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Protecting Water

Ministry of Municipal Affairs
Provincial Planning Policy Branch
777 Bay Street, 13th Floor
Toronto, ON M5G 2E5

Dear Ministry staff,

Water is our most precious resource. We are pleased the government is taking this important step to protect the water systems we all depend on. We would like to offer the Couchiching Conservancy comments on this proposal (EBR # 013-1661).

The Couchiching Conservancy is a non-profit, non-government land trust formed for the purpose of protecting lands and waters around the northern area of Lake Simcoe. We are commenting on this proposal in three main areas:

- i) To let you know that key hydrologic areas have been left out of your study area map and should be included;
- ii) To express our concern about the creation of a “second-best” Greenbelt system, particularly in regard to natural heritage and agricultural land protection, that does not correspond to the principles and policies of the Greenbelt Plan; and
- iii) To point out several opportunity areas where the presence of public lands and/or ongoing protection programs could add significantly to landscape protection at minimal cost.

We are one of the many environmental groups committed to conservation and protection of our natural heritage. The Conservancy works with numerous partners to protect natural lands across six municipalities around Lake Couchiching, Lake Simcoe, the City of Orillia and the City of Kawartha Lakes. This includes the watersheds of the Talbot, Sturgeon, Coldwater, North and Matchedash Rivers, the Hawkstone, Bluff and St. John’s Creeks and parts of the lower Head, Black, and Severn subwatersheds. Lake Dalrymple, Sparrow Lake, Bass Lake and the northern shores of Lake Simcoe are all within our coverage area. The region encompasses

the ecological transition along the southern edge of the Canadian Shield and is highly diverse in its ecology and extremely vulnerable in its aquifers.

The Couchiching Conservancy supports the 2015 recommendation of David Crombie and the Advisory Panel on the Coordinated Review of the Greenbelt Plan to expand the Greenbelt. The Couchiching Conservancy is also strongly allied with the Ontario Greenbelt Alliance and the Simcoe County Greenbelt Coalition.

Our organization specifically requests an extension of the Greenbelt to protect the Carden Alvar, a globally rare habitat that extends across a northern portion of Simcoe County and a western portion of the City of Kawartha Lakes.

1. Protecting Key Hydrologic Areas:

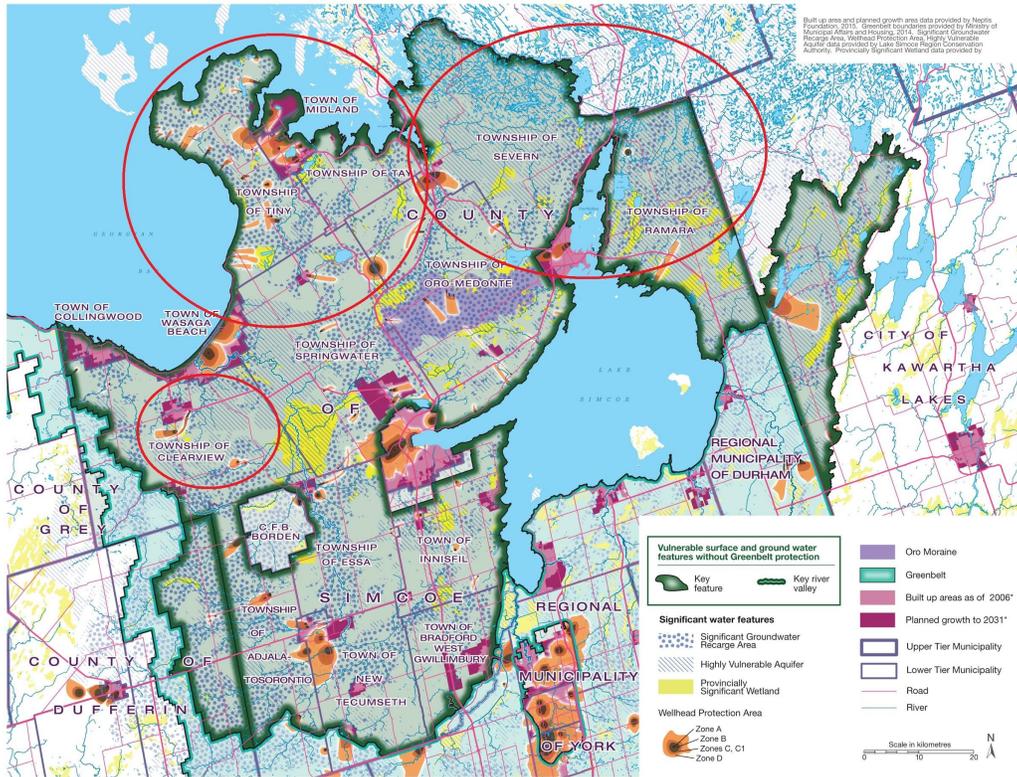
The “Protecting Water” proposals are welcome, and we fully support their approval. However, they fall short of capturing the full range of significant recharge areas and vulnerable aquifers in north Simcoe and adjacent areas.

