ONTARIO GREENBELT ALLIANCE

2015 Policy Review Submission

EBR Registry #012-3256

Greenbeltalliance.ca

May 28, 2015

Ontario Greenbelt Alliance Members:

- Altona Forest Stewardship Committee
- AWARE Simcoe
- A Rocha Canada
- Best Environment for Streetsville/Sierra Club Peel/NICO
- Blue Mountain Watershed Trust Foundation
- Bond Head/BWG Residents for Responsible Development
- Brampton Environmental Community Advisory Panel
- Bruce Peninsula Biosphere Association
- BurlingtonGreen
- Canadian Association of Physicians for the Environment
- Canadian Institute for Environmental Law and Policy
- Canadian Network for Respiratory Care
- Canadian Organic Growers
- Canadian Parks and Wilderness Society (CPAWS)-Wildlands League
- Canadian Society of Iranian Engineers and Architects
- Castle Glen Ratepayers' Association
- CELA
- Children of the Greenbelt
- Citizens Environment Alliance of Southwestern Ontario
- Clear the Air Coalition
- Coalition of Concerned Citizens of Caledon
- Coalition on the Niagara Escarpment
- Community Preservation Initiative
- Conservation Council of Ontario
- Conservation Development Alliance of Ontario
- Concerned Citizens of King Township
- Concerned Residents Association of North Dumfries (CRAND)
- Credit River Alliance
- David Suzuki Foundation
- Earthroots
- Ecological Farmers of Ontario
- EcoSpark
- Environment Hamilton
- Environmental Defence
- Evergreen
- Federation of Urban Neighbourhoods (Ontario) Inc.
- Food Forward
- Food & Water First
- Friends of Boyd Park
- Friends of East Lake, Prince Edward County.
- Friends of Fairy Lake
- Friends of Hope Conservation Group Inc.
- Friends of Pittock
- Friends of Rural Communities & the Environment (FORCE)
- Friends of the Farewell
- Friends of the Fraser Wetland Inc.
- Friends of the Rouge Watershed
- Friends of the Twelve (FOTT)
- Global Environmental Action Group
- Grand Erie Energy Quest
- Grand River Environmental Network
- Green Incorporated
- Greening Niagara
- Greenlands Centre Wellington
- Greenpeace Canada
- Halton Environmental Network
- Halton - Peel Woodlands and Wildlife Stewardship Council
- Heritage Speed River Working Group
- Innisfil District Association
- King Environmental Groups
- The Lakewatch Society
- Land Over Landings
- Lincolngreen
- Midhurst Ratepayers' Association
- North East Sutton Ratepayers Association
- Oak Ridges Moraine Land Trust
- Oakville Green
- Ontario Farmland Trust
- Ontario Headwaters Institute
- Ontario Nature
- Ontario Smart Growth Network
- Peel Environmental Network
- Pembina Institute/York U
- Personal Computer Geographic Education System/Software (PCGES)
- PitSense Niagara Escarpment Group Inc
- Pomona Mills Park Conservationists Inc.
- Pesticide Free Ontario
- Preston Lake Environmental Association (PLEA)
- Protecting Escarpment Rural Land (P.E.R.L.)
- Protect our Water and Environmental Resources (P.O.W.E.R)
- Public Spaces Appreciation Association of Ontario
- Registered Nurses Association of Ontario
- Preservation of Agricultural Lands Society
- Rescue Lake Simcoe Coalition
- Richmond Hill Naturalists
- Riversides
- Rural Burlington Greenbelt Coalition
- St.Catharine's CAN (Climate Action Now)
- Save the Maskinonge
- Save the North Gwillimbury Forest Alliance
- Save the Oak Ridges Moraine - STORM Coalition
- Save Our Ravines - Halton Hills
- Sierra Club of Canada (Ontario Chapter)
- South Lake Simcoe Naturalists
- South Peel Naturalists Club
- Stop the Quarry - Save Luther Marsh
- Sunfish Lake Association
- Sustainable Brant
- Sustainable Urban Development Association
- Sustainable Vaughan
- Toronto Environmental Alliance
- The Humane Society of Canada
- The Lakewater Society
- Urban Green Environmental Organization
- Willow Park Ecology Centre
- Valley Voices Residents Association
- Wainfleet Ratepayers Association
- Wellington Water Watchers
- West Whitby Community Against 407 Link Location (WW-CALL)
- West Oro Ratepayers Association Inc.
- York Region Environmental Alliance
- 407 Action Group

Ontario Greenbelt Alliance

RE: 2015 Co-ordinated Review Policy Submission

Strengthening the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan and Growth Plan for the Greater Golden Horseshoe

The Ontario Greenbelt Alliance is a defender of Ontario's innovative Greenbelt. The Alliance brings together more than 100 environmental and public health organizations, community groups and local environmental organizations to ensure the continued protection and expansion of the Greenbelt. The Ontario Greenbelt Alliance believes that a strong economy and a beautiful well-protected Greenbelt go hand in hand. Our groups know first-hand the impacts bad planning decisions have had in Ontario, impacts that affect the quality of our water, our health, and our economy. The Greenbelt Plan is a legacy that we must strengthen and grow if we want to have a healthy environment, a robust rural economy and vibrant natural areas that connect and support Ontario's rich biodiversity.

Together, we envision a growing, vibrant Greenbelt with strong, healthy communities, both human and natural.

The Greenbelt and the areas it encompasses, including the Niagara Escarpment and the Oak Ridges Moraine, are special natural landscapes. The limestone spine of the Escarpment has long been recognized as an important north-south ecological corridor in Southern Ontario. The rolling hills of the moraine help filter drinking water for more than 250,000 people while forming a farm and forest crest to the north of the region's biggest urban centre.

