



THE TORONTO AND REGION CONSERVATION AUTHORITY

**Watershed Management Advisory Board Meeting #7/04**

**Chair:** Dave Ryan  
**Vice Chair:** Nancy Stewart  
**Members:** Gay Cowbourne  
Frank Dale  
Pamela Gough  
Cliff Jenkins  
Shelley Petrie  
Michael Thompson  
Dick O'Brien - Chair, Authority

**December 10, 2004  
10:00 A.M.  
Humber Room, Head Office**

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**AGENDA**

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| <b>1. MINUTES OF MEETING #6/04</b><br>(Enclosed herewith on Blue)                                                                                                                                 |              |
| <b>2. BUSINESS ARISING FROM THE MINUTES</b>                                                                                                                                                       |              |
| <b>3. DISCLOSURE OF PECUNIARY INTEREST AND THE GENERAL NATURE THEREOF</b>                                                                                                                         |              |
| <b>4. DELEGATIONS</b>                                                                                                                                                                             |              |
| <b>5. PRESENTATIONS</b>                                                                                                                                                                           |              |
| <b>5.1</b> A cheque presentation by Wayne Ostermaier, Manager, Land Assessment and Remediation, Hydro One Networks Inc. in regards to Frenchman's Bay watershed rehabilitation project.           |              |
| <b>5.2</b> A presentation by Tracy Smith, District Manager, Ministry of Natural Resources, Aurora District, speaking in regards to item 7.1 - Ontario Living Legacy Funding Final Report Summary. |              |

5.3	A presentation by Greg Grabas, Canadian Wildlife Service, Environment Canada, speaking in regards to item 7.2 - Durham Region Coastal Wetlands Baseline Monitoring.	
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<b>7.</b>	<b>SECTION I - ITEMS FOR AUTHORITY ACTION</b>	
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**9. NEW BUSINESS**

NEXT MEETING OF THE WATERSHED MANAGEMENT ADVISORY COMMITTEE #8/04  
FEBRUARY 11, 2005, IN THE SOUTH THEATRE, BLACK CREEK PIONEER VILLAGE

Brian Denney  
Chief Administrative Officer

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**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: ONTARIO LIVING LEGACY FUNDING FINAL REPORT SUMMARY**

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**KEY ISSUE**

A summary of accomplishments resulting from Ontario Living Legacy funding.

**RECOMMENDATION**

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT the Chair of the Authority thank the Minister of Natural Resources for the opportunity to administer the Ontario Living Legacy funds on behalf of its community project partners within Durham Region.**

**BACKGROUND**

At Authority Meeting #7/03, held on September 26, 2003, resolution #A202/03 was approved as follows:

*THAT the project for the Ontario Living Legacy Funds involving an investment of provincial funding of \$325,000 for habitat restoration projects within the Duffins Creek watershed and at Frenchman's Bay be approved.*

A memorandum of understanding (MoU) was signed on September 22, 2003, between the Province of Ontario and Toronto and Region Conservation Authority (TRCA) to formalize the reporting relationship and the transfer of funds. As outlined in the MoU, \$200,000 of the project funds were to be divided among 5 projects throughout the Duffins Creek watershed and the balance of \$125,000 was to be split evenly between the two waterfront projects for the Duffins Marsh Restoration Plan and the Frenchman's Bay West Shore Initiative.

The following table summarizes the projects that were implemented during 2003 and 2004:

<b>Project Name &amp; Ontario Living Legacy (OLL) Funds</b>	<b>Site Description</b>	<b>Deliverables of Ontario Living Legacy (OLL) Funding</b>
Frenchman's Bay West Shore Habitat Initiative \$ 62,500	The 27 hectare Rotary Frenchman's Bay West Park is located at Westshore Blvd. on the Lake Ontario shoreline in the City of Pickering. These public lands had been identified as having potential for community involved naturalization initiatives including forest management and terrestrial wetland habitat creation, monitoring and outreach education.	An ephemeral wetland was enhanced, meadow habitat was created and native trees and shrubs were planted and complemented by the installation of a variety of habitat structures. A project brochure was produced to create a call to action for this community waterfront destination.

<p>Duffins Creek Marsh Restoration Action Plan \$ 62,500</p>	<p>The provincially significant coastal marsh was showing signs of decline in the health of its aquatic vegetation due to fluctuations in water levels and an abundance of carp.</p>	<p>Installation of a carp barrier, water control structure and berm.</p>
<p>Rodar Property \$22,500</p>	<p>This site comprises the north end of the Greenwood Conservation Area in the City of Pickering. Its former use was for group camp activities. The Greenwood Management Plan identified the area for restoration. The site required native tree and shrub cover and the creation of nodes for wildlife habitat.</p>	<p>In addition to a native tree and shrub planting, a 2.8 ha upland area was prepared and planted with 6,000 conifer seedlings. A kiosk was installed adjacent to the existing parking area to post education and outreach information about the natural features of the site.</p>
<p>Paulynn Park \$7,500</p>	<p>This community park located in the Town of Ajax was traditionally used for group picnics and summer camp activities. With active public recreation uses shifting to other areas within the town, the mown grass areas provide the opportunity to increase the natural cover adjacent to Duffins Creek.</p>	<p>The riparian buffers were widened and enhanced through native tree and shrub planting to enhance and maintain an existing cold water fishery for resident Rainbow Trout. A kiosk was installed for the purpose of interpretive signage to engage residents in the environmental efforts in their community park.</p>
<p>Glen Major Trail Head \$15,000</p>	<p>This 20 acre parcel of public land in the Township of Uxbridge in the headwaters of Duffins Creek presented opportunities to increase natural cover and create safe public access to existing local and regional trail systems.</p>	<p>Established safe public access to the existing trail network and increased natural cover through planting of native trees and shrubs. Brush piles and habitat structures were installed. A community planting and sign unveiling were hosted.</p>
<p>Conservation Easement Restoration \$25,000</p>	<p>Private landowners with conservation easements on their property requested assistance in restoring the natural features within the easement boundaries.</p>	<p>Seven landowners on the Oak Ridges Moraine were assisted with riparian buffer planting, woodlot expansion, old field and wildlife habitat planting. Forest inventory, forest management and stand tending services were also provided.</p>

