

The Challenge

Our vision is to be a flourishing region renowned for environmental action and innovation by its leaders and diverse communities.

We live in an increasingly urban world, where over half the global population and 80% of Canadians live in urban areas.¹ The Greater Toronto Area (GTA) is Canada's largest urban region with six million people, and our population is expected to surpass nine million by 2036.²

Our challenge is to seize the opportunities available through our region's growth while protecting the health of residents and our natural ecosystems so our region is a healthy and flourishing place to live, work and invest in the long term.

Current Situation

According to the January 2011 Living City Report Card³ by CivicAction's Greening Greater Toronto and the Toronto and Region Conservation Authority (TRCA), the GTA has progressed in some key areas. We are breathing cleaner air, using less water and diverting more waste from our homes since Greening Greater Toronto's 2008 report and TRCA's most recent watershed report cards. But we're struggling in other areas, including managing stormwater and commercial waste, controlling sprawl and traffic congestion, and protecting our forests and wetlands. Conditions are also worsening for the number of plant and animal species and their distribution across the region.

	Indicator	Progress	Current condition vs. target
Air Quality	SO ₂	↑ Much better	C – moderate action required
	VOC ¹	↗ Better	D – major action required
	PM _{2.5} ²	↗ Better	C - moderate action required
	NO _x	↗ Better	D – major action required
Carbon	CO ₂	↗ Better	D – major action required
Waste	Residential diversion	↗ Better	C – moderate action required
	IC&I ³ diversion	↔ No change	D – major action required
Water	Quality	↔ No change	C - moderate action is required
	Quantity	↗ Better	C – flood management F – Stormwater management
	Consumption	↗ Better	C – moderate action required
Land use	Food security	N/A ⁴	B – minor action required
	Agriculture	↓ Worse	C – moderate action required
	Urban forest	N/A ⁴	C - moderate action required
	Green buildings	N/A ⁴	N/A ⁵
	Greenspace	↗ Better	C - moderate action required
Biodiversity	Intensification	↗ Better	B – minor action required
	Fish	↔ No change	C - moderate action required
	Terrestrial plants & animals	↓ Worse	C - moderate action required
	Natural Cover	↓ Worse	B - moderate action required

Successes

Since 2005, our air quality has improved and carbon emissions have declined, with a 44% decrease in total emissions of sulphur dioxide and 46% decrease in carbon emissions from electricity. Further reductions are expected as Ontario continues to phase out coal-powered electricity from the provincial grid by 2014.

Organizations and municipal governments are rolling out substantive programs to divert residential waste, reduce energy and water use, and restore the natural environment. GTA residents diverted 50% of their waste in 2009, up from 39% in 2006. Electricity consumption is down 5% from 2005 levels thanks to conservation efforts by residents, business and government but also in part because of less activity during the recession. Regional water departments have responded to population pressures on our water infrastructure, implementing programs that have resulted in a 9% decline in per capita consumption from 2006 to 2009.

As our economy recovers and the region's population growth continues, we risk reversing these environmental gains and losing ground on other fronts unless we take measures to build our region more sustainably.

1. Volatile Organic Compounds 2. Particulate Matter 3. Industrial, commercial & institutional 4. Not reported on previously 5. Grading criteria being developed

Challenges

Much of the GTA's growth has occurred in low-density suburban areas. Planning and investments in alternative forms of transportation have not kept pace. Chronic gridlock has become a fact of life, and the human and economic toll is significant. Although overall air quality is improving, smog still contributed to over 4,000 premature deaths in the GTA in 2008.⁴

Our natural ecosystem provides benefits that are under significant threat, with 63% of plant and animal species at risk. Stormwater controls exist in less than 30% of urban areas within the TRCA's jurisdiction (which covers the City of Toronto and parts of Durham, Peel and York). This means that our water quality and the health of our rivers and lakes are severely impacted by pollutants and contaminants washed into storm drains during heavy rain or snow. Every summer, beaches close for days on end due to water safety concerns.