The combined attributes of these three conservation plans are critical to protecting the many values of these areas. In Canada's most densely populated region, these areas serve a vital role in protecting our water sources and conserving natural habitat. They also serve our needs directly with valuable local food production and recreational opportunities located on the doorstep of millions of people. All four plans -- the conservation plans and the Growth Plan -- must strive to protect and restore natural areas and to increase biodiversity, by protecting endangered species habitat and creating a fully connected natural heritage system that does not leave species isolated and vulnerable, particularly in the face of a changing climate.

With climate change a rapidly growing threat, it is important that we work to increase the carbon-absorbing forest cover in the Greenbelt and increase the climate resiliency of communities through actions such as greater use of green infrastructure, enforcement of forest bylaws, and natural areas restoration. We also need to place greater value on the

services provided by natural areas, such as improved air quality, reduced temperatures, flood prevention and social benefits, such as reduced anxiety, depression and cognitive wellbeing.

One of the key aspects of the Greenbelt is its role in helping us to steward a vital resource: water. We need to strengthen our approaches to managing groundwater while avoiding both contamination and over exploitation to ensure our rural communities have a secure supply of water and that natural areas are also sustained by healthy water resources.

The creation of the Greenbelt has served Ontarians well over the past decade. However, there are issues we need to address and more we can do to build on the Greenbelt's early success.

What's working well

Ontario's Greenbelt is one of the world's largest. In comparison with other greenbelts, the Canadian Institute of Law and Policy found that Ontario's Greenbelt "is well positioned to be the most successful and the most useful Greenbelt in the world."[1] A study done for the David Suzuki Foundation found that the Greenbelt produces $2.6 billion a year in ecological services – services such as water filtration, flood control, climate stabilization, waste treatment, wildlife habitat, and recreation.[2] An assessment of the Greenbelt's effectiveness in protecting wetlands, undertaken by Ontario Nature, Ducks Unlimited, Earthroots and Ecojustice, found "clear evidence that land-use policy in effect across the Greenbelt is protecting wetlands from most forms of development."[3]

These studies point to the strong foundation currently in place for natural heritage protection in the Greenbelt. But we need to continue to build on this success to ensure these critical natural heritage elements continue to have a place in the Greenbelt.

Generally, the provincial plans have also done a good job of keeping plan boundaries intact and development in its proper place, in part by avoiding the creation of misplaced development incentives, such as lake- based sewers (as required under policy 4.2.2.2). But more needs to be done.

The plans have also done a good job in keeping farmers farming by protecting agricultural lands. The Protected Countryside area has become a clear signal of a commitment to keep agriculture viable in this region, despite a growing urban population.

The challenges ahead

The major challenge this review must address is ensuring that the ecological health of the Greenbelt and Greater Golden Horseshoe is maintained and enhanced in the face of the pressures of increased urbanization, uncertainties associated with climate change,

and ongoing biodiversity loss. At the same time we need to adopt policies that support our agricultural community and help farms thrive.

We need to ensure areas outside the existing Greenbelt that are facing rapid growth – areas excluded from the Greenbelt Plan but included in the Growth Plan -- get the balanced planning and ecological protection they require to adequately protect local water sources and local food and recreation opportunities – particularly in the Waterloo, Brantford and Simcoe County areas.

To address internal challenges facing the Greenbelt, we must ensure consistent and rigorous interpretation of the plans among different municipalities. Simply put, we need to ensure we are adopting "best practices" in implementing the plans. Too often municipalities consider our agriculture and rural lands to be just development lands in waiting.

We also need to look at how the three conservation plans could be made more consistent by raising plan policies to the highest and best standard when it comes to protecting natural areas and water resources and creating rural economic opportunities. This should be done while keeping their distinct goals and objectives in place.

The placement of urban infrastructure such as major highways, large energy infrastructure or pipelines also needs to be effectively addressed by ensuring these projects avoid the Greenbelt area to the greatest extent possible-- and are kept out of natural heritage systems in particular. Cumulative impacts from increased development are degrading our water quality, our natural systems, and, are incompatible with the rural character we are seeking to maintain. Similarly, the province needs to address the issue of leapfrog development, in part by not facilitating such development with new highway construction and, instead, focusing new development within existing urban boundaries.

Issues such as the import of contaminated soil into Greenbelt municipalities and groundwater protection need to be addressed through better regulation and monitoring. New aggregate development should be prohibited in core natural areas.

Our specific recommendations for improving the effectiveness of the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan and Growth Plan include:

Grow the Greenbelt

Implement policies of the *Growth Plan* sections 4.2.1 and 5.3.4 and assign responsibility to the Minister of Municipal Affairs and Housing to establish a regional natural heritage system throughout the Greater Golden Horseshoe. Currently the *Growth Plan* policy 4.2.1 contains language intended to mandate the identification and, where appropriate, the protection of natural systems within *sub-area* assessments. To date this has not been

implemented. There is a clear need for provincial leadership in the creation of natural heritage system *sub*-area assessments to improve our water quality and protect our water quantity.

> Revise the existing policies of the *Greenbelt Plan* to assign responsibility to the Minister of Municipal Affairs and Housing to support and protect external connection to the Greenbelt's natural heritage system. Through *Greenbelt Plan* policy *Sec 3.2.5*, designate natural heritage system protection beyond current Greenbelt boundaries to include areas of key ecological and hydrological value to the Greater Golden Horseshoe (GGH) including: the Paris Galt Moraine, the Oro Moraine, the Waterloo Moraine, Lake Gibson, and the Lake Iroquois Shoreline.

Please see attached appendix 1 for more details on the specific policy rationale and map developed by the Moraine Partnership and supported by the Ontario Greenbelt Alliance.

Urban River Valleys

Designate as Greenbelt lands, the urban river valley lands where the Municipal Council has adopted a resolution to include lands in the Greenbelt including: the City of Mississauga, the Town of Oakville, the City of Guelph, the City of Toronto.

Improve Natural Heritage protection

Implement natural heritage protection meeting the highest environmental standard amongst the three conservation plans to protect our water quality. This includes current mapping of the natural heritage system for the entire Greater Golden Horseshoe (including the Growth Plan area) to both ensure protection of this system and to guide stewardship and restoration efforts. In particular, the Niagara Escarpment Plan area boundaries should be based on updated natural heritage data.

