



### **3.0 BACKGROUND:**

The Environmental Management Plan (EMP) provides a framework for a comprehensive review of City operations and services to identify past, present, or potential (future) environmental impacts that might result from the City's activities, and establish actions to improve environmental performance.

The EMP is administered by the Senior Environmental Co-ordinator with support from the Environmental Management Team (EMT). The EMT includes representation from various City departments, including the Burlington Economic Development Corporation and the Sustainable Development Committee. Members of the EMT provide assistance for EMP workshops and other City environmental initiatives being planned or undertaken by the various environmental teams (see Appendix A for a list of teams and members).

The City's Strategic Plan, Future Focus V, commits the City to a number of goals under Environmental Leadership, specifically Environmental Management.

In 2000, Council approved the following Environmental Mission Statement:

*The Corporation of the City of Burlington will be a leader in making a high level of environmental performance one of the primary goals for its policies, programs and operations through protecting and enhancing the natural environment so as to achieve the highest quality of life for its citizens of today and tomorrow.*

### **4.0 DISCUSSION:**

#### **4.1 Environmental Management Plan**

In 2003, the EMT hosted 11 workshops with city staff (see Appendix B for a complete list of workshops). Nine workshops were with RPM staff on maintenance activities ranging from turf, fields, and roadways, to forestry and cemeteries. Workshops were also held with engineering staff on stormwater management and fire department staff on emergency response and fire suppression.

Throughout the workshops, EMT members were impressed by the environmental awareness of staff participants. As an example, Roads and Parks Maintenance staff minimize waste through the re-use and repair of materials, resulting in cost savings to the corporation. Facilities staff have arranged for used fluorescent lights from City Hall to be picked-up and recycled. There are other areas where efforts could be focused to reduce waste or increase recycling. Currently, styrofoam is not picked-up for recycling at City Hall (although storage has been identified as an issue). There is no standard for individual departmental printers to duplex documents (double sided), which would result in a paper and cost saving.

Staff appear to adhere to the Halton Smog Response Plan to reduce our impact on air quality, however, occasionally complaints are received regarding city vehicles idling excessively. Legislative requirements are adhered to, such as emissions testing and proper disposal of hazardous waste under the Ministry of the Environment's Hazardous Waste Information Network (HWIN). For example, a company picks up and properly disposes of the waste chemicals produced in the City's print shop.

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Facilities staff continue to look at energy conservation measures, however, an energy tracking system is required to measure success. As well, a comprehensive audit of facilities should be completed to identify areas where significant energy savings could be achieved, resulting in a capital improvement plan.

Ongoing education and training of staff should be continued, particularly in areas of environmental compliance and best practices.

A summary of key aspects identified during workshops held from 2000 to 2003 is provided in Appendix C. The summary is intended to highlight the areas where City staff have been successful at implementing best practices as well as those situations that require some research and possibly additional resources to implement.

### ***2004 Action Items:***

- ❑ *Work with facilities staff to develop a plan for energy conservation of city facilities. Investigate renewable energy sources and green building practices for new buildings and retrofits (refer to Partners for Climate Protection).*
- ❑ *Continue to work with staff to identify areas where waste can be minimized and resources saved.*
- ❑ *Encourage purchase of green products.*
- ❑ *Cooperate with Future Focus VI team to suggest targets for next corporate strategic plan under Environmental Leadership.*
- ❑ *Work with forestry staff to identify funding options to complete an urban tree inventory.*

## **4.2 Environmental Management Team**

Beyond supporting the City's Environmental Management Plan, members of the Environmental Management Team have been extensively involved in other activities to improve and protect the local and regional environment. In 2004, the Team will be focussing its resources particularly on two outstanding action items from Future Focus, specifically the development of Environmental Performance Measures and Indicators, as well as the implementation of Guidelines for Sustainable Community Decision Making.

The following provides an update on the work teams created under the EMT, as well as several other environmental initiatives where city staff are involved:

### ***Healthy Green Spaces***

In order to implement the action items in the City's *Healthy Green Spaces Strategy for Public Lands*, a Naturalization Sub-committee was formed with representation from staff, local organizations, and lawn care businesses. The Healthy Green Spaces Committee also worked closely with the Region's Inter-municipal Pesticide Review Committee (Partners for Naturally Green) on a public education program to reduce the use of pesticides.

