endangered species and species at risk. Environment Canada, Fisheries and Oceans Canada (DFO), and Parks Canada will share responsibility for implementing the Act with DFO responsible for aquatic species and aquatic habitat.

Fisheries and Oceans Canada has legislative responsibility for administration and enforcement of the *Fisheries Act*. A Memorandum of Understanding between DFO and Environment Canada outlines the responsibilities of both departments for administering the *Fisheries Act*. The DFO manages the protection of fish habitat under Section 35 of the *Fisheries Act* controlling work done in or near water that could result in the harmful alteration, disruption or destruction of fish habitat. The works can range in size and complexity from the installation of a culvert for a road crossing to the development of a large mine. The DFO has developed working arrangements with many Ontario conservation authorities to undertake review of project proposals. Depending on the significance of the project, an environmental assessment under the *Canadian Environmental Assessment Act*, administered by the Canadian Environmental Assessment

Agency, may be required. The Canadian Environmental Assessment Agency and DFO conduct and co-ordinate the assessment review concurrent with the review process for the issuance of an authorization under the *Fisheries Act*.

The Canadian Coast Guard (CCG), an agency within Fisheries and Oceans Canada, is a complex multi-layered organization that deals with a collection of marine programs and services. The CCG's activities are mandated by a number of legislative acts, including *The Canada Shipping Act*. The CCG has primary responsibility for marine spills and boating safety.

Registration or licensing of ships and boats is undertaken by the Office of Ship Registration, Marine Safety, within the Department of Transport. The Department of Transport has legislative responsibility for administration and enforcement of *The Navigable Waters Protection Act*.

Health Canada, in partnership with provincial and territorial governments, provides national leadership to develop health policy, promotes disease prevention, enhances healthy living, and enforces health regulations. Health Canada works closely with other federal agencies and stakeholders to reduce health and safety risks for all Canadians and ensures that health services are available and accessible to First Nation and Inuit communities.

Agriculture is a shared responsibility of the federal and provincial governments. The federal government, under the Canadian Food Inspection Agency (CFIA) is responsible for food and beverage inspection. Agriculture and Agri-Food Canada has traditionally taken a leadership role with respect to research, national and international market and industry services, international trade, and national policy coordination. In June 2002, Agriculture and Agri-Food Canada, in cooperation with the provinces, announced a new Agricultural Policy Framework for agriculture in Canada. Four key environmental performance goals are contained in the framework. One of the goals is to minimize agricultural impacts on water, with special attention paid to the effects of nutrients, pathogens and pesticides in aquatic ecosystems. The goals will be accomplished through federal-provincial negotiations that will set environmental targets, and through federal-provincial programs that will address the on-farm use of land, nutrients, pesticides and other substances.

Ontario Provincial Government

The government of Ontario shares responsibility with the government of Canada to protect the environment and public health. The clean up and restoration of the Great Lakes has been a high priority for both governments and, in 1971, the Province signed the first Canada-Ontario Agreement (COA) Respecting the Great Lakes Basin Ecosystem. The COA helps Canada meet its goals under the *GLWQA* and has been renewed and revised several times to reflect the changing challenges within the Great Lakes. The Ontario Ministry of the Environment (OMOE) and Environment Canada are the lead agencies for the agreement. In 2002, an updated COA was signed with several annexes that address specific environmental issues in detail and set specific commitments for each government. The current annexes cover Areas of Concern, harmful pollutants, Lakewide Management Plans, and monitoring and information management. New annexes can be added at any time to address emerging issues.

The OMOE has primary responsibility for pollution control for the provincial government. The major pieces of provincial legislation are the *Ontario Water Resources Act (OWRA)*, the *Ontario Environmental Protection Act*, the *Ontario Environmental Assessment Act*, the *Environmental Bill of Rights* and the *Pesticides Act*. The Acts

provide general prohibitions or control of activities such as use of water resources, waste management, discharges to land, water and air, and the use of pesticides. Regulations made under these Acts provide more specific control of activities. Acts and regulations are created or updated as needed to deal with new or evolving environmental issues. In the mid-1990s, the Municipal-Industrial Strategy for Abatement (MISA) regulations were developed under the *Environmental Protection Act* to limit wastewater discharges from nine industrial sectors. All of the industrial discharges to the St. Clair River from the major Chemical Valley industries are covered by these regulations. To support the *GLWQA* and the *COA*, the Airborne Contaminant Discharge-Monitoring and Reporting Regulation 127/01 of the *Environmental Protection Act* was passed in 2001, covering 358 contaminants of domestic, transboundary and international interest. The *Escherichia coli* contamination of the water supply in Walkerton resulted in seven deaths in May 2000. As a result of this incident, new Drinking Water Protection Regulations (Regulation 459/00 & Regulation 505/01) were established under the *OWRA*, the *Nutrient Management Act* was enacted in July 2002, and in December 2002, the *Safe Drinking Water Act* was passed consolidating all the legislation and regulations related to drinking water.

