THE TORONTO AND REGION CONSERVATION AUTHORITY

INDEX TO

WATERSHED MANAGEMENT ADVISORY BOARD MEETING #5/04

Friday, September 17, 2004

THE TORONTO AND REGION CONSERVATION AUTHORITY

MEETING OF THE WATERSHED MANAGEMENT ADVISORY BOARD #5/04
September 17, 2004

The Watershed Management Advisory Board Meeting #5/04, was held in the Humber Room, on Friday, September 17, 2004. The Chair Nancy Stewart, called the meeting to order at 10:35 a.m..

PRESENT

Gay Cowbourne	Member
Frank Dale	Member
Cliff Jenkins	Member
Dick O'Brien	Chair, Authority
Shelley Petrie	Member
Nancy Stewart	Vice Chair
Michael Thompson	Member

REGRETS

Dave Ryan	Member

RES.#D69/04 - MINUTES

Moved by: Frank Dale
Seconded by: Michael Thompson

THAT the Minutes of Meeting #4/04, held on July 16, 2004, be approved.

CARRIED

SECTION I - ITEMS FOR AUTHORITY ACTION

RES.#D70/04 - TORONTO WATERFRONT REVITALIZATION CORPORATION INITIATIVES

To provide a status report on the Toronto Waterfront Revitalization Corporation initiatives with highlights of the Toronto and Region Conservation Authority's involvement and participation.

Moved by: Gay Cowbourne
Seconded by: Shelley Petrie

THE BOARD RECOMMENDS TO THE AUTHORITY THAT staff continue with the extensive participation with the Toronto Waterfront Revitalization Corporation (TWRC) and its partners and report on specific initiatives as appropriate.

CARRIED

BACKGROUND

In late June and early July 2004, the Toronto Waterfront Revitalization Corporation Contribution Agreement(s) with the Government of Canada, the Province of Ontario and the City of Toronto were signed. This lifted the uncertainty around the future of the TWRC and the go-slow operation mode in place since April 1, 2004.

The following will provide a status of the TWRC's activities, including the projects that Toronto and Region Conservation Authority (TRCA) is the implementing agency for.

PRECINCT PLANNING

East Bayfront

East Bayfront (90 acres) is a in a newly planned waterfront community stretching south of the rail corridor between Jarvis and Parliament Streets which includes a public space system designed to grant access to the water's edge. TRCA has provided comments on integrating habitat improvements as per the Toronto Waterfront Aquatic Habitat Restoration Strategy (TWAHRS). The planning for the area between Cherry and Parliament Streets will follow the completion of the Environment Assessments (EA) for the naturalization of the mouth of the Don River. It is anticipated the final plan will go to City of Toronto Council in early fall.

West Donlands

The West Donlands (80 acres) is located east of downtown between Parliament Street and the Don River and King Street and the rail corridor. TWRC proposes park and public spaces plus mixed commercial and residential use. On August 27, 2004 TRCA provided draft comments to the TWRC with regard to the West Donlands Class Environmental Assessment Master Plan. This precinct plan has incorporated the recommendations from the Lower Don River West Remedial Flood Protection Project Class EA being undertaken by TRCA, on behalf of TWRC and the three levels of government. This precinct plan will go to City of Toronto Council in early fall.

Commissioner 's Park

Commissioner's Park (41 acres) is located in the Portlands, between the Villiers and Commissioner's Streets. This park will provide active recreational opportunities for surrounding waterfront communities in the midst of a tree canopy/"camouflage" landscape concept integrating the Don Greenway and Lower Don naturalization. It is anticipated that the plan will be completed by early 2005.

Lake Ontario Park

The goal of Lake Ontario Park is to assemble a variety of existing park assets into a unified waterfront realm. The tentative site is located directly south of Tommy Thompson Park and will connect Tommy Thompson Park with the Outer Harbour Water Park, the Eastern Beaches and the new Woodbine Park. Lake Ontario Park would be designated a National Park with the planning process guided by Parks Canada expertise. The precinct planning process should begin in the fall of 2004. It is anticipated that TRCA will participate in this key planning effort.

Portlands Plan

The Portlands Plan creates development along the Quays and in relation to Lake Ontario Park, stretching from Cherry Street to Leslie Street. The plan includes new urban plazas, a continuous waterfront promenade, recreational playing fields, a regional sports complex, natural habitat corridors, neighbourhood parks and a network of trails.

OTHER INITIATIVES

Dragon Boat /Rowing Course Feasibility Study

The City of Toronto, in co-operation with the federal and provincial governments, has lent its support to a bid to host the 2006 International Dragon Boat Federation Club Crew World Championships. The project to design and construct the facility, should it be approved for implementation, will be managed through TWRC who will form and chair a small, focused steering committee. TWRC received funding with which to conduct a "fast-tracked" feasibility analysis and has retained a consulting team to perform that analysis. TRCA has been in consultation with TWRC in regard to this initiative and will provide comments on the feasibility study upon its completion.

Central Waterfront Public Spaces Framework

TWRC has developed a Central Waterfront Public Spaces Framework to set "the overall context for public space design", building upon past waterfront initiatives. This initiative incorporated TWAHRS as the guiding document for the aquatic system.

Sustainability Framework

TWRC has developed a Sustainability Framework to identify redevelopment strategies and actions for waterfront initiatives. The principles set out in the Sustainability Framework will be incorporated in the development, environmental assessment (EA) and implementation for projects which TRCA is undertaking on behalf of TWRC (Res.#A217/04).

TRCA LED PROJECTS

Naturalization and Flood Protection - Mouth of the Don River

This project is being undertaken in two parts:

1. Lower Don River West Remedial Flood Protection Project Class EA
2. Don Mouth Naturalization and Portlands Flood Protection Project EA

Lower Don River West Remedial Flood Protection Project Class EA

On June 10, 2004 the three levels of government signed a contribution agreement with the TWRC that increased the study funding from 2 million to 3 million dollars. This funding will be directed to complete the Lower Don River West Remedial Flood Protection Project, and to conduct a second study, the Don Mouth Naturalization and Port Lands Flood Protection Project.

The concerted efforts of the TRCA, the Dillon Consultant Team, the Technical Advisory Committee and the Community Liaison Committee have seen this environmental assessment study nearing completion according to the timeline originally set out. The draft Environmental Assessment Study Reports should be completed by October 15, 2004, the 50th anniversary of Hurricane Hazel – the TRCA's original goal for study completion.

Following receipt of provincial and federal approval, the project implementation process will be initiated with the development of detailed construction drawings, based on the functional design and the acquisition of all necessary lands and construction permits. Construction of the culverts under the CN Kingston Line may commence by early summer 2005. Construction of the flood protection landform to protect lands west of the Don River, will be constructed when the culverts are in place. Construction of all flood protection components should be completed by 2006-07.

Don Mouth Naturalization and Portlands Flood Protection Project EA

The Don Mouth Naturalization Project will require detailed land-use planning and environmental studies to devise the best solution to re-establish a natural, functioning wetland at the mouth of the Don River, while providing flood protection to approximately 230 hectares of land south and east of the existing Keating Channel. The consultant team selection process for this project began in August 2003, resulting in the selection of the Gartner Lee Limited team. TRCA has recently been given approval from TWRC to retain Gartner Lee Limited, and it is anticipated that a delivery agreement for the project will be signed between TRCA and Gartner Lee by the end of September 2004.

Upon signing of the Delivery Agreement, Gartner Lee Limited will be authorized to commence with Stage 1 activities (see Authority Res.#A37/04 for details). Upon receipt of provincial approval of the Individual EA Terms of Reference, Gartner Lee Limited will be authorized to commence with Stage 2 activities of the Delivery Agreement, which is anticipated to begin in summer/fall 2005. This will be coordinated with the transportation planning for the area.

Port Union Waterfront Improvement Project

On July 28, 2004, TRCA received approval under the Canadian Environmental Assessment Act by Human Resources and Skills Development Canada. All approvals for this project are in place. The Contribution Agreement has been signed by all levels of government, as facilitated by the TWRC, with a funding commitment of $16,000,000.

Phase I of the project was initiated in September 2002, involving the construction of a Pedestrian Node at the foot of Port Union Road, a 1.44 kilometre link to the waterfront trail, four armour stone headlands, six cobble beaches and a pedestrian bridge over Highland Creek. Phase II of the project includes the extension of the Waterfront Trail from Port Union Road to the Rouge River and is anticipated to start in 2006.

Construction Activities from September 1 - December 31, 2004 include:

- Wetland will be constructed in the lower reaches of Highland Creek;
- Planning and detailed designs will be initiated for the restoration of the lower reaches of Adam's Creek;
- Headlands 4 and 3 will be completed;
- Beach cells 4 and 2 will be constructed in the fall;
- Construction of beach cells 4a and 3 will begin in the fall and will be completed in the new year;
- Work will begin shortly on headland 2 with completion anticipated in the new year;
- Work will be initiated on detailed landscaped designs for Phase I;
- Bore holes will be taken to assist with siting of Highland Creek Pedestrian Bridge;

- Fall fisheries monitoring will be completed; and
- Coastal surveys will be undertaken.