### ***2004 Action Items:***

- ❑ *Ongoing implementation of the Healthy Green Spaces Strategy for Public Lands and the Public Outreach and Education Program to reduce the use of pesticides on private property, in conjunction with the regional Naturally Green Partnership.*
- ❑ *Further investigation of a regulatory option requiring that the pest control industry be accredited in Integrated Pest Management with a report to Council.*

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- ❑ *Monitoring of other municipal pesticide reduction initiatives and by-laws.*

### ***Air Quality Initiatives***

There were fewer Smog Advisories issued by the Ministry of the Environment in 2003 for Burlington, likely related to the cooler weather experienced from June to September. The ministry issued 5 events, spanning a total of 13 days. Each smog advisory or event can last greater than one day. In comparison, in 2002, Burlington experienced 9 smog events totalling 18 days and in 2001 there were 7 events totalling 23 days.

Environment staff continue to work closely with key departments to ensure the Halton Smog Response Plan is implemented during the smog season. An update report was submitted to Council in September 2003 (refer to CD-123-03).

In June, staff implemented a community anti-idling awareness campaign which included signage at municipal and GO Transit facilities, as well as Burlington schools. Funding for the signs was obtained from the local chapter of TD Friends of the Environment Foundation. The campaign also included distribution of posters, bookmarks and window stickers within the community. Volunteers from the Aldershot Community Council assisted with a community based social marketing campaign where drivers at the Burlington GO Train station and a local school were reminded to refrain from idling.

Staff continued to participate with the Halton Partners for Clean Air and GTA Clean Air Council (GTA-CAC) organizations. Councillor Lougheed represented the City at the Toronto 2003 Smog Summit in June, signing the Declaration for Cleaner Air that commits the GTA-CAC members to reducing negative impacts on air quality.

Another air quality initiative included staff participation in the Environment Canada/Go for Green "Commuter Challenge". The event challenged staff to refrain from commuting to work in single occupancy vehicles. Continued participation in this event helps us to raise awareness of how we can reduce our impact on air quality by choosing an environmentally responsible way to commute to work, such as taking transit or cycling.

Council should also be commended for approving funding to pilot the use of bio-diesel fuel for non-licensed off-road equipment in 2003. The city received positive media coverage particularly for utilizing the biodiesel fuel in the generator that powered City Hall following the black-out.

### ***2004 Action Items:***

- ❑ *Report to Council with an update on the 'anti-idling' education program and present an anti-idling by-law for consideration.*
- ❑ *Ongoing implementation of the Smog Response Plan.*
- ❑ *Participate in "Go for Green's" Commuter Challenge during the national Environment Week to encourage staff to reduce their use of single occupancy vehicles for commuting.*
- ❑ *Participate in the Mayor's Megawatt Challenge.*

### ***Energy Conservation***

In 2002, the City of Burlington joined Partners for Climate Protection (PCP), a joint initiative by the Federation of Canadian Municipalities and the International Council for Local Environmental Initiatives to support the reduction of greenhouse gas emissions by municipalities. In 2003, staff

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embarked on an inventory of corporate and community greenhouse gas (GHG) emissions to meet Milestone One for PCP.

A significant way of reducing GHG emissions is through the implementation of energy conservation measures, which also has the co-benefit of improving air quality. Community interest certainly peaked in this area in August following the blackout which affected Ontario and many of the northeastern states. The federal government announced a grant program for homeowners making improvements to their homes to increase their energy efficiency. Staff arranged for representatives from the Elora Centre for Environmental Performance, a non-profit organization, to make a presentation to Council on the Halton Residential Energy Efficiency Project (REEP). REEP is a home audit where energy conservation measures are recommended to homeowners. In order to qualify for a grant, homeowners must have a home audit completed. A request was made for the City to subsidize the cost of the audit for homeowners which is pending the budget approval process.

