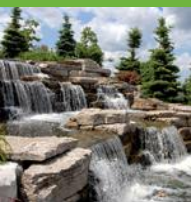


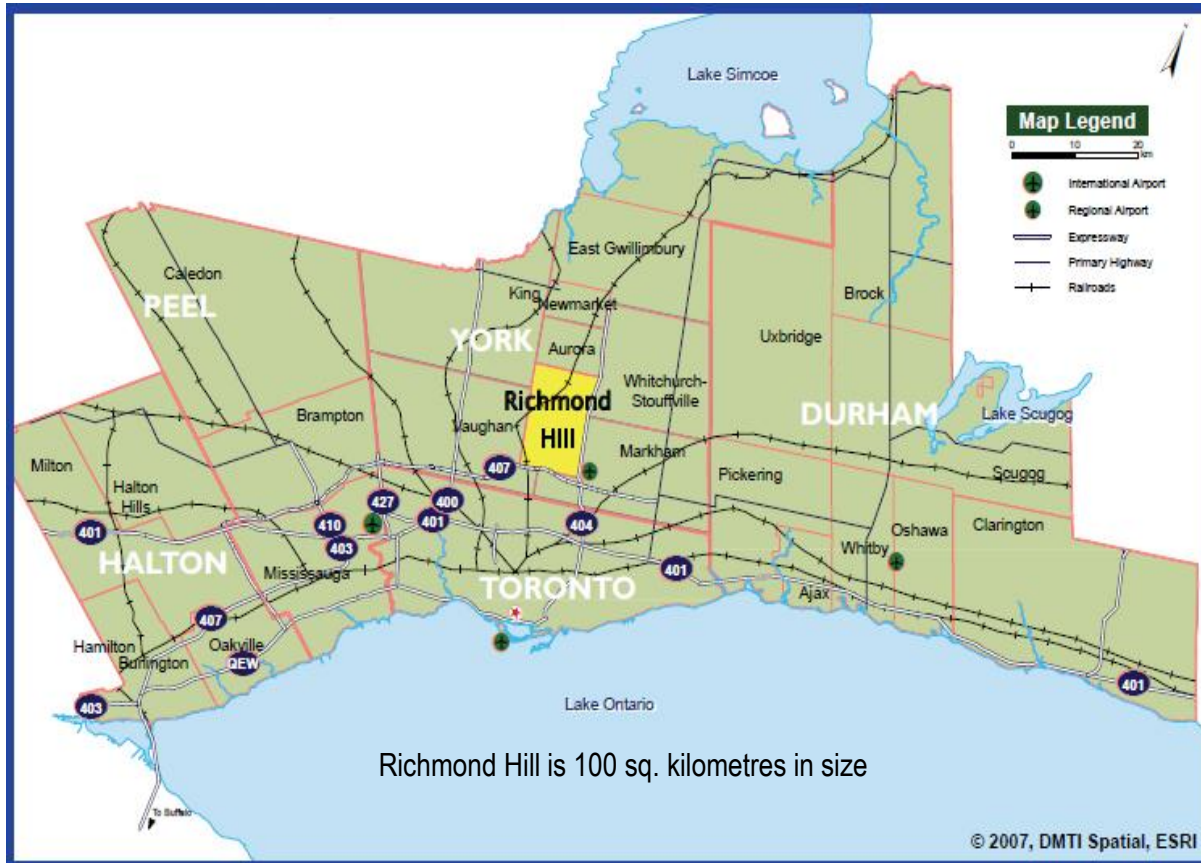
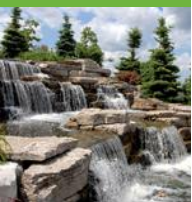


Clean Air Local Action Plan Corporate Update “Achieving Milestone Five”

*Cross Canada Champion
Federation of Canadian Municipalities
2011 Sustainable Communities Conference
February 8, 2011*