Mimico Waterfront Linear Park
On August 11, 2004, TRCA received approval under the Environmental Assessment Act by Ontario Environment Minister Leona Dombrowsky. The project is subject to approval under the Canadian Environmental Assessment Act; a decision is expected imminently. The Contribution Agreement has been signed by all levels of government, as facilitated by the TWRC, with a funding commitment of $6,500,000. It is expected that implementation of this project will begin in early 2005.

Tommy Thompson Park
On May 20, 2004, Human Resources and Skills Development Canada announced that $8,000,000 would be allocated to implement the Tommy Thompson Park Master Plan, achieving its goal of an "Urban Wilderness Park". The Master Plan Development Project began in 2003 and has targeted a variety of public amenities, interpretive facilities, habitat enhancement activities and research. TRCA is currently preparing a work plan for the implementation of the master plan and will meet with key stakeholders in the following weeks.

Toronto Waterfront Aquatic Habitat Restoration Strategy (TWAHRS)
TRCA is in the process of setting up the TWAHRS Implementation Committee as per Authority Res.#A5195/03 (approved at Authority Meeting #7/03, September 26, 2003), integrating the TWAHRS recommendations for current waterfront projects.

DETAILS OF WORK TO BE DONE
Staff will continue to undertake the continued negotiations on new initiatives, the project reporting and appropriate participation in all TWRC initiatives. Staff will report to the Authority on specific projects as appropriate.

Report prepared by : Larry Field , extension 5243
For Information contact : Larry Field , extension 5243
Date: August 19, 2004

RES.#D71/04 - **GREAT LAKES CHARTER ANNEX 2001**
Implementing Agreements on Water Taking and Diversions. To provide comments on the drafts of the Great Lakes Basin Sustainable Water Resources Agreement and Great Lakes Water Resources Compact to implement the directives outlined in the Great Lakes Charter Annex 2001.

Moved by: Dick O'Brien
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the position adopted by Conservation Ontario on the draft Great Lakes Basin Sustainable Water Resources Agreement, implementing the commitments within the Great Lakes Charter Annex 2001, be endorsed;

THAT the Toronto and Region Conservation Authority (TRCA) indicate its support for integrated watershed management as it contributes to the sustainability of the Great Lakes Basin;

THAT the TRCA support the integration of other Great Lakes initiatives (i.e. LAMP's under the Great Lakes Water Quality Agreement) with this Agreement to support the restoration and protection of the Great Lakes ecosystem;

AND FURTHER THAT the recommendations and comments be forwarded to the Minister of Natural Resources, Conservation Ontario, Environment Canada, the Council of Great Lakes Governors and the International Joint Commission.

AMENDMENT
RES.#D72/04

Moved by: Dick O'Brien
Seconded by: Frank Dale

THAT the following be inserted before the last paragraph of the main motion:

THAT the Minister of Natural Resources, the Council of Great Lakes Governors , Environment Canada and the International Joint Commission be requested to ensure that prior to finalizing this agreement the weaknesses of the agreement be addressed fully and further extensive agency, public and legal review of the draft agreement take place;

THE AMENDMENT WAS CARRIED

THE MAIN MOTION , AS AMENDED , WAS CARRIED

BACKGROUND
On July 19, 2004, the Province of Ontario posted on the Environmental Bill of Rights Registry (EBR# PB04E6018 – comment period ending October 18, 2004) drafts of the Great Lakes Basin Sustainable Water Resources Agreement and Great Lakes Basin Water Resources Compact. Both documents are part of the draft proposal to implement the directives outlined in Annex 2001. The Agreement is a good-faith agreement among the ten Great Lakes states and provinces while the Great Lakes Basin Water Resources Compact is an agreement among the eight Great Lakes states to join together in an interstate compact to enhance joint decision making about the use of Great Lakes water.

This item was also presented to Conservation Ontario with the following recommendations adopted:

THAT the draft "Great Lakes Basin Sustainable Water Resources Agreement" be supported based on the principle of managing the Great Lakes as a hydrological system, consistent with Conservation Ontario's support for "integrated watershed management".

THAT the strengths and weaknesses of the draft "Great Lakes Basin Sustainable Water Resources Agreement", as well as positive comments with regard to linked initiatives relating to the Agreement, be endorsed and reiterated in a letter to the Minister of Natural Resources and copied to the Council of Great Lakes Governors, Environment Canada and the International Joint Commission.

THAT Conservation Ontario be represented by Toronto and Region Conservation Authority at the September 20, 2004 public meeting in Toronto being hosted by the Council of Great Lakes Governors.

The Great Lakes Charter was signed in 1985 by Great Lakes governors and premiers (Ontario and Quebec) as a good-faith agreement to guide the regional management of the Great Lakes Basin. The principles set forth in the 1985 agreement included:

- Integrity of the Great Lakes Basin;
- Cooperation among jurisdictions;
- Protection of the Water Resources of the Great Lakes;
- Prior Notice and Consultation; and,
- Cooperative Programs and Practices.

In 2001, the Great Lakes Charter Annex, a supplementary agreement to the Great Lakes Charter, was signed to reaffirm the commitment to the five broad principles set forth in the 1985 agreement. Annex 2001 put forth directives to further the principles of the charter. These directives included the:

- Development of a new set of binding agreements;
- Development of a broad-based public participation program;
- Establishment of a new decision making standard;
- Project review under the Water Resources Development Act of 1986 (US);
- Development of a decision support system that ensures the best available information; and,
- Further commitments including the implementation of legislation as well as undertaking a planning process for protecting, conserving, restoring and improving the Great Lakes Basin.

The Great Lakes Basin Sustainable Water Resources Agreement is applicable to Ontario and Quebec. The Great Lakes Basin Water Resources Compact is not applicable as neither the states nor provinces, under constitutional law, can enter into international agreements with other jurisdictions. It is the intent of the Agreement that Ontario and Quebec will create or amend existing legislation to make the Agreement legally binding.

The objectives of the Agreement are:

a. to protect, conserve, restore, improve and efficiently and effectively manage the Waters and Water Dependent Natural Resources of the Great Lakes Basin under appropriate arrangements for intergovernmental cooperation and consultation;
b. to promote co-operation among the Parties;
c. to create a co-operative arrangement regarding Water Withdrawal management that is simple, evolving and provides tools for shared future challenges;
d. to provide common and regional mechanisms to evaluate Water Withdrawal proposals;
e. to facilitate consistent approaches to Water management across the Basin while retaining State and Provincial management authority over Water management decisions within the Great Lakes Basin;
f. to facilitate the exchange of data, strengthen the scientific information upon which decisions are made and engage in consultation on the potential effects of proposed Water Withdrawals on the Waters and Water Dependent Natural Resources of the Great Lakes Basin; and,
g. to prevent or minimize significant adverse impacts of Withdrawals on the Great Lakes Basin's ecosystems and watershed.

ANALYSIS

Strengths of the Agreement :

- Identifies the principles of managing the Great Lakes as a hydrological system;
- Identifies the minimum standard for the protection, conservation, restoration, improvement and management of the Great Lakes Basin (Article 200, 2);
- Provides a jurisdictional framework to managing withdrawals and diversions from the Great Lakes Basin that are consistent in their fundamentals across the region (Article 200, 4);
- Includes the collection of baseline information (including all diversions, all withdrawals in excess of 100,000 gallons per day and known capacity of existing systems) with a commitment to collect and compile additional research on the Great Lakes Basin (Article 301);
- Establishes the “Great Lakes Water Resources Regional Body” to ensure a formalized process, to monitor adherence with the Agreement, to facilitate consensus and conflict resolution, monitor and report on the implementation of the Agreement and propose amendments to the Agreement (Article 400);
- Gives emphasis to the assessment process and includes provisions for independent assessments (Article 505).

Weaknesses of the Agreement :

- Does not take into consideration the stress currently placed upon the Great Lakes Basin for existing withdrawals and diversions;
- Does not consider climate change, navigational systems, energy production, recreational usage or the impact of invasive species as part of a management plan for the Great Lakes basin;
- Does not examine demand side trends, but primarily utilizes historical water use;
- Does not adequately address the cumulative effects of smaller water diversion and withdrawals not subject to regional review under the standard applicability (Article 201);
- Investigates cumulative impacts of regional water diversions and withdrawals every five years, however this may be inadequate timing to mitigate these effects (Article 201, 5);

- Does not adequately supply provisions for the water management programs to protect, preserve, restore and improve the "Waters and Water Dependent Natural Resources of the Great Lakes Basin" (Article 300); and
- Does not place emphasis on conservation programs as an alternative to increased water withdrawals and diversions; conservation programs are considered when withdrawals and diversions are granted (Appendix 2, Procedure Manual, Section E).

