



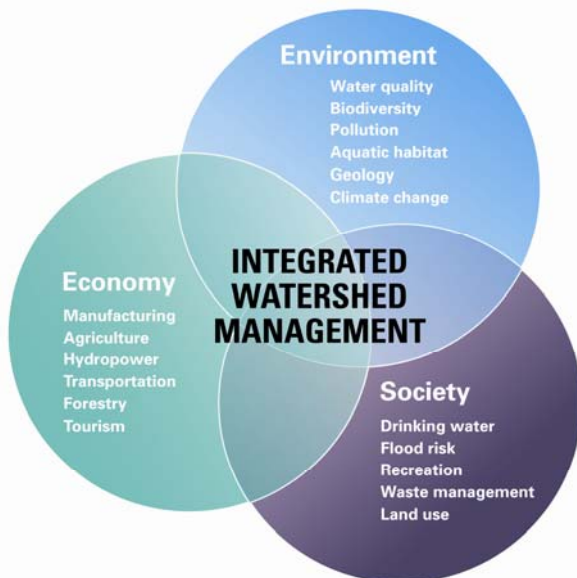
An Integrated Watershed Management Approach to Great Lakes Protectionⁱ

Conservation Ontario Recommendations for a *Great Lakes Protection Act*

Introduction

Implementation actions for the protection and enhancement of the Great Lakes and St. Lawrence Basin ecosystem happen at the local scale with local partners. Therefore, a strong framework is needed within a *Great Lakes Protection Act* to link Great Lakes/St. Lawrence objectives to local priorities and to engage local partners and citizens.

Ontario's 36 Conservation Authorities (see Attachment 1: Background) promote using an integrated watershed management approach to advance Great Lakes' objectives around improvements to nearshore water quality, sustainable water resources in the Great Lakes, and adaptation to climate change vulnerabilities. A group of lead environmental non-government organizations have formed a *Great Lakes Protection Act Alliance* which also recognizes the importance of integrated watershed management approaches (<http://environmentaldefence.ca>).



Integrated watershed management is the process of managing human activities and natural resources on a watershed basis, taking into account social, economic, and environmental issues, as well as community interests, in order to manage water resources sustainably.

This approach enables us to address multiple issues and stressors across sectors in a more efficient and holistic manner, taking advantage of existing local watershed initiatives, programs and partnerships.

To effectively understand and influence the protection of the Great Lakes, IWM needs to consider the nearshore coastal areas and the inter-relationships with the associated Great Lake shorelines and watersheds.

This paper provides a watershed and shoreline manager's perspective on what could be achieved through a *Great Lakes Protection Act*. It outlines the benefits of an integrated watershed management approach to Great Lakes, and it describes the key considerations for development of a *Great Lakes Protection Act* and the factors for success. The paper provides a summary of how Conservation Authorities are prepared to assist and highlights some key recommendations for a *Great Lakes Protection Act*.

Benefits of Integrated Watershed Management

Integrated watershed management (IWM) enables a suite of interconnected issues to be addressed collectively resulting in more sustainable outcomes. IWM requires the involvement of all the agencies that have a role in environmental management as well as water users, industry, and a wide range of other stakeholders. This approach establishes a collaborative process that allows these various organizations to protect important water

resources, while at the same time addressing critical issues such as the impacts of rapid growth and climate change.

The IWM approach focuses on the management of water and related resources, including aquatic and terrestrial natural heritage systems, and is increasingly addressing the inter-relationships between these systems and the broader socio-economic systems which they support. IWM considers the watershed's response to current and anticipated future management issues and opportunities, such as urban growth, climate change and associated management strategies and recommends the management actions to take.

The holistic approach of integrated watershed management is applied through a continuous and cyclical process involving the preparation of a plan that addresses identified issues and concerns that is then implemented, monitored, reported on and updated as required in order to adapt to changing or new emerging stressors or management approaches.

Given the basic premise that healthy watersheds contribute to healthy Great Lakes, an integrated watershed management approach offers a number of benefits including for example, science-based decision-making, improved collaboration, and leveraging local environment/natural resource investments.

