

Reducing your personal and home's ecological footprint can both save you money and lead to a healthier, more active lifestyle. We can all be part of the solution to protect our natural assets.

### Web Sites of Interest:

<http://www.fcm.ca/qol3/eco.pdf>  
(Complete FCM document)

<http://www.climatechange.gc.ca/onetonne/english/>  
(Greenhouse Gas Emission Challenge)

<http://www.ontarioconserves.gov.on.ca/english/>  
(Ontario Conserves)

[http://oee.nrcan.gc.ca/english/p\\_residential/](http://oee.nrcan.gc.ca/english/p_residential/)  
(Natural Resources Canada - Office of Energy Efficiency)

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### Water for Tomorrow Program:

This award-winning program to reduce water consumption includes residential/commercial retrofits, water audits for larger users, leakage reduction, broad scale public education and school curriculum modules. The program results in York Region saving 19 million litres of water per day (equivalent to the daily consumption of 70,000 people), also resulting in a cost savings of \$10 million. The success of Water for Tomorrow will significantly reduce our water consumption.

### Centres and Corridors Strategy:

York Region is promoting a Centres and Corridors Strategy for efficient land use planning to strengthen the relationship between land use, transportation and transit. This is a key part of York Region's Growth Management Strategy.

The four regional centres will be vibrant, higher density, mixed use precincts that serve as the Region's downtowns. They are connected by the regional corridors of Yonge Street and Highway 7, which have the greatest opportunity to add new housing, employment and services in a mixed-use form that support higher order transit services.

Improved support for public transit is one result of intensification; however, we also need to highlight the live/work benefits of core areas thereby eliminating some commuting entirely.

This type of intensification in York Region will allow us to use less agriculture and rural lands to accommodate growth.

### The Smart Commute Initiative:

The Region will be taking a lead role in the GTA Smart Commute Initiative. It calls for the establishment of GTA-wide carpooling/ride-matching, van pooling, and car sharing programs along with the establishment of nine additional Transportation Management Associations across the GTA. This will help to reduce single occupant vehicle trips, reduce greenhouse gas emissions, reduce congestion, enhance accessibility and mobility, and reduce infrastructure costs.

### York Region's Corporate Clean Air Task Force:

York Region is working to reduce emissions and improve air quality for our residents with our Corporate Clean Air Task Force. This task force is overseeing many clean air initiatives that will be incorporated into a comprehensive Regional Air Quality Policy. It will identify specific, measurable, and achievable corporate actions/action plans to improve air quality and reduce greenhouse gas emissions and other harmful air pollutants. The Task Force will identify specific corporate actions to improve ambient air quality and reduce greenhouse gas emissions.

### Other Initiatives

The Region has a number of other corporate initiatives underway to further reduce our ecological footprint and accomplish a number of Kyoto Accord goals. The Region's initiatives include a **wind feasibility study** to determine the potential for the development of a wind energy projects in York Region. There is a **corporate energy program** which targets a 35% reduction in energy for Regional facilities and energy-efficient new building design of at least 25% more efficient than building code. **Implementation of energy saving** measures in existing buildings is set to commence with the York Region Administrative Centre in 2005 resulting in annual energy savings of an estimated \$170,000.



# York Region's Ecological Footprint

bulletin

### What is an Ecological Footprint?

An ecological footprint (EF) is a measure of the demands people place on nature. It measures how much land and water we occupy or use in order to produce the resources we consume, and absorb all the waste we produce. It tells us how our way of life and lifestyle effect the natural environment.

### Why is it important?

An ecological footprint can be used as a measure of progress towards sustainability, something that is important for our long term health and prosperity. By measuring the impact we have on our natural environment and comparing it to nature's own productivity, we can determine how sustainable our current practices and lifestyles are. Every individual and community should be aware of their EF and test different strategies to reduce their environmental impact in the future.

### How is it measured?

An ecological footprint is a measure of all of the land and water that is used for crops, roads, grazing, fishing, building and for producing wood products; the sum of the six different component land areas produce an ecological footprint that is comparable across the country and between countries worldwide.

#### Ecological Footprint Components

<b>ENERGY LAND</b>	area of land required to absorb CO <sub>2</sub> emissions resulting from energy consumption
<b>CROP LAND</b>	area of land required to produce crops
<b>PASTURE LAND</b>	area of land required to produce animal products
<b>FOREST LAND</b>	area of land required to produce wood and paper
<b>SEA SPACE</b>	area of water required to produce fish and seafood
<b>BUILT AREA</b>	area of land required to accommodate housing & infrastructure

Many regional and individual factors can affect each component including household income and expenditures, population density, transportation, and sources of energy. A larger EF usually results from:

- High income/high level of consumption and expenditure
- High use of private automobiles
- Coal powered electricity versus electricity produced by water (produces more pollution than hydroelectricity)

The EF calculation was done nationally and then, to estimate local or community footprints, the national footprints were recalculated using relevant local indicators such as population, household income and expenditures and average house size, etc. For most Canadian cities personal consumption expenditure data can be used however, where such data is not available, (York Region for example) per capita income was used.