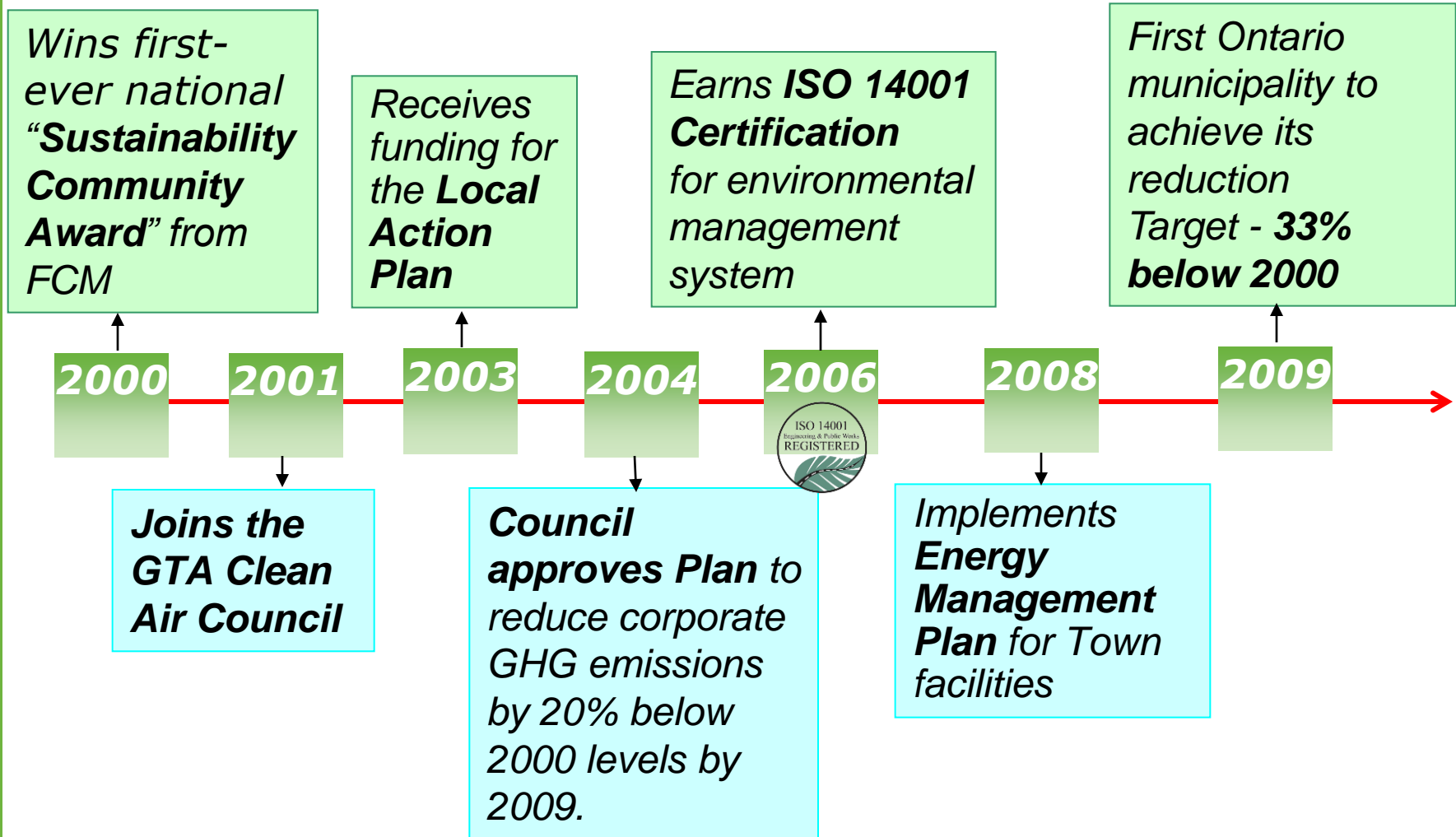
Richmond Hill



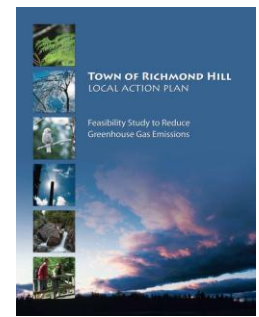
- Located center of the Greater Toronto Area.
- Population of 185,000
- Employment base of 65,000.
- Oak Ridges Moraine