Specifically, we would like you to include in your mapping (as marked below):

- significant hydrologic areas (recharge areas and vulnerable aquifers) in the remainder of the Lake Simcoe basin
- Highly significant recharge areas in Severn Sound, Ramara Township, the Carden Alvar
- Highly significant recharge areas in the Waverley Uplands
- Wetlands and recharge areas in Clearview Township

The data layers included in the map below are directly from local Conservation Authorities in their Source Water Protection Plan mapping exercise and subwatershed plans. These are the areas they have clearly outlined, based on expert study, as important to our source water.

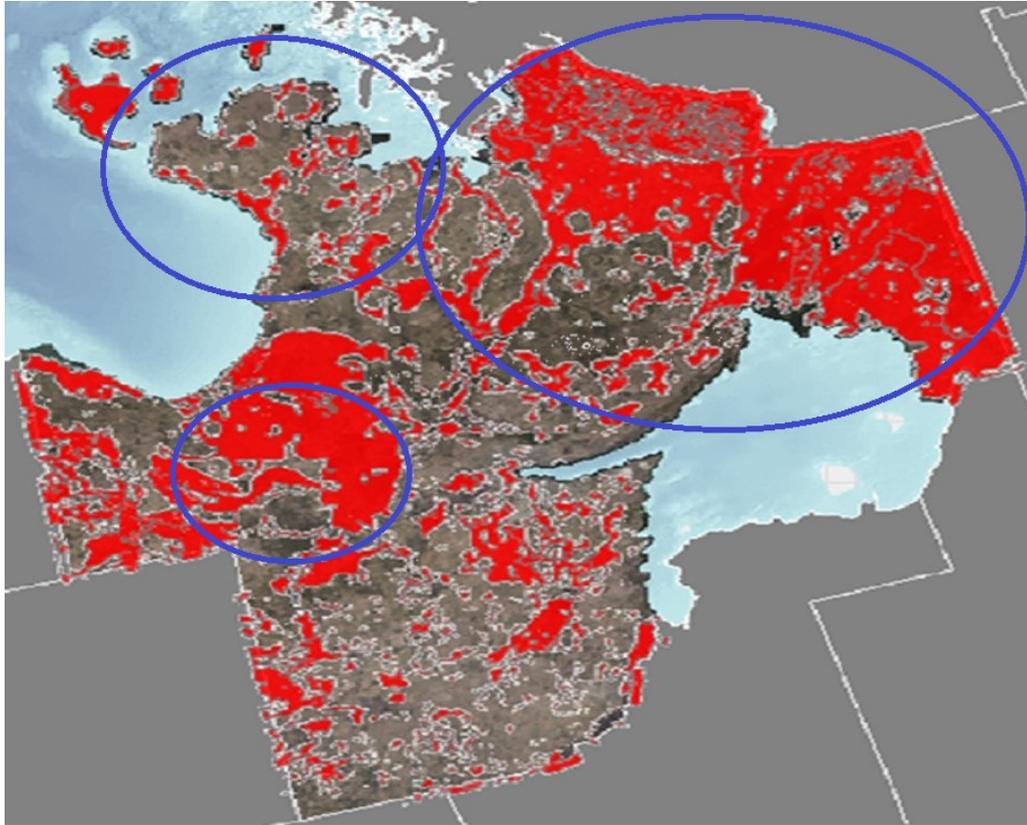
Our proposed extension to the Greenbelt would form an "Upper Simcoe Greenbelt" that runs from lower Ramara Township and Ramara Creeks subwatershed of Lake Simcoe and the southeast corner of Simcoe County, includes the Carden Alvar on the east side of Lake Simcoe, reaches north to Lake Couchiching and the Severn Sound and extends down the west side of Lake Simcoe including the Oro Moraine and other key natural heritage features to connect to Greenbelt lands in York Region.