In addition to a direct regulatory role, OMOE is actively involved in programs to increase public awareness. In co-operation with the Ontario Ministry of Natural Resources, the Sport Fish Contaminant Monitoring Program has been used for more than 25 years to produce the Guide to Eating Ontario Sport Fish.

Under the *Environmental Bill of Rights (EBR)*, Ontario has established a method for the people of Ontario to participate in government decisions about the environment and hold the government accountable for decisions. The Environmental Commissioner of Ontario is an independent officer of the Legislative Assembly of Ontario who monitors and reports on compliance with the *EBR*. The annual report submitted to the Legislative Assembly covers a wide range of issues and evaluates the performance of the provincial ministries as prescribed under the *EBR*.

Under the *Public Health Act*, the Ontario Ministry of Health and Long-Term Care is responsible for administering Ontario's health care system and protecting public health. As part of this responsibility, the Ministry establishes Public Health Units according to guidelines established by the *Health Protection and Promotion Act*. Each health unit is governed by a board of health, which is an autonomous corporation under the *Health Protection and Promotion Act*, and is administered by the medical officer of health who reports to the local board of health. The board is largely made up of elected representatives from the local municipal councils. The Ontario Ministry of Health and Long-Term Care cost-shares the expenses with the municipalities.

The Ontario Ministry of Agriculture and Food (OMAF) is involved with research and extension activities to support the agri-food industry. A recent OMAF program, Healthy Futures, focused on improving rural water quality, enhancing the safety and quality of Ontario food, and applied research to enhance food safety and water quality. In Canada, the regulation of farm activities, as they impact on water, falls within the responsibilities of the provinces and/or municipalities. Ontario enacted the *Nutrient Management Act* in July 2002 to help reduce agricultural nutrient loadings. This Act aims to set clear, consistent standards for nutrient management on farms and protect the environment. As part of the Ontario Clean Water Strategy, the *Nutrient Management Act* provides for province-wide standards to address the effects of agricultural practices on the environment, such as the application of manure to land.

The Ontario Ministry of Natural Resources' (OMNR) vision is to achieve sustainable development of natural resources and benefit the economics of communities that depend on them. OMNR protects and conserves soil, fish, forests and wildlife resources

to ensure the long-term health and availability of these natural resources. OMNR provides for sustainable use and development of Crown land and waters, protects natural and biological features of provincial significance, provides a wide range of outdoor recreational opportunities, and protects human life, natural resources and property from forest fires, floods and erosion. OMNR creates, maintains and provides access to geographic information about provincial lands, waters, natural resources and infrastructure. A number of acts and regulations govern the activities of resource users and are administered by the OMNR (e.g., *Lakes and Rivers Improvement Act*, *Public Lands Act*). The *Fish and Wildlife Conservation Act* is the main provincial law regulating fishing, hunting and trapping. Both federal and provincial laws regulate fishing in Ontario and OMNR conservation officers enforce the laws. The *Fisheries Act*, through regulations, places controls on seasons, catch limit, size limits and fishing gear. Provincial law controls, among other things, the different types of fishing licences and regulates fish huts. Most hunting in the province is controlled by provincial regulations with the exception of some activities, such as hunting migratory game birds that require federal permits in addition to the Ontario licence. Conservation officers also enforce laws enacted by the *Endangered Species Act* and the *Migratory Bird Convention Act*. The *Endangered Species Act* protects 29 species of animals and plants in Ontario and their habitat. OMNR is a partner in the Eastern Habitat Joint Venture under the North American Waterfowl Management Plan and initiated the Ontario Stewardship Program to help private landowners care for the land and enhance it for the enjoyment of future generations.

The OMNR Aylmer District has a long history of legislated responsibility to manage natural resources in southwestern Ontario. As the steward for all Crown lands and water with accountability for Crown resources on private lands, OMNR works on behalf of the people of Ontario to manage natural resources, with the mandate “ensuring Ontario’s forest, fish, and wildlife, and lands and water resources are managed in a sustainable manner to provide environmental, social, and economic benefits.”

The OMNR Lake Erie Management Unit was established in recognition of the need to manage fisheries and other aquatic natural resources in lakes St. Clair and Erie, including the lake effect zones of the tributary rivers and the connecting waters (St. Clair, Detroit, and upper Niagara Rivers). International collaborations under the auspices of the Great Lakes Fisheries Commission enable formal documents (e.g., Fish Community Goals and Objectives for Lake St. Clair and Connecting Waters (St. Clair System)) to be prepared.

The Ontario Ministry of Municipal Affairs and Housing (OMMAH) manages four major businesses: local government, land use planning, housing market and building regulation. Many of the actions and efforts of the OMMAH have direct or indirect impacts on the environment. In 1998, under the *Service Improvement Act*, most of the regulation for on-site septic systems was transferred from the *Environmental Protection Act* to the *Building Code Act*. This was done to provide a one-window approach to issuing building permits (the OMOE continued to approve large and communal systems). As part of land use planning under the *Municipal Planning Act*, OMMAH promotes sound infrastructure planning and environmental protection. In 2001, the OMMAH introduced the *Brownfields Statute Law Amendment Act* to help remove obstacles to cleaning up former industrial sites.

