



# Corporate Environmental Action Plan

Town of Aurora  
August 2010



**AURORA**  
*You're in Good Company*

# Welcome



**Mayor Phyllis M. Morris**

**Located on the beautiful and unique Oak Ridges Moraine**, the Town of Aurora is committed to the protection and management of this environmentally sensitive landscape abundant in natural and historical heritage. The Town of Aurora takes pride in its environmental stewardship actions and is continually working towards greater sustainability.

We are pleased to present you with the Town of Aurora's first Corporate Environmental Action Plan. This plan has been established to prioritize corporate actions with respect to the environment and relies on various Town departments. It not only sets the tone for our Town initiatives, but it also works to contribute to a better global environment by addressing issues such as greenhouse gas emissions and global warming. It takes into consideration that what we do in Aurora can impact areas downstream through the headwaters of the Oak Ridges Moraine.

Aurora Town Council endorsed the development of the plan which was initiated and guided by the Town's Environmental Advisory Committee and developed together with Town staff and a consulting group. Town Council formally adopted the plan on August 17, 2010.

Although this is a formal document which has been developed to set the pace for Town corporate environmental initiatives it should be noted that in Aurora, there are already many existing and ongoing environmental practices and policies that correlate with the Corporate Environmental Action Plan.

This plan is meant to document, solidify and give strength to an already existing corporate culture of environmental leadership. It is a commitment to environmental policy and practice and relies on support from the community to be successful.

We invite you to become familiar with the plan's environmental initiatives. We all have a role in protecting the environment of Aurora – our home, our land and our future.

A handwritten signature in black ink that reads "Phyllis Morris".

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Mayor Phyllis M. Morris

Date

# Acknowledgements

The Town of Aurora’s Corporate Environmental Action Plan (CEAP) would not have been successfully completed without the extraordinary efforts, professional attitude and energy of many individuals, including the Mayor and members of Council, the Environmental Advisory Committee (EAC), the Executive Leadership Team (ELT), and the Environmental Management Team (EMT) over the nine months of this undertaking. Leadership and coordination contributions were made by the following individuals within the corporation: Christina Nagy-Oh, Project Manager (Manager of Environmental Initiatives); and Anthony Ierullo, Project Advisor (Manager of Strategic Initiatives).

The Mayor and Council, EAC, ELT and EMT provided valuable external direction and critique at key points in the process.

The key individuals included:

## **Council**

Mayor Phyllis Morris  
Councillor Bob McRoberts  
Councillor Evelina MacEachern  
Councillor Wendy Gaertner  
Councillor Stephen Granger  
Councillor Alison Collins-Mrakas  
Councillor Evelyn Buck  
Councillor Al Wilson  
Councillor John Gallo

## **EAC**

Peter Piersol (Chair)  
Councillor Evelina MacEachern (Vice Chair)  
Councillor Wendy Gaertner  
Councillor John Gallo  
Gordon Barnes  
David Tomlinson  
Susan Walmer  
Richard Wizemann  
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## **ELT**

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## Executive Summary

The Corporate Environmental Action Plan (CEAP) is a five-year action plan that will allow the corporation of the Town of Aurora to meet its environmental goals. The Plan is based on several consultation workshops and meetings held over the past 17 months to receive input from residents, the business community, staff, senior management and local environmental organizations. The purpose of the Plan is to protect and enhance the natural environment, promote environmental sustainability, integrity and conservation of resources and create a practice of environmental stewardship within the community.

The CEAP is intended to provide corporate direction on key strategic environmental initiatives that will be initiated over the next 5 years. The Plan has been developed to assist Council to plan for and implement specific actions that will improve the Town's environmental performance and impact the sustainability of Aurora for future generations.

The CEAP includes a series of goals, objectives and action items structured around four Elemental themes - Air, Water, Fire (Energy) and Earth (Land). The following provides a summary of the key goals, objectives and action items in each theme area:

**Air:** The primary focus of the "Air" section of the plan is to improve air quality. In order to achieve this goal, the Plan aims to both reduce harmful emissions and develop strategies to adapt to our changing climate. Action items in the Air section include implementing an anti-idling initiative, developing a Green Fleet Plan and establishing greenhouse gas reduction targets.

**Fire (Energy):** The Fire (Energy) section of the Plan is focused on the reduction of energy consumption through energy efficiency measures and renewable energy sources. The objectives of this section address energy efficiency and energy retrofits as well as the use of renewable energy. Action items in the Fire (Energy) section include the implementation of energy management software, energy management retrofits and renewable energy sources at new Town facilities, and supporting the implementation of the *Green Energy Act*.

**Earth (Land):** The purpose of the Earth (Land) section of the Plan is to plan and manage Aurora's ecology. More specifically, the Plan intends to protect wildlife habitat, promote alternate modes of transportation and implement sustainable land use planning. The objectives of this section address wildlife management, green space and streamside naturalization/rehabilitation, sustainable land use planning, sustainable construction projects, transportation demand management, winter road maintenance and waste diversion initiatives. Action items in the Earth (Land) section address linking wildlife corridors, improving landscaping and natural habitats, trails, sustainable construction practices, reducing corporate waste and developing a green procurement policy.

**Water:** The final element of the action plan focuses on reducing corporate water consumption and utilizing storm water management technologies. The objectives of this section address water conservation and storm water management practices. Action items in this section include developing a water loss reduction strategy, enhancing and optimizing the current storm water management facility inventory and improving storm water quality in all new road reconstruction projects.

The success of the Plan will require a coordinated approach to implementation that includes all departments within the corporation. As the Town moves forward with the implementation of this Plan, we will need to continue to build and enhance internal and external partnerships and synergies and commit to continually updating and monitoring this Plan. The Corporate Environmental Action Plan is a prelude to the development of a broader Sustainability vision and Plan for the Town of Aurora.

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# 1. Introduction

## **1.1 About Aurora**

The Town of Aurora is located within the Greater Toronto Area and the growing York Region on the rolling hills of the Oak Ridges Moraine. Aurora is a community of over 50,000 residents that has doubled in size since 1986. This growth is anticipated to continue with an additional 20,000 residents planned in the community by 2031.

The community is also home to over 1,300 businesses including approximately 150 major industries and head offices and features a strong entrepreneurial spirit with over 84% of Aurora businesses employing less than twenty employees. The Town's business community has grown significantly in recent years and this growth is forecasted to continue with an additional 10,000 jobs anticipated by 2031.