The rationale for this Upper Simcoe Greenbelt extension is based on protecting our drinking water as described in two Lake Simcoe Region Conservation Authority 2015 documents "*The South Georgian Bay, Lake Simcoe Source Protection Plan*" and the "*Lake Simcoe and Couchiching-Black River Source Protection Plan*". All Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers have been mapped and should be protected as "Key Natural Heritage Features" as part of the revised and extended Greenbelt Plan, Section 3.2.4 Key Natural Heritage Features and Section 3.2.3.4 ("protect valuable surface and ground water areas"). Maps are attached to this submission to support this Greenbelt extension.

Referring to the map below and comparing it to your Ministry's study area map shows that many of the areas "left off" are highly vulnerable aquifers (marked in red). This cannot be considered adequate if the Greenbelt expansion process is intended to protect our water sources. Again, this map uses data from local Source Water Protection Plans.

As can be seen from the included maps, the areas "left out" of the study area map contain many of the vulnerable and important water resources that were intended to be protected. However, Ministry criteria removed these lands from the study area map if they were not under threat of urbanization. Yet those features' relative importance to the overall water system has not diminished. While admittedly urbanization is a major threat, it is not the only one. Expansion of the quarry industry, especially along the Hwy 11 corridor north of Orillia and on the Carden Alvar, threatens natural areas and water resources. Climate change poses a unique challenge and reminds us that protecting more, not less, is imperative.



The latter Source Protection report claims that despite over 400,000 people living in the Lake Simcoe Watershed, natural heritage features are the largest single “land use” in the Lake Simcoe watershed. Overall, 1,724 km² or 52% of the Lake Simcoe watershed is classified as natural heritage with large tracts of wetlands and woodlands. Yet, groundwater samples have shown to be consistently below the Ontario Drinking Water Standards. Fish and benthic communities have also showed decline, with 38% of benthic samples from 2004-2007 showing impairment, indicating aquatic systems under stress.

Wetlands occupy 13% of the watershed. Although the watershed has the highest concentrations of large wetlands off the Canadian Shield, this percentage is still very low in comparison to historical levels. We cannot afford to lose any more since wetlands are our first line of defense in our adaptation to climate change. The presence of so many highly vulnerable aquifers and significant recharge areas throughout the watershed is a very good reason to grow the Greenbelt up into Simcoe County and the Lake Simcoe watershed.

2. A Consistent Policy Approach to Greenbelt Additions:

The scope of the current Greenbelt is clearly expressed within the Vision section of the 2017 Greenbelt Plan:

The Greenbelt is a broad band of permanently protected land which:

- Protects against the loss and fragmentation of the agricultural land base and supports agriculture as the predominant land use;
- Gives permanent protection to the natural heritage and water resource systems that sustain ecological and human health and that form the environmental framework around which major urbanization in south-central Ontario will be organized;
- Provides for a diverse range of economic and social activities associated with rural communities, agriculture, tourism, recreation and resource uses; and
- Builds resilience to and mitigates climate change.

However, the proposal under consideration for expansion of the Greenbelt appears to be based entirely on protection of water-related features, ignoring agricultural, natural heritage, economic and social activities, and climate change considerations. This would result in a “second-best” and seriously inadequate “Greenbelt” within the Greater Golden Horseshoe region, including Simcoe County. It is difficult to imagine how the protective policies of the Greenbelt Plan could be applied within this expanded area, since many of the elements of the Protected Countryside definition would be absent. This situation will be confusing for municipalities, landowners, developer and others, and is likely to worsen, rather than resolve, the issue of development pressures “leapfrogging” into Simcoe County and other regions covered by this proposal.

From our perspective, one of the critical elements needing inclusion is protection of natural heritage areas, some of which overlap significant hydrologic areas, but not all. While the Ministry of Natural Resources and Forestry has produced draft mapping for a natural heritage system for the Greater Golden Horseshoe, this mapping needs significant revisions, particularly in north Simcoe County and north Kawartha Lakes, where the current mapping is such a broad-brush approach that it provides almost no distinction of levels of significance across the rural landscape.

