



THE TORONTO AND REGION CONSERVATION AUTHORITY

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WATERSHED MANAGEMENT ADVISORY BOARD MEETING #2/07

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THE TORONTO AND REGION CONSERVATION AUTHORITY

MEETING OF THE WATERSHED MANAGEMENT ADVISORY BOARD #2/07
June 8, 2007

The Watershed Management Advisory Board Meeting #2/07, was held in the South Theatre, Black Creek Pioneer Village, on Friday, June 8, 2007. The Chair Richard Whitehead, called the meeting to order at 10:07 a.m..

PRESENT

Gay Cowbourne	Member
Lois Griffin	Member
Bonnie Littley	Member
Gerri Lynn O'Connor	Chair, Authority
Alissa Sugar	Member
Richard Whitehead	Chair

ABSENT

Maria Augimeri	Member
Bryan Bertie	Member
Grant Gibson	Member
John Parker	Member
Anthony Perruzza	Vice Chair

RES.#D14/07 - MINUTES

Moved by: Gay Cowbourne
Seconded by: Lois Griffin

THAT the Minutes of Meeting #1/07, held on April 20, be approved.

CARRIED

PRESENTATIONS

- (a) A presentation by Steve Holysh, Conservation Authorities Moraine Coalition, in regard to item 8.1 - York-Peel-Durham-Toronto Groundwater Management Project.

- (b) A presentation by Gary Bowen, Watershed Specialist, Duffins/Carruthers, in regard to item 7.1 - Collaborative Source Water Protection Study for Lake Ontario Based Municipal Drinking Water Supplies - Watershed Loadings Assessment Study Progress Report.
- (c) A presentation by Jim Berry, Manager, Environmental Engineering Projects, in regard to item 8.2 - Valley and Shoreline Regeneration Program - 2006 - 2007 Overview.

RES.#D15/07 - PRESENTATIONS

Moved by: Lois Griffin
 Seconded by: Alissa Sugar

THAT above-noted presentation (a) be heard and received.

CARRIED

RES.#D16/07 - PRESENTATIONS

Moved by: Alissa Sugar
 Seconded by: Gay Cowbourne

THAT above-noted presentation (b) be heard and received.

CARRIED

RES.#D17/07 - PRESENTATIONS

Moved by: Gay Cowbourne
 Seconded by: Bonnie Littley

THAT above-noted presentation (c) be heard and received.

CARRIED

SECTION I - ITEMS FOR AUTHORITY ACTION

RES.#D18/07 - COLLABORATIVE SOURCE WATER PROTECTION STUDY FOR LAKE ONTARIO BASED MUNICIPAL DRINKING WATER SUPPLIES
 Watershed Loadings Assessment Study Progress Report. Outcomes from the Phase 1 Study with Environment Canada estimating nutrient and suspended solids loads to Lake Ontario.

Moved by: Alissa Sugar
Seconded by: Gay Cowbourne

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the Toronto and Region Conservation Authority (TRCA), as the CTC (Credit Valley Conservation, Toronto and Region Conservation Authority and Central Lake Ontario Conservation Authority) watershed region lead, continue to work with Environment Canada on pollutant loadings assessments for watersheds draining into Lake Ontario;

AND FURTHER THAT staff be authorized and directed to take such actions as is necessary to participate in this study.

CARRIED

BACKGROUND

Under the provincially funded Great Lakes Surface Water System Grant Program, a long term proactive and strategic approach for the protection of drinking water supplies for over 5 million residents is underway. A report on this program was presented at the Watershed Management Advisory Board meeting held on July 14, 2006. The Collaborative Lake Ontario Drinking Water Study is tasked with identifying and evaluating local and lake wide hazards to 33 municipal drinking water intakes around Lake Ontario. Under the first phase of the project, TRCA worked on a study with Environment Canada (EC) to calculate non-point source pollutant loads entering Lake Ontario from the various watersheds between the Niagara Region and Prince Edward County. As directed by the 2006-2007 CTC Source Protection work plan, TRCA staff is coordinating this work on behalf of all the participating conservation authorities along Lake Ontario.

Pollutant loads provide an estimate of the total mass of a contaminant entering Lake Ontario. These estimates serve as useful means of tracking trends through time in pollution exports from watersheds and serves to document the effectiveness of various water quality improvement actions developed through watershed planning and municipal-industrial abatement programs.

The initial study focused on water quality parameters that might potentially interfere with the treatment of lake based drinking water supplies. Interference with the treatment process due to turbid water and high nutrients, can put drinking water supplies at risk if the integrity of the treatment process is compromised. In addition, knowledge of the amount and delivery mechanisms for pollutants can assist in the development of Intake Protection Zones as prescribed by the Ministry of Environment Guidance Manuals. Loading assessment techniques developed in Phase 1 of the study can be applied to estimate loads for other more direct, health related water quality parameters (such as Polychlorinated biphenyls [PCBs]). Furthermore, loadings estimates for these initial parameters have utility for broader Lake Ontario water quality studies such as Areas of Concern, Canada Ontario Agreement and the Canada-US Great Lakes Water Quality Agreement.

Work Plan

Accurate calculations of pollutant loads requires daily measurements of stream flow and very frequent sampling of water quality. Current monitoring programs such as the TRCA Regional Watershed Monitoring Program sample water quality parameters on a monthly basis. This level of sampling is adequate for our watershed and report card studies, but is not frequent enough to quantify the mass of contaminants being discharged into Lake Ontario. Previous studies have shown that in excess of 70 samples, distributed throughout the year in proportion to stream flow volumes, are required for precise estimates. The intent of this study is to provide reasonable approximations of the loads for the watersheds in order to identify more precisely which watersheds require a more accurate estimate of loadings. For these priority watersheds, enhanced monitoring programs may be required.

Environment Canada (EC), the University of Guelph and TRCA have all cooperated to provide preliminary loadings estimates. Watershed pollution loads will be used to identify, from a Lake Ontario drinking water perspective, the priority watersheds that potentially might influence lake based municipal drinking water supplies. Phase 1 loading calculations and analysis were undertaken using a variety of techniques, including:

1. determination of Event Mean Concentrations coupled with runoff volumes as a first approximation of watershed loads across the study area;
2. application of unit area loads from International Joint Commission water quality land use studies (Pollution from Land Use Activities Reference Group [PLUARG]) and other studies to estimate unit area loads (kg/ha) for nutrients on a watershed and sub-watershed basis;
3. event water quality model (Agricultural Non-Point Source [AGNPS]) to estimate peak loads for major storm events;
4. comparison of wet weather flow and other modelling studies with available concentrations and loads;
5. where opportunities exist, use measured flow and stream chemistry data (from Ministry of Environment and EC) to calculate observed loads and calibrate models; and
6. compare results with previous published studies for the Great Lakes.

Phase 2 of the Lake Ontario Collaborative drinking water study will require the refinement of loadings estimates for the priority watershed identified in Phase 1. The refined loads will be used as inputs into a Lake Ontario water quality model to define Intake Protection Zones (IPZs) as per ministry guidelines. Follow-up efforts are also required to keep the loading estimates current and to answer any additional information requests from the project consultants and drinking water treatment utilities who operate the 33 intakes.