York Region ranks 5th in Canada in size of Ecological Footprint.

York Region has a number of initiatives which address the environment and will help improve our EF.

- Transit Plan
- Greening Strategy
- Energy Efficient Management
- Water for Tomorrow Programs
- Centres & Corridors Strategy
- Smart Commute Initiative
- Corporate Clean Air Initiative
- Wind Feasibility Study

This bulletin also contains suggestions about what individuals can do to reduce their ecological footprint.

[www.york.ca](http://www.york.ca)



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“York Region was ranked 5<sup>th</sup> in the FCM Ecological Footprint study...”

“The Ecological Footprint is a tool for monitoring progress toward sustainability.”

Source: Ecological footprints of Canadian Municipalities and Regions report prepared by Anielski Management Inc. for the Federation of Canadian Municipalities.

## What is Canada's Ecological Footprint?

Globally, Canada has the 3rd highest EF in the world (7.25 hectares per person), behind the United Arab Emirates (10.13 hectares per person) and the United States (9.7 hectares per person). By contrast, Japan has an EF of 4.77 and India an EF of 0.86 hectares per person. Sweden has a 6.73 hectare ecological

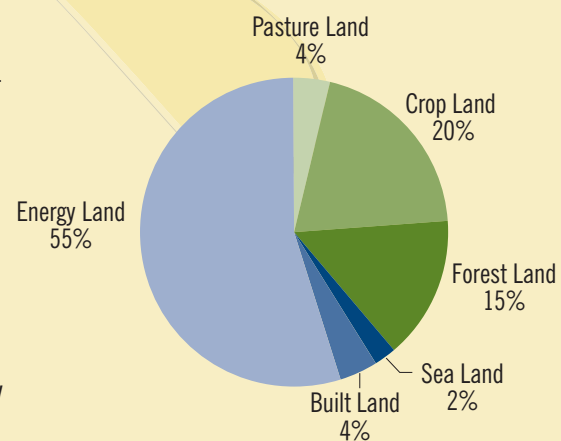
footprint and the United Kingdom has a 5.35 hectares footprint. The average global citizen has a footprint of only 2.8 hectares, much smaller than the average Canadian. The amount of land and sea required to support one Canadian supports 10 people in India.

## What is York Region's Ecological Footprint?

The Federation of Canadian Municipalities prepared an Ecological Footprint report in 2004 which was revised in February 2005 (Regional Councillor B. Hogg of Richmond Hill is the chair of the Quality of Life Reporting System for FCM). The FCM report looked at EF for communities across Canada and revealed that the average Canadian consumes 7.25 hectares of land and sea to sustain their current life styles. York Region was ranked as having the 5th highest EF in the country at 8.28 hectares per person (114% of the Canadian average). The lowest ranking municipality in the study was Greater Sudbury at 6.87 hectares per person (94.8% of the Canadian average) and the highest ranking municipality was Calgary at 9.86 hectares per person (136% of the Canadian average).

EF calculations use personal consumption expenditure data. In York Region's case the data was not available and income data was used as a surrogate. Part of York's high EF can be attributed to our very high per capita income (\$24,277/capita).