Natural heritage systems mapping by municipalities and exercises such as the “Kawarthas Naturally” initiative provide a more detailed, ground-based, and credible synthesis of natural heritage elements. The Couchiching Conservancy and Oak Ridges Moraine Land Trust have also undertaken a natural heritage mapping approach which includes all of Simcoe County, and incorporates elements such as occurrences of species and communities at risk. Refining the MNRF natural heritage mapping by making use of this range of local and regionally-based information would be a useful next step towards defining a comparable Greenbelt in the GGH to that already covered by the Greenbelt Plan.

Another aspect which needs attention is the relationship of natural heritage areas and systems to climate change adaptation. The Nature Conservancy has produced a series of predictions on how a wide range of species (2903 vertebrate species) will shift their habitat use in response to the changing climate; the results of this study are summarized in a short video called “Migration in Motion” (see blog.nature.org/science/2016/08/19/migration-in-

motion-visualizing-species-movements-due-to-climate-change/). An examination of these movements in southern Ontario highlights the importance of a corridor across Simcoe County linking the Niagara Escarpment to the Canadian Shield. To seriously address climate change within the Greenbelt planning process, incorporation of habitat links to allow this future movement across Simcoe County needs to be addressed.

3. Taking Advantage of Opportunity Areas:

Expanding the Greenbelt into parts of the GGH is not an exercise that takes place on a blank slate; several important conservation initiatives are already in place which need to be integrated with the Greenbelt, or which offer opportunities to significantly buttress the goals of the Greenbelt at minimal cost. Among these assets should be included:

- The planning, restoration and stewardship work associated with the Severn Sound Remedial Action Plan, which has been carried on in recent years by the Severn Sound Environmental Association;
- The policies and priorities developed through the Lake Simcoe Protection Plan;
- Extensive forest holdings by the County of Simcoe, as well as joint acquisition and protection projects in Minesing Wetlands, Matchedash Bay, Tiny Marsh, Carden Alvar, and other conservation areas;
- Provincial Crown lands, including some such as Copeland Forest that are being managed in association with user groups, and others that have no formal conservation designations but are known to provide significant habitats and informal recreation opportunities.

A more detailed description of some of these opportunity areas is provided below.

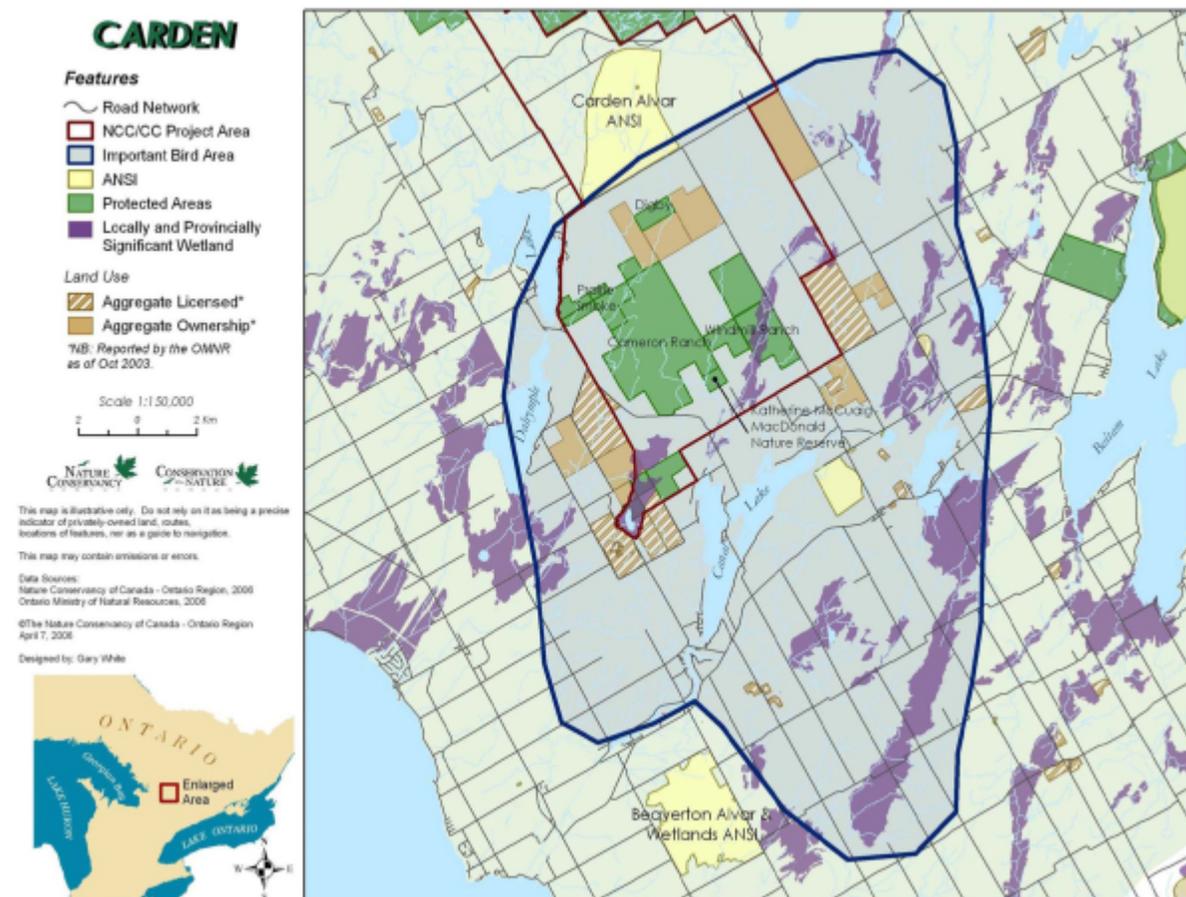
The Carden Alvar:

Why is the Carden Alvar important? The Carden Alvar is a highly vulnerable aquifer as well as a significant natural mosaic covering 17,000 ha located just east of the Simcoe County border within the City of Kawartha Lakes (CKL). It is set within the broader context of the Carden limestone plain which extends into Simcoe County west towards Lake Simcoe, and eastwards and southwards within CKL, encompassing 70,000 ha. Approximately half of the Carden Alvar and the Carden limestone plain are located within the Talbot River watershed, which is part of the Lake Simcoe watershed.

The Carden Alvar is the site of considerable ongoing conservation actions over the past 15 years, which has resulted in over 3000 hectares of key habitats protected by conservation ownership or conservation easements. However, many of the habitats and landscape connections remaining in private ownership across the Carden limestone plain are threatened by expanding aggregate operations, agricultural conversion, and other developments.

The Carden limestone plain is a diverse mix of grasslands, wetlands and forests, with pockets of agricultural croplands in the Ramara (Simcoe County) and southern sections. All of the alvar habitats and a concentration of other natural values are contained within the central

Carden Alvar section, with the remainder of the limestone plain in extensive wetland and grassland habitats.



The following ecological values have been documented within this natural mosaic:

- **Globally significant** occurrences of alvar communities, which are specialized plant and wildlife communities based on shallow flat limestone bedrock; well documented within the report of the International Alvar Conservation Initiative and the Alvars of Ontario report.
- **Nationally significant** habitats for breeding grassland and shrubland birds, including the primary nesting area for endangered Loggerhead Shrike, as recognized through the Important Bird Areas program of Birdlife International.
- **Provincially significant** wetlands of diverse types covering extensive areas of the limestone plain.
- **Regionally significant** groundwater recharge areas, especially within the alvar areas with very shallow overburden over the fractured limestone bedrock, as documented by LSRCA studies.
- **Provincially significant** concentrations of 37 designated species at risk, including populations of 6 endangered species and 17 threatened species. This includes

significant concentrations of Bobolink, Eastern Meadowlark, Grasshopper Sparrow on grassland sites, as well as Blanding's Turtle, Least Bittern, and Western Chorus Frog in wetland areas.

This concentration of overlapping ecological values warrants the recognition and treatment of this region, particularly the Carden Alvar, on a comparable basis to other southern Ontario natural regions such as the Niagara Escarpment and Oak Ridges Moraine.