In light of the identified deficit of stream flow and chemistry data and taking into consideration the cost and time required to establish new monitoring programs, the study team is recommending that a continuous water quality model be used to provided the required refinements in load estimates. Through these modelling runs a more comprehensive suite of water quality parameters could be studied. Estimates from the calibrated model will be of sufficient precision for IPZ study purposes and may negate the need for more detailed water quality monitoring beyond current programs.

The application of a daily time-step model for the priority tributaries will provide input data to the lakewide water quality simulation model. Modelling runs would answer questions on when and where watershed based pollutants are impacting lake-based drinking water supplies. Based upon watershed modelling reviews by the study team, the Soil and Water Assessment Tool (SWAT) model developed in the United States of America was selected as the preferred modelling tool. Previously as part of the Duffins Creek watershed studies, the SWAT has been set up using locally available climate and geographic information systems data sets. Outputs from the SWAT model can match the input time steps required for the lakewide water quality model and IPZ assessments. For phase 2, the SWAT model will be set up for the priority watersheds. This may involve between 3-10 watersheds around the lake, which will be calibrated with available data and will be compared with Hydrological Simulation Program-FORTRAN (HSPF) runs for Toronto area watersheds and the Credit River. Loading analysis provided by Halton Region Conservation Authority for their Lake Ontario watersheds will be used to compare estimates.

A technical report will be prepared to document all the work completed. Conservation authority and municipal staff will be trained on the use of the models and loadings estimation procedures including the phase 1 work. Results of the study will be posted on a data portal for access by conservation authorities and other interested parties.

Gary Bowen, Duffins-Carruthers Watershed Specialist, will present the findings to date and answer questions at the June 8th Watershed Management Advisory Board meeting.

FINANCIAL DETAILS

Funding for this study was provided by the Ministry of the Environment through a grant to the Lake Ontario Collaborative Study and as well through grants to the CTC. The funds provided to the collaborative study will in turn be transferred to EC. CTC funding will be used to cover staff time and projects that directly related to conservation authority programs. Through these funding arrangements, effective partnerships are being developed and the technical expertise gained through the study is being transferred to capacity building to support this work on a long term basis.

Report prepared by: Gary Bowen, extension 5385
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For Information contact: Gary Bowen, extension 5385
Email: gbowen@trca.on.ca
Date: May 24, 2007

RES.#D19/07 - OAK RIDGES CORRIDOR PARK (Kettle Lakes Nature Reserve at Richmond Hill)
2007 Implementation. Approval of the 2007 Workplan for Site Securement, Monitoring and Habitat Restoration.

Moved by: Gay Cowbourne
Seconded by: Bonnie Littley

THE BOARD RECOMMENDS TO THE AUTHORITY THAT THE 2007 workplan for site securement, monitoring and habitat restoration in the Oak Ridges Corridor Park be approved;

AND FURTHER THAT the workplan be subject to approval of the Ministry of Municipal Affairs and Housing and owners of the land.

CARRIED

BACKGROUND

On September 23, 2004, the Minister of Municipal Affairs and Housing announced that the Province of Ontario and certain owners of Oak Ridges Moraine lands in the Town of Richmond Hill had reached an agreement to exchange these owners' lands for provincially-owned lands in the City of Pickering. To date, the exchange has not been finalized pending resolution of the Environmental Assessment 'bump up' request related to the Pickering lands. The purpose of the land exchange is to protect the last remaining natural corridor link between the eastern and western parts of the Oak Ridges Moraine in the Town of Richmond Hill.

Under the agreement, 1,057 acres (428 hectares) of land in the Town of Richmond Hill will come into public ownership. These lands are currently known as the Oak Ridges Corridor Park but a recommendation has been made to the province that the name be changed to Kettle Lakes Nature Reserve once the land is transferred into public ownership. The park lands are generally located between Bathurst Street and Bayview Avenue, north of Jefferson Sideroad and south of the community of Oak Ridges. Approximately 100 acres (40 hectares) of the lands make up the Bathurst Glen Golf Course abutting the westernmost boundary of the property (see attachments).

At the request of the province, Toronto and Region Conservation Authority (TRCA) led the development of a management plan for the Oak Ridges Corridor Park. An advisory committee was established to oversee the work. Members included representatives from TRCA, Regional Municipality of York, Town of Richmond Hill, Ministry of Natural Resources, Ontario Realty Corporation (ORC), Ministry of Municipal Affairs and Housing, Oak Ridges Moraine Foundation, Oak Ridges Trail Association (ORTA), Richmond Hill Naturalists, Save the Oak Ridges Moraine, Jefferson Forest Residents Association and Citizens Environment Watch (CEW).

At Authority Meeting #8/06, held on October 27, 2006, Resolution #A235/06 was approved as follows:

THAT the Oak Ridges Corridor Park Management Plan, prepared by AMEC Earth and Environmental dated August 2006, be approved;

THAT copies of the Oak Ridges Corridor Park Management Plan be sent to the members of the Oak Ridges Corridor Park Management Plan Advisory Committee with a request that the document be endorsed and they consider opportunities for providing multi-year funding to support the implementation of the plan, and operation of the park;

THAT staff assist with the establishment of an Oak Ridges Corridor Park Advisory Committee made up of interested citizens, interest groups and organizations, to help with the implementation of the management plan;

THAT the province be requested to approve the official name of the park as "Kettle Lakes Nature Reserve at Richmond Hill";

THAT approval be granted to enter into agreements with the Province of Ontario and the current Oak Ridges Corridor Park land owners to maintain and protect the completed trail on an interim basis and until the lands are conveyed to the Province of Ontario;

AND FURTHER THAT appropriate TRCA officials be authorized and directed to take such action as is necessary to implement the agreements including obtaining any necessary approvals and execution of documents.

The completed management plan and the above resolution has been distributed to all of the members of the advisory committee that assisted in the preparation of the management plan. Preliminary discussions have occurred with the primary partners who would sit as members of an Oak Ridges Corridor Park Advisory Committee. These partners are the province, municipalities, ORTA, CEW and Mr. Gordon Gray, current owner of the Philips Lake property. The province has been asked to consider 'Kettle Lakes Nature Reserve at Richmond Hill' as the formal name of the property. No decision has been made on this as of yet. TRCA staff continue to work with the Ontario Realty Corporation (ORC) in terms of devising a suitable agreement allowing TRCA to be the manager of the property once the land comes into public ownership. It is important that this agreement be completed as soon as possible and be available immediately following the transfer of land to the province. It is important to note that any work on the property cannot proceed without the prior approval and consent of the province and the owners.

The owners of the land have committed \$3.5 million to assist with the implementation of the management plan. Approximately \$1.2 million was spent in 2006 to build a 5 kilometre primary pedestrian trail through the property, construct a fence around Philips Lake to restrict public access, and to build fences and gates at the formal points of access. The balance of the owners' financial contribution will be made as building permits are issued for residential units surrounding the Oak Ridges Corridor Park. These revenues are expected within the next 10 year period.

TRCA continues to manage the Bathurst Glen Golf Course, which is within the boundaries of the Oak Ridges Corridor Park. Staff has reviewed the operations of the golf course and have developed an environmental management plan to eventually meet the requirements of the Audubon Sanctuary Program. Reduced mowing, water management and planting of trees and shrubs have been initiated. The golf course is still owned by Mattamy Homes. Revenues in excess of the golf course operations go to Mattamy. This will remain the case until the total 428 hectares, including the golf course, is transferred into public ownership. The province has been asked to fund the \$30,000 for gates and fences to control access at the formal entrances, and another \$150,000 for operating costs such as enforcement and site maintenance (hazard tree removal, garbage clean up and fence repairs).