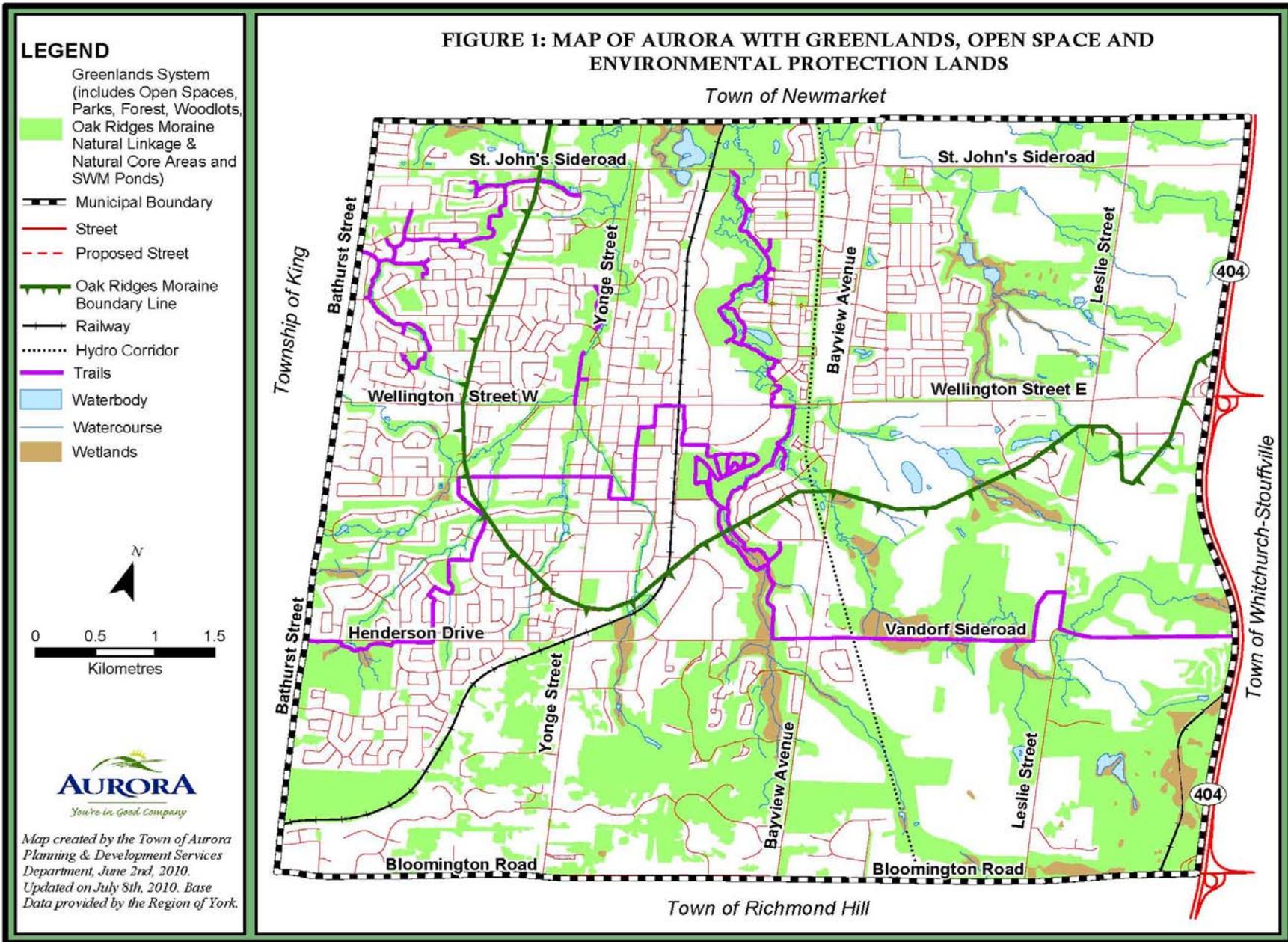
Aurora is a welcoming and dynamic town with a strong sense of community pride and volunteerism. We are committed to healthy and inclusive lifestyles inspired by natural heritage, historic culture, diverse neighborhoods, thriving businesses and natural environment.

Aurora is a mosaic of contemporary living in charming heritage surroundings that continues to attract those looking for the ideal mix of small town friendliness and urban amenities. We are a bustling community that has maintained its small town feel and is a popular residential destination for those who appreciate its central location in the Greater Toronto Area.

Residents enjoy a variety of sporting and cultural facilities, more than 500 acres of parkland, pedestrian trail systems, valley lands, creek system, a community Arboretum, championship golf courses, fine dining, theatre, shopping, and a myriad of community activities. The Town is home to land with soil capability to accommodate agriculture, encompasses three separate headwaters, open spaces, natural areas, wildlife and wildlife habitat/corridors. Figure 1 illustrates Aurora's greenlands, open spaces and environmental protection lands (next page).

The Town of Aurora takes pride in its environmental stewardship actions and is continually working towards greater sustainability. The development of the Corporate Environmental Action Plan reflects the Town's long term commitment to the protection and management of this environmentally sensitive landscape.

**FIGURE 1: MAP OF AURORA WITH GREENLANDS, OPEN SPACE AND ENVIRONMENTAL PROTECTION LANDS**



## 1.2 Background and Context - Corporate Environmental Action Plan

The physical environment – the air we breathe, the land we live on and the water we drink – is the basis for our health, economy and well-being. The environment not only supports human livelihood, it is also an intricate and delicate web of microorganisms, flora, fauna, biodiversity and hydrological cycles. The Corporate Environmental Action Plan (CEAP) is a prelude to the development of a broader sustainability vision that integrates the Town’s environmental commitment with community and economic considerations.



Town Council is committed to supporting, through its plans, policies and initiatives, a vision of a more sustainable Aurora. Based on this commitment, direction was provided to prepare a CEAP with the support and strategic guidance of the Environmental Advisory Committee (EAC). The creation and implementation of the CEAP is a clear indication of Council’s dedication to environmental stewardship – to protect and preserve natural areas, maintain biodiversity and advance key environmental initiatives across the corporation.

The Town also recognizes and values the partnerships and contributions of the community in a number of environmental initiatives. Residents and stakeholders are crucial to the Town’s ongoing success and commitment to continued public engagement across the community. The development of this Plan was based on several consultation workshops/meetings held over the past 17 months to receive input from residents, the business community, staff, senior management and local environmental organizations (see Appendix A for details). The goal of the workshops included developing:

- The purpose and rationale for the CEAP;
- Key themes of the Plan;
- Key goals and objectives;
- Potential Plan outlines; and
- Options for implementation.

Based on the feedback received, an inter-departmental Environmental Management Team was formed and met between August 2009 and August 2010. Initial meetings with the group addressed the structure, context, objectives and goals of the Plan as they related to each department. The later meetings involved discussions relating to action items, environmental indicators and furthering the commitment of leads and supports for each action item. All corporate departments are responsible for the implementation of this Plan.

### **1.3 What is the Corporate Environmental Action Plan?**

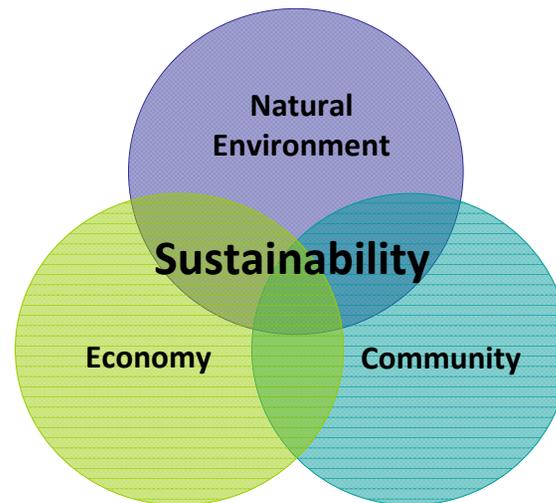
The CEAP is a five-year plan that will allow the Corporation of the Town of Aurora to meet its environmental goals. The Plan focuses on what the Town can do to protect and enhance the natural environment. The Plan also supports the implementation of the Town's Strategic Plan, new Official Plan, master plans, and other ongoing environmental activities. The CEAP planning process, consultation, and outcome will provide the Town with an opportunity to capitalize on past experiences and implement change that will empower Aurora to deliver progressive environmental policies and ensure that all departments are working together to achieve common environmental objectives. The purpose of the Town of Aurora's Corporate Environmental Action Plan is to:

- *Protect and enhance the natural environment;*
- *be a catalyst for local initiatives that promote environmental sustainability, integrity and conservation of our resources and ecosystem; and,*
- *to enhance environmental stewardship within the community.*

## 1.4 Aurora's Sustainability Vision

The CEAP is one step to formalize the Town's commitment to a more sustainable Aurora and is a prelude to the development of a broader sustainability vision that integrates the Town's environmental commitment with cultural, social and economic considerations. Moreover, the implementation of the CEAP will be aided by the development of a Community Sustainability Plan, which will allow the Town to access gas tax funding for environmental initiatives. The Community Sustainability Plan will also develop decision-making processes that integrate factors beyond traditional financial incentives and consider the social, environmental and economic ramifications of our actions as a municipality. The Town's vision for sustainable Aurora is linked to the triple bottom line which demonstrates the interconnectedness of: a) the natural environment; b) the economy; and, c) the community (as illustrated in Figure 2 below). The preparation of a Community Sustainability Plan is planned for 2011 in association with the development of a new Strategic Plan.

Figure 2: Sustainability Vision



### 1.5 Linkages to Other Plans, Reviews and Projects

The Town of Aurora has a number of plans that guide priorities, daily actions and planning for the future (Figure 3 – below). These include plans developed by the Town as well as other jurisdictions that were critical to the development of this Plan. Examples include:

- Town of Aurora’s Strategic Plan;
- Town of Aurora’s Official Plan;
- Oak Ridges Moraine Conservation Plan;
- Community Wildlife Park Master Plan;
- Town of Aurora Parks and Recreation Master Plan;
- York Region’s Sustainability Strategy; and
- York Region’s Official Plan.