Science-based Decision-making

Watershed plans and watershed/subwatershed studies provide science-based advice to local decision-making processes that impact the Great Lakes, including municipal planning and development, Environmental Assessment projects for municipal infrastructure, and determining priority restoration projects to benefit local watersheds. Successful implementation occurs through influence and negotiation with municipalities and other stakeholders.

From the perspective of water protection, the watershed is the appropriate unit for managing surface and ground water and the factors influencing its quality and quantity. The water cycle acts as one transport mechanism for land and air pollution within the watershed. Modelling on a watershed basis provides a relevant and appropriate context for decisions on priority management actions and the watersheds nest within a lake-by-lake approach to setting targets and priorities to meet Great Lakes objectives.

Improved Collaboration

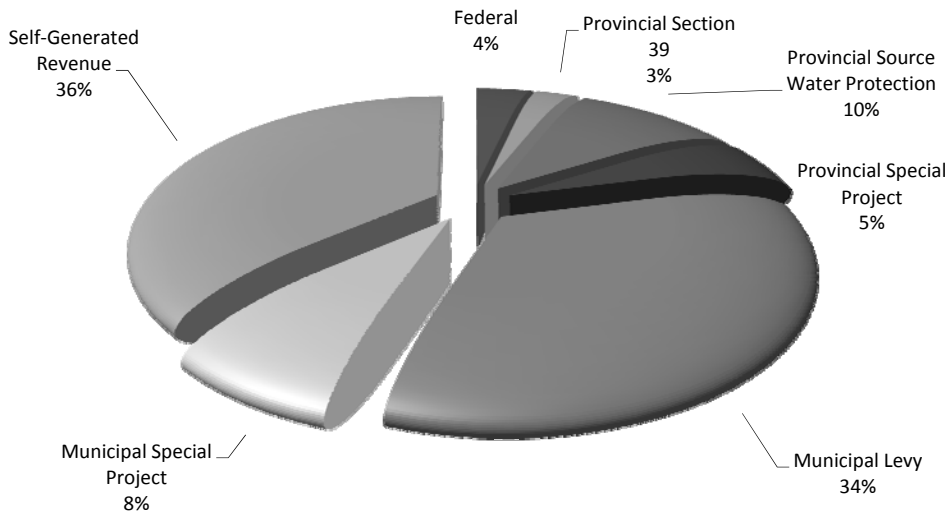
An integrated watershed management approach facilitates collaboration and data sharing and provides a mechanism for the existing science base at the watershed level to be more fully utilized. The provincial Great Lakes programs could fully integrate this capacity into the broader Great Lakes science and monitoring program. While there are good examples of partnerships, opportunities for watershed level agencies to influence and assist in achieving the science agenda should be maximized. Engaging the local and watershed levels in crafting the science agenda will ensure that the science program is responsive to regional stressors and directly informs local decision-making and management actions in the watersheds. An integrated watershed management approach to the Great Lakes would enable local engagement, greater understanding of the issues and support for implementation of targeted and measurable actions.

Leveraging Local Investments

Leveraging local environment/natural resource investments is another significant benefit of an integrated watershed management approach to the Great Lakes. For example, Conservation Authorities are a valuable

partner with collective annual expenditures (2010) of \$312 million from three major revenue sources (see Fig. 1.0): Municipal levies and special projects (42%); self-generated revenue (36%); and Provincial transfer payments and grants (18%); with the remaining 4% coming from Federal sources.

Fig. 1.0 Conservation Authorities' Total Revenue Sources — 2010



Leveraging partners' funding resources and delivering value for dollars invested is a defining quality of Conservation Authorities as evidenced by the provision of \$5 in programs for each provincial dollar invested. It is noted that this local investment in environment/natural resources at the watershed -level does not take into account municipal investments for infrastructure improvements (e.g. combined sewer overflows, etc.). While it is widely accepted that the positive actions taken in watersheds to improve water quality benefit the Great Lakes' nearshore, provincial investments into an integrated watershed management approach would incent local investment that would maximize these Great Lakes benefits.