### ***2004 Action Items:***

- ❑ *Complete Milestone Two for PCP by confirming GHG emission reduction targets and Milestone Three by completing a Local Community Action Plan for GHG emission reductions.*
- ❑ *Recommend that Future Focus VI include action items to support energy conservation and renewable energy.*
- ❑ *Consider the feasibility of utilizing renewable energy (earth energy) for the Waterfront Centre.*
- ❑ *Investigate partnership opportunities with Positive Power related to the feasibility of developing a wind turbine in Burlington/Halton.*
- ❑ *Create a corporate Energy Demand Management team to develop an energy management plan for city facilities.*

### ***Burlington Sustainable Development Committee***

Environment staff continue to liaise with the Sustainable Development Committee (BSDC) and support their work on the State of the Environment Report II. The BSDC continues to support the public awareness and education campaigns for pesticide reduction and anti-idling by distributing information and assisting at special events, such as the June Pesticide Exchange organized by the Naturally Green Partnership.

The Guidelines for Sustainable Development Committee, developed by the BSDC, are intended to be used by staff for assessing policies, programs, and projects and have been endorsed by Council. EMT members are currently contacting other municipalities to obtain and review similar guidelines and/or policies and gain an understanding of the effectiveness of their approaches.

### ***2004 Action Items:***

- ❑ *Continue to support and assist the BSDC in their environmental initiatives, including the completion of the SOER II.*
- ❑ *Report to council with a recommendation on how to proceed with sustainable community decision making within the corporation.*

### ***Hamilton Harbour Remedial Action Plan***

City Engineering staff joined the Hamilton Harbour Remedial Action Plan (RAP) Technical Team

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to prepare the "1996-2002 Contaminant Loadings and Concentrations to Hamilton Harbour" Report. This report is being prepared to continue the work started with the "1990-1996 Contaminant Loadings and Concentrations to Hamilton Harbour" Report put together by consultants and the RAP Technical Team in June 1998. A good understanding of the state of concentrations and loadings to the Harbour is an important tool to guide remedial actions in the years to come as well as monitoring progress toward the future delisting of the Harbour. The revised report is expected in spring/summer 2004.

City staff continue to participate in BAIT (Bay Area Implementation Team), which is responsible for implementing RAP recommendations. One key RAP objective which the City implemented since the last update was the enactment of the Site Alteration By-law by Council in January 2003. Staff also participate on the Watershed Planning Network (WPN), whose membership includes staff from the RAP office, the Bay Area Restoration Council, Halton Conservation, the Hamilton Conservation Authority, the Cities of Hamilton and Burlington, and Halton Region.

### ***2004 Action Items:***

- *Continued staff participation in BAIT and the WPN to support the implementation of RAP recommendations.*

### ***Migrating Contamination***

Staff are looking at options to deal with situations where contaminants have migrated onto city property, particularly road right-of-ways. The issue of contaminated sites is very complex, and ongoing staff training and education is a key component to a successful approach for the city.

### ***2004 Action Items:***

- *Report to council with an outline of issues and a recommended approach for dealing with these types of sites.*

### ***Anti-litter Campaign***

Environment staff have been assisting Councillor Craven and a volunteer committee of residents, known as CAP (Clean-up Aldershot Project), to develop a pilot anti-litter program for the Aldershot community. Staff have been researching litter campaigns across Ontario, particularly Mississauga and Windsor, that have been very active in these areas. Mississauga specifically has invited municipalities to use their "litter bug" campaign materials for a comprehensive approach and consistent messaging across the GTA. Further to public education and outreach, staff are researching and considering the implications of an anti-litter by-law.

### ***2004 Action Items:***

- *Work with operations and enforcement staff on a report regarding options for an anti-litter by-law and expanded public education and awareness program to reduce litter in the community.*

### ***Halton Natural Areas Inventory***

Staff continue to be active participants in a study that will provide detailed information on existing environmentally significant areas, including Environmentally Sensitive Areas (ESAs), Areas of Natural Scientific Interest (ANSIs), and Provincially and Regionally Significant Wetlands. The inventory will help to confirm the boundaries of these areas as well as identify other natural heritage

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features which to date have never been formally inventoried. It will be an important component in developing a natural heritage strategy.

### ***2004 Action Items:***

- *The second phase of the inventory field work will be completed and preparation will begin on the final report.*

### ***Environmental Performance Measures and Indicators***

Performance measures are generally those items over which the organization has direct control, whereas, indicators provide an understanding of where we are on certain issues. The Team responsible for this issue has been researching various environmental measures and indicators that have been adopted by other communities and organizations.