LINKAGES TO OTHER GREAT LAKES /WATERSHED INITIATIVES

This agreement has a number of linkages to the following studies, proposals and actions within the Great Lakes Basin.

International Lake Ontario -St. Lawrence River Study (LOSL)

This five year study commenced in December 2000 to assess and evaluate the International Joint Commission's (IJC) Order of Approval used to regulate outflows from Lake Ontario through the St. Lawrence River. The study is evaluating the impacts of changing water levels on shoreline communities, domestic and industrial water uses, commercial navigation, hydropower production, the environment and recreational boating as well as tourism. The forecasted effects of climate change are being evaluated. It should be noted that approximately 85% of Lake Ontario's volume flows through the Niagara River from the upper lakes. The watersheds around Lake Ontario contribute approximately 15% volume.

Great Lakes Renewal Program - "Healthy Lakes through Healthy Watersheds" Program

Environment Canada has been working on a Great Lakes Renewal Program. The program option of "Healthy Lakes Through Healthy Watersheds" was accepted by the Program Management Committee and Great Lakes Executive Committee in March 2004. The proposed program recognizes that the health of the Great Lakes is being negatively impacted by land-use and other activities in the surrounding watersheds and that ecosystem and human health can be improved in the Great Lakes Basin by influencing watershed management initiatives. This proposed program also recognizes that it can help to advance bi-national objectives as defined by the Great Lakes Water Quality Agreement (GLWQA). The Great Lakes Program goes forward to Cabinet this fall for renewal.

Great Lakes Water Quality Agreement and Remedial Action Plan

The Great Lakes Water Quality Agreement (GLWQA) is a joint commitment between Canada and the United States with the purpose "to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes Basin Ecosystem". The Remedial Action Plan (RAP) operates in accordance with the GLWQA with the purpose of formulating an action plan to restore the polluted waterways and waterfront within TRCA's jurisdiction.

Lakewide Management Plans (LaMPs)

As part of the GLWQA, the governments of Canada and the United States made a commitment to prepare LaMPs for the Great Lakes. The LaMPs unite a network of stakeholders in actions to restore and protect the Great Lakes ecosystem. The goal is to restore and enhance self-reproducing diverse biological communities and with the objective that the presence of contaminants shall not limit uses of fish, wildlife and waters by humans and shall not cause adverse health effects in plants, fish, animals and humans.

Great Lakes St . Lawrence Seaway Study

The United States Army Corps of Engineers (USACE) and Transport Canada have commenced a 30-month supplemental study to determine the viability of maintaining the current navigational system until 2060. This is a supplemental study to the 2002 draft report by USACE recommending a $20 million full feasibility study of major deepening and modifications to the width and length of locks and channels within the Great Lakes ports to accommodate Panamax sized ships. Modifications to the St. Lawrence Seaway System have the potential to greatly impact environmental conditions and create additional shoreline hazards. As per Conservation Ontario Council resolution #06/03, it is therefore Conservation Ontario's position that environmental and hazard prevention considerations must have overriding importance when addressing modifications to the St. Lawrence Seaway System.

Draft Drinking Water Source Protection Act

In June 2004, the Province of Ontario released draft legislation regarding the development and approval of watershed based source protection plans. The legislation establishes “source protection areas” on a watershed basis. These plans will include at a minimum a water budget and an assessment of the quality and quantity of water in the watershed. In Southern Ontario, the area over which a conservation authority (CA) has jurisdiction will be a source protection area. In northern Ontario and those parts of Ontario where CAs do not exist, discussions are still underway as to the delineation of a “source protection area.” The draft legislation indicates that the Minister of the Environment has the authority to establish source protection areas for all parts of Ontario that are not covered by a southern Ontario conservation authority.

The Great Lakes provide a major source of drinking water to areas like the Greater Toronto Area and other communities throughout Ontario. The Great Lakes are also the recipient of major discharges for the pollution control facilities (i.e. York Durham system and the Peel system).

The Living City

TRCA adopted The Living City vision in 2000 setting out four key objectives of:
1) Healthy Rivers and Shorelines;
2) Regional Biodiversity;
3) Sustainable Communities; and,
4) Business Excellence.

The Living City recognizes:

- the economic and social value of natural resources;
- that natural systems have limits; and,
- the true cost associated with degrading or destroying these systems.

With nature as our teacher and guide, we can find new and sustainable ways to live in our cities and regions. That enriches our communities and improves the quality of our lives.

In the same manner, the waters of the Great Lakes and the contributing watersheds are essential for the health and well-being of the Great Lakes Basin ecosystem and for the nearly 40 million people. Wise management and efforts to conserve water from all sources is imperative.

DETAILS OF WORK TO BE DONE

On September 20, 2004 the Council of Great Lakes Governors will hold a public meeting in Toronto. TRCA has agreed to represent Conservation Ontario at the meeting and will also put forth the Authority approved TRCA position from this report. TRCA staff will continue to participate on these Great Lakes initiatives in support of integrated watershed management as it contributes to the sustainability of the Great Lakes Basin.

Report prepared by : Larry Field , extension 5243
For Information contact : Larry Field , extension 5243
Date: September 3, 2004

RES.#D73/04 - TORONTO BIRD OBSERVATORY
Memorandum of Understanding. Finalization of the Memorandum of Understanding for migration monitoring (bird banding).

Moved by: Michael Thompson
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT staff be directed to finalize the Memorandum of Understanding for migration monitoring (bird banding) between The Toronto Bird Observatory (TBO) and the Toronto and Region Conservation Authority (TRCA);

THAT staff members , Ralph Toninger and Tamara Chipperfield , be appointed as the TRCA representatives to the Tommy Thompson Park Migration Monitoring Program Management Committee , with additional TRCA staff appointed to participate in the Management Committee as required ;

AND FURTHER THAT the appropriate TRCA officials be authorized and directed to execute all necessary documentation required .

CARRIED

BACKGROUND

In 1959, the Toronto Harbour Commissioners (now known as the Toronto Port Authority or TPA) began construction of a spit of land at the base of Leslie Street in the City of Toronto. From 1959 until present day, a combination of lakefilling and dredging activities created the current configuration of the Leslie Street Spit extending 5 kilometers into Lake Ontario, and having a total land/water base of approximately 471 hectares. The TRCA currently owns 247 hectares of this land and water which is formally known as Tommy Thompson Park (TTP). Those areas still under construction are owned by the Ontario Ministry of Natural Resources (OMNR) and are leased to the Toronto Port Authority (TPA). The OMNR indicated the intent to transfer a further 224 hectares of land and water to the TRCA upon the completion of lakefilling activities.

Tommy Thompson Park has evolved into one of the most significant biological features along the Toronto waterfront. It is home to a huge variety of wildlife and plant species, however it is best known for its migratory and breeding bird populations. In 2001, Tommy Thompson Park was formally designated as a Globally Significant Important Bird Area (IBA) by BirdLife International and its Canadian partners. The IBA program is an international initiative coordinated by BirdLife International, a partnership of member-based organizations in over 100 countries seeking to identify and conserve sites important to all bird species world-wide.

The Tommy Thompson Park IBA designation demonstrates the park's significance nationally, as well as globally for its biological contribution to bird life. In 2001, the Tommy Thompson Park Important Bird Area Conservation Plan was completed by the Tommy Thompson Park IBA Steering Committee. The plan outlined four goals for the Tommy Thompson Park IBA. They are:

1. To conserve and manage the IBA as a public "urban wilderness".
2. To protect the significance of Tommy Thompson Park for colonial and other resident and migrating birds and other wildlife.
3. To encourage monitoring and research in the IBA.
4. To promote and develop educational and outreach programs and capacity in and for the IBA.

These goals are consistent with the TTP Master Plan.

The plan also emphasized the need for volunteer-based monitoring and research programs.

The TRCA has participated in a great variety of research and educational activities independently, and in agreement with local naturalist groups, schools, universities and agencies. In 2002, The Tommy Thompson Park Bird Research Project was established to coordinate the activities of all the various interest groups, and to expand the quantity and quality of the activities undertaken. In 2003 the TRCA began negotiations and entered into a preliminary arrangement with the Toronto Bird Observatory to form the Tommy Thompson Park Bird Research Station. A small banding laboratory was constructed and outfitted with research supplies. The primary objective of the partnership is to help in the protection and preservation of migratory birds and their habitats. It will also include training volunteers and staff; public education programs; communicating with the media and decision-makers about bird populations; bird banding and other research techniques; bird and habitat preservation and related issues; and cooperation with other local, regional, provincial, national and international organizations.