It is important that the implementation of the overall management plan begin utilizing the revenues received to date from the issuance of permits for building lots. Site securement is a priority to protect the site and is recommended in the next phase of work. Approximately \$350,000 is currently available and held by TRCA.

FINANCIAL DETAILS

The proposed work for 2007 and associated costs are as follows:

1. Site Securement and Monitoring		
Trail Construction - signs, fences and Yonge St. traffic signal		\$192,000
Park Infrastructure - entrance planting, bollards		\$11,000
Monitoring		\$8,000
Professional/Tech. Services		\$15,000
	Subtotal	\$226,000
	Tax	\$13,560
	Contingency	\$12,000
	Total	\$251,560
2. Habitat Restoration		
Buffer Planting		\$21,600
Forest Establishment		\$34,500
Grassland Management		\$5,800
Wetland Enhancement		\$5,000
Professional/Tech. Services		\$10,000
	Subtotal	\$76,900
	Tax	\$4,614
	Contingency	\$4,075
	Soil Tests and surveys	\$10,000
	Total	\$95,589
	Grand Total	\$347,149

DETAILS OF WORK TO BE DONE

- finalize the membership and initiate the property advisory committee;
- seek funding from other partners;
- develop detailed annual operating plans for subsequent work; and
- work with the Ontario Realty Corporation to finalize the property management agreement so that it is ready upon completion of the land exchange.

Report prepared by: Gary Wilkins, extension 5211

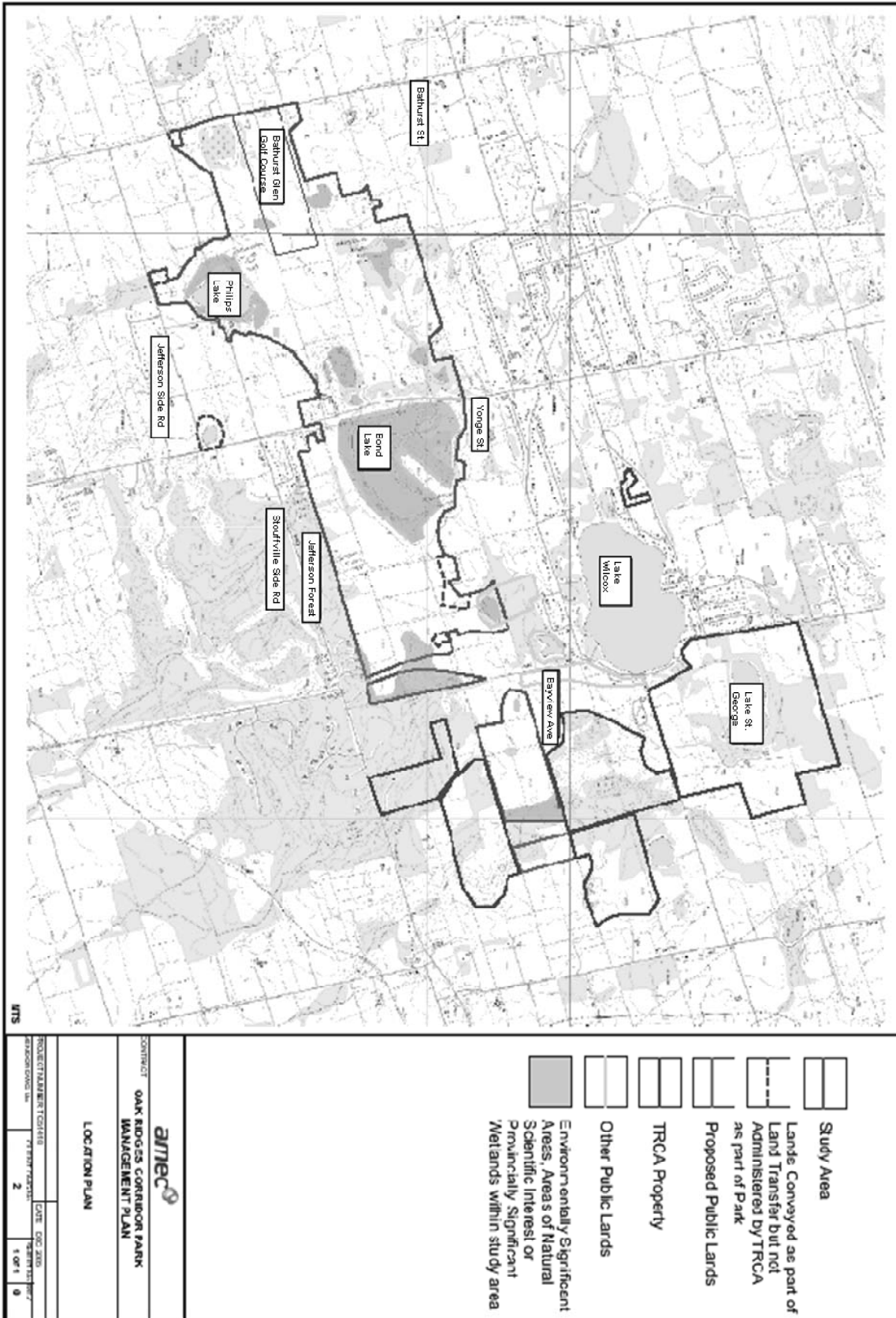
Email: gwilkins@trca.on.ca

For Information contact: Gary Wilkins, extension 5211

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Date: May 30, 2007

Attachments: 2



CONTRACT OAK RIDGES CORRIDOR PARK MANAGEMENT PLAN	
LOCATION PLAN	
PROJECT NUMBER: 10418 DRAWING NO.: 2	DATE: DEC 2005 SHEET NO.: 9

	Study Area
	Land Conveyed as part of Land Transfer but not Administered by TRCA as part of Park
	Proposed Public Lands
	TRCA Property
	Other Public Lands
	Environmentally Significant Areas, Areas of Natural Scientific Interest or Provincially Significant Wetlands within study area

RES.#D20/07 -

**ARSENAL LANDS/MARIE CURTIS PARK WEST MASTER PLAN
ADDENDUM**

City of Mississauga (Region of Peel)/City of Toronto. Approval of the Arsenal Lands/Marie Curtis Park West Master Plan Addendum and direction to prepare agreements relating to park development and long-term management and operation with the City of Mississauga and the City of Toronto.

Moved by: Bonnie Littley
Seconded by: Lois Griffin

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the Arsenal Lands/Marie Curtis Park West Master Plan Addendum, dated November 2006, be approved;

THAT the Arsenal Lands/Marie Curtis Park West Master Plan Addendum be submitted to the City of Mississauga and the City of Toronto for approval;

THAT staff be directed to prepare agreements for park development and long-term management and operation of the Arsenal Lands/Marie Curtis Park West in consultation with the City of Mississauga and the City of Toronto;

THAT TRCA's contribution to the partnership funding for the implementation of the Arsenal Lands/Marie Curtis Park West Master Plan Addendum be included in Toronto and Region Conservation Authority's (TRCA) 5 year capital budget plan (2008-2012);

AND FURTHER THAT the City of Mississauga, the City of Toronto and the Region of Peel be so advised.