### ***2004 Action Items:***

- *Report to Council on recommended Environmental Performance Measures and Indicators.*

### ***Internal Education & Awareness***

Once again, the EMT arranged for guest speakers to address the committee on environmental initiatives, including Martin Ince who spoke about the development plans for wind turbines in Halton, Hamilton, and Haldimand by the non-profit organization Positive Power. Kevin Mercer, Executive Director of the RiverSides Stewardship Alliance also spoke on the Riversafe Carwash Program.

At its annual EMT workshop, staff toured the Green Venture Eco House in Hamilton to observe various measures homeowners can employ to reduce their use of water and energy. Presentations were also made by Joanne Rzdki, Coordinator of the Hamilton-Halton Watershed Stewardship Program, and Leslie Adams, a volunteer with the Halton-Peel Woodlands and Wildlife Stewardship Council.

Environment staff attended the Canadian Centre for Pollution Prevention's Environmental Roundtable in Calgary; Pollution Probe's conference on Transportation, Air Issues, and Human Health in Toronto, two workshops hosted by Environment Canada on Renewable Energy and the Energy Star Program, the Toronto Smog Summit, and the Canadian Urban Institute's Brownfields Symposium. Staff also attended the Hamilton Harbour Watershed Plan Implementation Municipal Planning Workshop and the Hamilton Harbour Monitoring Workshop.

### ***2004 Action Items:***

- *Continue to invite guest speakers to EMT meetings as well as tour appropriate sites to facilitate continuous education of members on local and regional environmental initiatives.*
- *Staff to attend the FCM Sustainable Communities Conference and the Canadian Centre for Pollution Prevention's Environmental Roundtable.*

## **5.0 FINANCIAL MATTERS:**

A report to council recommended that \$9,000 be budgeted for the Residential Energy Efficiency Project (REEP) to subsidize the cost of home energy audits for homeowners by the Elora Centre for

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Environmental Excellence. Council approved the recommendation subject to the approval of the 2004 current budget.

Environment staff will investigate funding opportunities for energy projects in the city, specifically the waterfront centre and an energy audit for city facilities, through the Federation of Canadian Municipalities and the federal government.

### **6.0 ENVIRONMENTAL MATTERS:**

See Section 4 – Discussion.

### **7.0 COMMUNICATION MATTERS:**

In addition to the resources developed for the anti-idling awareness campaign highlighted under air quality initiatives, staff were very pleased with the local media coverage which included interviews on radio and television, as well as articles in the *Burlington Post* and *Hamilton Spectator*. Other air quality initiatives that received media coverage included the Repair Our Air fleet challenge and the city's use of bio-diesel fuel to power the generator at City Hall following the August black-out. Coverage was also provided on the Green Gardening Forum at the RBG in February, the City and Region's participation in the Toronto 2003 Smog Summit in June, and the International Walk to School Day, promoted by the school boards and Halton Partners for Clean Air, held on October 2<sup>nd</sup>, 2003. The Sr. Environmental Co-ordinator made a presentation on the city's Environmental Management Plan at the Canadian Centre for Pollution Prevention's Environmental Roundtable in Calgary, which was well received by agencies and municipalities in attendance.

Articles were posted in City Talk regarding lawn care and anti-idling. Focus, the City's internal newsletter, included information related to anti-idling, Suzuki's Nature Challenge, and how to have an environmentally friendly holiday season. Staff continued to publish environmental messages in the "Environmental Corner" in the City Update section of the *Burlington Post*. The City's intranet and internet sites are used extensively to reflect the work of the Environmental Management Team as well as the various environmental initiatives underway.

Staff arranged environment displays in City Hall during both Environment and Waste Reduction Weeks. Staff also organized displays for and attended the Green Gardening Forum, the Halton Eco Festival, and a Water Quality Open House at Paletta Mansion.

#### ***2004 Action Items:***

- ❑ *Environment staff will continue to work with the Corporate Communications Section to develop and implement environmental awareness raising and educational programs for staff and community.*
- ❑ *Maintain and update the city's intranet and internet Environment web pages.*

### **8.0 CONCLUSION:**

The first round of workshops has been completed with those departments identified by the EMT that have the potential to have significant impacts on the environment. Future reviews with staff on significant environmental aspects will be planned to record changes or improvements in best

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practices. We will continue to partner with the Sustainable Development Committee to successfully deliver many of our local environmental initiatives.