A pilot migration monitoring program was run at Tommy Thompson Park in 2003. Spring migration monitoring was conducted from May 3 - June 8. In total, 870 birds of 66 species were banded from 30 days of coverage. Thirty-one volunteers contributed 727 total person hours to the spring fieldwork. Fall migration was conducted from August 13 to November 12 (91 days). 3,327 birds were banded. Twenty-four volunteers contributed 1,285 hours to the fall project.

The 2003 pilot year at Tommy Thompson Park revealed that the site is appropriate for education. The number of visitors to the station was high and will increase in the near future when the park is open on a daily basis. Overall, the pilot year of migration monitoring was a success in light of both the ability to perform effective research and achieve the educational mandate.

RATIONALE

Information that is collected at the station is used in a variety of ways. Data becomes part of a collection of information from all migration monitoring stations across Canada for the analysis of bird population trends. The information is also used more locally – as part of conservation programs and planning activities in the park and in the rest of the Greater Toronto area.

The MOU will formalize the relationship between TBO and TRCA, and will assist in the protection and preservation of migratory birds and their habitats, and the training of volunteers and staff. It will also include training volunteers and staff; public education programs; communicating with the media and decision-makers about bird populations; bird banding and other research techniques; bird and habitat preservation and related issues; and cooperation with other local, regional, provincial, national and international organizations. A long term agreement with the TBO and community volunteers will insure that long term research and education programs are continue at the park.

The MOU defines the general relationship between the TRCA and TBO, and the operation of the Tommy Thomson Park Bird Research Station located on Peninsula D at Tommy Thompson Park. This project and any other joint activities in Tommy Thomson Park shall be conducted in compliance with the Tommy Thomson Park Master Plan and Environmental Assessment, and the Tommy Thomson Park Advisory Committee shall be expanded to include a TBO delegate.

All joint activities shall be conducted in accordance with all applicable laws, safety standards or guidelines and ethics codes, as well as with TRCA policies. A Management Committee, composed of two members from each Party, shall administer the joint project(s), and will oversee the operation of the Tommy Thomson Park Bird Research Station. The MOU can be renegotiate or amended at any time if both Parties agree to do so, and either Party may terminate this MOU for any reason by giving the other party 60 days notice.

FINANCIAL DETAILS

The Tommy Thompson Park Bird Research Station is operated and staffed through agreement between TRCA staff, Toronto Bird Observatory staff and volunteers, and community volunteers. Existing TRCA Tommy Thompson Park staff oversee the coordination of the station and the facilities. The TRCA contributes $20,000 annually from a variety of existing programs to the operation and maintenance of the station. TBO has received Trillium funding in the amount of $50,000 over three years (2004-2006), and contributes an additional $10,000 of inkind salaries. Community volunteers contribute approximately $25,000 in in-kind volunteer hours on an annual basis.

Partial funding is provided for in the approved 2004 Toronto Waterfront Capital Budget.

Report prepared by : Tamara Chipperfield , extension 5248
For Information contact : Ralph Toninger , extension 5366
Date: August 24, 2004

RES.#D74/04 - HURRICANE HAZEL
50th Anniversary Events. Chronology of events and activities planned to commemorate the 50th anniversary of Hurricane Hazel.

Moved by: Michael Thompson
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the Toronto and Region Conservation Authority (TRCA) participate in the Hurricane Hazel events as outlined in the staff report ;

THAT the partnering organizations be thanked for organizing the various events planned to commemorate Hurricane Hazel ;

THAT the sponsors for the Hurricane Hazel documentary and website be thanked for their contributions ;

AND FURTHER THAT TRCA continue to develop and promote education and awareness programs about the effects of flooding and severe weather occurences and how the community can be better prepared for future severe weather events .

CARRIED

BACKGROUND
October 15, 2004 is the 50th anniversary of Hurricane Hazel, a privotal event in today's conservation authority movement in Ontario. In order to recognize the importance of this event to conservation authorities and all of their watershed citizens, numerous initiatives are being undertaken. The following are the activities which TRCA is participating in:

Hurricane Hazel Documentary
To kick-off the events for TRCA, the production of a historical documentary entitled *Hazel's Legacy* was contracted by TRCA and will be previewed at a Hurricane Hazel event immediately following Authority Meeting #8/04, to be held on September 24, 2004. The sponsors of the video will be invited to the unveiling to be thanked for their generous donations, and be invited to make a cheque presentation to the Authority if they wish. The sponsors to date include:

- AON Reed Stenhouse Inc.
- Canadian Hurricane Centre, Environment Canada
- Harvest Television
- Lombard Canada
- MacViro Consultants Inc.
- Ministry of Natural Resources
- Ontario Clean Water Agency

Harvest Television and TRCA are currently negotiating a television airing of the 30-minute documentary. The documentary will also be produced for sale on DVD and VHS, and TRCA is developing a distribution plan for the video to the public and educators. TRCA's education programs at our field centres will include a segment of the video throughout October. Also, TRCA's outreach education programs will profile Hurricane Hazel, and Black Creek Pioneer Village will feature a still photo gallery in the Visitor's Centre.

September 24, 2004

At 10:30 a.m., following the Authority Meeting, TRCA will be hosting an event including:

- launch of *Hazel's Legacy*, including viewing a short clip;
- sponsor recognition and cheque presentations;
- presentation on Hurricane Hazel by Ken Higgs, former General Manager, Metropolitan and Toronto Region Conservation Authority;
- presentation on Climate Change by Jim Bruce, a climate change expert;
- presentation on the future directions of TRCA by Brian Denney, Chief Administrative Officer, TRCA.

October 3, 2004

The Bolton Community Action Site Committee (BCASC) are planning a memorial service at Dick's Dam. Activities will include: hikes, guided and self-guided tours of historic downtown Bolton, speaker presentations, photo display, a planting event and musical entertainment. Former Metropolitan and Region Conservation Authority General Manager, Ken Higgs, will be the keynote speaker at the event, and will also be speaking to the Bolton Probis Club on September 9th.

October 4, 2004

A Hurricane Hazel website (www.hurricanehazel .ca) will be launched. The website will feature personal accounts, a hurricane quiz, photo gallery, chronology of events, information on Hurricane Hazel, the evolution of flood control management in Ontario, etc. The website will supoprt conservation authorities and costs are being paid by Conservation Ontario. TRCA will be preparing postcards for insertion in community newspapers and other promotional activities to drive people to the website.

October 9 - 11, 16 & 17, 2004

The Kortright Centre for Conservation will commemorate this historic event throughout their Fall Colours Festival, where participants will hear the Hurricane Hazel story, enjoy guided walks, hay rides, kid's activities, etc.

October 15, 2004

A presentation will be made at Watershed Management Advisory Board Meeting #6/04, to be held on October 15, 2004, by Joe Puopolo, the lead from Dillon Consulting, in regards to the functional design and Class Environmental Assessment for the Lower Don River West Remedial Flood Protection Project.

October 16, 2004

The following events will be taking place this day:

10:00 a.m.
Hustle Up the Humber will be hosted by the City of Toronto, Inner City Outtripping Centre at Etienne Brulé Park. The event consists of running, paddling north canoes and bicycling from the Old Mill to the mouth of the Humber River and back to the Old Mill.

The Weston Historical Society will lead a guided walk for the public, highlighting the devastating results of the storm in the Weston area including the tragedy of a street that disappeared, leaving 36 people dead. Participants are invited to visit a pictorial display at the Weston Lions Arena at the conclusion of the walk. The walk will start at 10 a.m. at the entrance to Cruickshank Park and finish at approximately 12 p.m. at Weston Lions Arena. A memorial will follow.

12:00 p.m.
Steve Pitt, author of *Rain Tonight*, will bring together, for the first time in 50 years, two families that together lived through the torment of Hurricane Hazel.

1:00 p.m. – 1:45 p.m.
The Ontario Heritage Foundation will unveil a plaque to commemorate the 50th anniversary. The event will take place at Kings Mill Park, one of the sites devastated by the hurricane. The event, organized by the Ontario Heritage Foundation in partnership TRCA, the City of Toronto and the Humber Heritage Committee, will be hosted by Mike Filey, author and columnist, and will include the participation of representatives from the Ontario Heritage Foundation, the Humber Heritage Committee and various levels of government. One minute of silence will be observed in recognition of those who lost their lives during the devastation. Toronto Firefighters Services will have a colour guard and pipers in attendance as well as dignitaries.

Copies of the documentary, *Hazel's Legacy* will be available for sale (pending securement of a broadcast licence).

