

Introduction

As Ontario’s world-leading approach to watershed management has become diluted and fragmented, the Ontario Headwaters Institute seeks broad consultation on replacing it. A basis for discussion could be to shift Ontario to an Outcomes-based Framework for Watershed Security, which we define as healthy and resilient watersheds that would protect regional ecological integrity, social wellbeing, and economic vitality

The Framework we offer and suggest be a basis for discussion includes recommendations to:

- Address policy and implementation gaps in watershed management at the provincial level;
- Integrate land use and watershed planning at the municipal level; and,
- Revitalize and expand the role of conservation authorities and similar agencies.

While some of the suggested outcomes in this paper are science-based, such as those to establish targets for natural heritage on a watershed basis or triggers for action when water quality objectives have been exceeded, others lean toward outcomes for improved policies that currently constrain the goal of healthy and resilient watersheds. Both the science and policy recommendations seek to replace a fragmented process that is no longer working with more clearly defined outcomes to help deliver watershed security.

The Framework has been prepared by the Ontario Headwaters Institute (OHI), a provincial corporation with charitable status whose mission is Promoting Watershed Security in Ontario. As distilled in our Strategic Vision, 2024 – 2028, ([link](#)), the OHI’s provincial policy goals are:

- The revitalization of Ontario’s approaches to watershed management; and,
- The improved integration of land use and watershed planning in Ontario.

We believe that this Discussion Paper addresses those goals in a Framework that would narrow policy gaps at the provincial level; alleviate tensions between the Province, municipalities, and agencies performing roles in watershed management; and that it provides a long-term vision to safeguard our watersheds and their biodiversity while also delivering nature-based solutions to address the climate crisis.

Sections of this paper include:

1. Early Watershed Management and the Need to Shift to Watershed Security
2. Recommendations for Provincial Action
3. The Municipal Charter for Watershed Security
4. A Revitalized and Expanded Mandate for Watershed Management Agencies, and
5. Next Steps and Opportunities for Public Engagement

We urge the provincial government, its agencies, Ontario municipalities, conservation authorities and similar bodies, and broad sectors of society to discuss this Paper.

For our part, the OHI will seek to facilitate discussion and public engagement as resources allow. We already have several presentations planned and welcome more opportunities throughout February, March, and into April. Please contact us as below if you would like to discuss this paper or arrange a presentation.

1. Early Watershed Management and the Need to Shift to Watershed Security

Background

Having invented and then cultivated watershed management for about 70 years, Ontario has purposefully backed away from its commitments to watershed health since 2018, reducing the mandate of conservation authorities and other key environmental initiatives, mostly in order to facilitate its Housing Action Plan. This has included actions in Bill 23 (the More Homes Built Faster Act), Bill 85 (the Building a Stronger Ontario Act), and Bill 185 (the Cutting Red Tape to Build More Homes Act).

In addition, the Province has amended key aspects of the environmental assessment process, the Species at Risk Act, archived the wetland strategy while amending the wetland evaluation process, pushed urban boundary expansion against the will of some municipalities, and performed end-runs around normal planning procedures by issuing an historically high number of Minister's Zoning Orders.

It has also created public turmoil with ill-conceived efforts to remove significant portions of the Greenbelt, in contradiction of public promises to not do so, in a process that has sparked multiple reviews.

Finally, the Government revoked the right of appeal of municipal plan amendments or development permits to the Ontario Land Tribunal for Conservation Authorities (CAs) or anyone not adjoining the proposed development. This removes an historic, democratic avenue of redress under which anyone, or our CAs, could seek sober second thought on safeguarding water in, flowing through, or downstream of a development site.

While the OHI has participated for more than five years in several coalitions working to reduce urban sprawl, pursue complete communities, embrace nature-based solutions to the climate crisis, and support an increased set of housing options, our wheelhouse is Promoting Watershed Security in Ontario.

Given our mission and the government's direction as described above, and in spite of the OHI's profound respect for good planning and inspiring architecture, we have become apprehensive about the current approach to land use planning and have adopted a perspective of "Do the best planning you can, just don't put our watersheds at risk". This discussion paper suggests wide consultation to identify how to alleviate those risks.

The Establishment of the Watershed Management Model

Following the creation of the first few conservation authorities while responding to broader issues of significant deforestation, soil erosion, and flooding in the 1930s and 40s, Ontario proclaimed the Conservation Authorities Act, 1946, which led to the establishment of what would become 36 conservation authorities.

Unique in the world, CAs were established to help manage natural resources on a watershed basis, with local municipalities appointing members to the governing board of each CA, based on their population, with funding provided by both local municipalities and the Province.