Respectfully submitted on behalf of the EMT,

Lynn Robichaud,  
Sr. Environmental Co-ordinator

**Appendices:**

A. List of Environment Teams B. List of EMP Workshops C. Summary of Results – EMP Workshops 2000-2003
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**Staff / Others  
Consulted:**

Name	Telephone
Management Committee Environmental Management Team Burlington Sustainable Development Committee Staff participants of EMP workshops	

**Notifications:**

Name	Mailing or E-mail Address
Peter Willmott, Halton Health Department	<a href="mailto:willmottp@region.halton.on.ca">willmottp@region.halton.on.ca</a>
Beckie Jas, Halton Health Department	<a href="mailto:jasb@region.halton.on.ca">jasb@region.halton.on.ca</a>

**Special Instructions:**

Consent Agenda
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## APPENDIX A

### Environmental Management Team & Work Teams

<b>EMT Members</b>	
Mike Hall (former Chair)	Planning – Director
Rosalind Minaji (vice chair)	Planning – Planner
Ken Charles	Purchasing – Supervisor
Teresa Giangregorio	Engineering – Development & Stormwater Management Technician
Scott Gillner	T&T – Project Leader
Rudy Huisman (Chair-2004)	Finance – Financial Planning Services Manager & Deputy Treasurer
Rick Lipsitt	RPM – City Forester
Charlotte O’Hara-Griffin	P&R – Parks Development Planner
Marilyn Ortwein	Burlington Sustainable Development Committee
Jennifer Patterson	BEDC – Business Development Manager
Lynn Robichaud	D&I – Environmental Coordinator
Nancy Shea-Nicol	Legal – Assistant City Solicitor
Fleur Storace-Hogan	D&I – Environmental Projects
Robin van de Lande	Planning – Environmental Planner

<b>Healthy Green Spaces Committee Members</b>	
Tim Commisso (Chair)	Community Services Division – General Manager
Brian Adriaans	RPM – Horticulture Technician
Teresa Giangregorio	Engineering – Development & Stormwater Management Technician
Gavin Kellogg	P&R – Supervisor of Maintenance, Tyandaga Golf
Rick Lipsitt	RPM – City Forester
Rob Peachey	P&R – Parks & Open Space Manager
Lynn Robichaud	D&I – Environmental Coordinator
Nancy Shea-Nicol	Legal – Assistant City Solicitor
Fleur Storage-Hogan	D&I – Environmental Projects
Aline Tso	Burlington Sustainable Development Committee
Helen Walihura	Clerks – Communications Advisor
Alan White	Represents local lawn care industry

<b>Naturalization Committee Members</b>	
Rick Lipsitt (Co-chair)	RPM – City Forester
Rob Peachey (Co-chair)	P&R – Parks & Open Space Manager
Brian Adriaans	RPM – Horticulture Technician
Kim Barrett	Conservation Halton
Harold Dickert	Burlington Sustainable Development Committee
Teresa Giangregorio	Eng – Dev. & Stormwater Mgmt Tech.
Patrick Kehoe	Represents local lawn care industry
Gavin Kellogg	P&R – Supervisor of Maintenance, Tyandaga Golf
Paul O’Hara	The Catholic Cemeteries of the Diocese of Hamilton
Lynn Robichaud	D&I – Environmental Coordinator
Carl Rothfels	Field Botanist & Herbarium Keeper, Royal Botanical Gardens
Fleur Storace-Hogan	D&I – Environmental Projects
Robin van de Lande	Planning – Environmental Planner
Ingrid Vanderbrug	P&R – Landscape Architect
Dave Vyse	Field and Stream Rescue Team

<b>Air Quality Initiatives Committee Members</b>	
Mark Arnett	Fire – Special Projects Manager
Doug Dalgarno	Eng – Design & Construction Manager
Vito Tolone	T&T – Project Leader
Doug Hogan	RPM – Program Development Technician
Doug Richardson	HR – Health & Safety Coordinator
Lynn Robichaud	D&I – Environmental Coordinator
Liz Seaby	Finance – Accounts Payable Clerk
Fleur Storage-Hogan	D&I – Environmental Projects
Gavin Kellogg	P&R – Supervisor of Maintenance, Tyandaga Golf
Helen Walihura	Clerks – Communications Advisor
Grant Zilliotto	Building – Bylaw Enforcement Officer