Key Events to Achieving Milestone 5

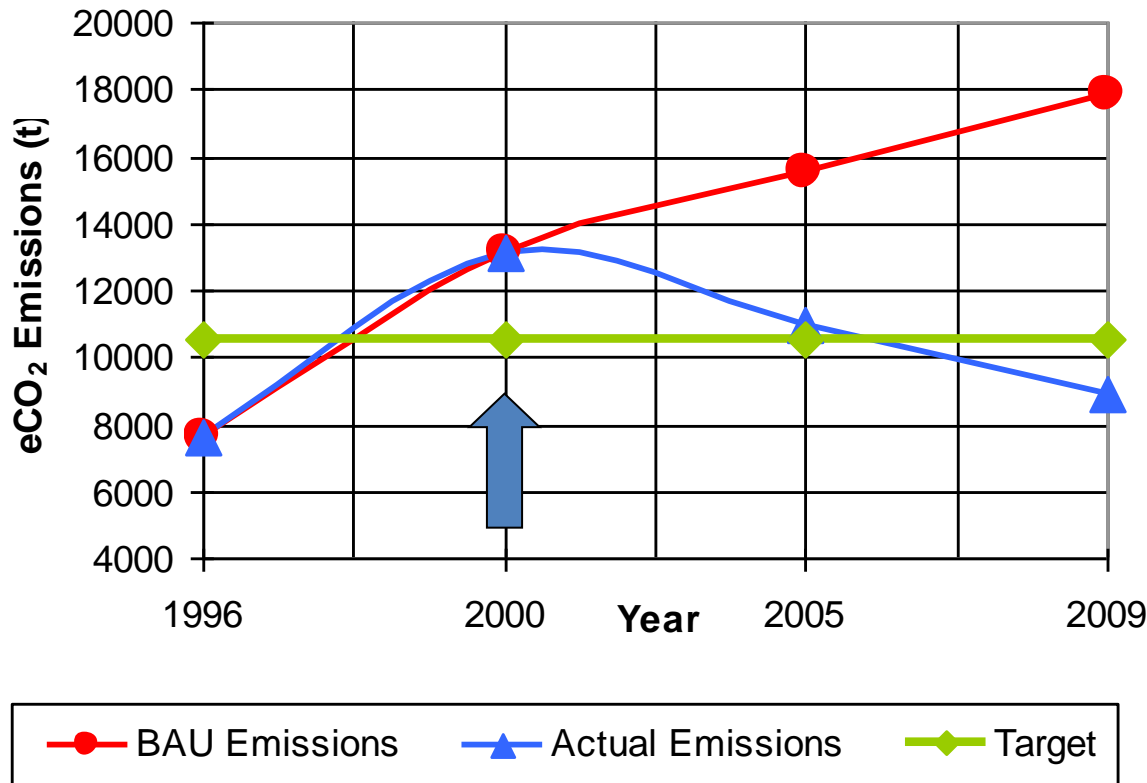


Developing Local Action Plan



| | |
|--|--|
| <p><i>Phase 1</i> Project Start Up</p> | <ul style="list-style-type: none"> • <i>Established multidisciplinary team</i> • <i>Reviewed existing GHG emission inventory</i> |
| <p><i>Phase 2</i> Quantified Historic and Existing Measures</p> | <ul style="list-style-type: none"> • <i>Reviewed and quantified historic and existing energy efficiency measures</i> |
| <p><i>Phase 3</i> Identified Potential New Measures</p> | <ul style="list-style-type: none"> • <i>Reviewed best practices</i> • <i>Identified target emission sectors</i> • <i>Identified emissions reduction actions</i> |
| <p><i>Phase 4</i> Identified GHG Target</p> | <ul style="list-style-type: none"> • <i>Created future emission scenarios</i> • <i>Compared scenarios against BAU</i> |
| <p><i>Phase 5</i> Formulated and Approved Local Action Plan</p> | <ul style="list-style-type: none"> • <i>Target of 20% below 2000 levels by 2009</i> • <i>Approved by Senior Management and Council</i> |

Corporate Emission Achievement



- 2009 total GHG emissions had **decreased by 33%**
- **Exceeded our goal by 13%**
- GHG Emission reductions partly attributed to changes in Ontario electricity generation mix

Sector Profile 2000-2009

Corporate
Growth

Change
in GHG
Emissions

Building

33% increase
in square
footage of
buildings

36% decrease



Fleet

32% increase
in fleet size.
300% increase
in travel usage
(km).