<p>Timbers Gravel Pit Restoration \$130,000</p>	<p>This 38 ha rehabilitated former gravel pit on the Oak Ridges Moraine in Uxbridge is part of the Glen Major Complex of publicly owned lands. The opportunity to increase natural cover on this site was consistent with the objectives of the Oak Ridges Moraine Conservation Plan and the Duffins Creek Watershed Plan.</p>	<p>An on-site habitat design workshop in consultation with the Ministry of Natural Resources was convened. This resulted in the final design and the installation of topsoil from external sources, nodal planting sites, habitat enhancements, and upland and reforestation planting. An information kiosk was installed and the creation of parking area provided safe public access to the local and regional trail system.</p>
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In addition to the specific site deliverables noted above, an Ontario Living Legacy site tour was hosted by TRCA staff on June 24, 2004 to mark the completion of the project and share the accomplishments with staff of the Aurora District Ministry of Natural Resources (MNR) office, and those involved in the administration of the Living Legacy funds from Queen's Park.

**DETAILS OF WORK TO BE DONE**

Staff will continue to work with the province and its community partners to seek additional funds and profile the Living Legacy projects.

**Report prepared by: Joanne Jeffery, extension 5638**  
**For Information contact: Joanne Jeffery, extension 5638**  
**Date: November 25, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: DURHAM REGION COASTAL WETLANDS BASELINE MONITORING**

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**KEY ISSUE**

Durham Region Coastal Wetlands Monitoring Program - baseline conditions and study findings.

**RECOMMENDATION**

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT Toronto and Region Conservation Authority (TRCA) staff work with other project partners and continue the monitoring efforts associated with Durham Region coastal wetlands within TRCA's jurisdiction.**

**BACKGROUND**

Wetlands are complex and ecologically important ecosystems that are often defined as areas that are seasonally or permanently covered by shallow water, or where the water table is close to or at the surface. This specific hydrological condition allows for a variety of water-tolerant wetland plant and animal species to thrive. All wetlands provide environmental functions that are important to both humans and wildlife. These functions may vary among wetlands depending on the size of the wetland, its soils, plant community and position in the landscape. Great Lakes coastal wetlands are a unique wetland type that have formed at the mouths of streams and rivers where they empty into the lakes, and in open or protected bays along the shoreline.

Coastal wetlands are feeling the pressure of land-use intensification. Vast areas of Great Lakes coastal wetlands have been filled in or drained for agriculture, residential and industrial development, and recreational facilities. For those that remain, the loss of natural areas, both adjacent and further up the watershed, decreases water quality and habitat availability within the wetlands. As a result, wetland functions decline and values diminish. For example, wildlife sightings become less frequent, fish production suffers, and birds lose nesting habitat.

Durham Region coastal wetlands are particularly affected by the Great Lakes basin-wide trend of wetland loss and disturbance. This stretch of coastal wetlands begins just east of the City of Toronto and extends 50 kilometers eastward along Lake Ontario's north shore from the City of Pickering to Port Newcastle. Land holdings of TRCA include significant portions of the coastal wetlands at the Rouge River, Frenchman's Bay, Duffins Creek and Carruthers Marsh.

To investigate the health of these important systems, TRCA participated in a multi-agency partnership that was coordinated by Environment Canada and included Durham Region conservation authorities, Bird Studies Canada, Ontario Power Generation, Fisheries and Oceans Canada, Ontario Ministry of Natural Resources, University of Toronto, Ontario Streams, Trent University and Ducks Unlimited Canada. This partnership developed and delivered a monitoring program that was designed to establish baseline conditions and determine trends in ecological health of the Durham Region wetlands. Monitoring activities focused on investigating water quality, submerged aquatic vegetation, aquatic macroinvertebrates, amphibians, birds and fish community conditions. These baseline conditions and study findings have been summarized in a report that will be available at the meeting.

The results of this monitoring program are highlighted in a report card format for each wetland. These report cards indicate that typically, for each parameter investigated, conditions ranged from poor to fair. The good condition of the fish communities within Frenchman's Bay and the Rouge River were an exception, as well as the good condition of the benthic invertebrate community found in Carruthers Creek Marsh. This monitoring effort is expected to be a long term program and like any other monitoring effort the utility and importance of this work will increase with each additional sampling year.

In addition, this body of work summarized critical wetland statistics for each site. This information includes wetland classification, major vegetation types, wetland size, watershed size and percent of natural cover within the watershed. Of equal importance as the report card indicators and wetland statistics, this program developed a scientifically based suite of physical and biological wetland health indicators. Utilizing these indicators within the Durham Region coastal wetlands has provided insight into a number of unique biological conditions. For example, through this program Environment Canada has developed a relative abundance index for benthic Invertebrates. This index predicts the level of disturbance associated with a coastal wetland and is based on the presence of mayfly and caddisfly larvae, and the abundance of midge larvae.