Ensure that only land and resource uses that maintain, improve or restore ecological and hydrological functions are permitted in the natural heritage system (including natural core and linkage areas) throughout the Greater Golden Horseshoe.

Specific best approaches include:

- Providing one definition for natural heritage across all four plans
- Protecting, restoring and enhancing ecological integrity of natural heritage systems and hydrological systems
- Identifying and protecting from development key natural heritage and hydrological features across the four plan areas
- Increasing the size of buffers along watercourses in urban areas
- Complete natural heritage mapping for all four plans, and use the mapping to identify and designate extensions of systems beyond the plan area
- Develop a funding mechanism for restoration and stewardship projects

Keep Greenbelt boundaries strong

There should be no lands removed from the existing Greenbelt plan area and only the *expansion* of Greenbelt Plan boundaries should be considered in the 2015 Co-ordinated Review. Hard urban boundaries are essential to maintaining the integrity of the plan's permanently protected countryside. Removal of lands or land swaps (i.e. Maple Lake Estates) should not be allowed due to the precedents and ensuing issues that could arise.

Where development approvals pre-date the creation of the three plan areas, a sunset clause should be enacted to require the development to proceed within five years. If building permit approval occurs more than five years after the development approval has been granted, the development should be required to comply with then-current provincial policies.

Improve plan implementation

Inconsistent interpretation and implementation of Greenbelt, Growth Plan and Oak Ridges Moraine policies by municipalities, the OMB and Conservation Authorities has resulted in development proposals that are often not consistent with the objectives or policies of the plans (i.e. Niagara boundary expansion, Kingspark Manors proposal). Challenging these incompatible proposals has too often required ratepayers to spend thousands of dollars and countless hours of their time as there is no body or mechanism that oversees municipal implementation of the Greenbelt Plan.

As outlined in the Environmental Commissioners report, data collection, monitoring and evaluation is needed to determine the effectiveness of the plans.[4] The Performance Indicators for the Greenbelt Plan report provides data from 2000-2002, with the promise of future data to compare potential changes.[5] Without current provincial data, an assessment of the effectiveness of plan implementation is not possible. However, we are aware municipalities have also been slow in implementing watershed plans, and many Regions have not incorporated tree cutting bylaws.

The approval and consideration of inappropriate developments that are clearly inconsistent with the intent, goals and objectives of the plans are indicative of the need to enforce and monitor implementation. We urge the province to develop a mechanism to provide oversight of municipalities and Conservation Authorities to ensure consistent interpretation, monitoring and evaluation of the plans.

Keep infrastructure where it belongs

The Greenbelt and the Growth Plan can work together to make better use of our existing infrastructure, but some infrastructure facilitates sprawl and that is contrary to the intent of the Greenbelt Plan. This is why it is important to keep infrastructure, such as highways, urban energy infrastructure (transmission lines, gas peaker plants, renewable

energy projects) urban services and pipelines out of the Greenbelt's agricultural lands, natural heritage features, core and linkage areas. The province should require offsetting that maintains and enhances ecological linkages for any new infrastructure that is placed in rural or countryside areas. All 400-series highway extension projects should be kept out of the Greenbelt. The current Greenbelt Plan prohibition on extending lake-based sewer or water services to communities not already served by such systems should be maintained.

Language in the infrastructure section of the Greenbelt is too vague and definitions are needed to clarify what is a reasonable alternative and to better understand the type and scale of projects that fall under this section. Where infrastructure projects are being considered in the Greenbelt there should be a requirement to complete a full Environmental Assessment to evaluate the need, the impact on urban development patterns (e.g., sprawl) and climate change while also assessing the direct impacts of any project on natural heritage features, groundwater quantity and water quality.

Current whitebelt urban zoning more than adequate

Bring the whitebelt prime agricultural lands and natural heritage lands into the Greenbelt. The Neptis Foundation study, *Implementing the Growth Plan*, and the study by Ray Tomalty, *Inside and Out: Sustaining Ontario's Greenbelt*, identified that there is already more land designated by municipalities for development in the whitebelt than will be needed for generations.[6] This indicates that the farmland and natural areas in the whitebelt are not needed for urban development. The whitebelt lands in the GTA and Hamilton are primarily class 1 and 2 soils. Not only are these lands highly productive, they are located close to market.

The whitebelt was to remain intact until the 2015 review, but municipalities are already rezoning whitebelt lands. In Hamilton, the placement of urban zoning on whitebelt lands to facilitate a project known as the Airport Employment District will have negative impacts on two already vulnerable and degraded watersheds, the Welland River and the Twenty Mile Creek. Possible urban expansions in the whitebelt in Halton, Peel and York will degrade the cold water streams that support healthy populations of native brook trout and, in some instances, recovering populations of salmon. We need to protect the remaining watersheds throughout the GGH and bring the whitebelt natural heritage lands and prime agricultural lands under Greenbelt protection.

Keep pits and quarries out of key areas

All three conservation plans should be strengthened to stop the development of any new aggregate operations (including expansion of existing operations) in core natural heritage, prime agricultural areas or below the water table. Pits and quarries in linkage areas should only be considered if natural areas in the linkage are avoided and ecological linkages are enhanced through land acquisition or enhancement of natural features.

Existing operations should only continue and new projects should only be considered (outside of key areas) if they have comprehensive rehabilitation plans in place, including a timeline for pit closure and dedicated funds to ensure rehabilitation that maximizes natural heritage values (e.g., not just another lake). The province must take a more active role in ensuring rehabilitation plans are comprehensive, timely and properly implemented.

Recycling of aggregate and asphalt should be encouraged by requiring recycled content in non-structural uses. However, the processing of recycled material should not be allowed in core natural heritage and prime agricultural areas, and should instead be directed to industrial (indoor) areas in urban areas where air quality and noise issues can be controlled.