The mandate for CAs included watershed management and the conservation of land, under which each CA generally gained ownership of and/or responsibility for dams and weirs, floodplains along river valleys, submitted comments on municipal planning instruments, and issued permits for sediment control on and water flowing from development into local waters.

Over time, CAs obtained ownership of or responsibility for conservation areas - areas of significant natural heritage value – some of which operate as major recreational venues for the public while others have more restricted access due to sensitive environmental considerations. They also extended their expertise in habitat and wetland restoration into strategic support for key components of municipal capital projects.

The Broader Context of Environmental Management

Global concern about increasing population, expanding urban settlement, and growing industrial capacity, highlighted by the 1972 UN Conference on the Human Environment and Limits to Growth, a report published that same year, precipitated both immediate responses and longer-term shifts in government commitments to the environment.

That same year, Ontario, created the Ministry of the Environment and in 1973 proclaimed the Niagara Escarpment Planning and Development Act, one of the world's first areas with an environmental plan.

From then through 2018, Ontario enacted legislation or regulations that included: requiring environmental assessments for provincial, municipal and specified undertakings; proclaiming the Oak Ridges Moraine Conservation Act and later the Greenbelt Act, providing for the creation of the Greenbelt - the world's largest such area; protecting species at risk; providing guidance to planning with specific direction on the protection of water; and implementing several initiatives to protect drinking water, wetlands, and the Great Lakes.

More recently, it harmonized regulations for the special planning areas of the Niagara Escarpment, Oak Ridges Moraine, and Greenbelt; suggested density targets to expedite transit and contain sprawl; and passed the Lake Simcoe Protection Act.

Gaps in Ontario's Approach to Watershed Management

In spite of the evolution of watershed management in Ontario, the claim that Ontario has a systemic approach for watershed management is false. Rather, there are six approaches just in South-central Ontario, excluding First Nation lands, some of which overlap geographically, with others in the North.

These six areas, shown on a map found [here](#), are: areas managed by the 36 conservation authorities; areas managed by the Ministry of Natural Resources; areas under the Greenbelt Plan; areas in the Lake Simcoe Protection Plan; areas in the Severn Sound Environmental Association, and hybrids such as that in the District Municipality of Muskoka.

Major gaps across these approaches that include variations in policy and funding mean that some peoples' water is more important than other peoples' water, creating a system that is fragmented, unevenly delivered, and regionally inequitable.

Key issues that have created or perpetuate this situation include that:

At the Provincial Level

- Conservation Authorities are under the jurisdiction of the Ministry of the Environment, Conservation, and Parks; also receive funds from and deliver programs with the Ministry of Natural Resources; and are a planning authority under the direction of the Ministry of Municipal Affairs (MMAH), which is responsible for both the Provincial Planning Statement (PPS) and can issue Minister's Zoning Orders. Unfortunately, those orders can end-run the normal planning process, especially for watershed considerations;
- Many municipalities play lip-service to s. 4.2.1 of the Provincial Planning Statement (PPS) which states that "Planning authorities shall protect, improve or restore the quality and quantity of water by...using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development", In fact, some municipalities are using "equivalents" to watershed planning while others have abandoned an ecosystem approach in favour of a far-less thorough landscape features approach;

- In spite of the reference in the PPS to cumulative monitoring as above, the Province has not moved to implement it, while MMAH has revised the PPS without any of the required reviews of the effectiveness of its policies; and,
- The Provincial Water Quality Objectives are just that, and have no triggers for any required action. We consider it unconscionable that any water body can severely exceed the water quality objectives, and/or exceed them repeatedly, and no agency is required to take any action whatsoever.

At the Watershed Level

- Policies are not standardized across the 36 CAs, let alone with similar agencies. For example, policies required under regulations that prescribe CA direction regarding Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses run a wide gambit from recent comprehensive guidelines to thin, out-of-date documents.
- While some of the larger, better-funded CAs adopted Integrated Watershed Management, no longer possible given recent changes to their mandates, and most implement some form of adaptive management, other less-well funded CAs deal with issues in an almost piecemeal fashion;
- In areas without CAs, some municipalities don't require permits for site alteration, leading to indiscriminate land conversion such as the filling in of wetlands. By definition, these municipalities generally don't have inspectors to monitor site alteration, pitting neighbour against neighbour and often requiring the involvement of elected officials and/or provincial staff;
- While a helpful tool for public education, Watershed Report Cards published by CAs present as many questions as answers. For example, Conservation Ontario, the provincial non-profit collaboration of the 36 individual CAs that spearheads report card format, has no method to include the public in reviewing or updating the indicators nor the grading system, which is somewhat suspect. Furthermore, the OHI knows of no individual report card that tracks changes to grades over time nor where the local CA conducts public meetings on its report card to help identify priorities for remediation, especially on how to enhance stewardship on private land.
- Finally, watershed report cards issued by CAs are not integrated with other reports on water quality, water quantity, nor even the reports of the Source Protection Authorities that are managed by the same CAs.