## **RATIONALE**

This monitoring program is an excellent partnership that allows us to co-operatively collect baseline information about coastal wetlands within Durham Region. This monitoring program also allows staff to directly compare TRCA wetlands to other healthier wetlands outside our jurisdiction. It is critically important for the TRCA to reference local wetlands to other areas in Durham Region that have better ecological conditions. Also, this monitoring program is very valuable as a baseline set of data from which staff can track the affects and efficiencies of our restoration projects and our other monitoring efforts. Working within this partnership, staff plan to continue with wetland monitoring efforts at the Rouge River, Frenchman's Bay, Duffins Creek and Carruthers Creek during the 2005 field season.

**FINANCIAL DETAILS**

Funding for this project is in the Durham Waterfront Monitoring Program budget, Account No. 229-01.

**Report prepared by: Gord MacPherson, extension 5246**

**For Information contact: Gord MacPherson, extension 5246**

**Date: November 23, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE:** **LAKE ONTARIO WATERFRONT- FRENCHMAN'S BAY**  
Hydro One Oil Spill Into Pine Creek - Restoration of Toronto and Region  
Conservation Authority Owned Land.

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**KEY ISSUE**

Rehabilitation of Toronto and Region Conservation Authority owned land as a result of the October 2003 spill at the Hydro One Cherrywood Transfer Station (City of Pickering).

**RECOMMENDATION**

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT Hydro One be advised that the Toronto and Region Conservation Authority's (TRCA's) issues surrounding the restoration of TRCA owned lands have been addressed.**

**BACKGROUND**

On Wednesday, October 1, 2003, a spill of transformer fluid occurred at the Cherrywood Transfer Station and an undetermined amount of oil was released into the Frenchman's Bay watershed at Pine Creek. At Authority Meeting #8/03, resolution #A220/03 was approved as follows:

*THAT Mr. Tom Parkinson, President, CEO of Hydro One be advised of the Toronto and Region Conservation Authority's concerns about the spill of transformer oil into Pine Creek and be requested to provide all the resources necessary for full restoration of the impacted area;*

*THAT staff be directed to assist the City of Pickering and the Region of Durham in any monitoring and restoration activities;*

*AND FURTHER THAT staff continue their efforts to raise awareness about spills management issues and ensure effective measures are implemented to monitor, control and prevent harmful substances from entering our watersheds and waterfront."*

To date, staff have been involved in many aspects of the clean up and restoration activities associated with this spill. When the spill initially occurred, TRCA staff visited the site on a number of occasions to observe the containment effort, assess the impacts to TRCA properties and determine the significance of impacts to the Frenchman's Bay and Pine Creek ecosystem. In addition, TRCA staff have participated in an ad hoc committee to assist the interested parties in communication activities, additional restoration and monitoring efforts, and to ensure that our concerns about the restoration of Pine Creek were met.

Based on staff assessment, the long term impacts to the TRCA properties along Pine Creek have been nominal. Minor disturbance was limited to impacts associated with the movement of people, materials and equipment through the site during the recovery operations. Recent restorative plantings along these access trails have proved effective and will allow the site to mature into the surrounding natural habitats. TRCA staff provided direction and guidance to this restoration activity.

#### **DETAILS OF WORK TO BE DONE**

Restoration activities on TRCA properties are complete and satisfactory to TRCA staff. Staff will assess these plantings over the next few years to ensure they mature and provide the anticipated level of natural cover. TRCA will continue with ongoing monitoring activities including the Regional Watershed Monitoring Program and Durham Waterfront Monitoring Program to determine the health of the Frenchman's Bay ecosystem.

**Report prepared by: Gord MacPherson, extension 5246**  
**For Information contact: Gord MacPherson, extension 5246**  
**Date: November 23, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: BARTLEY SMITH GREENWAY**

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**KEY ISSUE**

Business and Community Outreach Initiative Update.

**RECOMMENDATION**

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT the City of Vaughan be requested to reinstate the capital funding to enable the completion of the trail system and the environmental improvements as per the recommendations of the City of Vaughan Special Committee of the Whole, Report no. 17, item 14 of March 4, 2002.**

**BACKGROUND**

At Authority Meeting #6/02, held on June 21, 2002, Resolution #A169/02 was approved as follows:

*THAT the Vaughan Chamber of Commerce and the members of the Langstaff Ecopark Steering Committee be congratulated on their successful application to the Ontario Trillium Foundation which will result in a five year program of stewardship outreach for the West Don;*

*THAT staff be directed to develop and sign an appropriate agreement with the Vaughan Chamber of Commerce with respect to the staffing and related issues for the five year period commencing July 1, 2002;*

*AND FURTHER THAT staff be directed, in partnership with the staff of the City of Vaughan, and the members of the Langstaff Ecopark Steering Committee, to develop a terms of reference for the establishment of a Friends of the West Don/Bartley Smith Greenway Group to continue the stewardship activities within the Don watershed and, in particular, the regeneration and trail access developments for the West Don/Bartley Smith Greenway.*

The Bartley Smith Greenway (BSG) is a 15 kilometre natural corridor located within the valley of the Upper West Don River as it flows from Teston Road south to Steeles Avenue, through the City of Vaughan.