<b>Anti-Idling Steering Committee Members</b>	
Lynn Robichaud (chair)	D&I – Environmental Coordinator
John Duncan	RPM – Manager of Fleet
Mickey Frost	T&T – Transit Manager
Gail Pashley	Burlington Sustainable Development Committee
Robin MacDouell	Fire – Deputy Fire Chief
Fleur Storage-Hogan	D&I – Environmental Projects
Peter Willmott/Beckie Jas	Halton Region Health Department

<b>Sustainable Community Decision Guidelines Team Members</b>	
Scott Gillner	T&T – Project Leader
Rosalind Minaji	Planning – Planner
Charlotte O’Hara-Griffin	P&R – Parks Development Planner
Lynn Robichaud	D&I – Environmental Coordinator
Fleur Storage-Hogan	D&I – Environmental Projects
Robin van de Lande	Planning – Environmental Planner

<b>Environmental Performance Measures Team Members</b>	
Ken Charles	Purchasing – Supervisor
Rudy Huisman	Finance – Financial Planning Services Manager & Deputy Treasurer
Jennifer Patterson	BEDC – Business Development Manager
Lynn Robichaud	D&I – Environmental Coordinator
Dave Rokosh	BSDC

**APPENDIX B****List of Completed Workshops**

<b>Date</b>	<b>Department</b>	<b>Workshop</b>
<b>2000</b>		
September 28, 2000	T&T	Signals
November 3, 2000	Fire	Training Tower
November 22, 2000	P&R	Pools
<b>2001</b>		
March 2, 2001	RPM	Animal Control
April 11, 2001	RPM	Mechanics
April 25, 2001	T&T	Transit
May 16, 2001	ITS	Mgmt of IT Infrastructure
November 6, 2001	Clerks	Printing
November 27, 2001	Clerks	Administration
<b>2002</b>		
January 21, 2002	P&R	Tyandaga
February 15, 2002	P&R	Programming/Special Events
March 5, 2002	RPM	Operations Centre
April 19, 2002	P&R	Food Services
May 21, 2002	P&R	Arenas
July 16, 2002	P&R	Buildings/Facilities
October 18, 2002	RPM	Winter Control
November 1, 2002	RPM	Signs, Markings
November 27, 2002	RPM	Bikeway, Walkway, Sidewalk Maintenance
<b>2003</b>		
January 9, 2003	RPM	Bed, Field, & Turf Maint.
January 9, 2003	RPM	Waterfront Parks
January 14, 2003	RPM	Playground Structure Maintenance
January 14, 2003	RPM	Leaf & Debris Pick-up
January 21, 2003	RPM	Cemetery Operations/Maintenance
March 4, 2003	RPM	Culverts, Ditches, Creeks, Bridge, Maintenance
March 21, 2003	RPM	Roadway Maintenance
April 3, 2003	RPM	Urban Forest Main.
April 24, 2003	RPM	Ball Diamond Main.
October 17, 2003	ENG	Stormwater Management
November 27, 2003	Fire	Emergency Response

## APPENDIX C

### Workshop Highlights

#### **Air Emissions/Exhaust**

##### Fire Training Tower

Last summer's smog advisories impacted the training of new recruits as burning did not occur on those days. There are plans to install propane burners in 2006 resulting in "clean burns" as only heat is produced, not smoke. A smoke machine that uses mineral oil and water may be purchased in 2004 for training purposes. These combined practices will result in reduced pollutants, especially particulates, from entering the atmosphere compared with regular burns.

##### Arenas

Exhaust results from ice resurfacing practices. All ice resurfacing machines, through normal life cycle replacements, will eventually be natural gas. A condenser upgrade was completed at Central Arena in September 2003. Upgrades combining heavy duty refrigeration and fans, which allow the air to be circulated during resurfacing without melting the ice, are also being considered for Kiwanis, Mountainside, Skyway, and Mainway.

##### Pools

Covers have been placed on tanks to minimize the chlorine fumes that dissipate into the air. An energy management system is in place for all indoor pools. The system shuts down at 10pm and starts back up at 5am. There's an emergency mode if necessary to override the system.