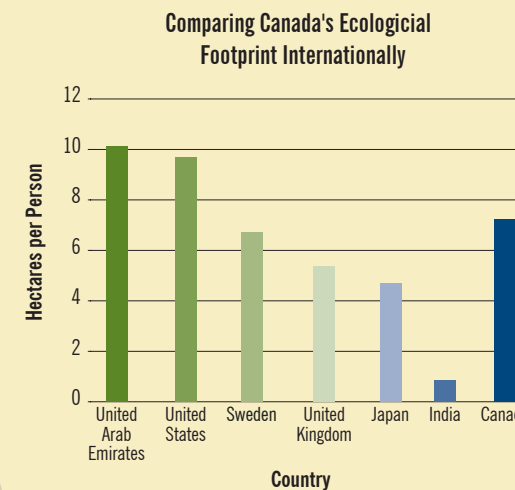
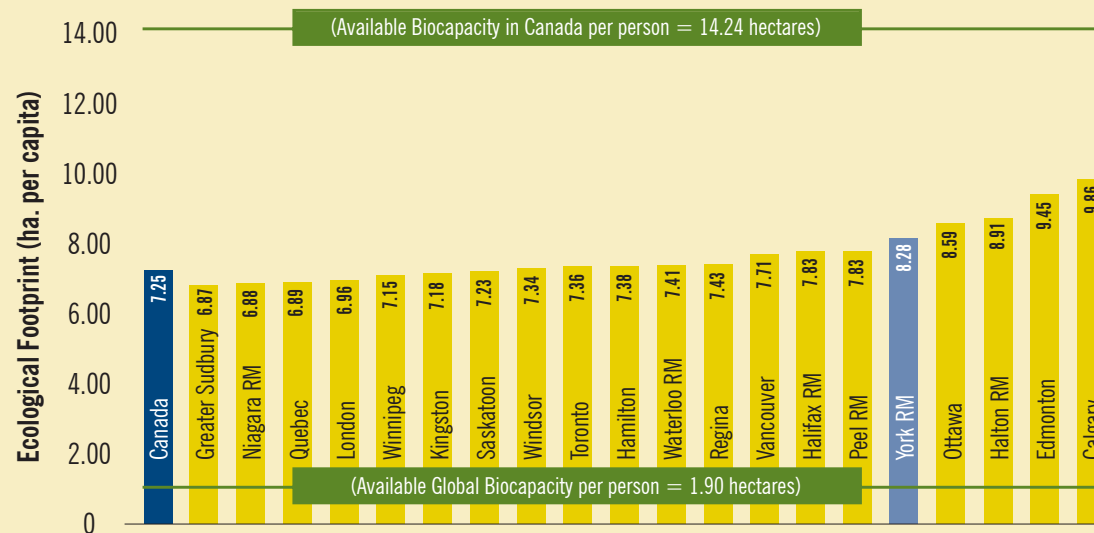
The Average York Region Resident's Ecological Footprint by Land/Area Category (%)



It can also be partly attributed to the Region's high percentage of single detached dwellings, relatively lower transit usage and high car use.

York Region's total area is 176,200 hectares with a total ecological footprint of 6,038,223 hectares. Unfortunately this means that the Region's ecological impact extends well beyond our available land area.

Canadian Municipal Ecological Footprints from Vancouver to Halifax



## What can you do to change our Ecological Footprint?

Individuals need to consider how they are affecting the environment during their daily activities. Actions you can take include:

- Reduce water and energy consumption and install water and energy efficient devices at home and at work.
- Landscape in energy efficient ways utilizing native species, rain barrels, mulching lawnmowers, etc.
- Better insulate your house.
- Take alternative forms of transportation (i.e. transit, bike, walk or car pool).
- Use more fuel efficient vehicles and keep car tuned-up and tires properly inflated.
- Buy more locally produced products, more vegetarian food, and buy products with less packaging.
- Compost.
- **Reduce** consumption by doing more with less, **reuse** items as much as possible and **recycle**.



**York Region's Greening Strategy:** Through the Greening Strategy, York Region seeks to protect a healthy natural heritage system and environment for future generations. The Strategy includes: education programs to inform Regional partners and residents on what things they can do to support these goals (and thereby reduce their ecological footprint), working with other departments on Regional Operations to reduce our corporate ecological footprint and increase our tree planting partnerships, and other specific actions to address Kyoto Accord objectives (including implementation of the Forest 20/20 program).

## York Region's Energy and Environmental Management System:

This system is designed to monitor energy consumption and expenses of buildings, street lights, and other Region owned facilities. It has the capability to track electricity, natural gas, water and waste accounts, and other fuel usage, as well as provide analysis on utility performance. This will allow us to improve efficiencies and reduce waste and overall costs to the Region. Recently, York Region switched to brighter LED traffic lights using 90% less energy than traditional incandescent lights.

## What is York Region doing to change our Ecological Footprint?

York Region is taking action in a number of different ways to make our communities more sustainable, improve our quality of life and thereby reduce our ecological footprint. Some of these programs include:

### York Rapid Transit Plan:

Car dependence is one of the largest contributors to the EF. York Region is creating a new rapid transit network that will offer residents an alternative to driving the car. The York Rapid Transit Plan is expected to shift 7,000 commuter trips per day from cars to transit by 2005. The plan will also move residents faster, reduce congestion, and support more sustainable development.

## What is York Region doing?

- YR Transit Plan
- YR Greening Strategy
- YR Energy Program
- Water for Tomorrow
- Centres & Corridors Strategy
- Smart Commute Initiative
- Corporate Clean Air Initiative
- Wind Feasibility Study

## What can you do?

- reduce water & energy consumption
- landscape in energy efficient ways
- better insulate home
- use alternative forms of transportation (walk, take the bus)
- use more fuel efficient vehicles
- compost
- reduce, reuse and recycle