Figure 3: Linkages to the Corporate Environmental Action Plan



## 1.6 Aurora's Key Environmental Successes

There are considerable completed, current and ongoing corporate Town environmental actions, activities and initiatives that convey Aurora's environmental successes and commitments. Below is a brief listing of the key successes and actions by elemental theme area. A more comprehensive list of completed successes and ongoing initiatives by elemental theme are noted in Appendix B.

### **Air**

- Installed traffic circles to reduce stops/starts thereby reducing emissions
- Addition of Smart Car to the fleet, 2008
- Installed 17 Idle Free Zone signs at 6 Town owned facilities

### **Fire (Energy)**

- Participated in *York Region Demand Response Program* since 2006 in order to conserve energy during summer months when the electricity demand is at its peak.
- *Greening of Aurora Facilities* – green building technology and retrofits have been installed that will save on gas and hydro consumption and reduce carbon emissions. Examples include: Public Library, Family Leisure Complex and Town Hall.
- *Stronach Aurora Recreation Complex* - The design for this Complex has been recognized by Natural Resources Canada ecoEnergy program as a facility that reduces energy consumption and greenhouse gas emissions.
- *Town of Aurora received 2008 Aurora Chamber of Commerce Business Achievement Awards: Conservation and Environmental Sustainability*
- *Bullfrog Eco-Certified Green Power* - Aurora has committed to purchasing green power in 2008 to 2010 to power Town Hall with green power.
- *Town of Aurora capital projects retrofits for energy conservation.*

### **Earth (land)**

- **Wildlife Park:** The Community Wildlife Park will be approximately 170 Acres and consists of a portion of the East Holland River valley lands and adjacent natural areas located east of Bayview Avenue, between Wellington Street East and St. John's Sideroad, in northeast Aurora.
- Two Town nurseries grow trees and harvest seedling trees from Town woodlots to maintain native genetics
- *The Aurora Community Arboretum* was established in 1996. A Master Plan for the Arboretum was completed in 2005; it provides for a Specimen Tree Collection, education for residents, a Discovery Trail and many other initiatives related to the collection and preservation of trees and shrubs. The Town of Aurora has been a funding partner to the Arboretum's 10 year Implementation Plan since 2007
- *Boardwalks* - Installation of boardwalks over environmentally sensitive areas i.e. wetlands/marshes
- *Fertilizer/Herbicides/Pesticides* - Parks greenhouse operations use biological (beneficial insects) to control non – desirable insects
- *Trails/Woodlots*- Trail systems are constructed using permeable surfaces and are not lit, lowering light pollution levels

- *Use of Eco Friendly Building Materials* - Since 2008 the Town of Aurora uses ecologically friendly building materials where possible when doing renovations, repairs and maintenance to Town of Aurora facilities including: re-using materials, recyclable carpet replacement and low VOC paints and adhesives.
- Installation of bicycle paths and trails where/when possible and published a map/plan showing bicycle routes/trails
- Salt Reduction Plan has documented a decrease in salt use from 200kg/km/lane to 170kg/km/lane.
- Brine tanks have been installed and all Town trucks and (most) contracted trucks are fitted with pre-wetting equipment.

### **Water**

- A holding tank was installed at Ada Johnson Park to catch the runoff from the splash pad and rainwater; water is used to water trees, new sod and annual plant displays around Town of Aurora
- In 2006 the Town changed over 20% of the hanging baskets to a reservoir based container; this has resulted in less frequent watering, less run off and a decrease in vehicular emissions
- Stream bank and erosion control projects restore and protect creeks and water courses, provide vegetation enhancements and buffers

Aurora initiated the retrofit of 4 existing stormwater management facilities accomplishing the following:

- Improved the quality of stormwater runoff by up to 80%
- Reduced the amount of phosphorus entering Lake Simcoe by up to 84 kg/year
- Cut back weed growth in our waterways by 41.6 t/year

## 2. Aurora's Corporate Environmental Action Plan

The Corporate Environmental Action Plan (CEAP) has been structured around the four elements –air, water, fire (energy), and earth (land) – to provide a direct link between the prescribed actions and the natural environment. This elemental theme has strong roots in various historical cultures including those of the Canadian Aboriginal, Hindu, Buddhist, Japanese and Greek. The CEAP includes four goals – one for each elemental theme and a series of objectives supported by a number of action items that are outlined in this section. A summary of the actions – including expected timeframes of ongoing, short (initiated in 1-2 years), medium (initiated in 3-4 years) and long term (initiated in 5+ years) – categorized by each of the four elemental goals, is summarized in Figure 4 .



## Figure 4: Overview of the Corporate Environmental Action Plan (CEAP)

### Air Goal - Improve air quality by reducing emissions and developing a Climate Change Adaptation Plan.



Objective A1: Reduce the town's vehicle emissions & support the reduction of greenhouse gas emissions by town staff & at town facilities

- Action 2.1.1 Implement an anti-idling initiative - **Medium Term** (Page 12)
- Action 2.1.2 Implement the Clean Air Commute program for town staff - **Ongoing** (Page 12)
- Action 2.1.3 Develop a Green Fleet Plan - **Medium Term** (Page 12)

Objective A2: Minimize or prevent the negative impacts that contribute to climate change through harmful emission reductions

- Action 2.1.4 Prepare a Climate Change Adaptation Plan - **Long Term** (Page 13)
  - Action 2.1.5 Establish greenhouse gas reduction targets - **Medium Term** (Page 13)
- 

### Fire (Energy) Goal - Reduce the Town's overall energy consumption through energy efficiency measures and the use of renewable energy sources.

Objective F1: Increase energy efficiency by changing behaviour and retrofitting town facilities/infrastructure

- Action 2.2.1 Phasing in of energy management software - **Medium Term** (page 14)
- Action 2.2.2 Increase awareness about energy management and conservation programs for facilities - **Short Term** (page 15)
- Action 2.2.3 Energy management retrofits of large scale town buildings - **Medium Term** (page 15)

Objective F2: Reduce facilities energy demands, optimize passive solar gains and make use of renewable, on-site generation and district energy options including solar, wind, water, biomass, and geothermal energy

- Action 2.2.4 Investigate renewable energy sources for construction of new town facilities in conjunction with LEED or equivalent - **Medium Term** (page 16)
  - Action 2.2.5 Support the implementation of the *Green Energy Act* within Aurora - **Short Term** (page 16)
- 

### Earth (Land) Goal - Plan and manage Aurora's ecology by protecting wildlife habitat, promoting alternate modes of transportation and utilizing sustainable land use planning.

Objective E1: Protect, preserve, enhance, limit, conserve and/or extend wildlife and wildlife habitat in Aurora

- Action 2.3.1 Development and implementation of wildlife corridors that link major existing areas of important habitat and create connectivity beyond Aurora's municipal borders - **Medium Term** (Page 17, 18)
- Action 2.3.2 Implement the Community Wildlife Park in partnership with various stakeholders - **Short Term** (Page 18)

Objective E2: Improve and enhance the Town's existing green spaces through research on best practices and implementation on a local scale

- Action 2.3.3 Increase ecological landscaping - **Short Term** (Page 18)
- Action 2.3.4 Protect and enhance our natural habitats and improve green space and outdoor recreational areas - **Ongoing** (Page 19)
- Action 2.3.5 Update Aurora's Landscape Standards - **Short Term** (Page 19)
- Action 2.3.6 Improve boulevard conditions to meet enhanced ecological standards - **Short Term** (Page 19)
- Action 2.3.7 Development and implementation of the Arboretum's 10 year Action Plan - **Ongoing** (Page 19)

Objective E3: Implement sustainable land use planning with a view to securing the health and well-being of Aurora

- Action 2.3.8: Develop and implement a Trails Master Plan - **Short Term** (Page 20)
- Action 2.3.9 Protect and enhance the Oak Ridges Moraine – **Ongoing** (Page 21)

Objective E4: Implement sustainable construction practices to reduce waste, incorporate sustainable design and reclaim or recycle materials

- Action 2.3.10 Sustainable Construction and Building Operation Policy - **Short Term** (Page 21)

Objective E5: Promote alternate modes of transportation in order to improve the quality of life of Aurora's residents.