The Langstaff Eco-park Steering Committee is comprised of representatives from local businesses, the Vaughan Chamber of Commerce, Vaughan residents, Toronto and Region Conservation Authority (TRCA) staff and City of Vaughan staff. In 2001, the steering committee agreed to seek funding to further community involvement in expanding the stewardship efforts to the entire west don subwatershed. A successful proposal was prepared by TRCA staff to the Ontario Trillium Foundation in 2002 on behalf of the Vaughan Chamber of Commerce. This resulted in the Vaughan Chamber of Commerce receiving a grant of \$280,000 over a five year period to deliver the Bartley Smith Greenway Business and Community Outreach Initiative.

As per Authority Resolution #A169/02, in July of 2002, The Bartley Smith Greenway Stewardship and Planning Advisory Committee (BSGAC) was established through the preparation of a collaborative terms of reference and the hiring of a full time project ecologist. The role of the project ecologist has been to implement the work plan outlined in the Ontario Trillium Foundation proposal with support of the BSGAC. To date the committee has played a key role in delivering stewardship outreach activities, identifying regeneration opportunities, and working to develop further trail linkages in the BSG corridor. Over the past two and a half years, restoration and outreach efforts have concentrated on the section of the BSG located south of Major Mackenzie Drive.

The highlights and accomplishments from 2002-2004 are as follows.

### **Trails and Openings**

A pedestrian bridge was installed at Rupert's Pond in 2003. In the fall of 2003, the final stages of restoration were completed and an official opening of Rupert's Pond was held with 90 participants from the community. In 2004, a trail was installed from Langstaff Road to Jacob Keffer Parkway. One thousand meters of new trail was installed at the mid-point of the greenway called Tudor Valley, along with a small wetland feature. Staff are currently in the planning stages to connect the trail north of Rutherford Road to Waterside Marsh at the top of the BSG.

### **Habitat Enhancements**

In addition to trail enhancements, more than 4,000 native trees and shrubs have been planted, and 100 songbird and 2 raptor nesting boxes have been installed. Currently TRCA staff, along with input from the BSGAC, are working to rehabilitate Waterside Marsh, a 1 hectare wetland located north of Rutherford Road.

### **Outreach-Communications**

A variety of publications and media products have been produced and distributed to provide volunteers, residents and businesses with a source of environmental awareness products. These communications include 4 BSG full color newsletters printed and distributed to over 1,000 residents and businesses, a bird checklist which describes seasonal occurrence and abundance of species within the BSG, a website which receives 250 hits per month, environmental workshops to more than 500 participants, workshop ads and BSG articles in three local papers.

In addition, the Vaughan Chamber of Commerce "Corporate Planting" continues to engage local businesses in this annual event, raising \$15,000 over a three year period to purchase plant material.

**Pollution Prevention**

BSGAC adopted the Ontario Centre For Environmental Technology Advancement (OCETA) program to develop and demonstrate a community based approach for improving sustainable practices and the economic and environmental performance of small to medium size businesses. The role of the BSG project ecologist is to promote this program within the BSG business sector.

**Resources**

A biological inventory of BSG has been completed for flora and fauna, utilizing the TRCA's Draft Terrestrial Natural Heritage System Strategy.

**Project Partners**

Ontario Trillium Foundation, community groups, environmental non-government organizations, private business, Vaughan Chamber of Commerce, York Region, City of Vaughan, Ontario Ministry of Natural Resources and special interest groups.

**DETAILS OF WORK TO BE DONE**

- Continue to implement Ontario Trillium Foundation deliverables as outlined in the 5 year project workplan.
- Further development of a volunteer base for continued involvement in BSG activities as outlined in the workplan.
- Engage the business manufacturing community to adopt pollution prevention measures as outlined in OCETA protocols.
- Seek out partnerships that will give financial and in-kind assistance to projects which will further the natural regeneration of the upper west Don River subwatershed.

**FINANCIAL DETAILS**

The project has secured the necessary funding support to complete the workplan as outlined in the Ontario Trillium Foundation proposal.

Capital funding has been provided in the past from the City of Vaughan. Due to budgetary problems in 2004, Vaughan City Council did not approve any funding for this project. It is recommended that the Authority request the City of Vaughan to reinstate the funding.