Keep the water in

Understanding the carrying capacity of our watersheds and the limits of our natural environment to sustain growth is essential to sustainable development. We need to establish benchmarks so we know the capacity of our watersheds; evaluate the impact of proposed new development; and monitor water use regularly so we can effectively plan to mitigate the impact of climate change.

When proposing an expansion to urban boundaries, the capacity of the watershed to provide water for existing rural uses, the impact on the water quality from new development, and the capacity of the existing infrastructure in light of climate change should be determined as part of a comprehensive review before new development can occur.

When harmonizing water policies we encourage the adoption across all plans of the best approach from each plan for water and watershed management. For example, the ORMCP's policy requiring water budgets for development applications should be adopted across the entire Greenbelt area (including the Oak Ridges Moraine and Niagara Escarpment). Similarly, aquifer vulnerabilities should be mapped across the entire Greenbelt and surrounding areas. Specifically, we recommend that the government:

1. Require complete and up to date watershed plans by all municipalities across all four plan areas;
2. Require a water budget, a conservation plan, a monitoring plan and a stewardship strategy for improving water quality for applications within an ESA;
3. Ensure the timely approval of Storm Water Risk Assessment Reports and management plans and the complete mapping of infiltration zones and vulnerable aquifers across the entire Greenbelt;
4. Include policies for water taking that extend across the GGH;
5. Monitor cumulative impacts for water quantity and water quality; including the capacity to receive sewer effluent by receiving bodies;

6. Plan for resiliency by requiring groundwater studies at a site specific level and storm water management that utilizes green infrastructure.

Restrict Importation of Soil

For the last 10 years, thousands of dump trucks have dumped thousands of cubic meters of contaminated soil into dozens of sites across the Greenbelt. The soil was excavated for condo towers, subways, and the cleanup of old industrial lands. Some dump sites are large-scale industrial operations receiving hundreds of trucks a day for several years. Several of the dump sites in rural areas that draw drinking water from aquifers have been found to have a level of contamination that exceeds that allowed for industrial land with a piped water supply.

Municipal by-laws must be improved to better manage the dumping of this excess soil. The current weaknesses in provincial legislation and regulations must be corrected with a Clean Soil Act. However, because of the industrial scale of commercial fill operations and their impact upon the landforms and because it is impossible to guarantee that any load of soil is safe from contamination, the Greenbelt areas require special protection. We support the following general recommendations:

1) Prohibit large-scale fill operations from all areas of the Greenbelt.
2) If large-scale fill operations are permitted they must be:
   a) considered a use of land,
   b) strictly restricted to less sensitive areas, and
   c) be adequately monitored.
3) Smaller fill operations must be limited to being incidental to another use and be adequately monitored.

Please see attached appendix 2 for more details on the specific policy changes developed by the Ontario Soil Regulation Task Force and supported by the Ontario Greenbelt Alliance.

Help farms thrive: Consider some additional commercial uses for agricultural areas

Protecting farmland is not enough. More needs to be done to support the long-term economic viability of agriculture and to enable a prosperous rural economy while protecting natural heritage systems and improving water quality.

Agricultural operations should be allowed to incorporate value-added processing for locally produced crops and livestock provided that such operations can be undertaken in compliance with noise restrictions and there is adequate onsite water and septic services. Similarly, low-impact hospitality uses such as bed and breakfasts and food stands should

be allowed in the countryside if the operational scale is appropriate and necessary steps have been taken to protect water resources, etc. (e.g., permeable paving, riparian

planting etc.). In all cases, the cumulative impact of the proposed use should be evaluated before approval is granted.

Keep recreation low impact

There needs to be clearer direction around what constitutes appropriate recreational uses and facilities within the three conservation plan areas. Outdoor concert and banquet facilities are incompatible with the rural countryside as they require extensive onsite parking, water and sanitary services and are incompatible with other rural uses. These types of facilities should be directed to urban areas. Applications for recreational uses should address level of usage (visitor numbers), traffic and noise impacts, and impact on surrounding natural areas, including natural area corridors.

Only uses such as trails and passive parks that do not require extensive parking, onsite servicing and lighting should be considered appropriate for low intensity areas. More intensive uses that require the use of the countryside terrain, such as golf courses, ski hills and campgrounds, but do not require extensive grading, should be considered only in major recreation areas and only if there is capacity for onsite provision of water and sewer servicing.

Align growth with existing infrastructure

Density is an important part of place-making. World class cities, like Paris and London are very dense and generally built at a human scale, making them easy to navigate by train and transit. To better coordinate mobility and make better use of our existing infrastructure, growth should be focused around existing transit hubs and rail stations. Urban Growth Centres should be the focus of growth with higher intensification targets (50%) supported by frequent day and evening regional and local transit services. In the outer ring and towns in the Greenbelt, regional growth allocations should be consistent with existing sewer, water, road, and transit capacity. To improve the flow of goods and people consideration should be given to prioritizing investment in transit, rail and existing highways over new highways.

Making better use of infrastructure is essential to create the economies of scale needed to offset the high costs of urban services. Any saving achieved by more efficient development could be redirected to transit funding or climate changes adaption.

Freeze urban boundary expansions for 10 years or until next plan review

For the next ten years, the province should freeze urban boundary expansions in the GGH to emphasize the importance of the plan policies and to further determine their effectiveness. Assessments of municipal land budgets completed by the Neptis Foundation show that there is a surplus of designated lands available to accommodate growth projected to 2031 and beyond.[7] This identification of excess land, coupled with emerging demographic trends, demonstrates there is no need to allocate more land for

development. If intensification targets were increased in urban growth centres to 50% the land currently allocated for development could last beyond 2041.

Expand buffers to protect agriculture from urban development

Expand the use of buffer areas along the outer perimeter of the Greenbelt and Moraine to better shelter agricultural operations that are close to or adjacent to plan boundaries from the impacts of urban development. Such buffers will lower the likelihood of conflict between agricultural and urban uses and ensure farming operations are not impeded by nearby residential or commercial development. Wherever possible, buffer areas should be incorporated into areas outside but adjacent to the plan areas.