The following books will be available for sale:
- *Paths to The Living City: The Story of the Toronto and Region Conservation Authority* (TRCA), by Bill McLean
- *Hurricane Hazel: Canada's Storm of the Century* (Dundurn Press). Author Jim Gifford will be signing books
- *Rain Tonight* (Tundra Books). Author Steve Pitt will be signing books

1:45 p.m.
Following the unveiling of the plaque, the Humber Heritage Committee will lead a public walk along the Humber River. Description of the flooding and damage in the area will be accompanied by historical photographs. The walk will start from Kings Mill Park and finish at approximately 3:45 p.m. at the Old Mill Subway Station.

TRCA is undertaking numerous media activities to assist with the promotion of the various events, the documentary and website.

Report prepared by : Kathy Stranks , extension 5264
For Information contact : Kathy Stranks , extension 5264
Deanne Rodrigues , extension 5359
Date: August 19, 2004

RES.#D75/04 - AQUATIC INVASIVE SPECIES IN THE TORONTO REGION
Update on the Toronto and Region Conservation Authority's current involvement with aquatic invasive species issues.

Moved by: Michael Thompson
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the Toronto and Region Conservation Authority (TRCA) continue to work closely with the Ministry of Natural Resources (MNR), the Ontario Federation of Anglers and Hunters (OFAH) and any other stakeholder agencies to further the education and awareness of invasive species issues in Toronto region ;

AND FURTHER THAT TRCA send a letter to the Minister of Natural Resources requesting that they consider banning the sale and use of the rusty crayfish as bait .

CARRIED

BACKGROUND
At Authority Meeting #3/04, held on March 26, 2004, Res.#A74/04 was approved as follows:

> *THAT staff be directed to further investigate TRCA's role in regards to invasive species issues through our work as a lead implementation partner for the Toronto and Region RAP and during the development of fisheries management plans;*
>
> *AND FURTHER THAT staff report back to the Watershed Advisory Management Board with recommendations on TRCA's future actions and involvement in invasive species issues in the Greater Toronto Area.*

TRCA, under the banner of the Toronto and Region Remedial Action Plan (Toronto RAP) has been in active liaison with key agencies and stakeholders to investigate how we can assist in managing invasive species issues. On May 31, 2004, TRCA and Toronto RAP staff meet with the MNR and OFAH in Peterborough to discuss current invasive species issues and explore areas where collaborative efforts could assist.

With Toronto region being a vast geographic area with a large culturally diverse population, one of the action items identified at the meeting that took place on May 31, 2004 was that the TRCA and the Toronto RAP increase their role as communicators of key issues to the public to further contribute to reducing the introduction and spread of invasive species.

The recent finding of an grass carp in the Don watershed (fall of 2003) through the Regional Monitoring Program at the TRCA, has placed particular focus and attention on the effects aquatic invasive species have on the health of our watershed ecosystems. In addition to on-going monitoring efforts associated with the grass carp, TRCA has also been concerned with the incidence of an invasive benthic species, the rusty crayfish *(Orconectes rusticus)*. As part of the commitment made to assist in the communication of invasive species issues to the general public of the Toronto region, TRCA has recently focused on raising awareness about the rusty crayfish in order to stop the spread of this invasive species throughout TRCA's watersheds.

Overview - Rusty Crayfish

The following provides a synopsis of the discovery of the invasive rusty crayfish within TRCA's jurisdiction and the ecological impacts associated with its presence.

In 2000, benthic invertebrate samples were collected in the Rouge, Duffins and City of Toronto watersheds as part of fisheries management planning and Toronto's Wet Weather Flow Management Master Plan. 2001 was the initiation of TRCA's Regional Watershed Monitoring Program (RWMP). Under this program, 150 benthic invertebrate samples are collected across TRCA's jurisdiction annually.

In September 2003, rusty crayfish were identified at a number of benthic invertebrate sampling stations in the Rouge watershed. Upon further analysis, rusty crayfish were present at 18 locations, or 12% of all stations monitored from 2002–2003. The 18 stations are spread across three watersheds: Duffins Creek has ten stations, the Rouge River has seven stations and the Humber River has one. Even though the collection protocol and level of identification were the same, no rusty crayfish were found in benthic invertebrate samples that were collected in 2000 and 2001.

Upon the discovery of the relatively wide distribution of the crayfish, further research was conducted into the ecology and life history information of this species. Through a small literature review and expert contacts, it was discovered that this species has been causing many ecological problems in the United States, and on the north shore of Lake Superior. Contacts were made with the Minnesota Sea Grant College Program and with Lakehead University. In addition, TRCA has begun to establish stronger links with the Ministry of Natural Resources, Lake Ontario Management Unit and the Ontario Federation of Anglers and Hunters (OFAH) invasive species biologists to tackle the rusty crayfish issues.

Ecological Concern

Rusty crayfish originated in streams in the Ohio, Kentucky and Tennessee regions and is one of 350 crayfish species found in North America, of which three are native within TRCA's watersheds. In their native waters, rusty crayfish typically encounter 25 - 35 predatory species but in most of TRCA streams, it may encounter 3 - 5 predatory species and more often than not, only two.

The rusty crayfish is a threat to native crayfish populations by out-competing them, potentially extirpating them from the watersheds, or from large sections of river. The Rusty crayfish has a voracious appetite and consumes food at twice the rate of native crayfish species, and can quickly deplete the food supply for native fish populations and other species important in the food chain. Rusty crayfish also have a ravenous appetite for aquatic plants and will destroy the habitat of invertebrates and juvenile fish that depend on them. Some research points strongly to the fact that crayfish are primarily carnivorous and utilize plants for food when animal protein has become unavailable, in which case fish and benthic invertebrate populations will be at further risk than perhaps initially thought. Rusty crayfish will alter the ecosystems that they are introduced into, however, what the change will be in our local ecosystems has yet to be determined.

Media Release

At the May 31, 2004 meeting with MNR, OFAH, the Toronto RAP and TRCA, it was determined that an appropriate course of action was to issue a media release about the problems that rusty crayfish pose to the ecological integrity of aquatic ecosystems. The media release was issued by the TRCA on July 9, 2004, and detailed what the rusty crayfish looks like, how to identify it, where they came from, how to prevent their spread, and requested that any sightings be reported to the invasive species hotline run by the OFAH. The media release also had input from MNR and OFAH.

The news release was picked up by the following news agencies:

- Global TV – conducted an on camera interview and visit to the Little Rouge River;
- CBC (Metro Morning) – conducted a radio interview;
- 680 News – conducted a radio interview;
- Globe and Mail - conducted a telephone interview and released a news article;
- Scarborough Mirror - conducted a telephone interview and released a news article;
- Etobicoke Guardian - conducted a telephone interview and released a news article;
- Now Magazine - released a news article based on the press release;
- London Free Press - conducted a telephone interview and released a news article;
- Ming Pao (Chinese daily newspaper)- released a news article based on the press release;
- Fishing Tackle Retailer Magazine (Alabama) - released a news article based on the press release;
- Great Lakes Information Network – posted an article on the web based on the press release;
- CP24 - posted an article on the web based on the press release.

In addition, the media release has been sent through MNR to the bait fish harvesters in our area to raise their awareness as to the presence of the species, and to hopefully reduce or prevent the harvest of rusty crayfish for sale, or accidental transfer between watersheds.

The invasive species hotline has received more calls in response to the media release. Most calls have pertained to identification questions and not new introduction locations. The lack of response is likely due to the fact that many aquatic species, including crayfish, live invisibly beneath the water and most people never encounter them. However, through the media release TRCA was contacted by an individual at the MOE who pointed us to a paper that shows when and where the approximate point of introduction was to TRCA's watersheds. The probable point of introduction was in the West Duffins Creek in 1983.

DETAILS OF WORK TO BE DONE

This summer TRCA staff conducting aquatic and terrestrial inventories, and baseflow surveys, were contacted to raise their awareness about the rusty crayfish and to identify locations where they were seen. As well, TRCA benthic invertebrate taxonomists are working on further identifying locations where this species is found. Further background research is being conducted on the rusty crayfish and Dr. Walter Momot from Lakehead University has provided his research papers and other contacts.

It is likely that the rusty crayfish will have a negative effect on the aquatic ecosystems within the TRCA's jurisdiction, however, it may take a number of years for sampling to show the effects. The first and most obvious impact will be the elimination of native crayfish species from infected watersheds. Evidence of this is found in the Little Rouge River watershed, where samples show a crayfish community containing very few native crayfish and an abundance of rusty crayfish. The 2004 RWMP survey data which will complete collections in September will be analyzed to see where rusty crayfish have spread and the relative number of individuals collected. All information will be documented and sent to MNR and OFAH for incorporation into their databases. This activity will take place over the winter months of 2004 and 2005.