CARRIED

BACKGROUND

The Arsenal Lands is a 15.7 hectare property located south of Lakeshore Road East on the eastern border of the City of Mississauga. The Arsenal Lands were long used for a variety of manufacturing activities, including small arms and munitions production during the Second World War. In October 1992, TRCA purchased the property with the intent of expanding Marie Curtis Park to form a 41 hectare waterfront park. The land purchase was made possible through a joint collaboration involving the City of Toronto, Regional Municipality of Peel, City of Mississauga, Province of Ontario and TRCA. As part of the purchase, TRCA and the former landowner (Canada Post) each contributed \$2.5 million to remediate the site.

Shortly after the property was purchased, TRCA retained a consulting consortium (consisting of Hough Woodland Naylor Dance Leinster, Raven Beck Environmental Limited, Duke Engineering Services Inc., Angus Environmental Ltd., Michael Michalski Associates and DS Lea Associates) to undertake a park planning and site remediation study. The purpose of this study was to determine the nature and extent of contaminants on the site, identify methods of rehabilitating the lands to permit public use and develop innovative ideas for the incorporation of the site as a major regional attraction on the Lake Ontario waterfront. The consulting team reported to a technical steering committee consisting of staff from TRCA, the City of Toronto, the City of Mississauga and the Region of Peel to ensure that the interests of the participating agencies were addressed. The consulting team also received public input to help direct the site remediation approach and design of the park concept.

The Arsenal Lands Park and Site Remediation Master Plan was released in 1998 after extensive input from a partner steering committee and through many public meetings/newsletters. The plan included recommendations for site remediation to achieve the park use guidelines established by the province, a long-term monitoring plan and a park concept based on a conservative landscape rehabilitation approach. The focus of the plan was the rehabilitation of the Arsenal Lands property and the provision of minimal park facilities. The plan also made recommendations to integrate the Arsenal Lands with the Waterfront Trail and Marie Curtis Park.

At Authority Meeting #8/98, held on September 25, 1998, Resolution #A174/98 was approved as follows:

THAT the project report on the Arsenal Lands Site Remediation Plan and Park Master Plan be received;

THAT staff be directed to implement the site remediation plan in accordance with the work program outlined in this report;

THAT the Park Master Plan be received and circulated to the partners for comment and approval;

THAT staff be directed to report back to the Authority on the partners approval of the Master Plan and in particular on the recommended arrangement for capital development and park management (operation and maintenance);

AND FURTHER THAT the City of Toronto, the City of Mississauga, the Regional Municipality of Peel, the Province of Ontario and the Canada Post Corporation be so advised.

Site Remediation

In 1990, TRCA performed an environmental audit of the Arsenal Lands to determine the nature and extent of contamination associated with the prior land uses. Testing identified the presence of Polychlorinated biphenyls (PCBs), metals, petroleum compounds, volatile organic compounds and combustible gases in 19 areas of the site. Building demolition resulted in the successful remediation of two of these areas of contamination. The remaining areas of contamination were addressed as part of *The Arsenal Lands Park and Site Remediation Master Plan*.

Following the direction to implement the site remediation plan, TRCA retained INTERA (formerly Duke Engineering and Services) to coordinate remediation of the site in cooperation with TRCA. On October 19, 1998, TRCA initiated the site remediation process in accordance with the Ministry of Environment's *Guidelines for Use at Contaminated Sites in Ontario* (MOE, 1996 - revised February 1997). Site remediation involved on-site screening of soils to remove debris, cobbles and rubble, as well as the removal of more than 70,000 tonnes of soil. The acknowledged Record of Site Condition, dated November 8, 2002, was received from MOE Halton Peel District Office on November 13, 2002.

A containment facility was constructed on-site to store low-level radioactive soils that were uncovered during the remediation process. The Low-Level Radioactive Waste Management Office supervised construction of this facility. The Low-Level Radioactive Waste Management Office also undertakes ongoing monitoring of the facility on an annual basis. The Canadian Nuclear Safety Commission, in compliance with the Nuclear Safety and Control Act, licensed the consolidation mound on December 5, 2005. As per the conditions of the license, TRCA erected perimeter fencing to restrict public access, which will be signed to identify and explain the purpose of the facility.

TRCA achieved substantial savings during the remediation of this site and successfully negotiated with Canada Post to contribute half of the savings from the remediation budget to finance park development (\$688,000) and the implementation of an environmental monitoring program (\$240,000).

Monitoring

In 2001, TRCA initiated a monitoring program to ensure that the site remains in a condition that does not pose an unacceptable risk to human health or the environment. This monitoring program included periodic sampling of soil, groundwater, surface water, sediment and vegetation. In May 2006, Terraprobe provided a summary of monitoring results, spanning 2001 to 2005. The report concluded that ground and surface water quality trends across the site have been generally established and recommended that the program be discontinued based on the results. However, the report identified that groundwater results for Volatile Organic Compounds (VOC's) on a small section of the southwest boundary of the site required further subsurface investigation to determine whether further work or remedial actions were necessary.

In 2006, Terraprobe was retained by TRCA to investigate the extent and impact of VOC's, to prepare a report documenting the results of the investigation, and to provide recommendations for additional work if required. On March 5, 2007, TRCA received Terraprobe's report, which confirmed that the impacted groundwater appears to be limited in extent and that the quality of groundwater does not pose a hazard to human health or the local environment. Based on Terraprobe's recommendation, TRCA will sample groundwater on two separate occasions in 2007 to establish stabilized baseline conditions.

Leased Area

Ontario Power Generation (OPG) leases approximately 24,000 square feet of the office warehouse building situated at the west entrance to the property as a training facility. A small area of the building is also leased to COPS, a community youth group sponsored by Peel Regional Police. In 2003, City of Mississauga staff assessed this building to evaluate opportunities for integration with the future park. The assessment revealed that the cost to repair and retrofit the building to allow for public use would exceed the cost of building a new facility. Based on the results of this assessment, TRCA maintained the current lease arrangement with OPG.

In 2004, OPG commissioned two studies to determine required repairs and upgrades to the building. The OPG studies indicated that over the next five to ten year horizon the building could require in excess of \$2,000,000 in repairs and upgrades. TRCA subsequently conducted an independent review of the studies, as well as a review of requirements under the Ontario Building Code and Ontario Fire Code for the facility. TRCA's review confirmed that immediate work on the building is required to maintain its use. Essential work includes roof repair, boiler replacement and upgrades in compliance with the Ontario Fire Code. The estimate for these essential repairs is \$560,000.

OPG expressed interest in continuing to lease the facility, proposing to undertake repairs and upgrade at their expense in exchange for rent abatement. Based on the condition of the building and the success of the partnership with OPG, TRCA approved an 11-year extension to the lease with OPG via Authority Resolution #A236/06, approved at Authority Meeting #8/06, held on October 27, 2006. Commencing January 1, 2007, the terms of the lease provide OPG with a one-year lease extension to determine if it is feasible for OPG to continue to lease the facility. During this time, OPG will be responsible for all costs associated with the building including repairs and maintenance, structural repairs, realty taxes, insurance (building and liability), and utilities for an annual rent of \$1.

Pending the results of the leasing study, OPG may lease the building for a five year term, commencing January 1, 2008, with an option to renew the lease for further two and three year terms. The rent will be \$1 for each year of the term and OPG would remain responsible for all costs associated with the building and undertake a capital work program of not less than \$1,000,000 over the 10 year term (in consultation with TRCA). Upon completion of OPG's 10 year lease term in 2018, TRCA will consult the City of Mississauga and the City of Toronto regarding the future use of the office warehouse building, which may include public use or possible integration with the surrounding parkland.

