

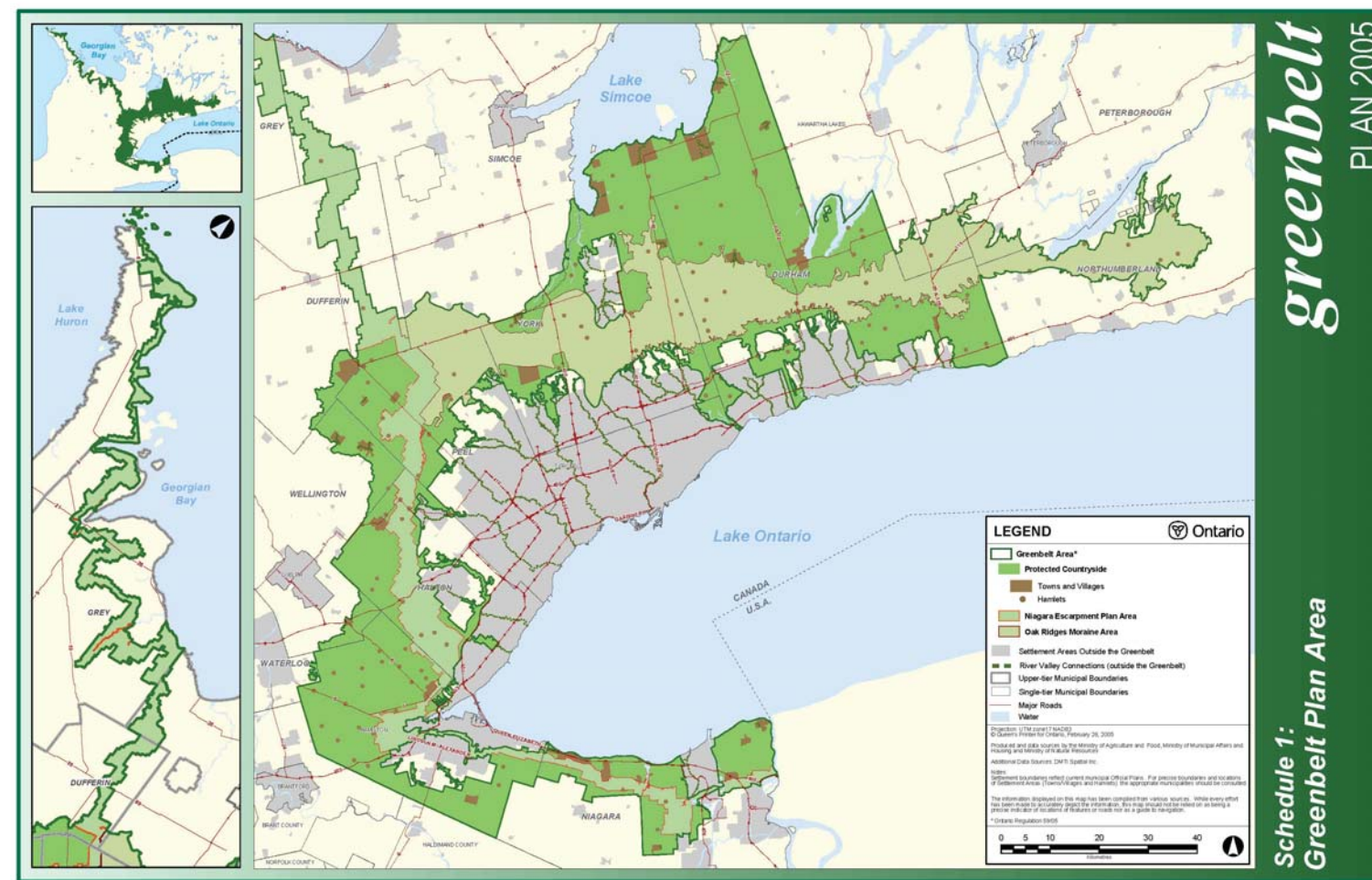
faculty of environmental studies

Graduate Students in Regional Planning | Studies of the Greater Golden Horseshoe Greenbelt Plan

Contemporary regional planning issues include: governance, growth management, transportation, food security, social justice, marketing and ecological values.

At a landscape scale, the Greenbelt protects natural capital and provides ecosystem services to the broad region. Ecology organizes the structure of the region.