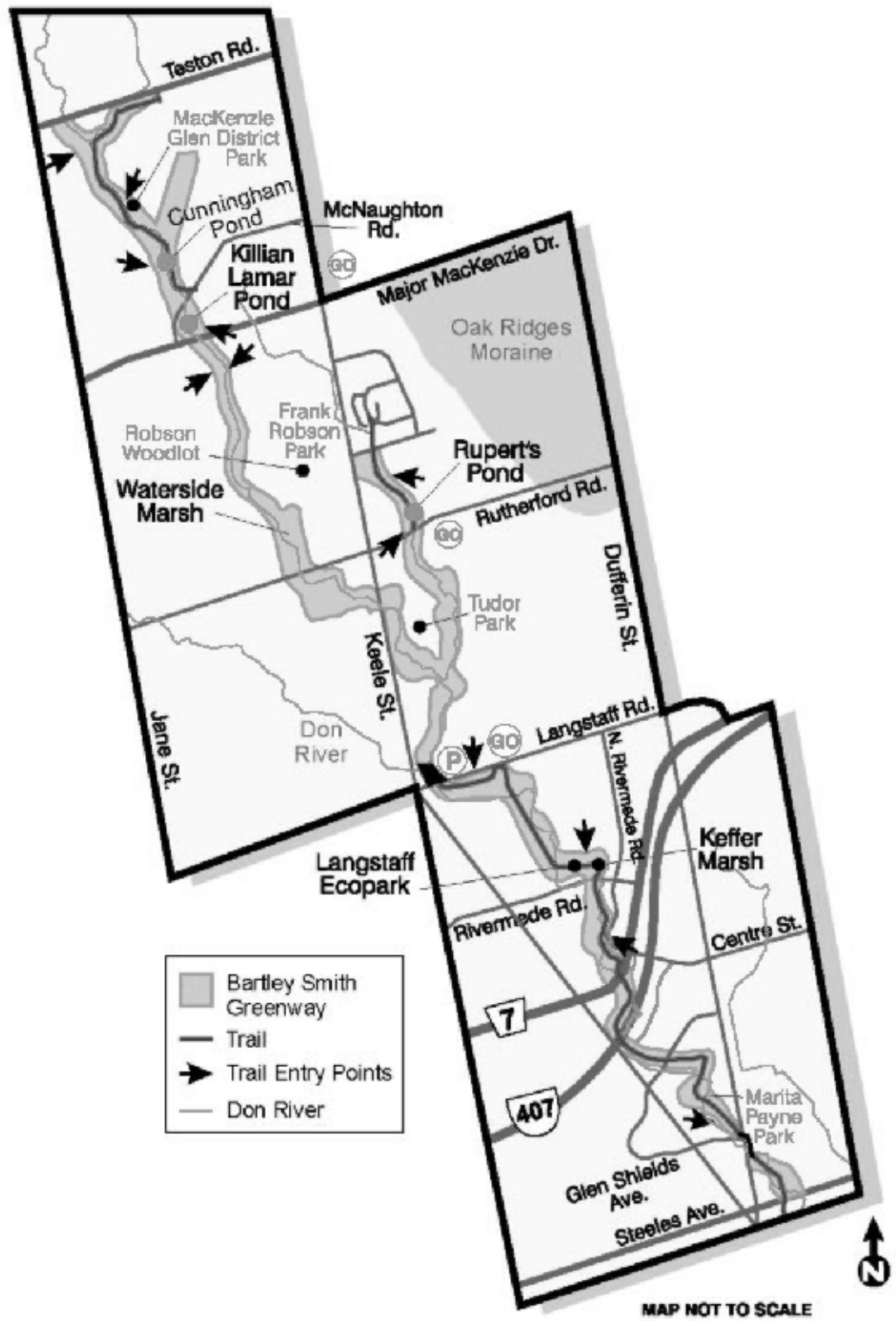
**Report prepared by: Greg Sadowski, extension 5668**

**For Information contact: Greg Sadowski, extension 5668**

**Date: November 30, 2004**

**Attachments: 1**

Attachment 1



**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: SALT MANAGEMENT PLANS IN THE TORONTO AND REGION  
CONSERVATION AUTHORITY'S JURISDICTION**

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**KEY ISSUE**

Status of municipal and road authority salt management plans in Toronto and Region Conservation Authority's jurisdiction.

**RECOMMENDATION**

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT the municipal/road authority's undertaking a salt management plan in Toronto and Region Conservation Authority's (TRCA's) jurisdiction be congratulated for their efforts in controlling the use of road salt.**

**BACKGROUND**

Approximately 130,000 to 150,000 tonnes of road salts are applied in the City of Toronto every year. Road salts have been shown over years of use to reduce accidents, injury and mortality associated with icy and snowy conditions. Unfortunately, the salts also infiltrate into the soil, spray onto nearby vegetation or are transported through runoff into streams and lakes where they pose a risk to aquatic ecosystems. Concerns about these impacts and other abiotic effects of road salts (e.g. lake mixing dynamics) prompted the federal government to conduct a five year scientific risk assessment of road salts beginning in 1995. This assessment concluded that road salts are entering the environment in quantities that have, or may have, adverse effects on freshwater ecosystems, soil, vegetation and wildlife. Accordingly, in 2001, the Government of Canada included road salts on the second Priority Substance List (PSL2) under the Canadian Environmental Protection Act (CEPA).

Classification of road salts as toxic under CEPA committed the federal government to develop management measures to reduce the impacts of road salts on the environment, while maintaining roadway safety. This requirement led to the Environment Canada publication in April 2004 of a Code of Practice for the environmental management of road salts. The Code of Practice was developed in consultation with a multi-stakeholder working group for road salts, and has received support from provincial and local governments that own and operate public highways. The code recommends that road authorities and municipalities using more than 500 tonnes of road salt annually (based on a 5 year average) prepare salt management plans (SMP) identifying actions they will take to improve their practices in salt storage, general use on roads and snow disposal. Agencies using fewer than 500 tonnes of road salt per year are not required to prepare SMPs but are encouraged to follow best practices in the management of road salts.

Although salt management planning remains a non-regulatory requirement, Environment Canada strongly urged that road authorities and municipalities submit a letter of intent by October 3, 2004 expressing the municipality's intention to develop a SMP. The deadline for completion of SMPs is April 3, 2005, one year after publication of the Code of Practice, and the road authorities/municipalities are to submit their first road salt annual report to Environment Canada by June 30, 2005.