Municipal Government

The responsibility for the delivery of a wide range of local services rests with the municipalities. The local municipal structure varies across the province but in general, these municipal duties are divided between upper tier municipalities (county or region) and lower tier municipalities (township, village, town or city) that are part of

the federation of municipalities forming a county or region. There are a number of separated towns and cities that are geographically part of a county but do not belong to the federation that makes up the county government. Where there is only one level of municipal government in an area it is called a single tier municipality. The restructuring of municipal government has been a high priority of the provincial government. Between 1996 and 2002, the number of municipalities in Ontario was reduced from 815 to 447.

Four lower tier municipalities share the Lake St. Clair shoreline. The Corporation of the Municipality of Chatham-Kent, formed by combining 23 local municipalities, reaches from the head of the Chenal Ecarte to the mouth of the Thames River at the southeastern corner of Lake St. Clair. The Town of Lakeshore (formerly Maidstone, Belle River, Rochester, Tilbury North and Tilbury West) and the Town of Tecumseh (formerly St. Clair Beach, Sandwich South and Tecumseh) are found on the south shore of the lake. The City of Windsor is located at the head of the Detroit River.

Municipal governments are responsible for many services such as planning, public health, water supply and sewage treatment that have a direct bearing on the environmental well-being of a community. The Province of Ontario has restructured local government and reduced the number of municipalities. There has been a comprehensive overhaul of Ontario's municipal legislation and a new *Municipal Act* came into effect in January 2003 giving municipalities broad authority in a number of spheres of jurisdiction and specific powers in areas where there is a potential for duplication of provincial responsibility.

As directed and empowered by the *Municipal Planning Act*, municipalities develop official plans, zoning by-laws and other controls such as storm water management plans that reduce effects to the environment of human activities and community growth..

Conservation Authorities

The Province of Ontario enacted the *Conservation Authorities Act* in 1946. This allowed municipalities to establish local conservation authorities that could provide comprehensive watershed planning and management activities. The *Conservation Authorities Act* was based on the premises that the logical way to co-ordinate conservation work was in a watershed and that the initiative must come from the local people. Created through a partnership of municipalities (at least two-thirds of the municipalities in a watershed had to agree to form a conservation authority) and governed by a municipally appointed Board of Directors, a conservation authority could deal with watershed issues across all of the municipal boundaries.

After the devastation of Hurricane Hazel in 1954, flood and erosion control was the backbone of the conservation authority program but authorities have grown to provide a framework to manage natural resources on an ecosystem and watershed basis. Conservation authorities have a broad mandate to manage natural resources with the exception of minerals and energy sources (oil, gas and coal). Business functions for conservation authorities have evolved over the past 50 years. For example, while recreation was not specified in the 1946 Act, public lands acquired by conservation authorities in connection with flood control are now an important part of the recreational land available for public use in Ontario. Similarly, public education is now regarded as an important business function of conservation authorities. They undertake many programs that provide a direct benefit to their member municipalities such as providing advice on natural hazards (flooding, erosion) and heritage (wetlands, woodlots) for land use planning matters. The administration of flood and erosion control projects, flood warnings, low water response teams, and watershed planning are some of the programs undertaken by Authorities as part of their role in local watershed management. Water quality emerged as a key management issue for conservation authorities in the late

1970s during the Pollution from Land Use Activities Reference Group studies. Many conservation authorities identified non-point source pollution control as critical to maintaining and improving local water quality.

Conservation authorities partner with many organizations and agencies to deliver practical solutions to a range of natural resource issues. Fisheries and Oceans Canada has recognized the value of improved local delivery of fish habitat protection under Section 35 of the *Fisheries Act* by signing agreements with conservation authorities to review project proposals that have the potential to impact fish habitat. The Province has asked conservation authorities to co-ordinate the establishment of a Low Water Response Teams, help to re-establish a Provincial Groundwater Monitoring Network, administer funding for landowner extension programs, such as the Healthy Futures program, and offer technical and financial assistance to improve and protect rural water quality. Conservation authorities work with the OMNR to manage watersheds to protect human life, natural resources, and property from floods and erosion. They also work with corporations and private citizens to utilize funds to undertake or support habitat improvements.

There are four watershed-based conservation authorities that deal with the tributaries of Lake St. Clair and the St. Clair River. The St. Clair Region Conservation Authority has jurisdiction over all the watersheds of streams that drain into the St. Clair River, the Sydenham River, and Lake St. Clair north of the mouth of Thames River. The Lower Thames Valley Conservation Authority has responsibility for the watersheds of all streams that drain into the Thames River from the community of Delaware to Lake St. Clair. The Upper Thames River Conservation Authority has responsibility for all the watersheds of streams that drain into the Thames River above the community of Delaware. The Essex Region Conservation Authority has jurisdiction over the watersheds of streams in Essex County draining directly into Lake St. Clair.