Relation of science to policy making of greenbelts



The creation of the Greenbelt is based on a Natural Systems Approach that recognizes the interrelated character of the natural environment. This approach recognizes areas of hydrologic and ecological significance within the Greater Golden Horseshoe Region. Development within these areas is

regulated. Historically planning approaches have been limited to preserving remnants of individual features. This leads to fragmentation and lowered ecological functioning. The Systems approach addresses this by maintaining and restoring linkages between individual features.

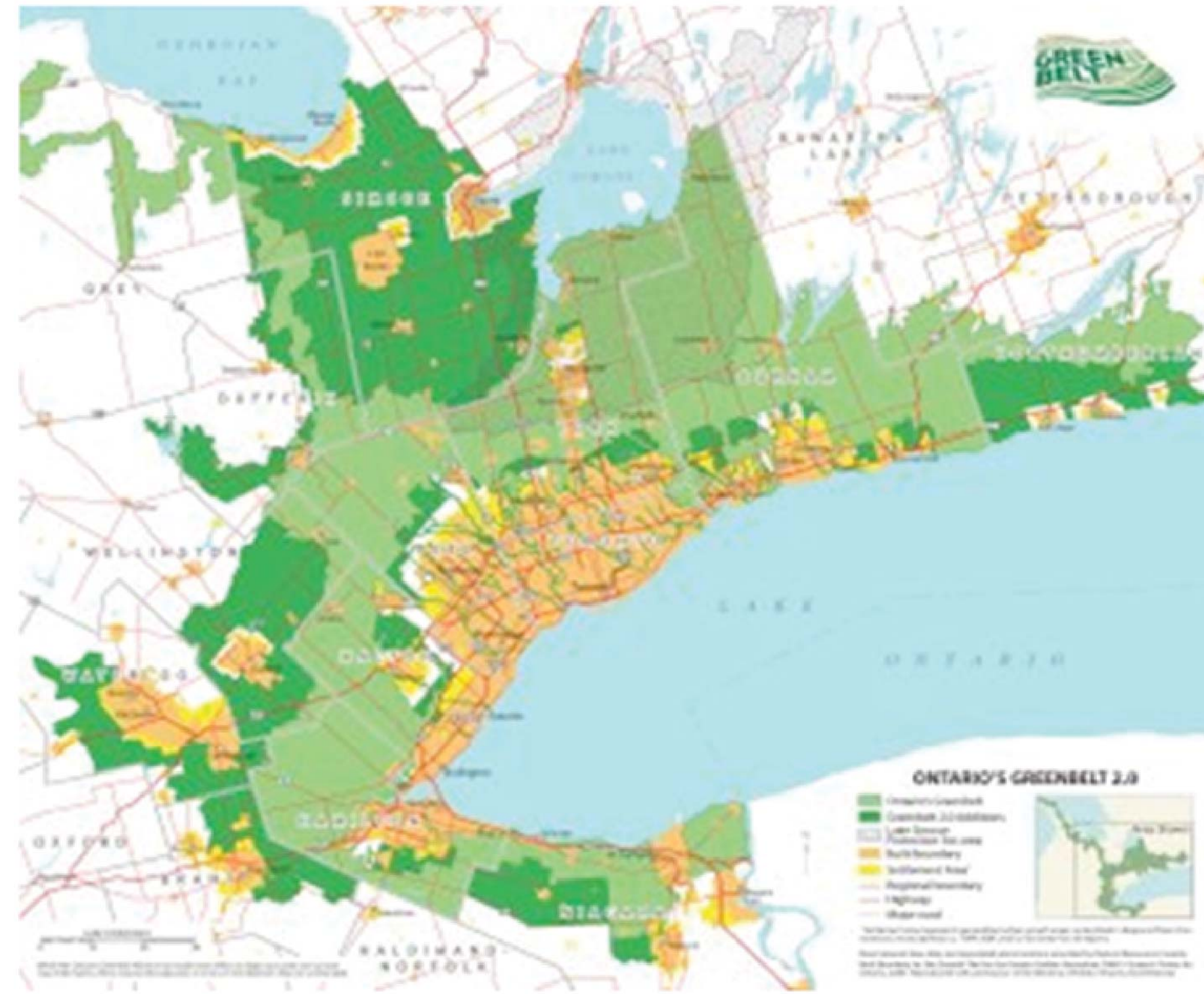
While based on science, Greenbelt policies must balance the needs of conservation and environmental protection with economic growth therefore limiting the environmental protection benefits of the systems approach. Also the science is subject to interpretation by policy makers (Ontario Ministry of Natural Resources.