- Action 2.3.11 Promote Transportation Demand Management (TDM) for town staff - **Medium Term** (Page 22)
- Action 2.3.12 Update the Master Transportation Operation Plan - **Long Term** (Page 22)

Objective E6: Enhance environmental responsibility within winter maintenance operations

- Action 2.3.13 Enhance environmental responsibility within winter maintenance operations - **Short Term** (Page 23)

Objective E7: Reduce corporate waste going to landfill disposal

- Action 2.3.14 Reduce corporate waste - **Long Term** (Page 23)
  - Action 2.3.15 Reduce waste at corporate events - **Short Term** (Page 24)
  - Action 2.3.16 Develop a green procurement (purchasing) policy for the town - **Medium Term** (Page 24)
- 

### Water Goal - Reduce corporate water consumption; and utilize stormwater management technologies to improve control of stormwater quantity as well as enhance stormwater quality water resources.

Objective W1: Reduce overall town water consumption

- Action 2.4.1 Reduce corporate water consumption - **Medium Term** (Page 26)
- Action 2.4.2 Develop a water loss reduction strategy - **Long Term** (Page 26)

Objective W2: Enhance the functioning of the current stormwater management facility inventory within the Town of Aurora and reduce the uncontrolled stormwater areas with respect to both quality and quantity.

- Action 2.4.3 Investigate ways to enhance and optimize the functioning of the current stormwater management facility inventory – **Ongoing** (Page 27)
- Action 2.4.4 Review the current stormwater management policy in accordance with Lake Simcoe Protection Plan - **Long Term** (Page 27)
- Action 2.4.5 Improve stormwater quality in all new road reconstruction projects – **Ongoing** (Page 28)

**Timeframes:** • Ongoing: Current • Short Term: initiated in 1-2 years • Medium Term: initiated in 3-4 years • Long Term: initiated in 5+ years

# Air



## 2.1 Air

Air is an essential component of sustaining life on earth. Air contaminants are substances that are not naturally present in the environment or are present in unnatural concentrations that can, in sufficient concentration, adversely alter an environment. They are generally associated with health hazards because of their persistence, toxicity levels or mobility. To minimize local air contamination, the Town is committed to:

- Reduce contributions to air pollutants entering atmosphere;
- Improve health conditions; and
- Reduce haze and smog.

The action items in this section will help to reduce pollutants entering the atmosphere which will in turn help contribute to an improvement in health conditions, the environment and the economy.

*Air Goal: Improve air quality, by reducing emissions and developing a Climate Change Adaptation Plan.*

The Air Goal is supported by two objectives and five action items.

**Objective A1 (Air Quality)**

Action 2.1.1: Implement an anti-idling initiative

Action 2.1.2: Implement the Clean Air Commute Program for Town Staff

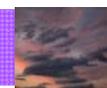
Action 2.1.3: Develop a Green Fleet Plan

**Objective A2 (Climate Change Adaptation)**

Action 2.1.4: Prepare a Climate Change Adaptation Plan

Action 2.1.5: Establish Greenhouse Gas Reduction Targets

## Air

**A1 Objective: Air Quality**

*Reduce the Town's vehicle emissions and support the reduction of greenhouse gas emissions by Town staff and at Town facilities.*

**Action 2.1.1: Implement an anti-idling initiative**

To implement an anti-idling initiative that will include the installation of idle free zone signage at public facilities, schools and transit stations. This will also include the implementation of an anti-idling education campaign for Town staff and contractors.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Administration (Lead) Infrastructure & Environmental Services (Support)	The installation of anti-idling signage at public facilities, schools and transit stations. Annual percentage of staff completing anti-idling training.

**Action 2.1.2: Implement the Clean Air Commute program for Town staff**

To implement the Clean Air Commute program to encourage staff to carpool, ride their bicycle, walk or take transit.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Ongoing	Administration (Lead)	Annual increase in staff participation in the Clean Air Commute Program.

**Action 2.1.3: Develop a Green Fleet Plan**

To develop a corporate Green Fleet Plan that addresses new green fleet procurement and replacement to reduce greenhouse gas emissions. The Plan should consider alternative fuels, higher efficiency vehicles, hybrid and electric options that meet the required need.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Infrastructure & Environmental Services (Lead) Administration (Support)	The preparation of a Green Fleet Plan for Council consideration by 2015.

**Air**



**A2 Objective: Climate Change Adaptation**

*Minimize or prevent the negative impacts that contribute to climate change through emission reductions.*

**Action 2.1.4: Prepare a Climate Change Adaptation Plan**

To develop a Climate Change Adaptation Plan that will assist the Town to mitigate the effects of climate change. This action may consider climate change planning partnerships with other municipalities, Conservation Authorities and York Region.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Long Term	Administration (Lead)	The preparation and presentation of a Climate Change Adaptation Plan for Council consideration.

**Action 2.1.5: Establish Greenhouse Gas Reduction Targets**

To establish greenhouse gas reduction targets that consider benchmarks for energy consumption and greenhouse gas emissions.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Administration (Lead) Infrastructure & Environmental Services (Support)	The preparation of greenhouse gas reduction targets for Council consideration by 2015. Percentage decrease in greenhouse gas emissions from 2010 levels.

## Fire (Energy)



### 2.2 Fire

The demand for energy is anticipated to increase as a result of planned increases in population, the need for additional infrastructure and societal lifestyle changes. By making changes to the way that the Town of Aurora consumes energy corporately, we can reduce spending on utilities, contribute to a reduction in toxins and work towards reducing our reliance on limited energy resources.

Energy efficiency relates to changes in behaviour that result in a reduction in the energy used for various Town services such as heating, lighting, or level of activity. A reduction in energy consumption can be the result of technical changes, better organization and management and improved efficiency.

***Fire Goal: Reduce the Town's overall energy consumption through energy efficiency measures and the use of renewable energy sources.***

The following goal is supported by two objectives and five actions.

#### **Objective F1 (Energy Efficiency and Retrofits)**

- 2.2.1: Phasing in of energy management software
- 2.2.2: Increase awareness about energy management and conservation programs
- 2.2.3: Energy management retrofits of large scale Town buildings

#### **Objective F2 (Renewable Energy)**

- 2.2.4: Investigate renewable energy sources for construction of new Town facilities in conjunction with LEED or equivalent
- 2.2.5: Support the implementation of the Green Energy Act

## Fire (Energy)



### F1 Objective: Energy Efficiency and Retrofits

Increase energy efficiency by changing behaviour and retrofitting Town facilities and infrastructure.

#### Action 2.2.1: Phasing in of energy management software

To implement the use of energy management software in Town facilities and infrastructure including:

- Source and purchase measurement and verification software for hydro load profiling and pro-active load shifting;
- Monitor utility bill usage and track consumption; and
- Optimize energy use for all large scale Town facilities by installing building automated controls and a server based network.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Infrastructure & Environmental Services (Lead)	Annual Percentage per capita reduction in energy use at Town owned facilities.

#### Action 2.2.2: Increase awareness about energy management and conservation programs

To prepare an Energy Management and Conservation Communications Plan that increases staff awareness of energy management and conservation programs.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Administration (Lead) Infrastructure & Environmental Services (Support)	The preparation of an Energy Management and Conservation Communications Plan for Council consideration by 2015.

#### Action 2.2.3: Energy management retrofits of large scale Town buildings

To plan and complete the installation of energy management retrofits at all large scale Town owned facilities. Examples of potential energy management retrofits include purchasing and installing energy efficient HVAC equipment and occupancy sensors for lighting control.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Infrastructure & Environmental Services (Lead)	The completion of planned energy management retrofits prior to 2015. Percentage decrease in energy use at large scale Town owned facilities.

## Fire (Energy)



### F2 Objective: Renewable Energy

Reduce facility energy demands, optimize passive solar gains and make use of renewable, on-site generation and district energy options including solar, wind, water, biomass, and geothermal energy.

#### Action 2.2.4: Investigate renewable energy sources for construction of new Town facilities in conjunction with LEED or equivalent

To develop a renewable energy generation strategy that considers renewable energy sources when planning the construction of new Town owned facilities. This may include considering green energy producers as well as geothermal, wind and solar alternative energy production.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Infrastructure & Environmental Services (Lead)	To develop a renewable energy generation strategy for Town owned facilities as part of a larger sustainable building policy for Council consideration by 2015.

#### Action 2.2.5: Support the implementation of the *Green Energy Act*

To support the implementation of the Green Energy Act through a municipal policy and by-law review to ensure conformity to the Act.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short term	Planning & Development Services (Lead) Building & By-law Services (Support)	Completion of policy review to ensure conformity with the Green Energy Act by 2012.