Overall, **integrated watershed management provides a framework** for coordinating, focusing and streamlining local delivery of water management and protection actions for the Great Lakes. An IWM approach could result in improved water quality and erosion control, improved biodiversity and habitats, strong tourism and recreation, improved quality of life and neighbourhood desirability, greater resilience for flood/drought and better health of basin residents.

Great Lakes Protection Act for Ontario – Key Considerations

Assumptions

In preparing this paper, it was assumed that the current economic climate:

- will not support the expense of a *Clean Water Act* or *Lake Simcoe Protection Act* approach to Great Lakes protection across Ontario, and,
- requires efficiencies of shared capacity and commitment for both science and action across municipal, watershed and provincial jurisdictions which can be achieved through integrated watershed management (i.e. a coordinated approach to address multiple issues and stressors across sectors)

Building Upon Existing Opportunities

Ontario has existing agreements for protection of the Great Lakes and existing legislation that should be built upon in development of a *Great Lakes Protection Act* (GLPA). In alphabetical order these include:

Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem – Ontario has a long-standing partnership with the Federal government around partnering to meet bi-national commitments under the Great Lakes Water Quality Agreement. Utilize the existing efficiencies of leveraging Federal funding and resources towards the common objective of protecting the Great Lakes while demonstrating Ontario's leadership.

Clean Water Act - Ontario's source water protection program for safe drinking water has significantly enhanced watershed science, including water budget modelling. It's advanced important science on the watershed and nearshore connections through the "Lake Ontario Collaborative" of 5 Source Protection Committees utilizing municipal, conservation authority, provincial and federal partners. The GLPA should build upon this information to guide decision-making and investments into the best science and actions for the greatest benefit to the Great Lakes. Enact regulations under the Clean Water Act to set targets specific to Great Lakes drinking water sources.

Conservation Authorities Act - Under Section 20, Conservation Authorities have a mandate to develop watershed management programs and under Section 28 they regulate development in the watersheds and on Great Lakes shorelines. Utilize this existing legislation and institutional capacity to facilitate better integration of science and decision-making between municipal, watershed, and provincial (i.e. Great Lakes) jurisdictions.

Great Lakes – St. Lawrence River Basin Sustainable Water Resources Agreement - There is an opportunity to enact regulations under the *Ontario Water Resources Act* (i.e. for intra-basin transfers) and *Water Opportunities Act* (i.e. for water sustainability/conservation plans, water conservation targets) that would support Great Lakes protection and assist in meeting commitments in the Agreement to science, monitoring and reporting.

International Joint Commission Water Level Regulation Studies (Ontario and Upper Great Lakes) – Build upon the collaborative approach taken across jurisdictions for the science and modelling undertaken to identify shoreline vulnerabilities (e.g. flood, erosion, low water levels, biodiversity/coastal wetlands).

Lake Simcoe Protection Act – There is an opportunity to build upon the concepts supported in this legislation (e.g. targets, coordinated watershed management, science-based) with modification of implementation details based upon the lessons learned to date and given the current fiscal climate.

Provincial Policy Statement 5 Year Review – Make a complementary amendment to the PPS to require planning authorities to support and implement integrated watershed management planning to connect local, regional and provincial scale water resource, natural heritage, urban, rural and agricultural systems with a common goal of Great Lakes protection. Additionally, commit that all coastal wetlands are considered provincially significant (whether evaluated or not) and protect them all from development.

Water Opportunities Act - Continue to promote initiatives that build our science and research knowledge and development of technology that ultimately protects Great Lakes water quality. For example, a Showcasing Water Innovations (SWI) project will develop a Rural Stormwater Management Model to improve management of stormwater impacts during spring time and heavy rainfall events. This increased understanding will guide new stewardship projects designed to effectively reduce and manage run-off.

Factors for Success

Factors for success for a *Great Lakes Protection Act* include integration and collaboration, a strengthened watershed/nearshore science agenda, a 'best bets' action agenda, and sustainable leveraged funding.