Conclusion

The Greenbelt represents a laudable effort to provide leading edge land-use planning at a scale that will have real impact. Its focus on containing urban development to appropriate areas while protecting agricultural lands and natural areas is of vital importance in our most heavily populated urban region.

But the Greenbelt and the areas it encompasses cannot be managed in isolation. In particular, we need to look at how issues such as leapfrog development could undermine the prime objective of the Greenbelt -- reducing urban sprawl. This is where we need to rethink elements of the province's growth planning, particularly its outdated emphasis on extending highways and allowing clearly unsustainable low-density urban development to continue well outside of existing urban centres.

Simply banning such development from inside the Greenbelt, but allowing it to proceed elsewhere, will lead to pressure both on the Greenbelt (for supporting infrastructure like highways and transmission lines) and on equally vital agricultural areas and natural areas outside of the Greenbelt.

We need to expand the Greenbelt to include vulnerable and overlooked areas and we need to look at urban development through a new lens in Ontario – one that emphasizes long-term financial and environmental sustainability and that focuses on improving quality of life for citizens by building healthy, resilient communities rather than subdivisions in corn fields.

The first ten years of the Greenbelt has been a good start. With some updates, strengthening, and expansion it will help to ensure the future quality of life for millions of people in Ontario for generations to come.

APPENDIX 1

Growing the Greenbelt to Protect Critical Water Resources

1. Expansion meets the vision and goals in the Greenbelt and Growth Plans.
   - Addition of the area would align with the Greenbelt Plan's vision of protecting the water resource system "to sustain healthy aquatic and terrestrial ecosystems and human water consumption", including "primary recharge, headwater and discharge areas, together with major drinking water aquifers."
   - Addition would complement the goals of the Growth Plan, i.e. areas that are outside existing settlement and/or urban areas, or have been identified within municipal Official Plans as important features.

2. Expansion area has significance from a hydrological and ecological point of view.
   - The proposed expansion area includes significant ground or surface water features, or plays a key functional role in supplying clean drinking water, or sustaining healthy aquatic and/or terrestrial ecosystems
   - Examples include: headwaters, moraines, recharge and discharge areas, valleylands, and significant wetlands.

3. Expansion area is adjacent to or demonstrates a functional relationship to the Greenbelt's natural heritage and water resource systems.
   - The area demonstrates hydrological or ecological connections to the Greenbelt, and its addition would improve the overall connectivity of the regional natural heritage system.
   - Urban river valleys are the most important physical connections that exist between the Greenbelt's natural heritage and water system and the Great Lakes.

4. Expansion area is vulnerable or directly threatened by human activities.
   - The area faces high urban growth pressure that would reduce hydrological or ecological functionality, or fragment/degrade important natural habitat.

5. Local municipal and/or community support exists for the addition.
   - Proposed expansions have support among local elected officials, residents and community groups.

Recommendation and Rationale

Grow the Greenbelt into adjoining areas of critical ecological and hydrological significance, including: 1) key headwater features, 2) significant groundwater recharge areas (including moraine features and the Lake Iroquois shoreline) and 3) important surface water features. Through discussion with water experts and community groups throughout the Greater Golden Horseshoe (GGH), these expansions of the Greenbelt should include: headwater features of the Carruthers Creek, the East and West Humber,

and the Rouge River; urban river valley connections from the Greenbelt to Great Lakes; the Paris-Galt Moraine, Waterloo Moraine, and Oro Moraine; the Lake Iroquois Shoreline; Lake Simcoe Watershed; and Gibson Lake.

Rationale

Growing the Greenbelt will be an important outcome of this review. We are pleased to see that the government is seeking the public's advice on where to expand the Greenbelt. We note that this goal was also listed in the Premier's mandate letter to the Minister of Municipal and Affairs and Housing. This review represents an important opportunity to include and protect areas with high ecological and hydrological significance in the Greenbelt. Greenbelt policies have proven very effective in protecting the region's natural heritage system and features. For example, according to a report by Ducks Unlimited Canada, Earthroots, Ecojustice and Ontario Nature (2012), there is "clear evidence that land-use policy in effect across the Greenbelt is protecting wetlands from most forms of development." Local experts and community groups throughout the GGH have identified many areas where the Greenbelt should be expanded to provide the same high level of protection. These include:

1. Key headwater features of Carruthers Creek, the East and West Humber, and the Rouge River. These headwater features are extremely sensitive areas that reduce downstream flooding and provide critical habitat for native plants and animals.

2. Significant groundwater recharge areas, including:

The Paris-Galt, Waterloo, Orangeville, and Oro moraines. These moraines play an important role in groundwater recharge and in filtering and maintaining drinking water for many communities throughout the GGH. They also provide important habitat functions and migratory corridors for wildlife.