Consultation

In 1998, TRCA provided a status report on the Arsenal Lands to the technical steering committee, including a copy of the remediation plan and the *Arsenal Lands Site Remediation Plan and Park Master Plan* for comment and approval. Following the conclusion of the site remediation process, TRCA reconvened a meeting of the technical steering committee to review the progress made during the site remediation phase and to revisit the original master plan. The steering committee identified several issues that required further assessment and resolution before park development could proceed. Some of these issues included:

- change in site conditions;
- current needs of the community;
- need for a long-term park program and management strategy;
- safety concerns associated with inappropriate park use in remote areas;
- potential user conflict associated with the proposed layout of the access road;
- park facilities to service demand for corporate and large group picnics; and
- park features to draw regional users.

These issues provided the rationale for TRCA to spearhead the development of a master plan addendum. TRCA led the development of the master plan addendum with direction from the public and the technical steering committee. The public were given the opportunity to provide comment on the master plan addendum in 2006. Public consultation included a questionnaire asking potential park users to identify recreational activities and park amenities that they felt should be available at the Arsenal Lands. Following further revisions, the master plan addendum was peer reviewed in 2006 by key staff from TRCA, City of Toronto, City of Mississauga and Region of Peel to verify the master plan addendum's consistency with the policies and recommendations of TRCA and the partners. The Region of Peel also confirmed that the master plan addendum is in keeping with their approval of the parkland acquisition funds that were provided to TRCA and requested that they be consulted if there are future plans to add to the facilities on the site. The partners and the public are in support of the master plan addendum. The partners must approve of any future modifications to the master plan.

RATIONALE

Master Plan Addendum

The Arsenal Lands/Marie Curtis Park West Master Plan Addendum is an update of *The Arsenal Lands Park and Site Remediation Master Plan* (1998). The master plan addendum is consistent with the goals and objectives of the original master plan. The addendum reinforces the original intent of the partners to form a regional waterfront park. This is accomplished by integrating the Arsenal Lands with the west side of Marie Curtis Park and through an enhancement of the proposed park amenities to suit the park's regional scale. Given the park's proximity to the border of the cities of Mississauga and Toronto, the park will function as a 'Gateway Park' that will service residents from both municipalities.

The addendum provides further information about the current site conditions, planning recommendations, demographics, community needs and public interests. This information was used to update the overall concept for the park and to develop recommendations for future park operations. The revised park concept builds on the original master plan by offering not only trails and picnicking venues, but also complimentary park facilities to make the park experience more enjoyable and attractive to regional users. These complimentary facilities have been selected to meet public demand and have been sited to help deter inappropriate park use in under used areas.

The changes to the 1998 master plan concept are as follows:

- the major points of access to the park, as well as the supporting system of interior roadways and parking lots, have been redesigned to prevent user conflicts and to create more usable space within the park;
- permitted group picnic facilities have been expanded in response to the increased demand;
- a new restroom and shelter area has been identified to service the large number of picnickers that will use the Arsenal Lands property;
- a new splash pad has been included to offset the use at Lakefront Promenade splash pad, which currently exceeds its designed capacity;
- a unique play area has been added to the concept to draw regional park users;
- space has been designated for waterfront recreation that is considered compatible with the site conditions and public demand such as beach volleyball;

- space has been designated for development of bicycle dirt jumps in the interest of protecting an area of the existing woodlot that is currently being damaged by unauthorized use;
- space has been designated for a future 'leash free' area for dog owners to prevent user conflicts; and
- public use areas have been repositioned to allow for buffers around sensitive habitats.

The addendum outlines the plans to preserve and interpret the unique historic and natural heritage features located within the park, reflecting the partners' commitment to both public recreation and the environment. An overall management approach is included in the addendum, assigning management zones that suggest varying intensities of public use compatible with the site's natural and cultural heritage features. For each management zone, a series of recommendations have been developed to guide park operations and uses. The addendum also recommends that the use of new technologies and materials be explored to develop the park in an environmentally friendly manner.

Marie Curtis Park East

The portion of Marie Curtis Park located to the east of Etobicoke Creek will be the subject of a future park planning process with the intent that this parkland will continue to be operated by the City of Toronto, albeit as an extension of the Arsenal Lands/Marie Curtis Park West. The City of Toronto and TRCA will prepare a master plan update for Marie Curtis Park East to ensure that recreational uses and activities are coordinated between the parks. This master plan update will consider feedback received during the public consultation process for the Arsenal Lands/Marie Curtis Park West, which included requests for designated space to facilitate future expansion of the City of Toronto's Community Garden Program, and refurbishment of the Beach Centre, washroom buildings and other park infrastructure. A preliminary estimate for future capital replacements and improvements to Marie Curtis Park East is valued at approximately \$1,500,000. This cost estimate will be refined following further public consultation and completion of the Marie Curtis Park East Master Plan Update.

Capital Development

In 2005, the preliminary capital costs for park development were estimated at \$3,000,000 for the Arsenal Lands and \$1,000,000 for Marie Curtis Park West. The estimate for the Arsenal Lands considered the cost of implementing the major components outlined in the conceptual park plan such as a new washroom building, play area, splash pad, roadways, trails, parking lots and natural heritage improvements. The cost estimate for Marie Curtis Park West included the decommissioning of the existing parking lots, access road and the boat launch on the west side of Etobicoke Creek, as well as the construction of new park amenities and natural heritage improvements as outlined in the conceptual plan.

TRCA has allocated \$500,000 over the next two years to implement the habitat restoration recommendations, including decommissioning of the boat launch on Etobicoke Creek. The source of this funding will include TRCA fundraising efforts (i.e. grants from environmental foundations such as Great Lakes Sustainability Fund or TD Friends of the Environment Foundation), as well as TRCA capital budget contributions. Other funding for the development of the parklands will include TRCA's savings from the site remediation program (\$688,000), as well as contributions from the cities of Mississauga and Toronto.

The City of Mississauga has approved funding for the Arsenal Lands. The City of Toronto advises that Marie Curtis Park is presently not included in the current five-year capital plan. However, there is a 'placeholder' capital project that is comparable to existing projections that is beyond the five-year capital plan. The City of Toronto is presently investigating options to advance monies for this project.

Site Management Strategy

The overall site management strategy is to achieve a unified approach to the management and operation of the Arsenal Lands and Marie Curtis Park West. As such, it is proposed that these lands be managed as one fully integrated park that will be available to the residents of the cities of Mississauga and Toronto. Based on recent discussions between TRCA, City of Mississauga and City of Toronto, staff is proposing that agreements for the development, management and operation of the Arsenal Lands and Marie Curtis Park West be prepared between TRCA, City of Mississauga and City of Toronto. Through these agreements, it is anticipated that the City of Mississauga would be the project lead for the detailed design, development and operation of the Arsenal Lands and Marie Curtis Park West. TRCA would participate in the detailed design of the Arsenal Lands and Marie Curtis Park West and also retain responsibility for the following:

- management of leased area to OPG;
- ongoing environmental monitoring of the site;
- all aspects of work related to site remediation;
- implementation of the habitat restoration recommendations outlined in the master plan addendum; and
- all aspects of work affecting the river channel, regulated shoreline, flood control, river protection and erosion control.