Integration and collaboration

As a resource that crosses jurisdictional boundaries, while being subject to many different and conflicting uses, water supply and quality protection requires collaboration and co-ordination at the watershed level. Progress can only be made through actions supported by an integrated watershed management approach. This approach should be guided by clear Great Lakes objectives/targets if benefits to Great Lakes are to be achieved. Additionally, it requires the input and advice of watershed management practitioners and science experts at municipal/provincial (and federal) decision-making tables. All levels of government will need to collaborate by not only identifying the issues and goals to be encompassed in a *Great Lakes Protection Act* but also in developing an implementation strategy that puts staff and resources in place to allow momentum to build and community action to occur.

Strengthened Watershed/Nearshore Science Agenda

The nearshore of the Great Lakes is a vital resource that contributes to the social, economic and environmental health of the Great Lakes Basin; it is the zone of greatest primary productivity, a location of diverse habitats for fish and wildlife, and the place where humans interact most closely with the lake, through fishing, swimming, boating and other activities. The contributing watersheds (as one of the major threats to the nearshore) must be recognized as part of the geographic scope for nearshore science and assessment activities. There must be measurable targets set for nearshore areas to achieve Great Lakes Objectives. An integrated watershed management approach would enable the assessment and subsequent adjustment of watershed actions to meet the targets and thereby benefit the nearshore.

Watershed-based analyses and modeling, linking quantity to quality, will be critical in assessing priority watershed actions to benefit the nearshore. It will be important to examine population growth projections and land use scenarios that are watershed-based and modelled for climate change predictions that demonstrate the range of variability for which we need to manage. Best management actions for adapting to climate change can then be targeted to specific watershed characteristics in watershed plans.

Understanding the nearshore coastal processes and the aquatic and shoreline ecosystems is an important aspect to setting targets for watershed inputs and determining impacts to the nearshore from both watershed and Great Lake shoreline sources.

A proposed Great Lakes science priority agenda to address impacts from climate change and watershed/shoreline actions is provided in Attachment 2. In general, priority must be placed on development of a Great Lakes Nearshore Research Agenda that:

- Sets measurable targets for nearshore areas to achieve Great Lakes objectives;
- Understands the relationships between watersheds/shorelines and the nearshore;
- Enables targeting of watershed/shoreline restoration actions with greatest nearshore benefit;
- Enables adaptation to climate change;

- Requires monitoring and reporting to track progress; and,
- Transfers knowledge and information to practitioners and the public (and vice versa).

Action Agenda

The *Great Lakes Protection Act* should rally Ontarians' support for and engagement with their Great Lakes. The framework for a *Great Lakes Protection Act* could coordinate watershed-based and Great Lakes shorelines climate change adaptation work, drinking water source protection implementation, flood, erosion, low water and stormwater management practices and water management technology development, as well as biodiversity.

Overall, a focused 'best bets' Action agenda should:

- Support stewardship projects both within watersheds and along the Great Lakes shorelines to improve the environment and human well being while creating green jobs to boost the economy;
- Identify 'best bet' BMP actions across the entire Great Lakes/St. Lawrence basin; and,
- Incent development of watershed management plans and their implementation by funding watershed-based actions that are identified in a watershed plan/study as a first priority i.e. targeted actions = best return on investment for Great Lakes benefits

There are many actions that could be funded and Attachment 3 provides some examples of watershed management actions from which potential benefits could be derived. (Also see Sustainable Funding section below). Some "best bet" actions for Great Lakes protection from a Conservation Authority perspective include the need to:

- Increase the intensity and scale of both rural and urban stormwater management practices to reduce non-point source (NPS) pollution (e.g. agricultural best management practices, green infrastructure/low impact development techniques);
- Reduce loadings from key point sources;
- Utilize demand management programs for water supply and wastewater; apply water conservation measures and water quality trading;
- Undertake habitat enhancement projects (e.g. dam removal, naturalization of Great Lakes shoreline protection works) for improved biodiversity and resiliency; and,
- Re-engage the public with the Great Lakes through its watershed and shoreline communities.