Ongoing Protection Efforts: The Carden Alvar was recognized in the late 1990s as a priority acquisition area by the Nature Conservancy of Canada, with conservation targets and strategies laid out in a Natural Area Conservation Plan (NACP), most recently updated in 2015. The NACP identifies priorities for acquisition at the individual property level, based on an analysis of ecological values, as well as an over-arching objective of creating a north-south habitat corridor within the area. NCC is a major landowner within the Carden Alvar, and continues to acquire lands as opportunities arise.

The Couchiching Conservancy has been a proponent and active participant in protection, management, and habitat restoration activities within the broader Carden limestone plain since 1995, and continues to coordinate activities among various conservation agencies. It owns 5 properties and holds an additional 4 conservation easements within this region. It has also been the primary point of contact with landowners, delivering private stewardship incentives to improve natural habitats and hosting twice-annual Carden Forums for conservation organizations, landowners, and quarry companies. Couchiching Conservancy produced an updated Conservation Plan for the limestone plain region in 2015.

Ontario Parks has been a partner in early acquisition projects, and in 2014 regulated the 1160 ha Carden Alvar Provincial Park. A second major provincial park, the Queen Elizabeth II Provincial Park, is located along the northern edge of the Carden limestone plain.

Many other groups have strong interests in this exceptional area. Wildlife Preservation Canada has primary responsibility for the delivery of recovery efforts for Loggerhead Shrike, which includes release of captive-bred birds, monitoring of nests, and collaboration in habitat improvement projects. The Carden Field Naturalists, Ontario Field Ornithologists, and other organizations provide frequent volunteers for monitoring and restoration projects in the Carden area.

Why we need Greenbelt Protection: The Carden Alvar, and more broadly the Carden limestone plain, provide ideal opportunities to apply the protective provisions of the Greenbelt to a significant landscape with conservation planning and protection already well underway. While the exact nature of determining how this area should fit within an expanded Greenbelt will require some discussion, one aspect appears to be especially important. Approximately half of both the Carden Alvar and the Carden limestone plain lie outside the Lake Simcoe watershed, with the watershed boundary passing through the heart of Carden Alvar Provincial Park. If this watershed divide results in differing policy treatment on each

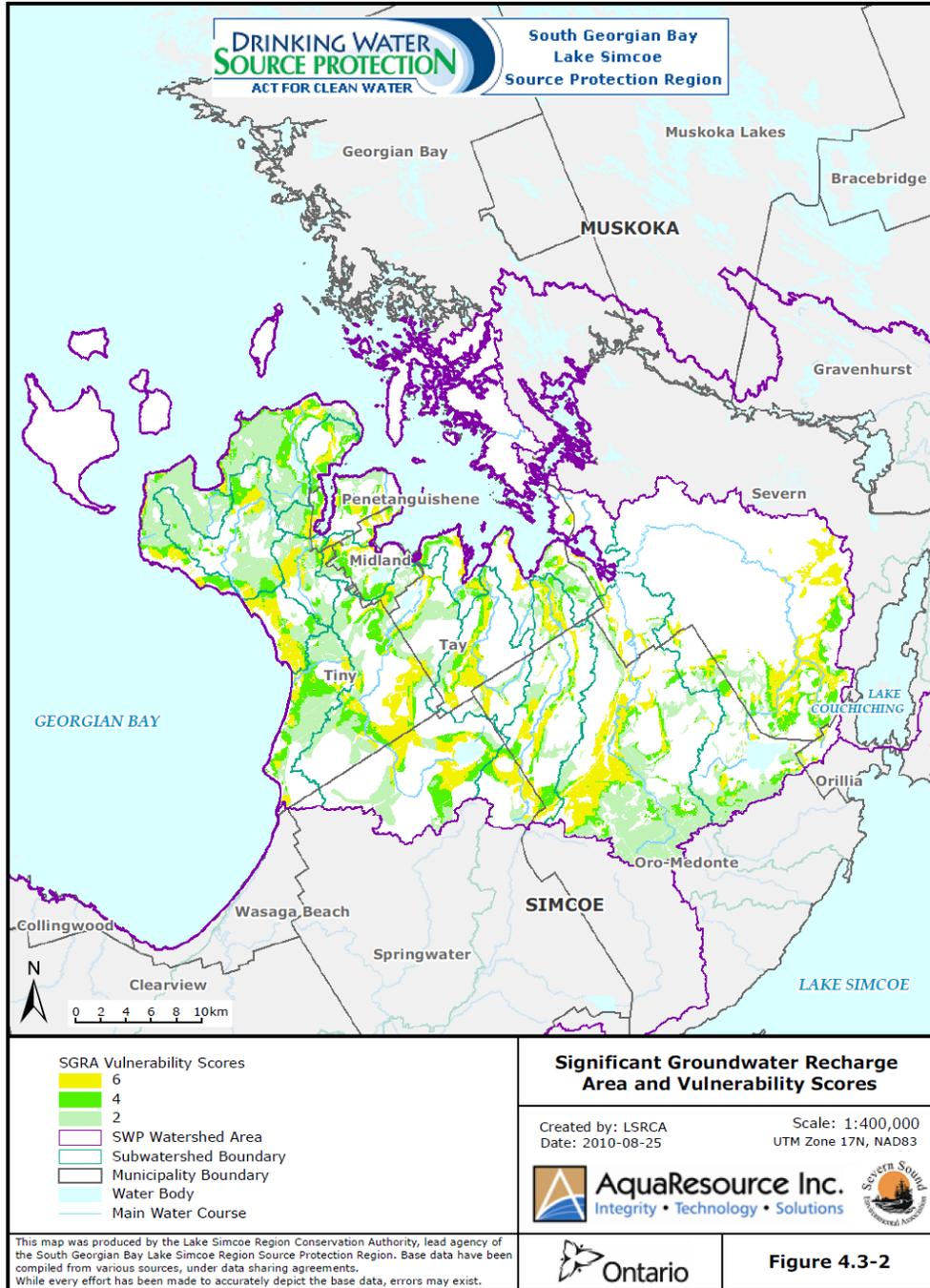
side of this boundary, the Alvar will be dissected into fragmented patches. An example of this would be diverting future aggregate proposals onto the less restrictive side, thus losing the ecological integrity of this rare habitat and species diversity.