At this point further work needs to be conducted on reducing the spread of this invasive species with the goal of preventing any new introductions. Specifically, efforts should be directed at containing the spread of this species in the Humber watershed, with early detection being the key. With only one monitoring station showing the presence of rusty crayfish in the watershed, the chance of protecting the remainder of the Humber watershed is relatively high compared to the other watersheds. However, this would take a concerted effort that cannot be abandoned after a few years. There also needs to be further work conducted on what the future impacts may be, and possible removal mechanisms. One way the TRCA could support increasing efforts to stop the further introduction of the rusty crayfish would be to request the MNR to consider banning the sale and use of the rusty crayfish as bait. A similar approach for the rusty crayfish would be requested as that which recently was used to pass regulation on the purchase and sale of invasive carps, snakeheads and gobies.

At Authority Meeting #3/04, held on March 26, 2004, Res.#A74/04 was approved as follows:

> *THAT the Toronto and Region Conservation Authority (TRCA) send a letter to the Minister of Natural Resources as part of the public record in support of the proposed regulation to prohibit the buying or selling of live invasive carps, snakeheads and gobies during the 30 day comment period which closes on March 28, 2004.*

TRCA sent a letter of support for this regulation (Ontario Regulation 113/04) when it was posted for comments with the Environmental Bill of Rights (EBR) Registry. Subsequently, Ontario Regulation 664/98 (Fish Licensing) was amended by Ontario Regulation 113/04, and came into effect on April 22, 2004, the date on which it was filed with the Registrar of Regulations.

TRCA will continue to monitor the incidence of other aquatic invasive species through the Regional Monitoring Network. Additional opportunities to assist the MNR and the OFAH in communication and education advancement for invasive species issues will continue to be investigated and pursued when possible. Invasion of the rusty crayfish into TRCA's jurisdiction may signal the potential spread of this species to other nearby watersheds. It is hoped that the above noted media efforts will make other areas aware of this potential threat and signal them to precautionary measures to prohibit the invasion of the rusty crayfish in their waters.

Report prepared by : David Lawrie , extension 5268, Lisa Turnbull , extension 5325
For Information contact : David Lawrie , extension 5268
Date: March 23, 2004

RES.#D76/04 - **GLOBAL LESSONS FOR WATERSHED MANAGEMENT**
A Study by the US. Water Environment Research Foundation.
Comparison of the Toronto and Region Conservation Authority's watershed management programs to emerging international approaches.

Moved by: Michael Thompson
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the staff report on the Water Environment Research Foundation Study be received ;

AND FURTHER THAT a copy of this report be sent to Conservation Ontario .

CARRIED

BACKGROUND

The Water Environment Research Foundation (WERF) is a not-for-profit organization of the United States (U.S.)that funds and manages water quality research for its subscribers through a diverse public-private partnership with municipal utilities, corporations, wastewater utilities, consulting firms, academia and the U.S. federal government. WERF is dedicated to advancing science and technology, and addressing water quality issues as they impact water resources, the atmosphere, the lands and quality of life.

In 1999, WERF undertook a project to research global approaches for watershed management for possible application to the U.S. context. This report details the objectives of the WERF study, findings and the lessons learned from global approaches to watershed management. As the WERF study describes, the key factors in the success of Ontario conservation authorities (CA) has been:

1) establishment on a watershed basis;
2) the delivery of state of the art science and engineering;
3) the establishment of effective partnerships; and,
4) our emphasis on community based approaches.

It should be noted that during the five years that the WERF study took to complete, there has been significant advancements in the Toronto and Region Conservation Authority's (TRCA) and other CA watershed management programs and technical capabilities. Since the WERF study was able to examine only one Ontario conservation authority, the committee selected the Grand River watershed due to the watershed size and similarity with U.S. water resources issues.

Study Objectives

Water resources management in both the U.S. and Canada are evolving in the face of competing issues and challenges to protect water quality, aquatic habitat and other natural resources. The WERF study recognized that many jurisdictions and agencies outside of the U.S. are adopting watershed management as an effective mechanism for water resources management. While innovative watershed management initiatives are underway in the U.S., WERF recognized that successful transition to new approaches would be challenging due to U.S. institutional, regulatory and information barriers. The objective of this study was to identify the most promising watershed planning and management experiences from around the world, and synthesize the information about: how they operate; their benefits and limitations; and, the degree to which these approaches could be successfully adapted to the U.S. context. Findings from the study are intended to inform U.S. policy makers and practitioners and to promote the implementation of integrated watershed management approaches.

Research Methodology

- In consultation with external technical advisors, WERF identified five primary research tasks;
- Conduct a literature review on the theory and practice of watershed-based management in the U.S. and abroad;
- Prepare a compendium of international watershed management experience;
- Develop in-depth case studies of leading international watershed initiatives;
- Conduct a workshop with U.S. and international watershed experts and practitioners to identify case study lessons and appropriateness for U.S. application; and,
- Prepare a report summarizing the key findings of the project.

Consultant for the Project

The Global Lessons for Watershed Management Study was undertaken by the Tellus Institute. The Tellus Institute is a not for profit research group, whose research objectives centre on sustainability. Tellus conducts a diverse program of research, consulting and communication. Its work is sponsored by foundations, government agencies, multinational organizations, non-government organizations and business. Tellus's vision is to bring insight, vision and guidance to advance the transition to a sustainable society.

United States Experience - Context for Emerging Watershed Approaches

To set the stage for their review of international experiences, Tellus conducted an assessment of the current status of watershed management in the U.S. One of the most noteworthy aspects of successful watershed initiatives in the U.S. is their diversity of approaches. The diversity approaches reflects the issues and scales at which these issues are managed. Broad based stakeholder involvement and collaborative decision making are key elements behind successful watershed management. One of the big weaknesses however, is that institutional arrangements in U.S. are not, as a rule, watershed-based.

Since the early 1990s, increasing population and water consumption has led to water scarcities and identified the need for a new system of managing water resources. U.S. federal legislation such as the Endangered Species Act (ESA) and Clean Water Act (CWA) had a profound effect on watershed initiatives. In the Pacific Northwest, the ESA is an extremely important force for watershed activities - bringing increased support for watershed initiatives. Most recently, Total Maximum Daily Loads (TMDL) requirements of the Clean Water Act have the potential to force greater integration of point and non-point source pollution regulation. Watershed approaches provide an obvious framework for handling environmental and regulatory issues under these acts, including water scarcity, ecosystem health, compliance with regulations and the establishment of TMDLs.

TMDLs are defined as the maximum load (mass) of a contaminant that can be safely discharged to a surface water body without impacting the functions and use of the resource. All discharges to the system are assessed to ensure that the TMDL are not exceeded. This has led to concentrated efforts to reduce loads and to formulate optimization strategies (such as phosphorous trading) to promote economic growth while at the same time advancing water quality targets.

Need for Coordinated Authority

Experience from around the globe and in the U.S. has shown that watershed initiatives are often hampered by fragmentation of authority. With multiple agencies with overlapping jurisdiction over water resources it is common to find cross-purpose mandates and unnecessary duplication of efforts between federal and state agencies. At the local or municipal level, downloaded responsibilities for water resources are hampered by limited budgets, over-extended staff and the lack of a supporting framework to coordinate their activities.

Dearth of Watershed Initiatives at the Largest Scale

The absence of large-scale watershed management experience for river basins such as the Mississippi River was recognized as a serious deficiency. Large scale river systems are in theory the appropriate ones for managing on a national basis, key water quality problems such as sedimentation, salinity, nutrient loadings and water allocation. Despite the recognized benefits for all or part of the watershed, one of the key challenges is the distribution of costs and benefits among stakeholders, in different parts of these large watersheds. In large watersheds, it is extremely difficult to foster the same sense of community, hence it is very difficult to request voluntary sacrifices.

Integration of Large- and Small-Scale Efforts

In the U.S. watershed-scale initiatives have been initiated at many different scales ranging from small grass roots studies to projects crossing state boundaries and focusing on regional issues such as water allocation and sediment loading. Similar to our experiences in the Great Lakes Basin, multiple benefits are recognized in the integration of small- and large-scale efforts.

Use of Economic Instruments

Limited and inconsistent funding is a constant challenge in the U.S. particularly for small-scale watershed studies. Emerging programs such as effluent trading can help in this regard to achieve watershed management goals. Other economic instruments are required to overcome challenges associated with limited and inconsistent funding.

Integration of Point and Non-point Source Pollution Management

Historically in the U.S., point and non-point source pollution management was not well integrated at the federal and state level, or with local watershed initiatives. Clearly it is understood that this needs to change. To effectively manage, watershed studies need reliable information about point and non-point sources of pollution. In addition, a key factor is that local land use planning is not well connected to watershed planning, thus, watershed protection priorities have little impact on growth management and regulatory decisions such as zoning, building design and development choices that profoundly impact the hydrologic properties of watersheds (impervious surface areas, stormwater runoff and rural non-point source pollution).