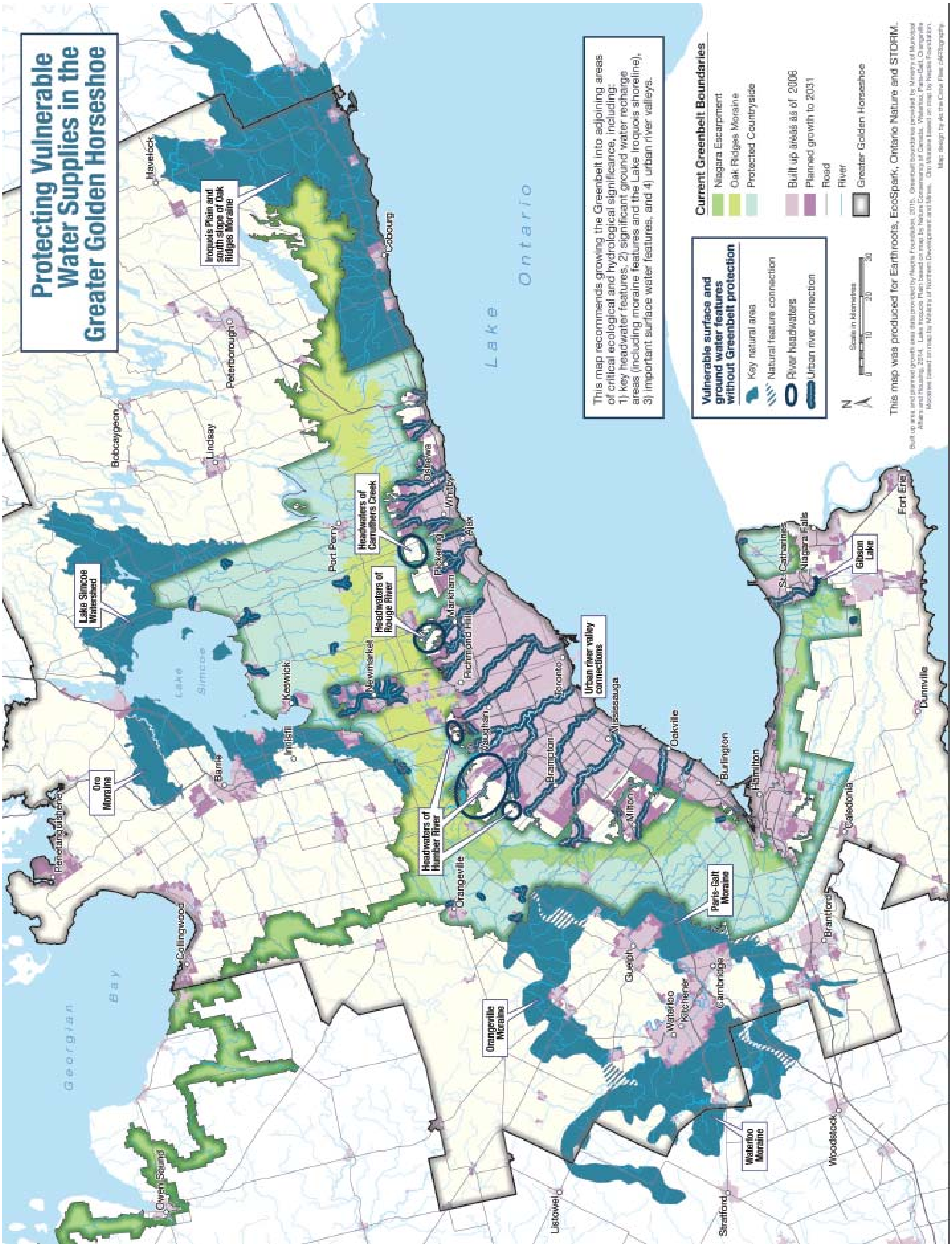
The Lake Iroquois shoreline, and the south slope of the Oak Ridges Moraine, which includes many features that provide important groundwater functions, including infiltration helping sustain groundwater base flow. The shoreline plain and beach features represent an important ecological corridor, extending east through Northumberland and into Prince Edward County.

3. Surface water features: Gibson Lake supplies drinking water to half of Niagara Region, including St. Catharines and is an important source of cold water brook trout streams.
4. Urban river valley connections. These provide important physical, ecological and hydrological connections between the Greenbelt, Oak Ridges Moraine, and Great Lakes, enabling wildlife movement and adaptation, and increasing the resilience of downstream areas to climate change.

RECOMMENDATION:

This review is an opportunity to expand Greenbelt protection into adjoining areas of high ecological and hydrological value in order to ensure the GGH's critical source water lands are protected. Important places to grow the Greenbelt include headwater features of Carruthers Creek, the East and West Humber, and the Rouge River; urban river valley connections from the Greenbelt to the Great Lakes; the Paris-Galt Moraine, Waterloo Moraine, Oro Moraine; the Lake Iroquois Shoreline; Lake Simcoe Watershed; and Gibson Lake. These areas should be clearly delineated in mapping layers that are produced by MMAH, in cooperation with Ministry of Natural Resources and Forestry and relevant municipalities.

Recommendation: Amend the Greenbelt Plan 'Schedule 1: Greenbelt Plan Area' and all other associated schedules to include headwater features of Carruthers Creek, the East and West Humber, and the Rouge River; urban river valley connections from the Greenbelt to the Great Lakes; the Paris-Galt Moraine, Waterloo Moraine, Oro Moraine; the Lake Iroquois Shoreline; Lake Simcoe Watershed; and Gibson Lake, as outlined in Map 1 shown below."


Protecting Vulnerable Water Supplies in the Greater Golden Horseshoe
This map recommends growing the Greenbelt into adjoining areas of critical ecological and hydrological significance, including: 1) key headwater features, 2) significant ground water recharge areas (including moraine features and the Lake Iroquois shoreline), 3) important surface water features, and 4) urban river valleys.
Vulnerable surface and ground water features without Greenbelt protection
Key natural area
Natural feature connection
River headwaters
Urban river connection
Current Greenbelt Boundaries
Niagara Escarpment
Oak Ridges Moraine
Protected Countryside
Built up areas as of 2006
Planned growth to 2031
Road
River
Greater Golden Horseshoe
N
Scale in kilometres
0
10
20
30
This map was produced for Earthroots, EcoSpark, Ontario Nature and STORM.
Georgian Bay
Lake Simcoe
Lake Ontario
Oro Moraine
Lake Simcoe Watershed
Iroquois Plain and south slope of Oak Ridges Moraine
Headwaters of Humber River
Headwaters of Rouge River
Headwaters of Carruthers Creek
Orangeville Moraine
Urban river valley connections
Paris-Galt Moraine
Waterloo Moraine
Gibson Lake
Penetanguishene
Owen Sound
Collingwood
Barrie
Bobcaygeon
Havelock
Lindsay
Peterborough
Innisfil
Keswick
Port Perry
Newmarket
Cobourg
Oshawa
Whitby
Pickering
Ajax
Markham
Richmond Hill
Vaughan
Orangeville
Brampton
Toronto
Mississauga
Listowel
Guelph
Milton
Waterloo
Kitchener
Oakville
Cambridge
Stratford
Burlington
Hamilton
St. Catharines
Niagara Falls
Woodstock
Brantford
Caledonia
Fort Erie
Dunnville