The Deliberate Weakening of Conservation Authorities

As if the institutional gaps described above are not serious enough, since 2018 the Ontario government has deliberately weakened the role of Ontario's 36 conservation authorities through a series of sequential actions, usually designed to facilitate the Housing Action Plan by weakening environmental safeguards and usually in massive omnibus bills with limited to no public consultation.

Key changes have included removing "watershed management" and "the conservation of land" from the mandate of the CAs; preventing CAs from commenting on draft municipal official plans; and new rules effective January 1, 2025, that allow the Minister of Natural Resources to direct conservation authorities to issue or not issue development permits, regardless of conformity to CA permitting requirements.

In addition, Ontario has removed the ability of a CA to initiate or to be a party to an appeal to the Ontario Land Tribunal. As individuals not adjacent to land subject to a proposed permit are also excluded from taking such action, no individual or entity can any longer appeal a development based on water, including possible negative impacts to a watershed, biodiversity, and downstream public health.

Deterioration of the Broader Context of Environmental Management

Most of the aspects in the environmental framework described a few sections above have been significantly curtailed since 2018, as Ontario has repeatedly expressed its intention to facilitate the Housing Action Plan as “reducing” or “streamlining” environmental red tape, when in fact it has slashed environmental safeguards with virtually no discussion of how to make environmental safeguards more efficient.

Government actions have included removing or reducing key aspects of the environmental assessment process; serial threats to the Greenbelt; lowering density targets for new development that will convert more natural heritage than otherwise required; amending the Species at Risk Act to allow payment instead of the past requirement to implement an actual species protection plan; and issuing scores of Minister’s Zoning Orders that end-run the normal planning process.

In addition, restrictions on aggregate extraction below the water table have been eliminated, threatening both the volume and quality of ground water as it emerges to surface water elsewhere, potentially threatening water needed for human consumption, livestock, and crops as well as watershed health and aquatic biodiversity.

Based on the clear trends described above, the OHI believes that watershed management in Ontario needs an extensive overhaul, and we offer this Outcomes-based Framework for Watershed Security as a basis for discussion amongst the Province, municipalities, all watershed management organizations, and the public.

2. Recommendations for Provincial Action

Given the gaps described above, the OHI suggests extensive discussion on shifting to an Outcomes-based Framework for Watershed Security, including recommendations that:

1. Ontario should pursue an amendment to or new annex in the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health on increased federal / provincial cooperation on watershed security, perhaps based on existing collaborative efforts to address nutrient flow to and algae in Lake Erie;
2. Ontario should establish natural heritage targets, similar to those in the federal guideline How Much Habitat is Enough, such as agreed percentages of a watercourse to be in natural heritage, wetlands, and streamside vegetation, with mechanisms to set restoration goals where a watershed is below target;
3. The Made-in-Ontario Environment Plan, which was posted to the province’s Environmental Registry in November of 2018 and includes commitments on water but has never been approved, should be re-posted to the Registry and the subject of extensive consultation;
4. Key Ontario ministries involved in protecting water, watersheds, and their biodiversity should hold internal, cross-ministry, and public consultations on how to deliver watershed security;
5. The Province should restore its archived Wetland Policy and rescind recent amendments to the Ontario Wetland Evaluation System that limit the future identification of provincially significant wetlands;
6. Ontario should revoke the blanket ability of aggregate extraction sites to operate below the water table and instead develop an appropriate protocol to protect and monitor groundwater on a site-by-site basis;
7. In the Provincial Planning Statement (PPS), Ontario should:
 - a. Reinforce the obligation that planning authorities shall “protect, improve or restore the quality and quantity of water by...using the watershed as the ecologically meaningful scale for integrated and long-term planning”;
 - b. Reinstate the consideration of climate change impacts as a key consideration in protecting water;
 - c. Require full watershed studies based on an ecosystem approach while precluding the use of “equivalent” watershed studies and/or a landscape features approach to planning;
 - d. Ensure that municipalities include the identification and mapping of Significant Surface Water Contribution Areas in their official plans; and,