## Earth (Land)



### 2.3 Earth (Land)

Aurora is over 50 square kilometres in size. The variety of the Town's land assets is a huge part of our economic strength and high quality of life. With development pressures in Aurora, it is important to manage and protect our significant natural resources. The intention of this section is to support the protection of natural areas and their amenities as well as to promote more sustainable, accessible and environmentally compatible land development.

***Earth (Land) Goal: Plan and manage Aurora's ecology by protecting wildlife habitat, promoting alternate modes of transportation and utilizing sustainable land use planning.***

The following goal is supported by seven objectives and sixteen actions.

<p><b>Objective E1 (Wildlife Management)</b>            2.3.1: Development and implementation of linked wildlife corridors            2.3.2: Implement a Community Wildlife Park in partnership with various stakeholders</p>	<p><b>Objective E5 (Transportation Demand Management)</b>            2.3.11 : Promote Transportation Demand Management (TDM) for Town staff            2.3.12: Update the Master Transportation Operation Plan</p>
<p><b>Objective E2 (Green Space and Streamside Naturalization/Rehabilitation)</b>            2.3.3: Increase ecological landscaping            2.3.4: Protect and enhance our natural habitats and improve green space and outdoor recreational areas            2.3.5: Update Aurora's Landscape Standards            2.3.6: Improve boulevard conditions to meet enhanced ecological standards            2.3.7: Development and implementation of the Arboretum's 10 Year Action Plan</p>	<p><b>Objective E6 (Winter Road Maintenance)</b>            2.3.13: Update the Town's Winter Maintenance Policy</p>
<p><b>Objective E3 (Sustainable Land Use Planning)</b>            2.3.8: Develop and implement a Trails Master Plan            2.3.9: Protect and enhance the Oak Ridges Moraine</p>	<p><b>Objective E7 (Waste Diversion Initiatives)</b>            2.3.14: Promote Transportation Demand Management (TDM) for Town staff            2.3.15: Reduce waste at corporate events            2.3.16: Develop a green procurement (purchasing) policy</p>
<p><b>Objective E4 (Sustainable Construction Projects)</b>            2.3.10: Sustainable Construction and Building Operation Policy</p>	

## Earth (Land)



### E1 Objective: Wildlife Management

*Protect, enhance and conserve wildlife and wildlife habitat in Aurora.*

#### Action 2.3.1: Development and implementation of linked Wildlife Corridors

To support the development and implementation of wildlife corridors that link and inventory major existing areas of important habitat and that create connectivity beyond Aurora’s municipal borders.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Planning & Development Services (Lead) Parks & Recreation Services (Support)	Annual percent increase in wildlife corridor habitat.

#### Action 2.3.2: Implement a Community Wildlife Park in partnership with various stakeholders

To work with key stakeholders to implement a Community Wildlife Park in Aurora including the development of a Natural Heritage Significant Wildlife Habitat Plan.

Please see Appendix C for the Map of the TOA Natural Heritage Significant Wildlife Habitat.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Parks & Recreation Services (Lead) Planning & Development Services (Support) Infrastructure & Environmental Services (Support)	The preparation of a Natural Heritage Significant Wildlife Habitat Plan by 2014.

## Earth (Land)



### E2 Objective: Green Space and Streamside Naturalization/Rehabilitation

*Improve and enhance the Town's existing green spaces through research on best practices and local community implementation.*

#### Action 2.3.3: Increase ecological landscaping

To increase ecological landscaping (or naturalization) on public property by:

- Reducing mown turf grass and increasing natural areas where appropriate;
- Reducing grass cutting in perimeter areas that are not actively used;
- Extending the area of natural grassland, woodland edge and increasing the core areas of existing woodlands where possible; and
- Using naturalization incentives to improve and create new wildlife habitat for invertebrates, amphibians, reptiles, birds and mammals.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Parks & Recreation Services (Lead)	Percentage change in mown turf grass.

#### Action 2.3.4: Protect and enhance our natural habitats and improve green space and outdoor recreational areas

To increase the amount of protected and enhanced natural habitats, green space and outdoor recreation areas.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Ongoing	Parks & Recreation Services (Lead) Planning & Development Services (Support)	Annual percentage of natural areas (forested, wetlands, prairie) protected, managed and/or rehabilitated.

#### Action 2.3.5: Update Aurora's Landscape Standards

To update the Parks Maintenance Standards to reflect environmental best practices.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Parks & Recreation Services (Lead)	The preparation of updated Parks Maintenance Standards by 2012.

## Earth (Land)



### Action 2.3.6: Improve boulevard conditions to meet enhanced ecological standards

To consider options for improved boulevard conditions, moving the tree planting zone to behind the sidewalks, increasing soil volume for street tree plantings in new developments and to amend the Development Standards accordingly.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Parks & Recreation Services (Lead) Policy & Development Services (Support) Infrastructure & Environmental Services (Support)	The preparation of amended Development Standards for improved boulevard conditions by 2012.

### Action 2.3.7: Development and implementation of the Arboretum's 10 Year Action Plan

To continue to develop and implement the Aurora Arboretum 10 year Action Plan.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Ongoing	Parks & Recreation Services (Lead) Arboretum Committee (Support)	Number of trees planted each year. Acres of property planted each year.

## E3 Objective: Sustainable Land Use Planning

*Implement sustainable land use planning with a view to securing the health and well-being of Aurora's residents.*

### Action 2.3.8: Develop and implement a Trails Master Plan

To develop and implement a long-term (50 year) Trails Master Plan that promotes a connected off-road, multi-purpose trail network that is accessible, primarily pedestrian oriented and provides the opportunity to experience nature and supports an active healthy lifestyle.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Parks & Recreation Services (Lead) Trails Sub-Committee of Leisure Services Committee (Support) Planning & Development Services (Support)	The preparation and presentation of a Trails Master Plan for Council consideration by 2012. Newly added or upgraded trail length (kilometres) per year.

## Earth (Land)



### Action 2.3.9: Protect and enhance the Oak Ridges Moraine

To continue to protect the Oak Ridges Moraine by enforcing the policies contained in the Provincial Oak Ridges Moraine Conservation Plan, municipal by-laws and the Aurora Official Plan.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Ongoing	Planning & Development Services (Lead) Building & By-law Services (Support)	None

### E4 Objective: Sustainable Construction Projects

*Implement sustainable construction practices to reduce waste, incorporate sustainable design and reclaim or recycle materials.*

### Action 2.3.10: Sustainable Construction and Building Operation Policy

To develop a sustainable construction and building operation policy for Town building and infrastructure facilities that considers:

- LEED (Leadership in Energy and Environmental Design) or corporate new construction policy equivalent;
- Low Impact Development (LID) items, including retrofits;
- Reclaimed, recycled or recyclable and low impact building and construction materials in Town of Aurora facilities and infrastructure; and
- Biodegradable and low impact "green" building cleaning products.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Infrastructure & Environmental Services (Lead) Administration (Support)	The preparation and presentation of a sustainable construction and building operation policy for Council consideration by 2012.

## Earth (Land)



### E5 Objective: Transportation Demand Management

*Promote alternate modes of transportation in order to improve the quality of life of Aurora’s residents.*

#### Action 2.3.11: Promote Transportation Demand Management (TDM) for Town staff

To develop a Transportation Demand Management program for Town staff that includes the consideration of programs and initiatives to reduce single occupancy vehicle use such as:

- Designating carpooling parking spots at Town hall;
- Encouraging employees to actively transport themselves to work (cycle, walk);
- Bicycle rack installment at all Town owned facilities for both staff and residents; and
- Discounted transit passes for Town staff.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Administration (Lead) Infrastructure & Environmental Services (Support) Corporate & Financial Services (Support)	The preparation of a Transportation Demand Management program for Council consideration by 2015.

#### Action 2.3.12: Update the Master Transportation Operation Plan

To update the Town's Master Transportation Operation Study (MTOS) to prioritize pedestrian and cycling activities.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Long Term	Infrastructure & Environmental Services (Lead) Planning & Development Services (Support)	The preparation of a Transportation Master Plan for Council consideration.