Using Collaborations to Leverage Sustainable Funding

In a time of limited government resources, all levels of government will need to collaborate not only in identifying the issues and goals but also in ensuring that program funding supports the staff expertise required to undertake science and implement activities at the local level. Senior levels of government must ensure effectiveness, efficiency and coordination of programs, as well as establishing policy direction. Confirmation of provincial and municipal agreement on funding priorities and their respective allocations for both an action agenda and a research/science agenda is a critical aspect.

The GLPA should be written with sensitivity to funding capacity available from the municipal level of government. It is suggested that some initial work should focus on a 'best bet' actions agenda; discussion should occur with municipalities on the full range of implementation actions (for some examples, see Attachment 3) and what they are prepared to support. Conservation Authorities should be at the table during these municipal and provincial funding discussions to provide watershed perspective/context (e.g. costs for watershed science and modelling).

Conservation Authorities are Prepared to Assist

Conservation Authorities are prepared to assist the province in achieving Great Lakes protection through:

- Providing the support and advice of watershed management and science practitioners at municipal/provincial tables where strategic priorities are set for action and funding;
- Serving as an operational, science-based delivery agent representing watersheds and shorelines with a history of engagement in monitoring, modelling and research partnerships, etc.;
- Serving as an on the ground, local delivery agent of stewardship/capital assistance programs, education and communications/outreach with a range of important local stakeholders; and,
- Efficiencies of shared capacity and resources.

Recommendations

Overall, for an effective *Great Lakes Protection Act*, Conservation Authorities recommend that it:

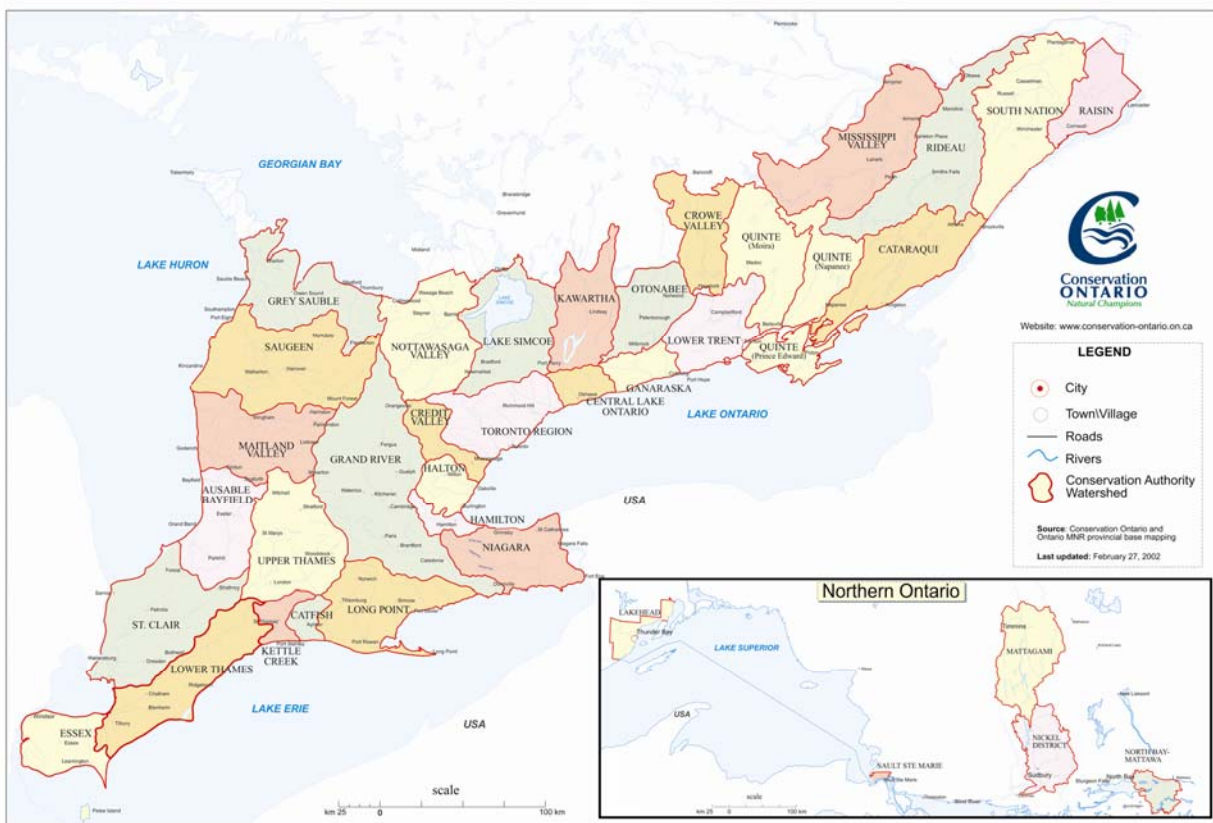
1. Set measurable targets for nearshore areas to achieve Great Lakes objectives while enabling a locally driven and defined process to meet and report on those targets;
2. Ensure coordinated actions by various watershed stakeholders (including agencies and municipalities and others) takes place through integrated watershed management;
3. Enhance existing tools and programs (e.g. urban and rural stormwater management) to implement local actions for broader Great Lakes' benefits and to engage Ontarians' support for their Great Lakes;
4. Support actions with adequate science, research, monitoring and reporting; and,
5. Build upon existing models for efficiency (both watershed and bi-national) and without creation of additional prescriptive processes requiring excessive provincial oversight.