Over 60% of the GTA's waste comes from commercial sources, yet very little data exists on how much is diverted from landfill. Additionally, we lack the capacity to process the waste we do divert.

Promising New Developments

The benefits of a greener GTA are indisputable: quality of life, healthier workplaces, and healthier residents and ecosystem. To truly flourish, we need to recognize the interdependencies in the environmental, social, and economic worlds, and appreciate the business and social case for environmental action and innovation:

- More efficient resource use generates operational and supply chain cost savings
- Environment-related action and innovation can generate incremental economic activity (i.e. energy efficiency initiatives)
- A healthy natural ecosystem helps protect our air and water quality, protects against flooding, reduces our heating and cooling costs, and improves our mental and physical health

The region's leading businesses, governments and agencies have linked environmental performance to bottom line results, becoming innovators in their respective areas. Many organizations are generating economic value and developing specialized, internationally-renowned capabilities in such areas as green technology, procurement of green products and services, building energy efficiency, and smarter waste management.

Other examples of efforts being made to support our region's environmental health include:

- Ontario's coal phase out plan, which is significantly reducing emissions from Ontario's electricity generation
- Ontario's Greenbelt, which protects 1.8 million acres of environmentally sensitive and agricultural land around the Greater Golden Horseshoe
- Ontario's Places to Grow plan for growth and development
- Metrolinx's regional transportation plan
- Municipal residential waste diversion and water conservation programs
- Private and public sector participation in ventures such as:
 - Smart Commute
 - LEED Green Building Rating System
 - Building Owners and Managers Association's Building Environmental Standards program
 - Toronto and Region Conservation Authority's Partners in Project Green
- Initiatives by CivicAction's Greening Greater Toronto to accelerate energy efficiency initiatives in GTA office buildings, and cultivate a local market for sustainable purchasing. Its Greening Canada Fund gives corporations, including TD Bank Group and BMO Financial Group, an innovative way to invest in community emission reduction projects across Canada in exchange for carbon offset credits.

Our region also has a workforce of skilled trades people who are developing and applying skills in the burgeoning clean tech and renewable energy sector; an increased emphasis on environmental education and certification in the school system; and labour, environment and community initiatives such as Blue Green Canada and Green Jobs for All.

Chief Barriers to Progress

- Lack of communication and collaboration between different perspectives and interests (i.e. between landlords and tenants on energy and water efficiency and waste diversion plans)
- Lack of data showing an organization's environmental performance (energy and water use, waste management) and the economic and social benefits of taking action on these fronts
- Lack of incentives to reduce and divert commercial waste, use cleaner energy sources or use alternative forms of transportation

- The short-term nature of the political cycle, which works against longer-term investments in key areas such as urban forest renewal, energy conservation and transportation

Opportunities for Action

What gets measured gets managed

We need to track our region's environmental performance and establish baselines for improvement, to identify where organizations, residents and governments need to align their priorities and investments.

A number of organizations within the region report on **environmental indicators**, including TRCA, CivicAction's Greening Greater Toronto, and other contributors to The Living City Report Card.

We should also quantify the benefits of environmental action to our region's economic progress by tracking environment-related **economic indicators**. They may include the following:

- The number of patents issued by Canadian companies for environmental products
- Output from university and technology hubs (including number of start-ups and references to research papers)
- The number of people hired in the environmental/sustainability area
- The number of new companies created in the environmental industry
- Investment in clean tech by the capital markets, and
- Export revenues from our environmental industry

Actions to address key drivers of environmental performance

Based on The Living City Report Card, five areas have the greatest potential for improving our environmental health:

1) Energy, 2) Transportation, 3) Commercial Waste, 4) Biodiversity, and 5) Water Management. The Greening Greater Toronto Task Force developed three recommendations in each area, focusing on actions to:

- Drive the greatest environmental, social and economic improvement
- Be realistically achievable, and
- Best engage the diversity of governments, households and organizations in the GTA

Energy

1. Explore voluntary energy and carbon labeling

Build on successful initiatives to reduce commercial building energy use underway and consider a voluntary system where tenants and landlords publicly display energy use and carbon emissions information, to raise awareness and motivate more tenants and owners to track energy data and take action.