## Earth (Land)



### E6 Objective: Winter Road Maintenance

*Enhance environmental responsibility within winter maintenance operations*

#### Action 2.3.13: Update the Town’s Winter Maintenance Policy

To update the draft Winter Maintenance Policy to reduce the potential negative environmental impacts of winter maintenance operations.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Infrastructure & Environmental Services (Lead)	The preparation and presentation of an updated Winter Maintenance Policy by 2012. Reduction in annual road salt usage (tonnes and/or tonnes/lane km).

### E7 Objective: Waste Diversion Initiatives

*Reduce corporate waste going to landfill disposal.*

#### Action 2.3.14: Reduce corporate waste

To develop a Corporate Waste Reduction Strategy that includes:

- a bag tag system and enforce 3 bag maximum;
- a waste, electronic, electrical equipment event;
- an anti-litter campaign;
- single stream recycling at all large scale Town of Aurora Facilities;
- a full recycling program with parks and open spaces;
- reworking of the waste disposal bins within Town of Aurora facilities; and
- a paper towel composting program.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Long Term	Infrastructure & Environmental Services (Lead) Parks & Recreation Services (Support) Administration (Support)	The preparation of a Corporate Waste Reduction Strategy for Council consideration.

## Earth (Land)



### Action 2.3.15: Reduce waste at corporate events

To develop a Corporate Event Waste Reduction Strategy for all user groups using Town property that includes:

- Banning styrofoam on all Town owned properties;
- The use of proper sized containers for recycling (larger), waste (smaller) and compost; and
- Prohibit vendors requiring idling vehicles from being present on Town property.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Short Term	Parks & Recreation Services (Lead) Infrastructure & Environmental Services (Support) Administration (Support)	The preparation of a Corporate Event Waste Reduction Strategy for Council consideration by 2012.

### Action 2.3.16: Develop a green procurement (purchasing) policy for the Town

To develop a Green Procurement Policy for the Town of Aurora and its contractors.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Customer & Legislative Services (Lead) Administration (Support)	The preparation of a Green Procurement Policy for Council consideration by 2015.

## 2.4 Water

Water is a delicate and limited resource. The Town of Aurora will take the appropriate steps towards reducing corporate water consumption in order to contribute to proper management/conservation of available water resources. The corporation is also responsible for managing stormwater. Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment. Stormwater management facilities include stormwater retention and detention ponds, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

***Water Goals: Reduce corporate water consumption and utilize stormwater management technologies to improve control of stormwater quantity as well as enhance stormwater quality.***

The following goal is supported by two objectives and five actions.

**Objective W1 (Water Conservation)**

- Action 2.4.1: Reduce corporate water consumption
- Action 2.4.2: Develop a water loss reduction strategy

**Objective W2 (Stormwater Management)**

- Action 2.4.3: Investigate ways to enhance and optimize the functioning of the current stormwater management facility inventory
- Action 2.4.4: Review the current stormwater management policy in accordance with Lake Simcoe Protection Plan
- Action 2.4.5: Improve stormwater quality in all new road reconstruction projects

**W1 Objective: Water Conservation**

*Reduce overall Town water consumption*

**Action 2.4.1: Reduce corporate water consumption**

To reduce corporate water consumption through increased efficiency techniques such as:

- Computer-automated irrigation systems;
- Water-efficient landscaping; and,
- Rainwater harvesting.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Medium Term	Parks & Recreation Services (Lead) Administration (Support) Infrastructure & Environmental Services (Support) Planning & Development Services (Support)	Annual percent reduction in corporate water consumption.

**Action 2.4.2: Develop a water loss reduction strategy**

To develop and implement a water loss reduction strategy and to develop an unaccounted drinking water report.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Long Term	Infrastructure & Environmental Services (Lead) Administration (Support)	The development of a Water Loss Strategy and Unaccounted Drinking Water Report for Council consideration.

**W2 Objective: Stormwater Management**

Enhance the functioning of the current stormwater management facility inventory and reduce the uncontrolled stormwater areas with respect to both quality and quantity.

**Action 2.4.3: Investigate ways to enhance and optimize the functioning of the current stormwater management facility inventory**

To investigate stormwater management facility retrofits and maintenance to:

- Reduce the amount of phosphorus entering Lake Simcoe via Tannery Creek and East Holland River;
- Restore a self-sustaining coldwater fishery, where possible;
- Improve water quality to meet Town’s, LSRCA, and Lake Simcoe Protection Plan requirements;
- Enhance wildlife habitat along Tannery Creek and East Holland River;
- Revise landscape standards for storm ponds; and
- Sediment removal and cleaning when required.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Ongoing	Infrastructure & Environmental Services (Lead) Planning & Development Services (Support) Parks & Recreation Services (Support)	Number of assumed stormwater management facilities performing as designed.

**Action 2.4.4: Review the current stormwater management policy in accordance with Lake Simcoe Protection Plan**

To review the Stormwater Management Policy including a review of best practices and the implementation of site controls and Low Impact Development (LID).

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Long Term	Infrastructure & Environmental Services (Lead) Planning & Development Services (Support)	The preparation of an updated Storm Water Management Policy in accordance with the Lake Simcoe Protection Plan.

**Action 2.4.5: Improve stormwater quality in all new road reconstruction projects**

To improve stormwater quality for all road reconstruction projects, where possible, by installing oil/grit separators to treat the road pavement storm runoff.

<i>Timeframe</i>	<i>Responsibility</i>	<i>Indicator(s)</i>
Ongoing	Infrastructure & Environmental Services (Lead)	Number of oil grit separators installed per kilometre of street (re)constructed.

## 3. Implementation



The Town of Aurora’s Corporate Environmental Action Plan (CEAP) brings together a number of programs, policies and initiatives that will help to position the Town as a leader in promoting environmental sustainability. The Town will, over the short and long term, place a strong emphasis on achieving the goals and objectives outlined in this Plan. The CEAP demonstrates Council’s continued commitment to protecting and enhancing the environment. To ensure implementation, the Town will need to:

- Integrate the CEAP framework into the day-to-day function of the municipality;
- Maintain and enhance internal and external partnerships; and
- Continually review and enhance this Plan.

### 3.1 Integrate the CEAP Framework into the Day-to-Day Functioning of the Municipality

Key to the implementation of the CEAP is the governance and accountability structures that will be in place to move the Plan forward. The CAO’s office under the Manager of Strategic Initiatives and the Manager of Environmental Initiatives will be responsible for coordinating and monitoring the implementation of this Plan. The following actions will be pursued to successfully integrate the CEAP into the day-to-day function of the municipality:

Item	Suggested Timeframe
CAO to confirm and support the ongoing role of the Environmental Management Team (EMT) to manage the implementation of the CEAP. The implementation team will include representatives from all Departments and will report to the ELT. The CAO’s Office will act as the internal champion for the CEAP and its implementation.	Fall 2010
Individual Departments, with the assistance of EMT, will consider the implementation of this Plan when developing departmental priorities and preparing departmental budgets. A series of Departmental specific summaries of the CEAP implementation actions noted in Section 2 have been developed and will be distributed to each Director.	Annually – consistent with budgeting cycle
Implementation of CEAP to flow through Directors and CAO, who will be responsible for assigning respective departmental staff to implement.	FY11
EMT, through Department Heads, to report to Council by way annual report card regarding the progress of the	Annually starting in

Item	Suggested Timeframe
CEAP's implementation.	2011
Manager of Strategic Initiatives and the Manager of Environmental Initiatives to work in partnership with ELT to develop and implement a Strategic (sustainability) Plan which will include community awareness and education of corporate and community based environmental and sustainability initiatives.	2011 and ongoing
Initiate discussion with Financial Staff to determine options for the creation of a Green Fund to, in part, support the implementation of CEAP. Once drafted, the discussion paper should be submitted for Council review and discussion.	Fall 2010

**3.2 Maintain and Enhance Internal and External Partnerships**

As the Town moves forward with implementation of the CEAP, we will need to continue to build/enhance existing internal (between departments) and external partnerships (with community groups and residents, e.g. Community Arboretum). Further, the Town will continue to take a leadership role with respect to environmental protection and preservation in the community, in part, by establishing any relevant new partnerships.

**3.3 Continually Review and Enhance this Plan**

The CEAP is a 'living plan' that must be recognized by staff and Council as an evolving document. Council is committed to:

- Review and update the Plan every five years;
- Review annual implementation plans in concert with departmental business plans; and
- Prepare an annual report card.