The following table indicates the status of SMPs for regional and local municipalities and road authorities operating within TRCA's jurisdiction:

<b>MUNICIPALITY/ROAD AUTHORITY</b>	<b>STATUS OF SMP</b>
City of Toronto	Complete
Region of Peel	Complete
Region of York	Draft Plan Complete
Region of Durham	Draft Plan Complete
City of Brampton	Underway
City of Mississauga	Complete
City of Pickering	Underway
Town of Ajax	Underway
City of Vaughan	Underway
Town of Mono	Letter of intent not yet sent
Town of Caledon	Underway
Town of Markham	Underway
Town of Richmond Hill	Underway
Town of Whitchurch-Stouffville	Underway
Township of Adjala - Tosorontio	Underway
Township of King	Underway
Township of Uxbridge	Underway
407 ETR	Draft plan complete
Ministry of Transportation	Underway

The City of Toronto has undertaken a comprehensive approach to managing road salt use that includes reducing salt use at storage depots, evaluating mitigation measures at snow disposal sites, moving towards use of alternative road salt application practices and initiating a salt management training program for staff. Early results indicate that the SMP and staff training has reduced mean salt use by close to 37,000 tonnes over two winter periods, which is roughly equivalent to a decrease in salt use of 13% per year.

Other regional and local municipalities have also shown leadership in salt management but in most cases the benefits of improved practices have not been comprehensively evaluated. Practices that have been investigated or are currently being adopted as part of municipal SMPs include:

- optimizing equipment through the use of improved spreader controls on vehicles, infrared thermometers and pre-wetting to avoid loss from bouncing, blowing and sliding of salt;

- employing advanced road weather information systems to provide precise information on temperature, pavement conditions, the presence and concentration of salt on the road, and precipitation prior to spreading;
- using alternatives to rock salt, including salt brine and implementing anti-icing programs to assist melting and resist the formation of a bond between ice and the pavement surface; and
- improving storage and handling practices.

All of these practices help to ensure that road salt is applied at the right time, in the right place and in the right quantities to minimize impacts to the environment, while ensuring road safety.

The TRCA uses approximately 140 tonnes of road salt per year on its properties, and therefore is not required to prepare a SMP. To assess current practices, conservation area (CA) and dam staff were surveyed. Initial survey results indicated that several CAs either do not use salt (Heart Lake, Indian Line, Tommy Thompson Park and Petticoat), use pickled sand (Boyd, Glen Haffy, Lake St. George, Albion Hills and Eastville) or use a salt sand mix (Black Creek Pioneer Village and Bruce's Mill). Claremont applies road salt to only 1 of 3 km of roadway when the snow plow is unable to penetrate through the ice to the pavement. Pure road salt was also applied at Claireville and G. Lord Ross Dams - approximately 3 tonnes per year each. These results suggest that while opportunities may exist to improve salt management on TRCA properties, current practices at most conservation areas already minimize the use of road salts.

Chloride concentrations in the watersheds are monitored as part of TRCA's Regional Watershed Monitoring Network. These data are useful in identifying potential problem areas and evaluating trends in road salt use over time. Staff have provided chloride data to municipalities developing SMPs and are currently exploring municipal interest in a partnership pilot study that evaluates the relative merit of commonly employed salt application best management practices. The study would help to develop and refine a set of standard salt application practices that could be applied by partner municipalities across the TRCA jurisdiction, thereby reducing the need for each municipality to conduct its own separate monitoring program.

**Report prepared by: Tim Van Seters, extension 5337**

**Don Haley, extension 5226**

**For Information contact: Tim Van Seters, extension 5337**

**Date: November 26, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: URBAN FORESTRY UPDATE**

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**KEY ISSUE**

Status report on recent outbreaks and infestations of the Asian Longhorned Beetle (ALHB), Emerald Ash Borer (EAB) and other current forestry pests that threaten Ontario forest resources.

**RECOMMENDATION**

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT staff continue to support and work cooperatively with all levels of government to monitor trends and conditions of current forest insect and invasive pest populations and to formulate and implement strategies and methodologies directed at the control and eradication of these pests;**

**THAT the Toronto and Region Conservation Authority's (TRCA) Nursery continue to propagate and supply ash tree species as a minor component of a diverse and sustainable ecosystem through its Indigenous Plant Propagation program and ongoing environmental regeneration efforts;**

**AND FURTHER THAT staff report back on any changes in the status of forest pests in Ontario.**

**BACKGROUND**

The forest resources of Ontario are under constant attack and threat of infestation from a wide variety of insects and diseases. This is not a new situation, however, we are fortunate that the very resources that are affected by these pests are extremely resilient and adaptive in dealing with the threats. So too are the Canadian Forest Service (CFS) and the Ontario Ministry of Natural Resources (OMNR), who cooperate to maintain a program of monitoring and reporting on insect and disease infestations in Ontario's forests.

There are 30 to 40 invasive forest pests that have been catalogued within the Great Lakes Basin. The impact of these pests include the loss of native species, decline in biodiversity, the loss of culturally important species, financial impacts to the timber industry and impacts on municipal (urban) forest resources and budgets to address loss and control programs.

The increase in the number of exotic pests in the past half century is alarming. With the advent of world trade practices and the ever increasing suite of trading partners, it is not surprising that these pests have arrived here. Container traffic is known to be the primary vector for arrival in North America, and 70% of all container traffic in Canada comes to the Greater Toronto Area (GTA). Current estimates of Canadian Food Inspection Agency (CFIA) inspections of shipping containers is set at approximately 2%.

Coupled with these realities, southern Ontarions are both fortunate and at the same time unfortunate to have the diversity of forest types we do. This diversity appeals to and supports our imported invasive pests with an ideal mix of climate and vegetation species.

At the 28th Annual Forest Health Review, held October 28, 2004, CFS/OMNR staff presented an overview of the current threats in Ontario including:

- Emerald Ash Borer;
- Asian Longhorned Beetle;
- Beech Bark Disease;
- Hickory Bark Beetle; and
- other major forest disturbances (forest tent caterpillar, jack pine budworm, pine false webworm, drought, gypsy moth, aspen mortality, etc.).