(March 2010). *Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement 2005. Second Edition.* Toronto: Queen's Printer for Ontario.)



Greenbelts as a regional structure

Greenbelts form regional identity by delineating where urban development should occur and where it should not occur. The Greenbelt is an organizing system, which acknowledges that urban growth is limited by the capacity of a region's natural capital. In this sense, greenbelts are considered green infrastructure that provide agricultural and ecological services to urban regions Green infrastructure acknowledges that natural capital is essential to human living and greenbelts, and like roads and sewers make up the interconnected elements of a regional landscape.



The Greenbelt is at the centre of the push and pull relationship between economic growth and conservation. Successful implementation of greenbelts hangs in the balance between these two imperatives.



Source: <http://img.groundspeak.com/waymaking/7828a368-d433-49b5-b869-e1e5139197.jpg>

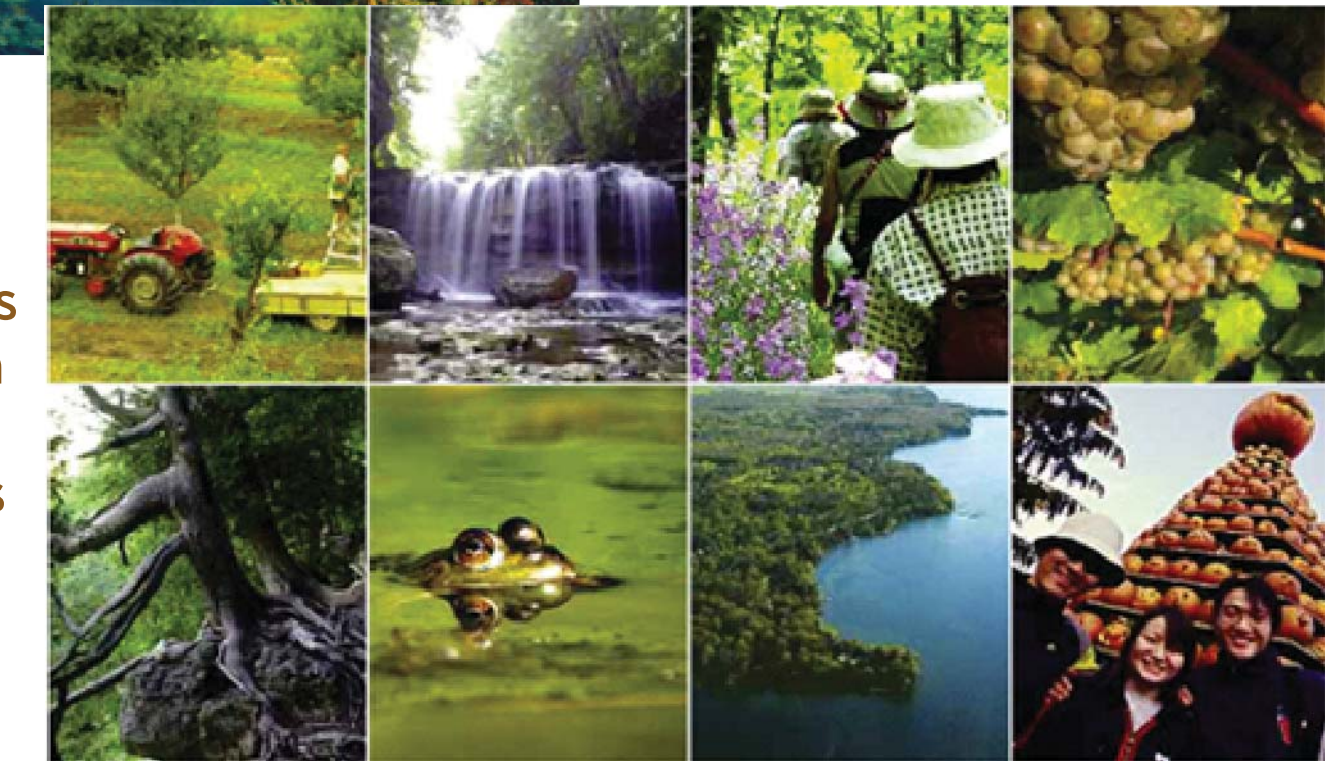


Source: <http://www.nvvalley.ca/pdfs/1.jpg>



Source: <http://dreeze.files.wordpress.com/2010/06/purplevaltinitytree.jpg>

Ecosystem Services



The annual value of the Greenbelt's measurable non-market ecosystem services are estimated to be \$2.6 billion annually, an average value of \$3,487 per hectare. The values determined are likely conservative estimates due to the incomplete understanding of all the benefits provided by nature, the intrinsic value itself, and the likely increase in ecosystem services value over time.