- e. Move expeditiously to create and implement the cumulative monitoring referred to in s. 4.2;
8. Ontario should establish triggers, lead agencies, and a protocol for action when monitoring results indicate that a Provincial Water Quality Objective has been exceeded;
9. Ontario should establish a new standard for salt in surface waters, with triggers and protocols for action by lead agencies;
10. All municipalities in Ontario should be required to have a permitting system for site alteration, especially as such might impact water, with appropriate measures for inspection, halt-work orders, and adjudication;
11. Minister's Zoning Orders should require a "certificate on the non-impairment of watershed security" from a designated agency such as a conservation authority or the Ministry of Natural Resources; and,
12. Concerns about the quality and quantity of water in, flowing through, or downstream from development being considered by a planning authority should be re-instated as eligible criteria for appeals to the Ontario Land Tribunal;

In addition, Ontario should support the integration of land use and watershed planning at the municipal level, per section 3 below, perhaps through something similar to the OHI's Municipal Charter for Watershed Security, and revitalize and expand the role of our watershed management agencies per section 4 below.

3. The Municipal Charter for Watershed Security

Like many organizations, the Ontario Headwaters Institute is concerned that the Province's Housing Action Plan has run roughshod over environmental safeguards, sound planning, and legal rights.

Threats to watershed security stemming from a reduction in environmental safeguards and unchained urban sprawl include diminished and fragmented areas in natural heritage, a loss of biodiversity, increased flow from additional hardened surfaces, and reduced water quality, each made worse by the multiplier effect of climate change impacts on our watersheds. These include increased temperatures, and alterations to both the hydrologic cycle and the chemical composition of precipitation.

Leaving things as they are threatens not just some philosophical concept of watershed security but real damage to the environment, infrastructure, and property.

We believe that a key tool to help mitigate these impacts is to integrate land use and watershed planning at the municipal level, which would have co-benefits to help any municipality address the climate, biodiversity, and housing crises.

We therefore offer, overleaf, our template approach to Developing a Municipal Charter for Watershed Security.

We suggest that the Charter be implemented with Council motion to adopt it in principle and direct staff to develop a plan to integrate land use and watershed planning.

Each municipality could then address the remaining seven suggested actions in a practical and flexible manner, based on local priorities and resources, using internal staff, support from conservation authorities and provincial agencies, and/or consultants.

Whatever path is chosen, we recommend that municipalities inform their efforts with extensive community engagement, including with First Nations as may be required.

Ontario municipalities deliver core services that impact our watersheds, such as those related to land use planning and the management of drinking water, storm water, and sanitary sewage systems.

This is recognized in a clarion manner in the Provincial Planning Statement, which states that planning authorities “shall protect, improve, or restore the quality and quantity of water by ... using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development”.

The Provincial Planning Statement (PPS) also requires a municipality to minimize the potential negative impacts of planning on water, including cross-jurisdictional and cross-watershed impacts.

Unfortunately, the ecological integrity and biodiversity of our watersheds are threatened, especially in South-central Ontario, due to the inadequate implementation of the PPS.

Threats include diminished and fragmented natural heritage, increased flow from hardened surfaces, pollution (including from road salt), and impacts from climate change that include increased temperature and alterations to both the hydrologic cycle and the chemical composition of precipitation.

Given the directives of the PPS, the threats facing Ontario’s watersheds and their biodiversity, and growing population and development pressures, the Ontario Headwaters Institute considers it fundamentally important that our municipalities integrate land use and watershed planning.

We suggest that they develop a Municipal Charter for Watershed Security – a healthy and resilient watershed to ensure regional ecological integrity, social wellbeing, and economic vitality - based on the following eight actions:

- Adopting a council motion to integrate land use and watershed planning;
- Committing to a whole watershed approach, seeking normal flows of clean water entering the municipality from areas upstream as well as to assure the same for communities downstream;
- Using aquatic and terrestrial studies to identify and protect key ecological features and functions;
- Directing early efforts in key municipal departments, such as economic development, permitting, transportation, and works, to integrate their responsibilities for land use and watershed planning, including the consideration of climate change and the need to protect biodiversity;
- Establishing watershed and/or sub-watershed targets, including restoration targets where needed, for areas in natural heritage, wetlands, streamside vegetation, and urban canopies;
- Ensuring before and after terrestrial and aquatic monitoring of significant developments, including infrastructure projects, as identified in a municipal protocol;
- Using watershed reports and applying adaptive management to redress poor watershed conditions; and,
- Encouraging sound stewardship practices on all land in the municipality.

The OHI offers these suggested actions so that municipalities can address local priorities and resources in a practical and flexible manner. We also suggest that many aspects related to the development and successful implementation of a charter would benefit from broad community engagement. We are available to discuss the development of a local Charter with any municipality, at its convenience.