A more sensible and appropriate solution would be to include at least the Carden Alvar core area, extending north to Queen Elizabeth II Provincial Park, within the highest protective category of an extended Greenbelt. As well, the extensive background work already completed on the remainder of the Carden limestone plain should also be used to inform future designations within Greenbelt planning. The Couchiching Conservancy offers its support and help to make this happen.

Severn Sound:

Severn Sound was listed as one of 43 Areas of Concern with respect to water pollution by the International Joint Commission in 1985. The Severn Sound Environmental Association was formed in 1997 to oversee the successful delisting of Severn Sound. However, the communities of Midland, Penetanguishene, Tay Point and the Wye River area now indicate a potential significant level of stress (Severn Sound SPA Approved Assessment Report). These stress indicators plus the significant projected increases in flooding, air temperature, evaporation, winter precipitation, storm intensity and frequency with future climate change warrant further protection for this area. The Severn Sound Environmental Association has close relations with municipalities and local landowners, with the potential to provide a strong basis for future protective measures.

Overall, Simcoe County is highly reliant on groundwater and the hydrogeologic system that supports its quantity and quality. This includes our forests, wetlands, shorelines, recharge areas and arable land. Without protecting all of these sensitive lands from unnecessary development, the entire watershed and its groundwater is still at risk.