The following is a brief synopsis of current infestation and expected trends for the major pests noted:

### **Asian Longhorned Beetle**

On September 4, 2003 an insect was found in the Steeles and Weston Road area which was subsequently confirmed by the Canadian Food Inspection Agency to be an Asian Longhorned Beetle. Immediate delimitation surveys were launched and three separate population centres were located in the north Toronto and Woodbridge vicinities. Scientific investigation and subsequent operational plans went into force in an effort to eradicate the ALHB from this region.

The CFIA is continuing to implement an aggressive campaign to control and eradicate this unwanted pest with the full cooperation of its partners - CFS, City's of Toronto and Vaughan, Region of York, TRCA, OMNR and the United States Department of Agriculture (USDA). Winter 2003/2004 host species tree removal resulted in some 15,000 trees being removed and destroyed in accordance with the eradication protocol. A quarantine zone encompassing some 125 km<sup>2</sup> is in place with federal regulation governing the movement of all host species (wood in all forms - nursery stock, brush, firewood) into, through and out of the zone.

On November 6, 2004, the CFIA-led partnership announced a new finding of three exit-holes in the Weston Road/Highway No. 7 (northeast quadrant) area. Removal of host trees within a 400 metre radius of the new finds, in accordance with the eradication protocol, has been completed. Field surveys are ongoing to monitor for any potential new finds within the quarantine area.

CFIA officials have stated that in order to declare this ALHB outbreak eradicated, they must have two full years of intensive survey with no finds.

### **Emerald Ash Borer (EAB)**

The Emerald Ash Borer is another invasive exotic pest that has had devastating impacts on the forest resources of southwestern Ontario (City of Windsor and Essex County) and the State of Michigan (City of Detroit and vicinity). This pest feeds exclusively on ash tree species, resulting in mortality of the host. Given that ash species comprise between 25% and 50% of southwestern Ontario's forest resources, the implication is enormous. By the end of 2004, it is estimated there will be 12 million dead or dying ash trees in the United States and Canada as a result of EAB. Estimates of ash tree resources in Ontario are set at 1 billion trees.

CFIA is leading the fight in an effort to contain the EAB within the current area of infestation, however, the "firebreak" - an ash-free zone implemented in 2003 resulting in the destruction of 100,778 ash trees - has not proved to be as successful a barrier as envisioned in slowing or halting the spread. New finds of EAB in the Chatham area mean that the EAB has been found some 10 km east of the "firebreak". Province-wide surveys have not revealed the EAB in other areas of Ontario, but it is known to exist in Ohio, Indiana and northern Michigan.

The CFIA's goal with respect to EAB, as reported in the press, is to control the spread of the pest until effective countermeasures can be found. Countermeasures may include the use of insecticides in addition to cutting and destruction of infected wood/trees, until such time as ecological adaptation can express itself in terms of a resistant genotype.

### **Beech Bark Disease (BBD)**

First introduced to North America in 1890, BBD has now spread widely in the GTA. BBD is a combination of a scale insect and a fungal infection that work together to kill beech trees. The disease is non-selective in that it can affect both healthy and stressed trees. Even after 100 years, there is no known method to combat BBD.

BBD opens up hosts to secondary infections which in time will kill the trees. There are approximately 70 known species of fungus that attack beech trees.

### **Hickory Bark Beetle (HBB)**

The HBB is a native forest pest, related to the elm bark beetle, that follows forest disturbances such as drought. HBB attacks hickory species, but also has been known to infect pecan and butternut species.

The HBB selects stressed trees to attack, starting in the crown of the tree and feeding on leaf petiole. Entry and exit holes are definitive signs of infestation and when found on the lower bole indicate several years of infection. Trees die after a few years of attack.

The HBB was first identified in 1912 and found in New York State in the 1940's. First detected in Ontario (Middlesex county) in 2001, the 2004 population has been found in 250 woodlots covering some 2,133 hectares. Mortality is measured at 70% in host species within affected woodlots.

### **Other Introduced Exotic Pests**

Sudden Oak Death (SOD) - known to cause mortality in species of red/black oak group that are native to California as well as rhododendron species. It is currently not known whether, or how, SOD will affect our native red and black oaks.

Oak Wilt (OW) is now found in the central United States, moving slowly in both a northerly and southerly direction. OW kills oak species. Spread is known through the natural phenomenon of root grafting and distribution by sap beetles. Control methods include eliminating pruning of oaks between April and July, controlling the movement of firewood, and when pruning, using a wound dressing.

### **ADAPTIONS AND IMPLICATIONS**

In response to the ALHB infestation, the TRCA has participated in all aspects of the eradication program led by CFIA. Staff are cognizant of the ALHB regulated area and have implemented the applicable protocols to comply with the federal regulation in all aspects of the TRCA's business, including commenting on plans and proposal and issuance of permits with conditions in respect of landscaping, forest management and environmental regeneration activities.

TRCA does not plant ALHB host species within the core areas of infestation, however, it may continue to plant these species (ie. maple, willow, poplar, etc.) within the regulated area in an effort to maintain diversity within the urban forest canopy of these neighbourhoods. This practice is in keeping with the directions of our municipal partners. It is anticipated that upon achieving eradication of the ALHB, the core area would be re-populated with host species to enhance the canopy and diversify the represented species mix.