It is proposed that during operation, the park will be governed by all applicable City of Mississauga by-laws, policies and standards. City of Toronto and City of Mississauga staff are in the process of determining the cost of annual park operations. It has been proposed that the operation costs are to be calculated based on the City of Mississauga's park standards and that any revenues generated by the park (e.g. picnic permits) will be used to offset these costs. Further discussions between City of Mississauga and City of Toronto are required to determine the partners' share of operation costs, as well as contributions to a capital development reserve that would fund future capital expenses, including replacements.

DETAILS OF WORK TO BE DONE

Record of Site Condition

Prior to park development, TRCA will file the acknowledged Record of Site Condition in the Environmental Site Registry pursuant to Section 168.4(6) of the Environmental Protection Act.

Monitoring

TRCA will continue to coordinate ongoing monitoring activities, including terrestrial flora and fauna inventories, fisheries and benthic invertebrate surveys, radon measurements and gamma radiation surveys. TRCA's remaining budget for ongoing monitoring is approximately \$115,000 of the original \$240,000.

Marie Curtis Park East Master Plan Update

The portion of Marie Curtis Park located to the east of Etobicoke Creek will be the subject of a future park planning process, with the intent that this parkland will continue to be operated by the City of Toronto. TRCA staff will work in partnership with the City of Toronto on a master plan update for Marie Curtis Park East to complement the Arsenal Lands/Marie Curtis Park West Master Plan Addendum. The master plan update for Marie Curtis Park East will ensure full realization of the regional waterfront opportunity for the community by coordinating recreational uses and activities between the parks. This master plan update will include further public consultation and will require City of Mississauga and City of Toronto council approval.

Approvals

Adoption of the master plan addendum will be subject to the approval of City of Mississauga and City of Toronto councils. Upon receiving Authority approval, TRCA will submit the master plan addendum to the City of Mississauga and City of Toronto for approval.

TRCA will secure additional approvals as required to allow for implementation of individual components of the addendum, particularly those that may affect lands adjacent to Lake Ontario or Etobicoke Creek.

Community Involvement

Following City of Toronto and City of Mississauga councils' approvals, TRCA staff will publish a newsletter for immediate release that provides an outline of the master plan addendum and post it on TRCA's website. Ongoing opportunities for further public consultation and involvement will be provided during detailed design and implementation phases.

Development, Management and Operation

TRCA will work with the cities of Mississauga and Toronto to prepare agreements related to the development, management and operation of the Arsenal Lands and Marie Curtis Park West.

FINANCIAL DETAILS

The capital costs for park development are estimated at \$3,000,000 for the Arsenal Lands and \$1,000,000 for Marie Curtis Park West (based on 2005 dollars). Park development will be funded through savings from the initial site remediation budget and through TRCA, City of Toronto and City of Mississauga capital budgets. Fundraising will also be undertaken by TRCA to offset park development costs.

The capital costs for park development for Marie Curtis Park East is estimated at \$1,500,000. This cost estimate is considered preliminary and will be refined during the park planning process to be undertaken by TRCA and the City of Toronto.

Report prepared by: Laura Stephenson, extension 5296

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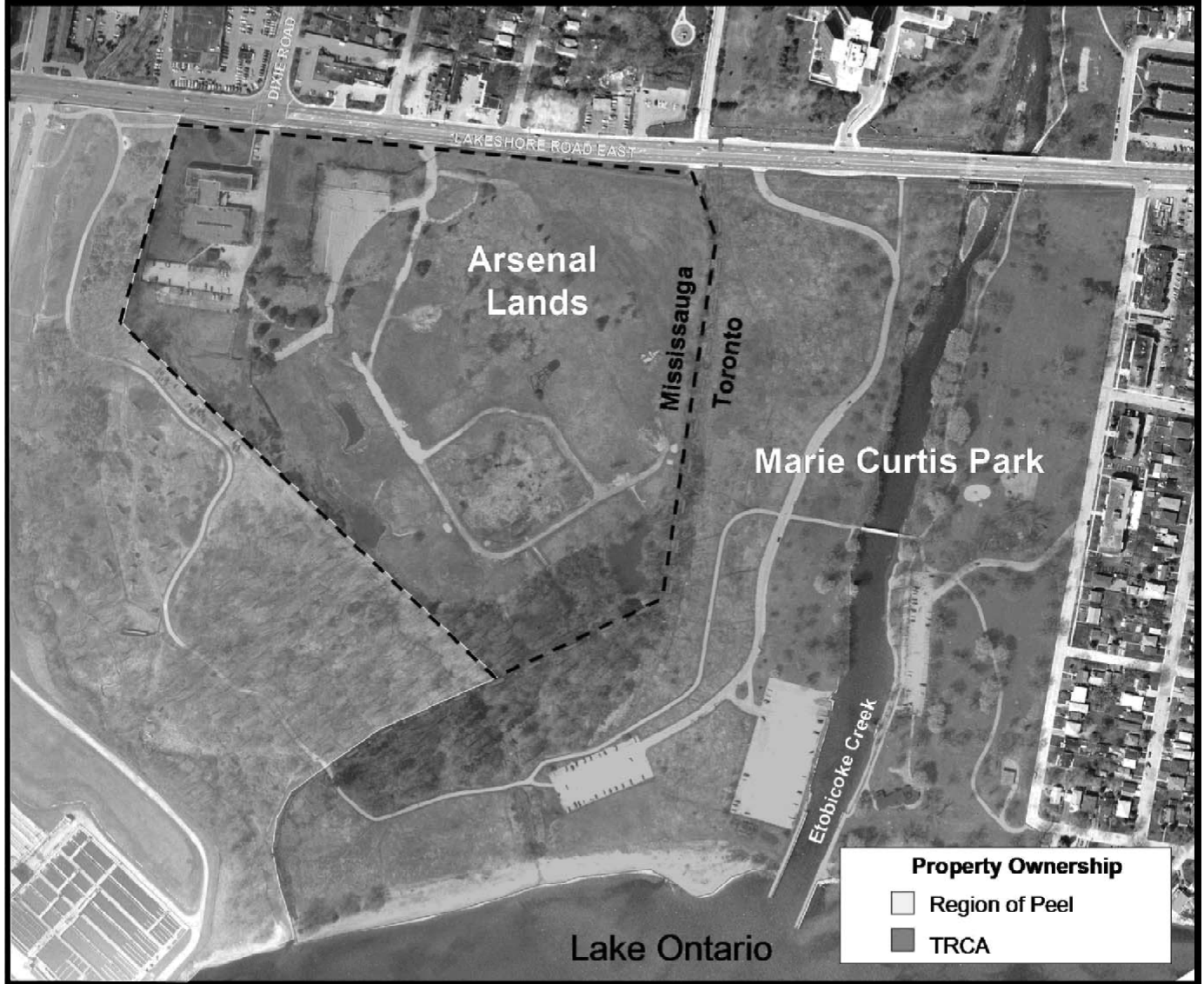
For Information contact: Larry Field, extension 5243