ⁱ Portions of this paper are taken and/or modified from: Fox, B. and S. Meek. *In press*. Chapter 9: Conservation Ontario's Coordinating Mandate to Promote an Integrated Watershed Management Approach to Protection of the Great Lakes and St. Lawrence Ecosystem. *Great Lakes: Lessons in Participatory Governance*. pp. 212-242. Science Publishers, Enfield, New Hampshire 03478, U.S.A.

Attachment 1 – Background: Ontario’s Conservation Authorities

Conservation Authorities deliver on a long-standing partnership between the Province of Ontario and local municipalities for the management of water and natural resources on a watershed basis. There are 36 Conservation Authorities in Ontario serving over 90% of Ontario’s population with 31 watershed jurisdictions draining into the Great Lakes basin and 4 draining into the St. Lawrence River basin; the remaining watershed drains into Hudson Bay. (See Fig.1). In accordance with the Conservation Authorities Act, these watershed management agencies are governed by a board of representatives appointed by the municipal councils in the watershed.

Fig. 1.0 Map of Ontario’s 36 Conservation Authorities



Source: Conservation Ontario <http://www.conservationontario.ca/find/index.html>

Conservation Authority Programs Create Efficiencies

Conservation Authorities provide an effective coordination and local delivery mechanism for federal, provincial and municipal initiatives and priorities (e.g. Areas of Concern - Remedial Action Plans, Provincial Groundwater Monitoring Network and Source Water Protection program, Rural Water Quality Programs) and have participated in bi-national Great Lakes initiatives.

Conservation Authority natural resource programs are determined by scientific analysis of watershed characteristics, land uses and trends, and ecosystem needs, and are developed through a collaborative process involving watershed stakeholders including governments, agencies, experts, and citizens. With over 3000 full time, seasonal and part time staff across Ontario, they provide science-based advice and services within their watersheds including watershed/sub-watershed planning, water quality/quantity monitoring and modeling, natural heritage and forestry, source protection, watershed stewardship, watershed report cards, and technical input and review for municipal land use planning and environmental assessments.

Conservation Authorities deliver watershed management programs to:

- Protect drinking water supplies;
- Reduce flood damages (including along Great Lakes shorelines);
- Provide an adequate water supply for domestic uses and aquatic ecosystems;
- Protect natural areas and biodiversity; and,
- Provide environmental education to students of all ages and the adult population.

They also provide recreational opportunities to 6 million people annually through:

- Operation of active conservation areas; and,
- Providing lands and trails for recreational use.