The Greenbelt's ecosystem services rely on the capacity of natural function and processes to provide for human and wildlife needs. These needs include a variety of products, services and non-human benefits such as:

- Gas Regulation
- Climate Regulation
- Disturbance prevention
- Water Regulation & Supply
- Soil Retention
- Soil Formation
- Nutrient Cycling
- Waste Treatment
- Pollination
- Biological Control
- Habitat
- Food Production
- Raw Materials
- Genetic Resources
- Medicinal Resources
- Recreation
- Education, Culture & Spirituality

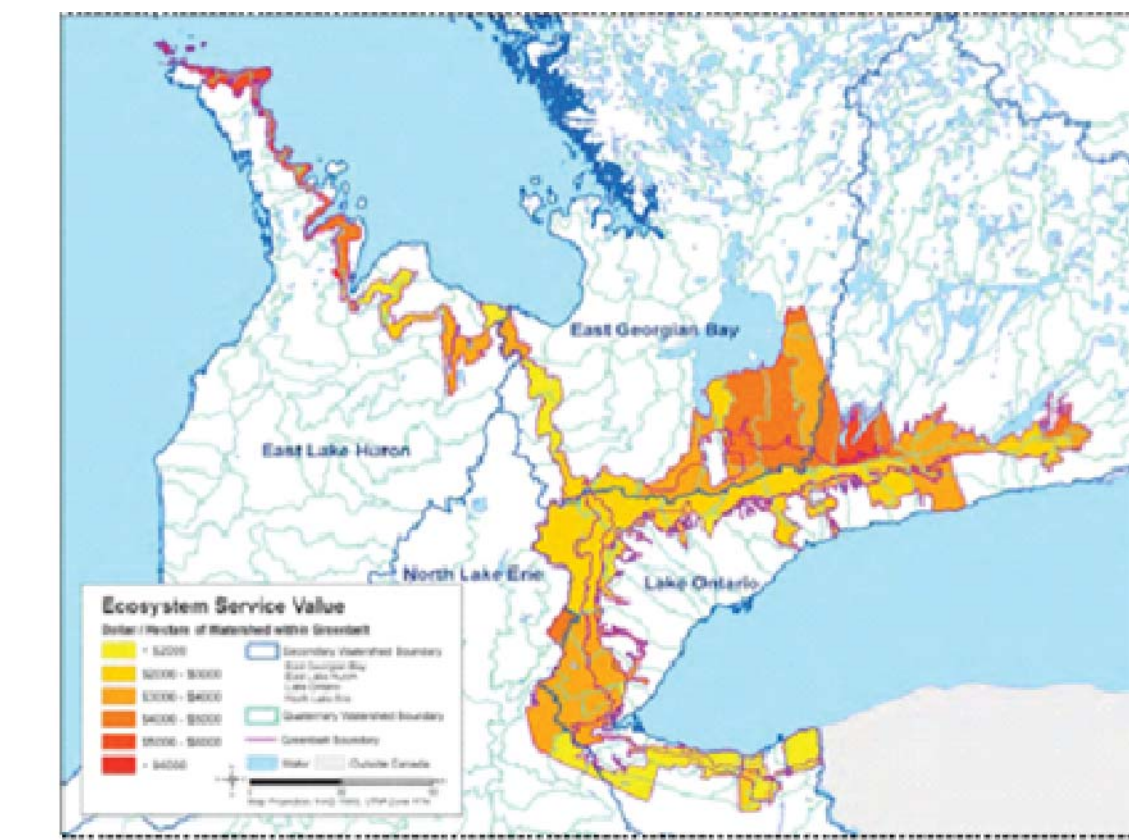


Figure 10: The Distribution of Actual Ecosystem Services per Hectare by Watershed in the Greenbelt

Wilson, S.J. (2008). *Ontario's Wealth, Canada's Future: Appreciating the Value of the Greenbelt's Eco-Services.* Vancouver, B.C.: David Suzuki Foundation.

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