2. Expand district heating and cooling in the GTA

Create a task force to consider other opportunities for district heating and cooling in the GTA, building on the success of the Enwave system.

3. Facilitate distributed generation

Expand the use of distributed energy by expanding Ontario's feed-in tariff program, improving the grid, and building on efforts at Ryerson's Centre for Urban Energy.

Transportation

1. Encourage use of low-emission, public transportation by employees

Form a working group of public and private employers to develop transportation demand management plans.

2. Form a regional forum to improve service, governance and coordination of public transportation services

Such a forum would help create a seamless public transportation system with integrated services and fares across the region.

3. Advocate for changes to government legislation to green vehicle fleets

Increase the use of electric vehicles and alternative fuels in private and public vehicle fleets by advocating for federal and provincial incentives.

Commercial Waste

1. Educate industrial, commercial and institutional waste generators to promote measurable waste reduction and waste diversion efforts

Promote programs, resources and case histories with benchmarks and best practices for delivering cost-effective waste reduction results.

2. Facilitate communication and consensus between businesses, haulers and processors

Convene a waste working group from across the waste management value chain to identify opportunities and advocate for a review of Ontario's Waste Diversion Act.

3. Increase processing capacity for organic waste

Create incentives to develop organic processing capacity.

Biodiversity

1. Develop and approve natural heritage system plans and strategies

Incorporate plans and strategies to protect and restore natural lands, streams and species into watershed plans across the GTA.

2. "Green" private sector and other corporate lands

Convene a biodiversity working group with Ontario Power Generation and significant GTA landholders to evaluate opportunities and encourage the greening of corporate lands.

3. Protect and renew urban forests

Increase investments in urban forest protection and renewal of municipal lands and public greenspaces.

Water Management

1. Create awareness of our impact on water systems

Create a water initiatives partnership between business and government to implement strategies developed by municipalities and conservation authorities that increase residents' and organizations' awareness of how they can tailor their actions to ensure sustainable, healthy watersheds and a clean water supply.

2. Promote low-impact development in urban areas

Through the water initiatives partnership, initiate a corporate water challenge where businesses commit to reducing the runoff from their properties by 50%.

3. Improve urban flood risk management

Through the water initiatives partnership, undertake a public incentive campaign to install back flow valves on properties at risk of basement flooding.

Questions for Discussion

1. Considering the promising developments and the recommendations outlined above, what actions will improve our region's environmental performance?
 2. Does the action meet our criteria: drive the greatest environmental, social and economic improvement; be realistically achievable; show visible results quickly; best engage the diversity of governments, households and organizations in the GTA?
 3. What will it take to develop this action (incentives, ways to address barriers)?
 4. What's the next step to develop this idea and get it to action?
 5. Are there organizations that are well-positioned to take initial leadership on this action?
-

¹ Statistics Canada. (21 November 2008) *Census Snapshot of Canada—Urbanization*. Accessed January 2011 from <http://www.statcan.gc.ca/pub/11-008-x/2007004/10313-eng.htm>

² Ministry of Finance (Spring 2010). *Ontario Population Projections Update*. Accessed January 2011 from <http://www.fin.gov.on.ca/en/economy/demographics/projections/projections2009-2036.pdf>

³ Greater Toronto CivicAction Alliance & Toronto and Region Conservation Authority (January 2011). *The Living City Report Card*.

⁴ Ontario Medical Association (June 2008) *Local Premature Smog Deaths in Ontario*. Accessed January 2011 from <https://www.oma.org/Resources/Documents/2008LocalPrematureSmogDeaths.pdf>

This paper was prepared by Michael Sharp and Linda Weichel and informed by the work of CivicAction's Greening Greater Toronto Task Force and other experts.