##### Cemetery Operations

The smog response plan is adhered to with respect to turf maintenance equipment but cannot be with burials.

##### Playground Structure Installation

Approximately seven playgrounds are installed each year. Engines are turned off when crews arrive on site. The installations are done in the summer months when schools are closed. Smog Response Plans cannot be adhered to due to scheduling difficulties associated with playground installation.

##### Bed, Field, and Turf Maintenance

Turf machinery are mostly diesel tractor-drawn vehicles. Biodiesel was piloted for non-licensed off-road equipment for five months during the summer of 2003 greatly reducing the amount of pollutants from entering the atmosphere.

Increasing naturalization, a goal of the City's Healthy Green Spaces Strategy, will eventually result in decreased maintenance and reduced use of equipment.

##### Sign Shop

A by-product of making signs is vapour. Silkscreen signs are produced in a ventilated room that is exhausted to the outside and fans are left on until the signs dry.

Animal Control

The incinerator is being decommissioned.

Urban Forestry

Trees are a source of oxygen while also filtering air pollutants. To protect this resource, a tree inventory could be conducted to survey the number of different tree species and their location within the City. Such an inventory would be useful for maintenance purposes and to determine the potential effect to the City's urban forest should a detrimental insect or disease appear.

**Noise**

Some complaints are received each year regarding noise from turf or maintenance equipment. Machines are used in accordance with City bylaws identifying the time of day that such equipment can be used. In addition, research continues into the best machinery for its particular purpose. For example, vehicles due for replacement at Tyandaga Golf Course are being replaced with electric equipment that emit less noise.

**Waste**

Clerks Administration

To minimize the amount of paper used by the City, three departments are participating in a pilot project of document scanning and imaging. The pilot project is already underway for Building and Engineering and will be expanded to the Clerks department in 2004. Documents are increasingly distributed electronically (i.e. Council information packages) or made available online (i.e. Corporate Policy Manual).

Printing Operations

The Clerks department is reviewing printing options that will increase efficiency, using less ink. The print shop is registered with the Ministry of the Environment's Hazardous Waste Information Network and waste chemicals are picked up by a company for proper disposal.

Fire Training Tower and Fire Vehicle Maintenance

Separate drums are used to collect waste oil, coolants, and used oil filters which are then picked up by a contractor. A recycling company also collects used tires and batteries (mainly car and truck).

ITS

Equipment is generally packaged in styrofoam, which is then disposed of in the regular waste stream. Lack of storage space has been cited as an issue in City Hall. Staff will look at future options to recycle styrofoam.

City Facilities

The City is participating in the Mayor's Megawatt Challenge that brings together municipalities from across the GTA to pool their energy management knowledge and experience to achieve at least one megawatt of electrical demand savings during 2003 and 2004.

Burned out fluorescent lights, which contain mercury, are placed in a bin and picked up for recycling.

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Waste compressor oil, which results from draining the chiller in the HVAC systems, is sent to RPM for pick-up and recycling. Recycled oil is used in the HVAC system.

### Arenas

Arenas have recycling units and additional units will be purchased as needed.

A control system has been implemented at Mountainside arena and pool to ensure the proper dilution ratio of cleaners.

### Special events

Staff will consult with the purchasing department to consider future bids for portable toilet units that use “environmentally friendly” products.

### Pools

Outdoor pools have a recycling program and indoor pools have an agreement with the schools giving them access to school recycling programs.

### Urban Forestry

When trees are trimmed or removed, woodchips are produced and used in areas such as parks. Larger limbs are left on site for public pick-up. If they are not collected within two to three days, the wood is taken back to a bin in the works yard for public pick-up.

### Roadway Maintenance and Multi-use Pathways

Waste concrete and waste asphalt are collected by local companies for reuse. Approximately 25 tonnes of asphalt is re-used annually. Hot mixing is not done on smog days.

### Catch basin and creek block cleaning and ditching

Catch basins are cleaned on a rotating schedule by an approved MOE waste contractor and waste is transferred to an MOE approved site. Any ditching that is conducted close to creeks requires approval from Conservation Halton. The material that is collected from ditches is inspected to determine if it is reusable for fill. The disposal site must also be approved by MOE if accepting a large amount of fill.