33% increase



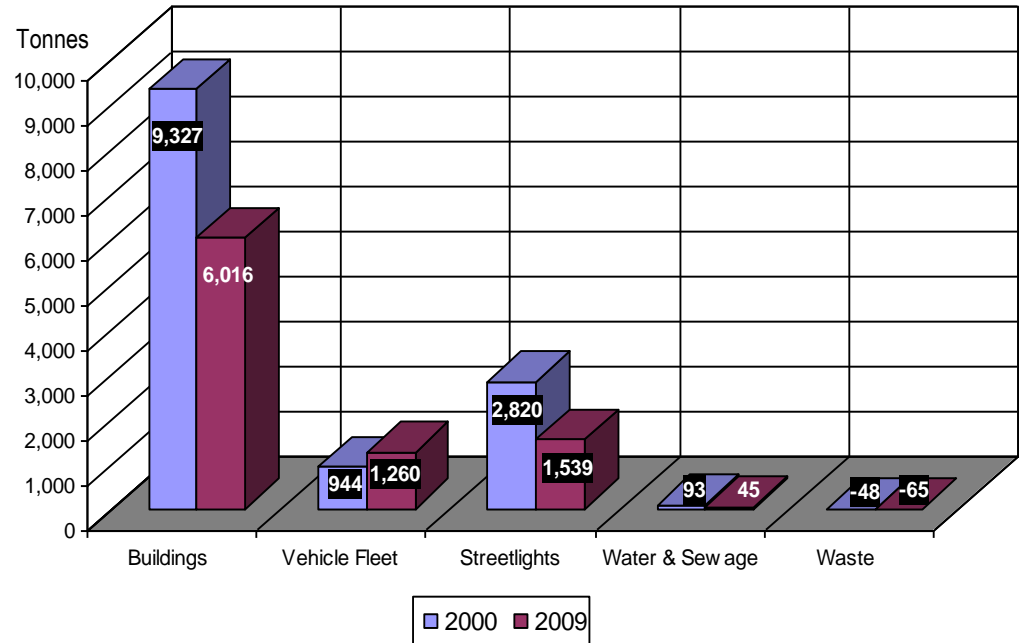
Streetlights

26% increase
in total
number of
streetlights

45% decrease



eCO₂ Emissions Profile



Population grew by 37% or 50,000
from 2000 – 2009.

How did we achieve the reduction?

Building Sector Measures

- Implemented 40 energy efficiency retrofits
- Energy Management Plan
 - Building automation system, energy efficient equipment, lighting retrofits
 - Employee training
- Green purchasing strategies
- Energy Management Policy



- Geothermal for heating and cooling.
- Saves 16 tonnes of CO₂/yr.
- \$200,000 and 13 years pay back.



- Powers the facility.
- Saves 6.25 tonnes of CO₂ / yr.
- \$180,000 and 18 years pay back.



- Saves 5 tonnes of CO₂ / yr.
- \$50,000 and 6 years pay back.

All projects funded through gas tax

Streetlighting, Fleet & Water/Waste Sectors

- **Streetlighting**
 - Converted streetlights from incandescent to high pressure sodium
 - Converted all traffic signals to LED's
- **Vehicle Fleet**
 - Ethanol Blend Gasoline
 - Bio-diesel
 - Hybrid Vehicles
 - Vehicle idling program and monitoring
- **Water and Sewage**
 - Less than 1% of profile in 2000 & 2009
 - Treatment falls under Region of York jurisdiction
- **Waste**
 - Less than 1% of profile in 2000 & 2009
 - Municipal buildings – capture rate:
 - 42.82% organics
 - 89.0% recyclables.



Corporate Events and Partnerships

| Environmental Conservation Events | Saved eCO ₂ | Partnerships for Events |
|-----------------------------------|------------------------|--|
| Earth Hour | 9.86 tonnes |  |
| Clean Air Commute to Work Week | 1.39 tonnes |  |
| Smart Commute (annual) | 120 tonnes annually |  |

Other Partnerships



Challenges and Benefits

Challenges

- *Funding*
 - *Large initial cost for new energy saving technology*
 - *Time to see economic benefits of new initiatives*
- *Data collection*
- *Support for ISO 14001*
- *Staffing resources*

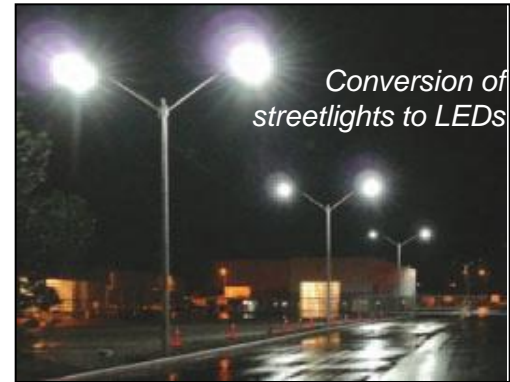
Benefits

- *Mitigating climate change*
- *Improved air quality and public health*
- *Reduced \$7 million in energy cost*
- *Increased value of Town assets*
- *Municipal leadership*
 - *“practice what we preach”*
 - *example for the community*
- *Efficient use of grants, ie. gas tax*



What's Next

- *Continue with the environmental sustainable initiatives*
 - *2.5 % GHG reduction per year from building sector to 2012*
 - *Solar heating for Pool, saving 75 tonnes of GHG per year*
 - *Focus on Green Fleet initiatives (Pilot electric vehicle)*
 - *Continuing and expanding partnerships*
- *Utilize grant money and gas tax for various greening projects.*
- *Community Emissions*





Thank You

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