As watershed management agencies, Conservation Authorities share a common responsibility for the Great Lakes and St. Lawrence Ecosystem and recognize the need for collaboration.

Conservation Authorities and the Great Lakes

In 2006, with the assistance of Great Lakes expert Dr. Gail Krantzberg (McMaster University), Conservation Ontario developed and endorsed a collective position statement on Great Lakes Sustainability:

*Conservation Ontario will work with all orders of government and basin residents as stewards to protect and improve the unique, shared Great Lakes and St. Lawrence ecosystem for present and future generations.*ⁱ

Additionally, the Guiding principle for Conservation Authority efforts is to:

*Apply an integrated watershed management approach to planning and implementation in order to protect and improve the Great Lakes and St. Lawrence Ecosystem.*¹

Taking an integrated watershed management approach to the Great Lakes within the Conservation Authority jurisdictions represents a significant opportunity to address some major threats to the Great Lakes (e.g. urban and shoreline development, non-point source pollution, climate change).

Attachment 2 – Proposed Science Priority Agenda for Watersheds/Nearshore

To address impacts from climate change and watershed actions to the Great Lakes the following should be part of the science priority agenda:

- Measurable targets for Great Lakes nearshore that set priorities for Conservation Authorities to address as watershed managers (e.g. phosphorous targets). Set targets that are based upon best available science and are specific to Lake coastal zones/sub-basins. Socio-economic factors should be considered in implementation efforts to meet the targets, and barriers to achieving the targets should be addressed through the establishment of interim targets, the establishment of an adaptive management approach and other incentive programs. The watershed-based water quality/quantity modeling will facilitate equitable allocation of targets between urban and rural contributors based upon their respective point and non-point source contributions and enable consideration of water quality trading.
- Monitoring and reporting will track progress and ensure accountability.
- Understanding the relationships between watersheds & the nearshore (e.g. confirm threats to Great Lakes in terms of individual tributaries, point sources, non-point sources; model how and when tributaries influence the nearshore).
- Better understanding nearshore physical processes in a coastal zone/littoral cell boundary (re: drinking water, natural hazards & ecosystems) and their relationships to the shorelines, in addition to the watershed inputs.
- Establishment of 'research' watersheds in each of the Lake basins to work through the science questions (e.g. evaluation of agricultural best management practices) and then transfer this knowledge to landowners and practitioners across the basin.
- Better understanding of the implications of climate change to enable adaptation within watersheds and along Great Lakes shorelines. Watershed and shoreline managers need accessible climate change data and information specific to the Great Lakes Basin Region to address potential increased vulnerabilities to biodiversity in general and potential increased vulnerabilities of life and property to flood and erosion, for example.

Attachment 3 - Examples Showing How Watershed Management Actions Can Create Benefits

Examples of Watershed Management Actions (in order of most to least expensive; relative effectiveness will be dependent on watershed characteristics)	Examples Of Potential Benefits Of Watershed Management Activities For Great Lakes Protection
<p>Upgrade wastewater treatment:</p> <p>Upgrades include measures to improve the performance of existing operations and investments in new treatment processes. These improve the quality of treated effluent and/or reduce the frequency of untreated wastewater bypasses. Alternatively, watershed-based water quality trading programs focused on non-point sources could accomplish more improvements in overall water quality at less cost.</p>	<ul style="list-style-type: none"> - Improved public health - Reduced risk of drinking source water contamination - Improved health of rivers, lakes and streams and the Great Lakes nearshore - Reduced cost of wastewater treatment. - Reduced risk of exposure to water borne pathogens, reduce risk of beach closures, improve quality of recreational experiences.
<p>Urban stormwater management:</p> <p>Measures include combined sewer separation, disconnection of roof leaders, street and catch basin cleaning, and treatment-train approach to stormwater management. These measures are designed to keep the pollutants in storm water out of surface waters, to reduce erosive flows and/or to attenuate peak flow volumes. Given climate change and development intensification, an increase in measures following low impact development/green infrastructure approaches and technologies are particularly important. Measures to improve erosion and sediment control for during and post-construction are also important.</p>	<ul style="list-style-type: none"> - Reduce risk of water supply contamination - Increase capacity to support more development - Reduce land development and municipal maintenance costs - Reduce risk of exposure to water borne pathogens, reduce risk of beach closures, improve quality of recreational experience. - Reduce expected damages from local flooding and erosion, enhance the aesthetic quality of the urban environment. - Reduce impacts to commercial and recreational fisheries - Improved resilience of aquatic and riparian ecosystems (watershed, shoreline and nearshore) - Enables adaptation to increased flow volumes from intense storms (i.e. climate change)