## Appendix A: Public Consultation

Date	Group or Person (s)	Title	Summary
March 17, 2009	Aurora EAC members	Aurora Environmental Program	Layout/Discussion of four categories of; air, water, natural heritage and waste. More details beneath each category of sub headings and potential topics to be included.
April 14, 2009	(Executive Leadership Team)	Aurora Environmental and Sustainability Action (Leadership?) Plan	Why an EAP, Role of EAC, achievements intended for action plan, development of plan, senior management participation (awareness and support, senior. management input, confirmation of funding), next steps, draft list of themes, public consultation meeting dates, implementation. Various actions discussed for major objectives outlined.
April 22, 2009	10 Residents	The Environmental Sustainability Action Plan Spring Public Workshop 2009  Blue sky discussion of key themes and objectives that the Town's Env Action Plan should include.	Discussions of: -climate change, carbon footprint (greening facilities), environmental awareness, sustainable planning, waste diversion, energy (conservation and efficiency/green energy), air quality (transportation, health risk factors to people), green spaces, stormwater management, green roofs, permeable pavement, grey water use, salt management strategy -3 suggestions from working group members/volunteers
April 28, 2009	Mainly Town of Aurora staff Peter P. (Smart Commute), Fausto Filipetto (planning), Henry Tettman (parks), Amanda Newman (Nords), Kristen Yemm (communications), Aaron Karmazyn (LS), Gordon Barnes, Palma Palombi (P.W.), Sabir Hussain (P.W.),	The Environmental Sustainability Action Plan Spring Public Workshop 2009  Blue sky discussion of key themes and objectives that the Town's Env Action Plan should include.	Greening facilities, community environmental initiatives, greening operations etc.

Date	Group or Person (s)	Title	Summary
	Jamal Massaeh (P.W.)		
May 6, 2009	Presenter Christina Nagy-Oh, Facilitator Ilmar Simanovskis  H.VanWeitic (Windfall) Deb PellaKeen (MNR) Jeff Haiti (Windfall) L. Campbell Y. Larouche Gordon Barnes	The Environmental Sustainability Action Plan Spring Public Workshop 2009  Blue sky discussion of key themes and objectives that the Town's Env Action Plan should include.	To gain a clearer vision for where the TOA and community wants to go with environmental initiatives. Discussion of actions to be involved in the Plan. Looking for members to sit on an interdepartmental steering committee.
May 12, 2009	Town Staff	Public Consultation summary Presented to Town Staff	Working list of environmental objectives Goals and Actions that have come out of previous consultation meetings. Objectives, goals and tasks are drafted. Potential steering committee members are discussed.
July 15, 2009	Anca Mihail and Christina Nagy-Oh	Environmental Master Plan discussion (meeting)	- Discussion of env/stormwater initiatives to include in the Master Plan.
July 29, 2009	Christina Nagy-Oh and Aaron Karmazyn		Discussion of Energy Efficiency initiatives, commitment to renewable energy (present and future), Green building initiatives of new facilities, reducing GHG, Climate change adaptation strategy.
August 5, 2009	Peter Horvatt and Amanda Newmann		Discussion of Winter road maintenance strategy, waste diversion initiatives (present and future), greening of the fleet strategy and next steps.
August 18, 2009	EAP Working Group Meeting		To discuss possible frameworks, title of plan, ownership of action items, system of communicating action completion, annual report card (how to gather information), and potential for quarterly newsletter for environmental updates.
August 26, 2009	Meeting with Christina Nagy-Oh, Jim Tree (Parks Manager) and Sara Tienkamp (Parks Supervisor)		Possible frameworks, intended achievements of this Plan, potential environmental parks initiatives suggested and discussed among attendees  Find out which practices are ongoing, past projects and new projects?
September 16, 2009	EAP working group meeting		Title discussion and vote, discussion of quarterly or bi-annual newsletter for env updates to be posted on website, framework update and revisit

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Date	Group or Person (s)	Title	Summary
			previously drafted framework
February 11, 2010	EMT Staff Meeting		Working group met to discuss goals and objectives for EAP based on the draft framework
March 2, 2010	EMT Staff Meeting		Working Group met to review the goals and objectives and discuss ideas for local actions planning
March 4, 2010	Aurora EAC Meeting		Town of Aurora EAP Version 1.0 introduced to committee members but recommended that EAC meeting be reserved to address EAP as only item
April 1, 2010	EMT Staff Meeting		Working Group met to discuss ideas for implementation and performance measurement
April 1, 2010	EAC Meeting	Matters for Consideration: Town of Aurora Draft Environmental Action Plan	DPRAs provided overview of Environmental Action Plan causing discussion among committee members of suggested items and actions. Discussion of edits for EAP.
April 8, 2010	EMT Staff Meeting		EAP Version 3.0 Discussed
April 15, 2010	EMT Staff Meeting		Focus on filling in implementation tables for; indicators/performance measurement, roles and responsibilities and timeframes. Version 4 was provided previous to meeting and comments made from attendees.
April 15, 2010	Aurora Home Show	EAC Booth	Residents had opportunity to ask questions about Environmental Action Plan
May 6, 2010	EAC Meeting	Matters for Consideration: Draft Environmental Action Plan Version 6.0	Discussion of edits for CEAP version 6.0 Went through document thoroughly discussing edits to and suggestions for the Action Plan
May 18, 2010	EMT Staff Meeting		Version 7.3 discussed with respect to each section. Leads and supports were able to communicate with one another in order to improve action items and indicators
May 19, 2010	EMT Meeting – Members of Recreation Department	Action items regarding corporate waste at facilities and at events	
June 9	ELT	details in presentation (notes) obtained (ELT summary notes)	Overview of version 9 of CEAP
June 16	ELT	details in presentation (ELT) folder	Powerpoint, specific action items that we wanted feedback on
July 15	EAC	Presentation and Version 10 of CEAP	Obtain endorsement
July 20	EMT		Email confirmation obtained for finalization of deadlines in the Plan
Aug 17	Council	Presentation and final CEAP	

In order to develop a multi-year environmental and sustainability action plan, several public consultation workshops were held on various occasions to receive input from residents, the business community, staff, senior management and local environmental organizations. These workshops were held in April and May of 2009. Throughout each of the four workshops, the agenda covered topics which included: themes for the environmental plan, discussions on goals of each theme and gaining feedback from attendees on the potential outline of the draft plan. Aurora's strengths, weaknesses, opportunities and threats from the 2006 Strategic Plan were mentioned creating ground work for the CEAP to continue and work upon. After these workshops, a Public consultation summary containing suggested objectives and actions was presented to Town staff.

With respect to content of information discussed, the first goal of these public workshops was to create a general understanding of why this Environmental Action Plan was being developed. Discussion of Goal C in Aurora's 2006 Strategic Plan (to promote a healthy environment that fosters social and physical well being) provided background information for the need to develop and implement an Environmental Master Plan. The consultations then went on to discuss the basic outline for the Plan which was to create objectives that the Town intends to achieve with the Plan, generate goals of these objectives to guide actions and implement tasks to achieve each desired objective and goal. An example relating to Air quality was discussed to provide further understanding of how the objectives, goals and tasks were to be designed throughout the Plan. Finally, the public consultation meetings addressed how the Plan would be implemented by introducing the idea of an interdepartmental environmental management team made up of lead staff members who have environmental components to address in their positions.

A number of EMT meetings occurred from February to May of 2010. Initial meetings with this working group addressed the objectives and goals of the Plan as they related to each department. The later meetings involved discussions relating to action items, environmental indicators and furthering the commitment of leads and supports for each action item.

Drafts of the Corporate Environmental Action Plan went to the Aurora Environmental Advisory Committee on three separate occasions. The first time that EAC was introduced to the Plan was on March 1<sup>st</sup>, in which Version 1.0 was provided. On April 1<sup>st</sup> and May 6<sup>th</sup>, EAC received more completed versions of the EAP thoroughly discussing edits and addressing major concerns for consideration.

## Appendix B: Listing of Completed, Current and Ongoing Town of Aurora Environmental Initiatives, Activities and Actions

The following Appendix provides a listing of key (i.e. not an exhaustive listing) completed, current and ongoing Town of Aurora environmental initiatives, activities and actions – grouped by elemental themes (air, fire, earth (land), and water).