Improved Monitoring and Measurements of Watershed Conditions

Common to Ontario experience, U.S. studies have demonstrated that you cannot effectively manage what you are not measuring. Science-based decision-making requires reliable, complete, long-term data to fully understand the issues and dynamics of watersheds, track the health of watersheds and develop effective programs. Most of the effort in the U.S. has been focused on effluent quality, thus providing an incomplete picture of the history, nature and dynamics of watershed and human activities. The issue is really what level of information and funding commitment is required to support implementation of monitoring programs on a watershed level.

Multiple Objectives Framework

The WERF study showed that U.S. agencies involved with watershed management were looking to achieve multiple objectives in the face of complex environmental and social concerns. The key to achieving these multiple objectives was the identified need for a coordinated authority, at the river basin or watershed scale. In the case of the U.S., this change would require the involvement of more than just "water" professions. Ideally to achieve a community-based, multi-objective watershed initiative, as many representatives as possible would have to be involved from as many different aspects of the watershed as possible.

Funding Challenges

In the U.S., less than $1 billion in federal funding ($20 million per state) is allocated to grant programs for watershed initiatives. Additional funds are indirectly available through federal agency efforts, however the WERF study identified this to be short of the resources needed. Similar to Canadian experiences, there clearly is a need for more government funding, and more funding program flexibility, in order to allow watershed efforts to proceed. Few programs in the U.S. have dedicated funding sources such as hydro power revenues or water/sewage surcharges. Stability of funds from year to year is a big problem.

LESSONS LEARNED FROM REVIEW OF INTERNATIONAL EXPERIENCES IN WATERSHED MANAGEMENT

The key aspect of this study was a review of international watershed management experiences as detailed through a review of five detailed case studies. These five cases were short listed from a broader overview of emerging watershed experiences. In the international context, all the watershed management authorities reviewed have some degree of self-sufficiency in funding through a combination of water and pollution charges or resource associated levies on stakeholders. In return, the local stakeholders directly influence decisions that may affect their use and/or enjoyment of the watershed. A variety of instruments were identified that promote effective watershed management in these case studies:

Economic Instruments:

Means of involving stakeholders and finding better, more efficient financial solutions.

Regulatory Instruments:

Effect cooperation among agencies across jurisdictions and give local decision makers authority.

Information and Communication Instruments:

Can be combined to promote a common ground for discussion among stakeholders.

Technology Instruments:

Potential to drive win opportunities in the case of conflict.

Whatever institutions or instruments that proved effective in a individual case study, the fact remains that there is no standard approach or blueprint for effective watershed management. The WERF study has identified that successful elements must be tailored to local conditions and opportunities.

Case Studies

The following international case studies were conducted for the WERF project:

Mersey River -	Northwest England
Fraser River -	British Columbia, Canada
Rhine River -	Nine European countries
Grand River -	Ontario, Canada
Murray-Darling River -	Southwest Australia

Lessons Learned:

Lesson 1. Utilities have a critical role (Mersey and the Rhine)

In the U.S., drinking and waste services are often privatized and their territories rarely follow watershed boundaries. The fact that drinking water and waste water utilities are major withdrawers or dischargers make them critical players in watershed management. This experience is very different from Ontario, where the services have not to a large extent been privatized. Further, Tellus recommends that drinking protection activities be coordinated on a larger watershed scale for joint planning and management.

Lesson 2. Multi-stakeholder processes provide a forum for effectively managing watersheds (All)

The WERF study identified the key obstacle to effective management in the U.S. was the lack of stakeholder involvement. The credibility and success of a watershed initiative depends upon the degree to which stakeholders participate throughout the process. Accordingly, studies need to factor in the time required to engage stakeholders and ensure that they are engaged early in the process. Trust is achieved by establishing a common understanding of issues and challenges and by providing open access to key information on the watershed. Further effective multi-stakeholder processes that involve a full range of parties help break down some of the institutional barriers. Experience has shown that independent watershed initiatives evolve and that these initiatives are accountable and have the capacity to operate efficiently.

Lesson 3. Large scale watersheds succeed by cultivating and integrating discrete subwatershed and stakeholder initiatives (Mersey, Murray-Darling and the Rhine)

The involvement of a full spectrum of stakeholders representing subwatershed concerns and activities is essential to improve the effectiveness of watershed management in very large basins. Additional organizational capacity is required in order to dedicate support for smaller watersheds to ensure their concerns and activities are incorporated.

Lesson 4. Integration win -win methods support the resolution of upstream downstream and human versus nature conflicts (Murray-Darling, Fraser, Mersey and the Rhine)

When watershed institutions or committees involve both upstream and downstream users, tensions or conflict that exist in many U.S. watersheds are avoided. These bodies can serve to avoid open conflict and afford mutually beneficial solutions. This structure can promote exploration of innovative options such as the use of cost sharing, and/or financial incentives from downstream parties to encourage upstream parties to modify policies and practices that degrade resources. Examples are investment in upstream watershed protection measures to reduce pollutant loads.

Lesson 5. An engaged civil society can provide authority that may be lacking in the watershed organization (Fraser, Mersey and Rhine)

International review of watershed experiences show that watershed initiatives rarely enjoy direct executive or regulatory powers. Instead, these studies succeed by assuming convening, facilitation, planning and assessment functions that inform decision making about policy and project implementation. Successful watershed initiatives often gain *de facto* authority by influencing decisions to implement the watershed plan. Cooperation with NGOs avoids lawsuits and provides negotiations that foster broader acceptable solutions and serve to create political support.

Lesson 6. Institutional stability and a clear mandate for watershed management can reduce fragmentation of authority and result in more efficient planning and implementation (Grand, Murray-Darling)

Whenever there are mandates and frameworks for comprehensive watershed management, stable institutional and planning processes become established. The stability of the "watershed institutions" are important factors in the long-term success of watershed planning. The study recognized that enabling legislation can provide this mandate by specifying the structure of the watershed management institutions, their rules and responsibilities, jurisdiction, membership and funding.

Lesson 7. Instilling regulatory authority in a watershed based institution can facilitate effective watershed protection across political boundaries (Grand and Murray-Darling)

The study recognized that it is rare to find laws and regulations to protect water and other natural resources that are carried out on a watershed-wide basis or by watershed focused organizations. Watershed based institutions can adapt necessary standard or issue permits for development based upon water quality, quantity and other environmental sensitivity criteria to protect watersheds, reduce flooding, create greenspaces, etc. In the U.S., it is politically difficult to establish watershed institutions, due to local resistance, despite the fact that recognized benefits could be significant.

Lesson 8. Explicit policies and guidance documents can be used to promote the integration of watersheds and land use planning at the local level (Grand)

One of the success stories that the WERF study recognized from its review of Ontario conservation authorities, (using the Grand River as a case study) was the ability to promote the integration of watershed and land-use planning at a local level. In the U.S., clear guidance and incentives for local follow-through, would be required in order for watershed plans to be integrated with municipal planning.

Lesson 9. A system of opportunity costs and benefits equitably across the watershed (Grand - Murray-Darling)

Because watershed management activities naturally take place at the local level, they frequently require the acceptance and involvement of municipal officials and long term dedication of capital funds. For this reasons it is critical to involve municipal decision makers in the process of watershed planning from the onset. One way to engage and secure municipal participation is to establish a system of equitable distribution of costs and benefits. The funding partnership advanced by Ontario CAs were identified as an effective mechanism to establish equitable distribution of watershed management costs and benefits. In the U.S., a similar role could be played by regional utilities.

Lesson 10. Watershed decision making a the lowest appropriate level is most effective (Fraser and Murray -Darling)

A key finding of the WERF study was that the lack of coordinated management at the large scale, was largely due to concerns about the loss of decision-making authority at the smaller scale. To allay these concerns the study supported the Fraser and Murray-Darling experience, which suggested that implementation issues and concerns impacting a limited part of the basin be made on a more local, sub-watershed basis.

Potential Applications of the WERF Study for Ontario Conservation Authorities

As Ontario Conservation begin developing their Drinking Water Source Protection Programs (SPP), there is an unique opportunity to update the various watershed management programs that will be the under pinning of successful SPP. Therefore, opportunities exist to adapt the lessons learned from the WERF study and other reviews of international approaches to watershed management, to Ontario watershed management programs, thereby ensuring that our water resources management capabilities continue to be recognized as leading edge on a global basis.

Report prepared by : Gary Bowen , extension 5385
For Information contact : Gary Bowen , extension 5385
Date: June 11, 2004

RES.#D77/04 - **FOREST 2020 PLANTATION DEMONSTRATION AND ASSESSMENT INITIATIVE**

The Toronto and Region Conservation Authority (TRCA), in support of the Forest 2020 Program, a Natural Resources Canada (NRCAN) and the Trees Ontario Foundation's (TOF) Kyoto based tree planting initiative, will act as the delivery agent for the tree planting program in TRCA's jurisdiction.