APPENDIX 2

Protecting the Greenbelt from Soil Importation

Not long after the establishment of the three greenbelt plans - the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan, and the Niagara Escarpment Plan - these protected areas have seen cavalcades of dump trucks bringing in and dumping soil. This excess soil has come from condo excavations, transit projects, and redeveloped industrial lands. Aside from the nuisance of heavy traffic, dust, and noise of hundreds of trucks per day at each dumpsite, the sites leave the landform unnatural and possibly contaminated and when the contamination leaches into the aquifers, the groundwater becomes unusable. The soil dumping and commercial fill operations were never considered when the three greenbelt plans were developed. They must be considered now.

Municipal by-laws, conservation authority policies, and Ministry of the Environment and Climate Change regulations were, and generally still are, ill-equipped to manage and control these operations. At site after site where soil reports from the source site indicated that the soil should be safe, sampling at the dumpsite found the soil to be unsafe. The non-homogeneity of the soils, the point-source nature of some pollution sources, and the high cost of testing makes it very difficult to guarantee that any load of soil is completely safe. The high cost of dealing with contaminated soil ($6000 per truckload[1]) creates a very strong incentive to pass it off as clean fill. One dumpsite neighbouring the Natural Core Area of the Oak Ridges Moraine has, amongst other exceedances, free cyanide at 3000 times the limit[2]. Remediated soil brought in to a sheep farm turned out to be toxic to sheep[3]. After accepting a few loads of clean fill for a parking pad, a homeowner found his well contaminated with a carcinogen[4]. These three sites were, at first glance, complying with existing regulations. One well-monitored site of over a million cubic meters of soil was found, when tested[5], to have contaminants of potential concern, with some concentrations not protective of the soil to groundwater pathway.

Unsafe soil is not compatible with the protective nature of the greenbelt plans. Municipal and provincial regulation and enforcement may develop in the future to better control these soil dumps, but sampling and testing cannot guarantee that all the dumped soil is completely safe. This leads to the conclusion that the greenbelt plans require special prohibitions against the dumping of soil, whether it is by commercial fill operations, site

[1] Site Alteration By-Laws and the Dirty Business Of “Clean” Fill; Charles M. Loopstra; International Municipal Lawyers Association (IMLA) Conference; Toronto; 2014
[2] Supplementary Phase II Environmental Site Assessment Report - Earthworx Industries Inc.; D.L. Services Inc.; 2012-02-15
[3] Provincial Officer's Report - Order Number 8312-8V6LSG; Ministry of the Environment; 2012-07-25
[4] Groundwater sampling investigation - project G023256 E1; Geo-Logic Inc.; 2012-08-29
[5] Limited Subsurface Environmental Investigation - Greenbank Airport; Golder Assoc.; April 2015

alterations, farm practices, etc. The precautionary principle must be applied to protect the soil and the water, and the businesses, ecosystems, and people that rely on them.

The importation of soil can be an essential aspect of permitted and beneficial uses and activities. A sod farm would be one example. A raised septic bed would be another. An outright ban would not be defensible nor desirable. The balance must be set to allow beneficial uses with low environmental impact but prohibit non-beneficial uses with the potential for undesirable impacts upon the natural or human environment. The balance must also be set for the appropriate levels of monitoring for different types of soil dumping activities.

The plans speak of uses as being permitted or prohibited. However, it is unclear within the realm of land use planning if the dumping of large quantities soil is, or is not, a use of land and is, or is not, subject to planning. Therefore, the plans must expressly state if the importation and dumping of soil is permitted or prohibited in each of the specific situations.

Large-scale commercial fill operations receiving hundreds of trucks a day for several years are large industrial operations that are not consistent with the protective nature of the plans. The volume of excess soil from the GTA looking for places to be dumped has been estimated by industry[6] at 25 million cubic meters per year, enough for many fill sites. Citizens have located and reported over 30 sites within the greenbelt areas. Active sites generate traffic and dust and the noise from banging tailgates can be heard a kilometer away. In a few years they can earn their owners many more times than the original value of the land but provide very little local employment. Large-scale commercial fill operations should be treated as a large-scale industrial land use. As such, it would be appropriate to prohibit them from all of the greenbelt areas.

RECOMMENDATION:

Because of the demonstrated potential for contamination and the large-scale industrial nature of large-scale fill operations, it is recommended that large scale fill operations be prohibited from all of the greenbelt areas and that the dumping of smaller amounts of fill be adequately monitored.

In considering the broader economic impact on urban development costs if large-scale fill operations are banned from the greenbelt, the government may decide to allow them. If that does occur, they must be properly restricted and monitored. The following provides suggestions for restrictions and monitoring for both large-scale and small-scale fill operations.

[6] QUANTIFICATION of Excess Construction Soils in Ontario; Residential and Civil Construction Alliance of Ontario; 2012

Protection of the Greenbelt Plan – Protected Countryside

The Greenbelt plan protects a significant portion of Canada's Class 1 farmland. The top soil produces our fruits and vegetables and supports the animals that provide us with meat and milk. This valuable productive resource must not be polluted with contaminated soil. It must not be buried under meters of inert fill. The Greenbelt Plan permits only certain uses within its Agricultural System and its Natural System but commercial fill operations and soil dumps are not expressly defined as a use or activity that is not permitted. This loophole must be closed.

Protection of the Oak Ridges Moraine Conservation Plan

The Oak Ridges Moraine is the source of streams that flow north and south from the moraine into the Protected Countryside and several thousand square kilometers of southern Ontario. The groundwater aquifers recharged in the Oak Ridges Moraine supply drinking water to many homes, towns, and farms on and off the moraine. This sensitive area requires explicit protection from soil dumps for their impact upon the recharge rates and for their potential to contaminate the surface water and groundwater. For example, the ORMCP prohibits snow dumps in areas of High Aquifer Vulnerability but is does not prohibit soil dumps. This must be remedied, especially considering that commercial fill operations appear to be attracted to gravel pits that have been excavated to within 1 meter of the water table.