### **Air**

- *Greening of Fleet* - In 2010 the Town of Aurora will commence with Hybrid options for all tenders for new ½ tonne, full tonne and passenger vehicles.
- Installed traffic circles to reduce stops/starts thereby reducing emissions
- Addition of Smart Car to the fleet, 2008
- Installed 17 Idle Free Zone signs at 6 Town owned facilities

### **Fire**

- *York Region Demand Response Program* - Since 2006 The Town of Aurora was one of the first active municipal participants in Ontario and York Region with the Provincial Demand Response program to conserve energy during summer months when the electricity demand is at its peak.
- *Greening of Aurora Facilities* – Investments have been made in green building technology and retrofits that will save on gas and hydro consumption and reduce carbon emissions. Examples include: Aurora Public Library, Aurora Family Leisure Complex and Aurora Town Hall.
- *Stronach Aurora Recreation Complex* - The design for this Complex has been recognized by Natural Resources Canada ecoEnergy program as a facility that reduces energy consumption and greenhouse gas emissions.
- *Earth Hour* - The Town of Aurora participated in Earth Hour 2008, 2009 and 2010. Otherwise known as the “Hour without Power,” a global energy conservation movement.
- *Count Me In Challenge* - Provincial hydro conservation initiative requesting the curtailment of electricity consumption on August 14, 2009. This initiative also tracks resident, organization and business participation in the Town of Aurora through active web based pledges made prior to August 14, 2009.
- *Power Stream Retro-fit Savings Blitz* - In 2009 PowerStream and the Ontario Power Authority were offering up to \$1000.00 in retro-fits grants to replace existing electrical fixtures with high efficiency fixtures at each location with electricity consumption below 50 kW. The Town of Aurora participated in this program by retrofitting exit lights at municipal facilities with high efficiency LED exit lights.
- *Town of Aurora received 2008 Aurora Chamber of Commerce Business Achievement Awards: Conservation and Environmental Sustainability*

- *Bullfrog Eco-Certified Green Power* - The Town has committed to purchasing green power in 2008 to 2010. In a pilot project along with the Region of York, the Town of Aurora will power its Town Hall with green power purchased through Bullfrog Power. Bullfrog power guarantees re-investment in Eco-Certified Green Power generation within Ontario which ultimately reduces carbon emissions and develops sustainable power generation through investment in type II low-impact hydroelectric projects and type III wind power projects.

### **Earth (land)**

- **Wildlife Park:** The Community Wildlife Park consists of a portion of the East Holland River valley lands and adjacent natural areas located east of Bayview Avenue, between Wellington Street East and St. John's Sideroad, in northeast Aurora. A portion of the lands is under the management of Ducks Unlimited Canada while the balance is lands conveyed to the Town through development agreements. The Community Wildlife Park is a policy directive of the Town's Official Plan Amendment No.30, the Bayview Northeast Area 2B Secondary Plan which identified the need to protect this wetland complex and associated environmental features. It also sought to apply management policies to address setbacks, extensive landscaped buffers, active management of water levels, and management of adjacent forests and open fields primarily in order to increase wildlife habitat and diversity. The Town and various stakeholders (LSRCA, MNR DUC, York Region and the 2C lands Developer's Group) have formed a working group committee in order to complete a Master Plan for the Community Wildlife Park.
- **Tree Cutting By-law**
- Two Town nurseries grow trees and harvest seedling trees from Town woodlots to maintain native genetics
- Planting of trees/shrubs for erosion control along stream banks and to improve water filtration in the streams
- *The Aurora Community Arboretum* was established in 1996. A Master Plan for the Arboretum was completed in 2005; it provides for a Specimen Tree Collection, education for residents, a Discovery Trail and many other initiatives related to the collection and preservation of trees and shrubs. The Town of Aurora has been a funding partner to the Arboretum's 10 year implementation plan since 2007.
- *Boardwalks* - Installation of boardwalks over environmentally sensitive areas i.e. wetlands/marshes
- *Fertilizer/Herbicides/Pesticides* - Eliminated phosphorus (spring 2008) from fertilizer applications
  - Starting in the early 1990's significantly decreased the use of herbicides/pesticides using improved cultural practices and Integrated Pest Management (IPM) until the Provincial ban in 2008
  - Parks greenhouse operations use biological (beneficial insects) to control non – desirable insects
- *Trails/Woodlots* - Trail systems are constructed using permeable surfaces e.g.: limestone screenings and woodchips
  - Brush/limbs/logs from tree work within our woodlots are left to bio-degrade on the forest floor and to provide habitat for amphibians, invertebrates, birds and animals.
  - Trails through woodlots, grasslands and open spaces are not lit, lowering light pollution levels
  - Aurora Wood Lands Management Plan was updated in 2009 to assist in the management, long term health and sustainability of our forestry resources
- *Plant Material* - Drought tolerant hardy plant material (trees/shrubs/perennials/annuals) are selected whenever possible for planting in landscapes, on boulevards and in green spaces

- Researching sustainable grass species and/or alternatives for boulevard planting through test plots
- Over seeding of sports fields with grasses which are more drought tolerant, disease and play resistant
- *Street Tree Management* - Completion of Street Tree Inventory for all existing street trees to aid in the management, health care and performance of our vast street tree inventory, this important tool assists in tracking pest infestation and other tree health issues, which enables staff to respond with appropriate action in protecting our urban forest. In the future the Street Tree data will be used as the basis to calculate the level of carbon sequestration provided by our urban forest
- *Landscape Standards* - Boulevard Construction/Street Tree Planting details changed for new developments to increase health and longevity of trees on municipal boulevards. This includes streetscaping and examining research related to diversifying tree species and varieties.
- Oak Ridges Moraine Land Trust and York Region Land Securement Committees
- Updating the Town's Official Plan
- *Use of Eco Friendly Building Materials* - Since 2008 the Town of Aurora uses ecologically friendly building materials where possible when doing renovations, repairs and maintenance to Town of Aurora facilities including: re-using materials, recyclable carpet replacement and low VOC paints and adhesives.
- All of the Town's traffic signals along Yonge Street are equipped with transit priority.
- The Town has been working to install bicycle paths and trails where/when possible
- The Town has published a map/plan showing bicycle routes/trails
- *Boulevard Grass Experiment* - Testing various turf grasses to see which has the highest tolerance to road salt on our boulevards
- A Salt Management Plan has been commissioned
- Salt Reduction Plan has documented a decrease in salt use from 200kg/km/lane to 170kg/km/lane.
- Salt is stored indoors and rests on an impermeable floor to reduce contamination to the environment.
- All future half-tonne winter maintenance trucks will be tendered with a hybrid option.
- Identification of a permanent snow-storage area that will be paved to stop direct infiltration to the soil (which could contaminate groundwater).
- Brine tanks have been installed and all Town trucks and (most) contracted trucks are fitted with pre-wetting equipment.
- Streets, sewers, catchbasins, etc. are cleaned on a regular scheduled basis to remove the build-up of sand from winter road maintenance activities. Water used to wash off salting equipment/vehicles is discarded in a sanitary sewer and treated through an oil-grit separator. Some Town owned winter maintenance vehicles have pollution mitigating features
- Five recently purchased 2010 half-tonne trucks have flex-fuel capabilities allowing them to be powered by a percentage of biofuels
- *Mixed Recycling Program at all Town Facilities*- Blue boxes with mixed recycling receptacles are now located at all Town of Aurora facilities including recreation centres, arenas, pools, library and Town Hall
- Recycling (blue box), source separated organics (green bin) and extra yard waste pick-ups are provided to households
- Garbage pickup has been reduced to bi-weekly; blue and green bin pickups are weekly

**Water**

- A holding tank was installed at Ada Johnson Park to catch the runoff from the splash pad and rainwater; water is used to water trees, new sod and annual plant displays around Town of Aurora
- In 2006 the Town changed over 20% of the hanging baskets to a reservoir based container; this has resulted in less frequent watering, less run off and a decrease in vehicular emissions
- Odd and even watering days to reduce water consumption
- Drinking water quality management system has been developed and implemented
- Stream bank and Erosion Control Projects restore and protect creeks and watercourses, provide vegetation enhancements and buffers
- Continuous investment in water loss prevention
- Snow Disposal Facility is being built to improve impacts to stormwater quality runoff
- A Snow Disposal Facility is being built to manage snow removal within the Town in order to better control contaminated meltwater from entering important groundwater resources.

## Appendix C: Map of Aurora Natural Heritage Significant Wildlife Habitat