The case for EAB is less clear cut. Ash species are a component of the natural forests and planted ecosystems in the GTA. Ash is an important and adaptable species for site reclamation and as such plays a valuable part in planting site amelioration as a primary regenerator species acting as a nurse crop for other species. Poplar and elm species are employed in a similar manner, despite problems associated with them.

Elimination of the propagation and planting of ash species will do nothing to prevent the spread of EAB. While TRCA has supported the City of Toronto's directive to eliminate ash species from all restoration plans within the City of Toronto, TRCA staff continue to approve ash use as part of a diverse and sustainable urban forest in all other areas of TRCA's jurisdiction, where and when appropriate to the needs of the ecosystem.

Discussions with other government and industry professionals supports the continued use of ash as part of a biodiverse and balanced ecosystem. There has been no move by the OMNR or Conservation Ontario to limit or discourage the planting of ash species.

In response to this reasoning, staff propose that TRCA's Nursery continue to propagate ash seedlings in an effort to maintain the maximum diversity of species available in TRCA's attempts to enhance and improve terrestrial natural heritage and biodiversity values and opportunities across our watersheds. In order to ensure a balanced approach, TRCA staff will regulate ash species use to not more than ten percent of hardwood trees species planted for a particular site. In reforestation plantings, ash will comprise less than two percent of the total planting effort of the TRCA.

**Report prepared by: Dave Rogalsky, extension 5378**  
**For Information contact: Dave Rogalsky, extension 5378**  
**Date: November 29, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: DON WATERSHED REGENERATION COUNCIL MINUTES**  
Minutes of Meeting #3/04, July 15, 2004, Meeting #4/04, September 16, 2004  
and Meeting #5/04, October 14, 2004

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**KEY ISSUE**

The Minutes of Meeting #3/04, held on July 15, 2004, Meeting #4/04, held on September 16, 2004 and Meeting #5/04, held on October 14, 2004.

**RECOMMENDATION**

**IT IS RECOMMENDED THAT the Minutes of the Don Watershed Regeneration Council Meetings #3/04, held on July 15, 2004, #4/04, held on September 16, 2004, and #5/04, held on October 14, 2004, be received.**

**BACKGROUND**

Copies of the minutes of the Don Watershed Regeneration Council are forwarded to the Authority through the Watershed Management Advisory Board. These minutes constitute the formal record of the work of the Don Watershed Regeneration Council, and serve to keep the Authority members informed of the steps being undertaken to implement the Don Watershed Task Force's report "*Forty Steps to a New Don*" and to regenerate the watershed.

**Report prepared by: Alex Blasko, extension 5280**  
**For Information contact: Alex Blasko, extension 5280**  
**Date: November 30, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: HUMBER ALLIANCE MINUTES**  
Minutes of Meeting #3/04, October 19, 2004

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**KEY ISSUE**

The minutes of the Humber Watershed Alliance meeting #3/04, held on October 19, 2004, are provided for information.

**RECOMMENDATION**

**IT IS RECOMMENDED THAT the minutes of the Humber Watershed Alliance #3/04, held on October 19, 2004, as appended, be received.**

**BACKGROUND**

The Terms of Reference for the Humber Watershed Alliance, dated December 2003 and adopted by the Authority at meeting #10/03, held on January 9, 2004 by resolution #A289/03, includes the following provision:

3.9 Reporting Relationship

The Humber Watershed Alliance is considered a subcommittee of the Watershed Management Advisory Board. The Watershed Alliance Chair will report, at least, on a semi-annual basis on projects and progress.

**Report prepared by: Lisa Turnbull, extension 5325**  
**For Information contact: Gary Wilkins, extension 5211**  
**Date: November 03, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: ROUGE WATERSHED TASK FORCE MINUTES**  
Minutes of Meeting #4/04, September 23, 2004.

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**KEY ISSUE**

The Minutes of Meeting #4/04, held on September 23, 2004, are provided for information.

**RECOMMENDATION**

**IT IS RECOMMENDED THAT the Minutes of the Rouge Watershed Task Force Meeting #4/04, held on September 23, 2004, be received.**

**BACKGROUND**

Copies of the minutes of the Rouge Watershed Task Force are forwarded to the Authority through the Watershed Management Advisory Board. These minutes constitute the formal record of the work of the Rouge Watershed Task Force and serve to keep the Authority members informed of the steps being undertaken to develop the *Rouge Watershed Plan*.

**Report prepared by: Sylvia Waters, extension 5330**  
**For Information contact: Sylvia Waters, extension 5330**  
**Date: November 19, 2004**

**TO:** Chair and Members of the Watershed Management Advisory Board  
Meeting #7/04, December 10, 2004

**FROM:** Adele Freeman, Director, Watershed Management

**RE: ROUGE PARK ALLIANCE MINUTES**  
Minutes of Meeting #4/04, June 18, 2004

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**KEY ISSUE**

The Minutes of Meeting #4/04, held on June 18, 2004, are provided for information.

**RECOMMENDATION**

**IT IS RECOMMENDED THAT the Minutes of the Rouge Park Alliance Meeting #4/04, held on June 18, 2004, be received.**

**BACKGROUND**

Copies of the minutes of the Rouge Park Alliance are provided to the Toronto and Region Conservation Authority through the Chair of the Authority, who is a member of the Rouge Park Alliance, and forwarded to the Watershed Management Advisory Board for their information.

**Report prepared by: Andrea Fennell, extension 5254**  
**For Information contact: Adele Freeman, extension 5238**  
**Date: November 29, 2004**