Email: lfield@trca.on.ca

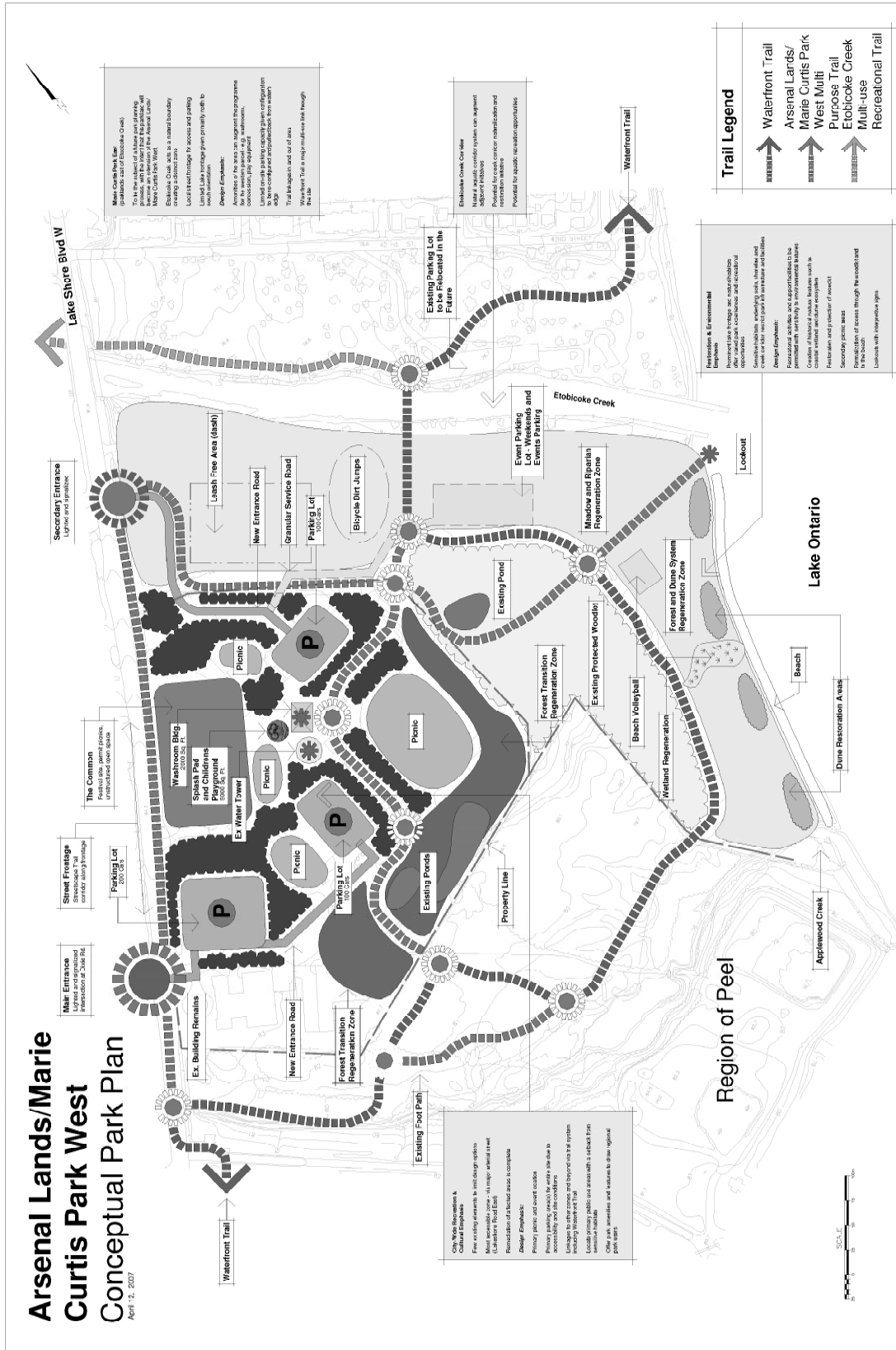
Date: May 30, 2007

Attachments: 2

Attachment 1



Arenal Lands/Marie Curtis Park West Property Ownership



SECTION IV - ITEMS FOR THE INFORMATION OF THE BOARD

RES.#D21/07 - YORK-PEEL-DURHAM-TORONTO GROUNDWATER MANAGEMENT PROJECT

Status Update. Receipt of the 2006 accomplishments of the York-Peel-Durham-Toronto Groundwater Management Study Team.

Moved by: Lois Griffin
Seconded by: Alissa Sugar

IT IS RECOMMENDED THAT the report and presentation on the 2006 accomplishments of the York-Peel-Durham-Toronto Groundwater Management Study Team be received.

CARRIED

BACKGROUND

At Authority Meeting #3/07, held on April 27, 2007, amended Resolution #A83/07 was approved, in part, as follows:

...AND FURTHER THAT staff report back on the status of the York-Peel-Durham-Toronto Groundwater Management project.

The York-Peel-Durham-Toronto Groundwater Management Study was initiated in 2000 as a partnership between the regions of York, Peel and Durham, the City of Toronto (YPDT) and the associated six conservation authorities (Credit Valley Conservation Authority, Toronto and Region Conservation Authority, Lake Simcoe Region Conservation Authority, Kawartha Region Conservation Authority, Ganaraska Region Conservation Authority and Central Lake Ontario Conservation Authority). It was initiated with the goal of arriving at consistency in groundwater management both from a technical and analytical perspective, as well as from a policy and management perspective. With similar goals and objectives, staff, acting on behalf of the Conservation Authorities Moraine Coalition (CAMC), also direct groundwater work across the entire Oak Ridges Moraine. The Province of Ontario recognized the value of this effort and through the ministries of Northern Development and Mines and the Environment contributed significant grants to the project. The Geological Survey of Canada (GSC) and the Ontario Geological Survey (OGS) have also provided technical input into this project.

A key product of this work has been the development of a regional groundwater model by Earthfx Inc. that has led to a broad understanding of the subsurface geological and hydrogeological conditions across the moraine area. The goal is to now have the model used by the various partner agencies in every-day decision making. Towards this goal, the model and associated data have already been used for a variety of groundwater related projects, including the Rouge Watershed Plan, Humber Watershed Plan and the York-Durham Sanitary Sewer System infrastructure installation project.

Further details on deliverables completed in 2007 are provided below:

Database

- updated, 2006 version of the database has been distributed to all partner agencies;
- includes new data from Geological Survey of Canada, Ministry of the Environment, Ministry of Natural Resources (Oil & Gas wells) and Environment Canada.

Geological Layer Construction

- incorporates all of Peel, York, Durham and Toronto as well as areas to the east;
- the geology of the Niagara Escarpment and the linkages to the sediments below the escarpment have been built into the layers along the west.

Numerical Groundwater Flow Model

- completed a comprehensive report on the initial modelling work in York Region and the TRCA watershed;
- expanded the model westward to the Credit and Humber watersheds and eastwards to cover the Central Lake Ontario watershed and some of the Kawartha watershed;
- peer review of the model initiated;
- continued to use model for local projects (e.g. southeast collector study to connect the York sewer system to a Lake Ontario treatment plant).

Other Initiatives

- launched project website (www.ypdt-camc.ca);
- undertook seismic studies in Queensville and Port Perry;
- assisted source water protection with technical expertise.

FINANCIAL DETAILS

This project was jointly funded by the regional municipalities of Peel, York and Durham and the City of Toronto with a budget of \$500,000 in 2006. A \$400,000 budget allocation was approved for 2007 to continue the important work of this partnership.

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Date: May 28, 2007

RES.#D22/07 -

VALLEY AND SHORELINE REGENERATION PROGRAM

2006 - 2007 Overview. Staff has prepared an overview of the Valley and Shoreline Regeneration Program, 2006 - 2007 highlighting erosion control projects constructed or that have commenced during that time period. This report accompanies a presentation that will be made by staff at the June 8, 2007 Watershed Management Advisory Board Meeting.