<p>Rural Stormwater Management (including agricultural measures to improve erosion and sediment control):</p> <p>Measures could be part of a Rural Water Quality program including those that:</p> <ul style="list-style-type: none"> - Use various means to keep livestock and manure runoff out of streams. This reduces water contamination from livestock excreta and trampling of the streambed and stream banks. - Use no-till or reduced tillage and nutrient management systems to control erosion and reduce loadings of sediment, nutrients and other pollutants to streams from surface runoff. - Restore/enhance riparian zone cover through plantings, erosion control and natural channel design 	<ul style="list-style-type: none"> - Reduce risk of drinking water contamination - Better public health. - Reduce risk of exposure to water borne pathogens, reduce risk of beach closures, improve quality of recreational experience - Improved use of and satisfaction with waterfront recreational and residential development - Reduced risk of private water supply contamination - Lower farm costs and improve net farm income. Reduced risk of soil loss - Reduce impacts to commercial and recreational fisheries - Improved resilience of aquatic and riparian ecosystems (watershed, shoreline and nearshore)
<p>Protect and Restore Natural Heritage Systems and Green Infrastructure:</p> <p>Measures such as municipal official plan designations and policies, zoning, regulations and other by-laws (e.g. forest conservation, tree cutting, site alteration), land acquisition, habitat enhancement projects or education can be used to improve or restrict land uses in critical natural areas (e.g. wetlands, flood plains, upland forests, etc.) and to restore connections between natural areas. Such measures prevent contaminants in overland flows from reaching streams, increase infiltration of precipitation, and preserve species and ecosystems (i.e. improved biodiversity and resiliency).</p>	<ul style="list-style-type: none"> - Reduce risk of drinking water contamination - Improved yield of ground water for water supply - Reduce risk of exposure to water borne pathogens, create opportunities for and improve quality of recreation experience - Less frequent clean out of sediment from municipal drains - Stabilized shorelines to lower impacts from flooding and erosion - Reduce impacts to commercial and recreational fisheries - Improved resilience of aquatic and riparian ecosystems (watershed, shoreline and nearshore) - Improved access to publicly owned natural areas.

<p>Water conservation:</p> <p>Various measures, including: optimize urban and agricultural irrigation practices, retrofit or replace water use appliances, restrict municipal water use, modify water use habits, reuse wastewater, etc. These reduce water withdrawals and can also improve the performance of wastewater treatment plants.</p>	<ul style="list-style-type: none"> - Reduced water supply and wastewater system costs - Increased available capacity to service new customers - Improved resilience of aquatic and riparian ecosystems (watershed and nearshore)
<p>Public engagement:</p> <p>Possible mechanisms for making the links to Great Lakes messaging include: stewardship programs, Children’s Water Festivals & other environmental education programming (e.g. Conservation Authorities reached 450,000 students at over 2000 schools in 2008), citizen monitoring programs, watershed planning consultations, waterfront recreation (e.g. Conservation Authority lands include 3,490 ha along Great Lakes shorelines)</p>	<ul style="list-style-type: none"> - Increased support for protection of Great Lakes - Increased sensitivity to relationship of local decision-making to impacts in the Great Lakes

This table is modified from: “VALUING BENEFITS FROM WATERSHED MANAGEMENT
A Supplement to the Report *The Importance of Watershed Management in Protecting Ontario’s Drinking Water Supplies*” (Conservation Ontario, October 15, 2001)