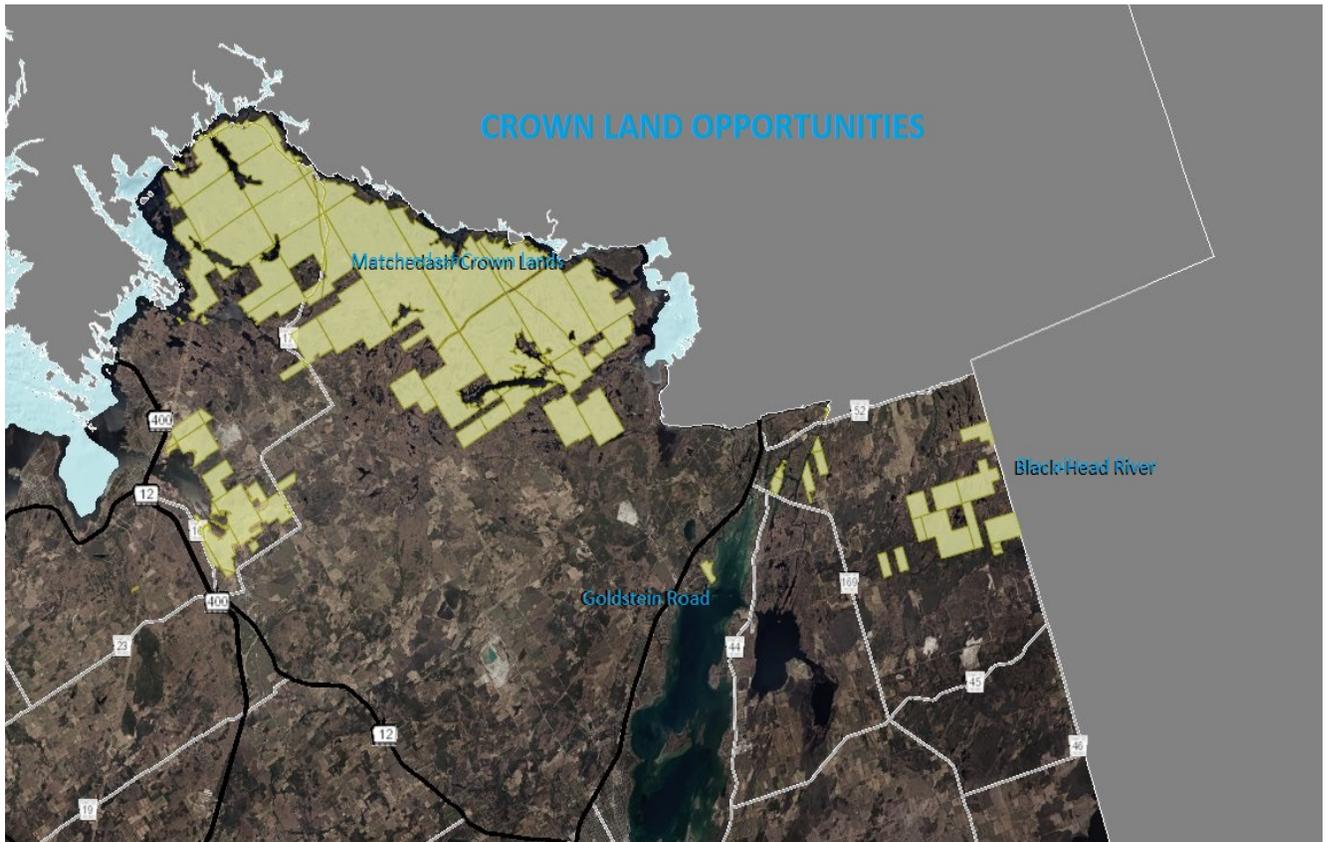
Provincial Crown Lands:

Northern Simcoe County encompasses several significant clusters of Provincial Crown lands, which are minimally managed by the Ministry of Natural Resources and Forestry. These lands have significant natural values and recreation potential, but currently suffer from a lack of management attention, and in some places, serious abuse by unregulated user groups. They offer enormous potential as part of a Greenlands system with a modest investment in applying

protection status, developing appropriate management plans, and re-directing public use. In essence, these are overlooked assets waiting for enlightened management.

Among the most important of these Crown land areas are:

- A large contiguous area of several thousand hectares immediately south of the Severn River, encompassing much of the former township of Matchedash, and including headwater areas for Severn Sound. This area is ecologically rich, with healthy populations of species at risk such as Eastern Massasauga and Five-lined Skink on the mosaic of granite rock barrens and frequent wetlands.
- A smaller site of Crown land just north of Goldstein Line in Severn Township, which protects almost the only remaining public land along the shores of Lake Couchiching. This property has high-quality forests and wetlands, with several known species at risk, but is at high risk because of its proximity to serviced development lands in the Lakeshore West area.
- A cluster of Crown lands around the junction of the Black and Head Rivers in Ramara Township, which is at the core of a major node of wetland and forest habitat. This node connects to landscape corridors along the river courses, and provides opportunities for recreational canoeing as well as species at risk protection.



We believe that addressing the recommendations put forward in these comments will result in much stronger and more appropriate Greenland designations in this region. Thank you for this opportunity to comment.

Sincerely,

Pamela Fulford, Member of the Board of the Couchiching Conservancy
Ron Reid, Carden Program Coordinator, Couchiching Conservancy