Moved by: Gay Cowbourne
Seconded by: Bonnie Littley

IT IS RECOMMENDED THAT the list of erosion control projects identified herein be received.

CARRIED

BACKGROUND

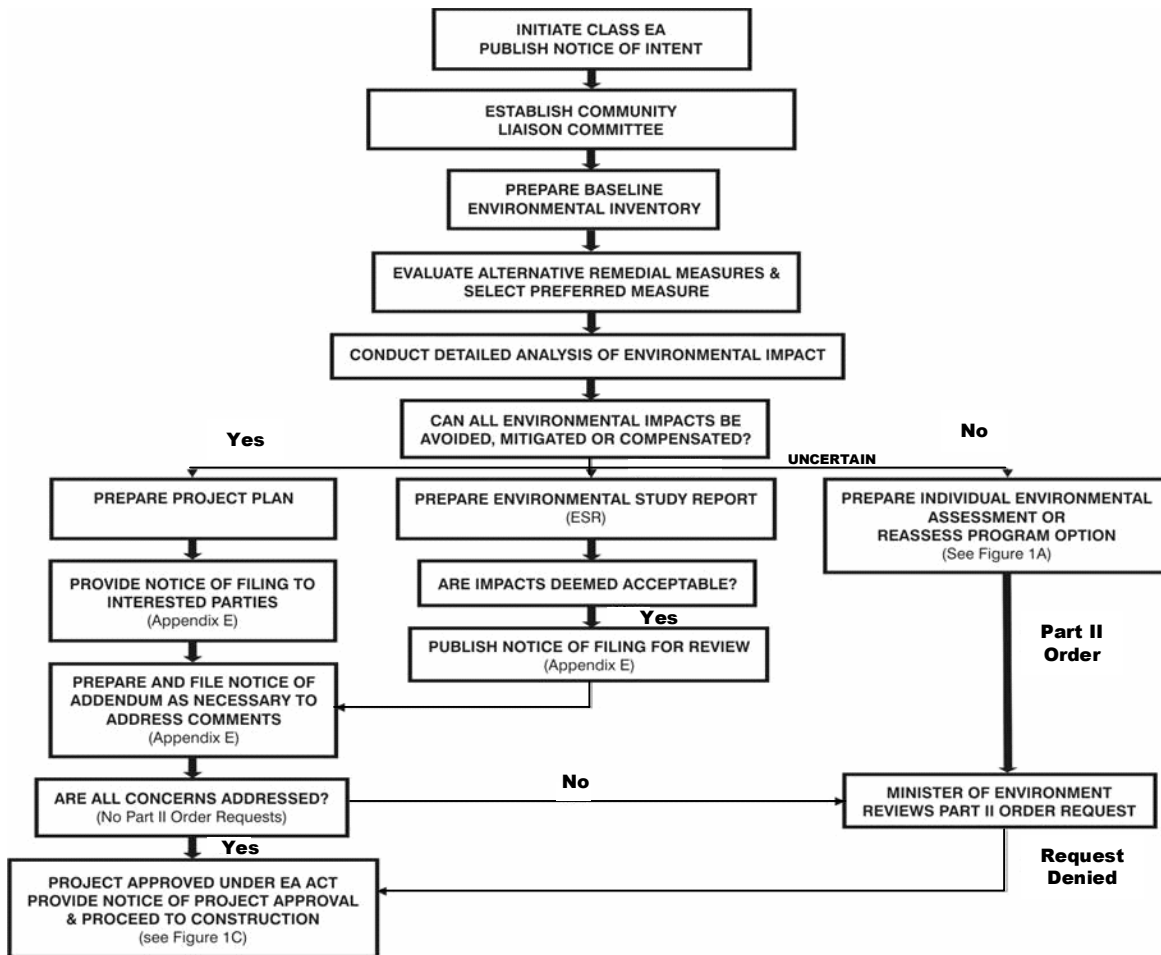
The goal of the Valley and Shoreline Regeneration Program is to minimize the risk to life and property as the result of erosion on riverbanks, valley walls and shoreline, while protecting and enhancing the natural attributes of the valleys and waterfront.

Within the City of Toronto and the regions of Peel and York, staff monitored over 350 erosion control structures and more than 50 erosion sites, through the Erosion Monitoring and Maintenance Program in 2006. In 2007 all of these structures and sites will be reinspected, and the structures located in the Region of Durham will also be inspected for the first time. The data collected from the inspections is then used to identify and prioritize maintenance works for the upcoming year, as well as to identify projects which will require a Class Environmental Assessment (Class EA) under the *Conservation Ontario Class Environmental Assessment for Flood and Erosion Control Projects (2002)*.

The following is a list of Class EAs that were in progress during 2006-2007:

PROJECT NAME	STATUS
121 -129 Col. Danforth Trail - Highland Creek	Complete
345 Beechgrove Drive - Highland Creek	Complete
Gibraltar Point - Lake Ontario Waterfront	Complete
4 - 8 Atwood Place - Humber River	Initiated 2006
Meadowcliffe Drive - Lake Ontario Shoreline	Initiated 2006
CN Rail at Charles Sauriol Conservation Reserve - Don River	Initiated 2007

The planning and design process of a Class EA project is illustrated below:



Detailed geotechnical studies were conducted at the following locations:

- 30 - 48 Royal Rouge Trail - Rouge River;
- 95 Portico Drive - Highland Creek.

Other special projects identified as the result of the annual erosion monitoring program include:

- Highway 10 and Steeles Avenue - Etobicoke Creek - Peel special budget for addressing climate change.

Remedial erosion control works were undertaken at the following sites:

- 221 Martin Grove Road - Mimico Creek;
- 99 Alamosa - Don River;
- Guild Inn Shoreline - Lake Ontario Waterfront;
- 67 Jellicoe Avenue - Etobicoke Creek;
- Wicksteed Channel Realignment - Don River;
- Military Trail Slope Regrading - Highland Creek.

Maintenance projects for the repair or replacement of existing structures in poor condition were carried out at the following locations:

- Westleigh Crescent - Etobicoke Creek;
- St. Clair Ravine - Don River;
- Warden Woods - Don River;
- 1900 Bayview Avenue;
- Yvonne Public School - Humber River;
- Summerlea Park West Berm reconstruction- Humber River.

The technical priorities for the monitoring and maintenance program are reassessed annually through inspections to each site and structure. This review reflects the dynamics of the erosion processes and the addition of new sites, to ensure that the works carried out (both remedial and maintenance) in any given year are addressing the most hazardous sites on a priority basis.

The number of extremely hazardous erosion sites has been significantly reduced over the years, while the number of structures requiring repair is increasing. This is due to the fact that TRCA has utilized the priority ranking system to address and remediate many of the severely eroded sites. Further to this, TRCA developed the Valley and Stream Corridor Management Program as a tool, and has been working extensively with member municipalities on urban planning and proposal review, to ensure that new development adjacent to shorelines and in valley and stream corridors does not introduce the potential for hazardous areas.

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Date: May 30, 2007

TERMINATION

ON MOTION, the meeting terminated at 11:15 a.m., on Friday, June 8, 2007.

Richard Whitehead
Chair

Brian Denney
Secretary-Treasurer

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