4. A Revitalized and Expanded Mandate for Watershed Management Agencies

While the previous sections of this paper describe many of the challenges facing watershed security at the provincial and municipal levels, the OHI supports the continued, valued services provided by watershed management agencies, which for the most part consist of conservation authorities, and seeks broad discussion on the re-vitalization and expansion of their roles in protecting Ontario's watersheds.

In particular, we suggest that CAs and bodies with similar mandates become the lead organizations for a massive expansion of existing and new Greenbelt-style core and corridor natural heritage and agricultural lands, per item 9 below.

While the original conversion of Ontario's natural heritage land to farms has had obvious, highly varied impacts, we cannot afford an on-going "secondary conversion" of agricultural land to urban form at the current rate of 319 acres per day.

As CAs are directed by the Province, we offer recommendations for discussion that Ontario:

1. Restore the mandates for watershed management and the conservation of land to all CAs and extend these mandates to similar watershed management agencies;
2. Revoke the restrictions on conservation authorities to comment on municipal planning instruments as well as to initiate or to be a party to an appeal to the Ontario Land Tribunal;
3. Harmonize conservation authority policies required under provincial direction regarding Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses, perhaps using the guidelines in the Ontario Natural Heritage Reference Manual;
4. Direct conservation authorities to hold public meetings on the results of their individual watershed report cards, focused in particular on identifying priorities for adaptive management, including how to engage landowners in improved stewardship practices where needed;
5. Direct and provide support to a lead agency, such as Conservation Ontario, to maintain and improve CA watershed report cards, including a mandate to facilitate inter-agency discussions on how to implement cumulative monitoring, potentially to include other provincial reports on water and watersheds;
6. Retain the role of conservation authorities in Source Water Protection;
7. Direct and provide support to a lead organization, such as Conservation Ontario, to facilitate discussions on the creation of Regional Water Boards, to receive, review, and help formulate responses to poor results in all watershed-based report cards per item 6 above, perhaps based on their role in facilitating efforts on source water protection;
8. Provide support to a lead organization, such as Conservation Ontario, to consider establishing a fee-for-service Watershed Security Bureau to help provide CA expertise where it may be as needed; and,
9. Expand the mandate of CAs to apply their expertise in both watershed management and the conservation of land to lead a massive effort to enlarge existing and/or establish new Greenbelt-style core and corridor natural heritage areas, especially in areas of anticipated high population growth.

This initiative would constitute the basis of a multi-generation effort to safeguard our watersheds, their biodiversity, and agricultural land; reduce environmental risk and avoid the future costs of poor planning; and help deliver nature-based solutions to address the climate crisis.

Candidate areas currently within the jurisdiction of CAs include those in Durham Region; Simcoe County and the Lake Simcoe watershed; the Upper West Credit watershed; the Upper West Humber watershed; moraines in or near Wellington, Waterloo, Brant, and Niagara; and the area south of Nottawasaga Bay known as the Escarpment Corridor. Areas not within CAs include the District Municipality of Muskoka and The Land Between, per the link to the drawing on page 3.

5. Next Steps and Opportunities for Public Engagement

This Discussion Paper has been released on February 3, 2025, by sending it initially to Ontario Premier Ford and the leaders of Ontario's opposition parties.

Further invitations for discussion will then be sent to:

- Key provincial ministers and staff with responsibilities for aspects of land use and watershed planning;
- Candidates in the up-coming provincial election
- Conservation Ontario and all 36 Conservation Authorities
- Other agencies or organizations in Ontario focused on watershed management
- The Ontario Biodiversity Council
- Staff in Environment and Climate Change Canada
- Municipalities and First Nation organizations, and
- Organizations involved in agriculture, business & industry, climate change, the conservation and environmental communities, and those in planning, urban development, and water issues.

The OHI will work to facilitate discussion throughout February, March, and into April.

For the organizations listed above, OHI will not be co-ordinating a sign-on letter but will be providing a template letter and inviting organizations to express their support for broad discussion on this Paper, [per the Project Page on our website.](#)

Those organizations, as well as individuals, will also be invited to participate in an e-mail campaign to support the need for extensive discussion on how to shift Ontario from its fragmented approach to watershed management to an Outcomes-based Framework for Watershed Security.

Finally, throughout the next three months, the OHI will be making a series of presentations to numerous organizations and their supporters, mostly via Zoom. A key goal is to identify if and how local organizations and individuals might support both the Framework in general and, in particular, the Municipal Charter for Watershed Security.

If you are part of an organization that wants to discuss this paper, and/or consider holding a presentation on it, please contact us as below.

**Water is Life.
Let's act like it.**


Headwaters
The Ontario Headwaters Institute

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