The ORMCP protects its characteristic rolling hills landform with limits on the percentage of a property that can be altered. A commercial fill operation typically leaves the land as a flat plateau with steep uniform sides very un-characteristic of the area. This is not compatible with the moraine.

Protection of the Niagara Escarpment Plan

The Niagara Escarpment Plan's objectives include protecting the water supplies and the landscape character. The NEP Commission protects the escarpment by only allowing certain permitted uses and their incidental site modifications. The plan must be strengthened by expressly prohibiting large-scale fill operations and ensuring that permitted site modifications are not cover for soil dumping.

The NEP realizes the economic importance of aggregate extraction but emphasizes the need for progressive rehabilitation into a permitted use. If soil must be imported for rehabilitation, it must be limited and compatible with the protected nature of the Niagara Escarpment.

Proposed Plan Amendments

The following proposed plan amendments assume that the three greenbelt plans will remain essentially as they are and that the government decides to not follow the recommendation to prohibit large-scale soil dumps in the greenbelt areas.

Definition: A large-scale fill project (LSFP) is the importation of soil that would exceed the limit of 250 m3 of soil[7] to a parcel of land over the lifetime of the greenbelt plan. A LSFP shall be deemed a land use as well as a site alteration.

Definition: A small-scale fill project is the importation of less than 250 m3 of soil.

1. Conditions for Large-Scale fill projects

1.1 Common to all three plans

In all three plans a LSFP shall be prohibited from:

1. Municipal Source Water Protection Areas,
2. Well Head Protection Areas,
3. Provincially Significant Wetlands,
4. The Regulated Areas of Conservation Authorities, and
5. Significant Groundwater Recharge Areas of Watershed Plans

as they may be defined by the municipalities and the province.

In all three plans any LSFP that is permitted shall;

1. Be governed by a fill agreement contract with the municipality,
2. Follow the MOECC Best Management Practices for Excess Soil, and
3. Rehabilitate the surface to the landform and vegetative cover of the surrounding area, except where that would interfere with a development or use that has been approved.

1.2 Greenbelt Plan - Protected Countryside

In the Greenbelt Plan Protected Countryside LSFP shall be prohibited from;

1. Specialty Crop Areas, and

[7] Municipalities in southern Ontario have defined the large-scale fill amount as 100 m3 to 10,000 m3 with a mode of 1000 m3. A lower value is suggested for the greenbelt.

2. Prime Agricultural Areas,

except for LSFPs that have been expressly approved by the Normal Farm Practices Protection Board,

and prohibited from;

3. Key natural heritage features, and

4. Key hydrologic features.

1.3 Oak Ridges Moraine Conservation Plan

In the Oak Ridges Moraine Conservation Plan LSFPs shall be prohibited from;

1. Natural Core Areas,
2. Natural Linkage Areas,
3. Key Natural Heritage Features,
4. Hydrologically Sensitive Features,
5. Areas of Natural and Scientific Interest,
6. Landform Conservation Areas, and
7. High Aquifer Vulnerability Areas

as defined in the plan.

1.4 Niagara Escarpment Plan

In the Niagara Escarpment Plan, LSFPs shall be prohibited from all areas of the plan.

2. Conditions for Small-scale fill projects for all plans

In all three plans small-scale fill projects are permitted only if;

1. The small-scale fill project is a component of a project or use otherwise expressly permitted,
2. The supplier guarantees in writing that the soil is acceptable for agricultural use and potable groundwater according to standards set by MOECC, i.e. Table 1 or 2, and
3. The imported soil has been tested (and lab reports provided) to meet that condition at the rate of one sample[8] if less than or equal to 160 m3 and two if greater.

The testing described in 3. above does not apply to;

1. Top soil for lawns, gardens, and agriculture less than 15 cm average thickness over the area of application, or
2. Backfill and aggregate for foundations, trenches, septic systems, and driveways that are part of approved construction projects.

3. Applicability to the Aggregate Resources Act

Where the rehabilitation of a gravel pit or quarry is governed by the Aggregate Resources Act and requires large scale soil importation for rehabilitation, and that pit or quarry is within an area where LSFPs is otherwise prohibited, the imported soil shall be Table 1 as defined by Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act and shall be limited to the minimum amount required for rehabilitation.

4. Government exemptions

LSFPs undertaken by municipalities, conservation authorities, and the provincial government shall be permitted in otherwise prohibited areas for the purposes of flood and erosion control and for transportation, infrastructure, utilities, and Green Energy projects only if the need for the project has been demonstrated and there is no reasonable alternative, and only if:

1. Approved by a publicly available environmental assessment of the impact of the fill,

[8] The rate of at least one sample for each 160 m3 of imported soil as defined in O. Reg. 153/04 for RSC properties to be applied here.

2. The incoming fill is monitored and tested as if it were covered by O.Reg. 153/04, and
3. MOECC Best Management Practices for Excess Soils are followed.

Endnotes

[1] http://cielap.org/pdf/GreenbeltInternationalContext2010.pdf

[2] http://www.davidsuzuki.org/publications/reports/2008/ontarios-wealth-canadas-future-appreciating-the-value-of-the-greenbelts-eco-serv/

[3] http://www.ontarionature.org/discover/resources/PDFs/reports/protecting_greenbelt_wetlands_summary.pdf

[4] http://www.ecoissues.ca/Land_Use_Planning:_Blind-Eye_Measurement_and_Milquetoast_Monitoring

[5] http://www.mah.gov.on.ca/AssetFactory.aspx?did=10850

[6] http://www.greenbelt.ca/inside_and_out_sustaining_ontario_s_greenbelt2011

[7] http://www.neptis.org/publications/understanding-fundamentals-growth-plan