Creek blocks are generally cleaned after storms. There is ongoing public education to encourage landowners not to impact the creek beds through five steps: distribute healthy creek brochures to landowners; inventory of encroachments; letter to landowners regarding encroachment; remove encroachments; and continue monitoring and enforcement.

### Playground Structure Installation and Maintenance

Metal is recycled, screening is reused in parking lots and paths, pea gravel is topped up, and sand and soil are brought back to the operations centre.

### Leaf and Debris Pick-up

Organic waste is taken to an MOE approved composting facility or used as a fertilizer for farms or landscapers.

The City continues to promote bulk collection days of large items to help discourage illegal roadside dumping.

Smaller, concrete, roadside garbage containers will be purchased and placed in closer proximity to one another.

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### *Bed, Field, and Turf Maintenance*

5000 flats of flowers are used annually. Plastic trays will be returned to the grower for reuse in 2004. Compostable pots will be investigated in future tenders.

### *Sign Shop*

Old signs are reused if the signs are not damaged. Non-recyclable materials are produced in the process such as scrap vinyl, transfer paper, etc. Products, such as transfer paper, are reused as long as possible and then disposed of in the regular waste stream. Approximately 2-3 garbage bags of waste are produced each day.

### *Equipment/Vehicles Maintenance and Operations*

Public Works – A filter crusher that can be used with the existing shop press was purchased for under \$300. The filter crusher increases the efficiency for draining oil to 98-99%. The oil is then recycled and the metal parts from the filter are sent to the scrap yard.

## **Wastewater**

### *City Facilities*

Water is reused in the heat reclamation process of compressors and boilers in arenas. When buildings are renovated, low flush toilets are installed with power-assisted flush. Automatic flushing on urinals using sensors are also being phased in.

### *Pools*

Draining outdoor pool water occurs approximately two weeks after the end of the season allowing the pool chemicals to dissipate. The water is tested prior to discharge and pools are drained over a 10-day period.

Backwashes in pools are being minimized by increasing the awareness level of showering prior to entering a pool to reduce the amount of body oils in the water and thus the reduced need to backwash. Signs have also been increased at pools regarding this issue. In addition, different filter cloths are now used for indoor pools increasing the time between backwashes from weekly to biweekly at Centennial and Coughlan pools. Such initiatives reduce the amount of wastewater produced.

There are plans to use artificial turf at LaSalle pool to reduce the amount of turf material entering the outdoor pool.

### *Emergency Response*

Water run-off as a result of fire fighting is contained, where possible, particularly in traffic accidents with hazardous cargo. An emergency response vehicle can respond to those events where mats are required to cover the storm drains to prevent contaminated material from entering the stormwater system.

### *Stormwater Management*

The Engineering department continues to ensure a reduction in the sediment load to receiving waters through four actions: (1) construction activities – inspection and enforcement, (2) restoration (including naturalization) of existing creek blocks, (3) maintenance of existing SWM facilities (includes ponds and City-owned water quality inlet devices), and (4) maintenance of private water quality inlet devices.

## **Turf Management**

### *Tyandaga*

A new irrigation system is scheduled to be installed in 2006.

### *Cemetery Operations*

Irrigation has minimized pesticide application. Staff are investigating the use of fertilizers with a lower percentage of phosphorus.

### *Bed, Field, and Turf Maintenance*

Phosphorus use is now 1/3 of what it used to be. Research continues on organic fertilizers and costs are starting to decrease. Service levels for fertilization depend on the turf type and use.

## **Winter Control**

The City has been using computerized controllers on spreading equipment to effectively control application rates of salt and sand for many years. GPS was introduced to further monitor salt usage in 2001/2002. Upgrades of computerized controls continue to further assist in application rates. Additionally supervisor and patrol vehicles are equipped with infrared thermometers to ensure that the road temperature, not ambient temperature, determine spreading rates. If the road temperature is warm, products do not need to be applied as falling snow would melt on contact.

During the 1970s, the City began to pre-wet the salt with calcium chloride allowing operators to use salt at a lower temperature. In 2004, there will be a switch from calcium chloride to salt brine. The brine can be added to the road surface prior to snow falling that provides additional safety and assists in salt reduction during re-salting operations.