Moved by: Michael Thompson
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT staff be directed, under the Conservation Ontario umbrella agreement already in place with the Trees Ontario Foundation (TOF), to take the necessary steps to enable the Toronto and Region Conservation Authority (TRCA) to become the Local Program Delivery Agency (LPDA) for the Forest 2020 - Plantation Demonstration and Assessment Initiative in TRCA's jurisdiction .

CARRIED

BACKGROUND

The intent of the Forest 2020 program is to establish demonstration plantations to illustrate the effectiveness of fast growing tree species as part of a national carbon sequestration strategy. The plantations would be studied to determine the long term potential carbon sequestration rates on different site types, climatic and geographic regions, and with different tree species. The monitoring of sites will be carried out by NRCAN for a period of 10 years. Staff are in the process of evaluating a number of TRCA properties in Peel and Durham as potential sites. The program will only be available for the remainder of 2004, through the spring of 2005, and is effectively a one year commitment for the TRCA.

RATIONALE

The LPDA, would administer the local program, select landowners and planting sites based on Forest 2020 criteria, schedule and implement all necessary site preparations and tree plantings, maintain records and provide the initial seedling assessments. Program criteria for site selection are strict and the LPDA must meet quality standards and minimum seedling survival targets. These are services TRCA staff now deliver through our private land reforestation program and are well capable of fulfilling the delivery criteria. This carbon sequestration initiative is in keeping with The Living City strategy.

FINANCIAL DETAILS

The LPDA will be funded by the TOF to facilitate and implement the program. Funds to be based on a cost recovery formula to a maximum amount of $2,112 per hectare planted. 10% of funds to plant a hectre will cover costs to adminster the program. Participation in Forest 2020 is open to all private landowners whose projects meet program criteria, including the TRCA. Forest 2020 will fund approximately 75% of the plantation establishment costs, the remainding 25% to be paid by the landowner. The private landowner can also contribute inkind services as payment towards the planting. In the case of plantings on TRCA land, TRCA will realize the 75% cost savings through the Forest 2020 program.

Report prepared by : Zoltan Kovacs , extension 5379
For Information contact : Zoltan Kovacs , extension 5379
Date: August 06, 2004

RES.#D78/04 - NAMING WATERCOURSES IN THE ROUGE RIVER WATERSHED

Request by the Community Resource Centre to name three unnamed watercourses located in the Rouge River watershed, within the Town of Whitchurch-Stouffville.

Moved by: Michael Thompson
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT WHEREAS the Toronto and Region Conservation Authority (TRCA) is in receipt of a request from the Community Resource Centre to support their suggested names for three unnamed creeks in the Rouge River watershed within the Town of Whitchurch-Stouffville ;

WHEREAS the Rouge Park Alliance has requested that the municipalities within the Rouge River watershed provide an update regarding the official naming of Rouge River tributaries within their jurisdictions and take a leadership role in assigning names to currently unnamed watercourses ;

THEREFORE LET IT BE RESOLVED THAT the TRCA supports the Rouge Park Alliance requests that the municipality take a leadership role in the process for designating names to currently unnamed watercourses in the municipality and seek input from stakeholders on recommended names prior to approval;

THAT municipalities in naming unnamed tributaries coordinate with upstream or downstream municipalities where a tributary crosses a municipal boundary;

AND FURTHER THAT the Town of Whitchurch-Stouffville , the Community Resource Centre and the Rouge Park Alliance be so advised.

CARRIED

BACKGROUND

The TRCA received a request from the Community Resource Centre, a local community group involved with natural restoration, on April 15, 2004 requesting support for the naming of three tributaries of the Rouge River within the Town of Whitchurch-Stouffville as River Zhiwekana, Mishiikenk Creek and Giiwedinong Creek. At Authority Meeting #4/04, held on April 30, 2004, Resolution #A97/04 in regards to the request was approved in part as follows:

> *AND FURTHER THAT correspondence (b) be referred to Toronto and Region Conservation Authority and Rouge Park Alliance staff for a report to the Watershed Management Advisory Board.*

On June 18, 2004, the Rouge Park Alliance reiterated its previous position that it considers the municipality to be the appropriate stakeholder to lead the naming process as it is relevant to all the residents within a municipality. As a result, Resolution #62/04 was approved by the Rouge Park Alliance as follows:

> *THAT the Rouge Park Alliance request the Town of Whitchurch-Stouffville to take a leadership role in the process for designating names to currently unnamed watercourses within a municipality.*

RATIONALE

The TRCA supports the position of the Rouge Park Alliance in that the issue of naming watercourses is a municipal-wide issue and the municipality should therefore take the lead, with consultation from interested stakeholders. In the case of the suggestions put forward, stakeholders should include but not necessarily be limited to:

- Community Resource Centre;
- Rouge Park Alliance;
- TRCA;
- organized First Nations representation;
- the local historical society/museum; and,
- Transport Canada (the landowner in the vicinity of the three watercourses).

TRCA staff will provide comment on any watercourse names put forward by various municipalities, in an effort to ensure that appropriate names reflecting historical, cultural and community interests are approved.

Report prepared by : Kathy Stranks , extension 5264
For Information contact : Kathy Stranks , extension 5264
Lewis Yeager , 905-713-7374
Date: September 6, 2004

RES.#D79/04 - **DUFFINS CARRUTHERS WATERSHED RESOURCE GROUP**
Appointment of Members. Approval of appointments to the Duffins Carruthers Watershed Resource Group.

Moved by: Michael Thompson
Seconded by: Shelley Petrie

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the Duffins Carruthers Watershed Resource Group appointments , as set out in the staff report , be approved .

CARRIED

BACKGROUND

The Duffins Creek Watershed Task Force and the Carruthers Creek Watershed Task Force worked together to complete *A Watershed Plan for Duffins Creek and Carruthers Creek* in 2003. In moving forward to implement the plan, the Toronto and Region Conservation Authority (TRCA) retained Cumming and Company to develop an effective implementation strategy. At its April 30, 2004 meeting, the Authority passed Resolution #A130/04, accepting the proposed implementation strategy and the formation of the Duffins Carruthers Watershed Resource Group (DCWRG), in part as follows:

> *THAT one member of the Watershed Management Advisory Board and one member of the Sustainable Communities Board be appointed to the Duffins Carruthers Watershed Resource Group (DCWRG) to represent the Toronto and Region Conservation Authority (TRCA);*

THAT staff continue to consult with federal and provincial agencies, local and regional municipalities and watershed residents to assign individuals to the DCWRG as outlined in the implementation model;

THAT staff work closely with municipal and regional councils and staff to build capacity within the local areas for the implementation of the watershed plan and to assist with the recruitment of local residents and organizations for involvement;

THAT staff work with currently active local watershed residents and organizations to create opportunities for further involvement and for consideration of opportunities to implement the watershed plan, as part of, or in addition to, their existing activities and programs;

THAT a report be submitted to the Authority identifying the proposed membership, including the TRCA representation for formal approval;

THAT as defined by their Terms of Reference, the DCWRG report back twice a year to the Watershed Management Advisory Board regarding the progress of implementing the watershed plan;

Section 3.2.1 of the Duffins and Carruthers Watershed Resource Group Terms of Reference states that:

> *The regional and local municipalities will be requested by the TRCA to confirm the participation of a council member to the Duffins Carruthers Watershed Resource Group. A municipality may appoint a current Authority member. The appointed member should represent an electoral ward within the Duffins or Carruthers watersheds.*

Letters were sent to local municipalities and various provincial ministries, federal departments, and businesses with an interest in the Duffins and Carruthers watersheds asking them to appoint members to the DCWRG. Many of the people recommended were members of one of the task forces who developed and completed the watershed plan. Invitations to some citizen members of the task forces have been extended for their participation on the DCWRG but other citizen members will be determined, over time, through consultation with our municipal partners.

It was noted, particularly by staff and council at the City of Pickering, that a First Nations representative should be appointed to the resource group. Although the First Nations were not consulted during plan development, their participation in plan implementation may allow us the opportunity to address issues and discover opportunities missed during plan development. The Mississaugas of Scugog Island First Nation, having jurisdiction in the Duffins and Carruthers watersheds, were contacted and have suggested an appointee and an alternate to the DCWRG as indicated below.

To date, the following representatives have agreed to be appointed to the DCWRG:

Duffins Carruthers Watershed Resource Group Members

Members (Alternates)	Representing
TRCA	
Mr. Dick O'Brien	Chair of the Authority, *ex-officio*
Regional Councillor Colleen Jordan - Ajax	Sustainable Communities Board
To Be Determined	Watershed Management Advisory Board
Mr. Gary Bowen	Watershed Specialist
Municipalities	
Councillor David Pickles (Alternate To Be Determined)	City of Pickering
Regional Councillor Scott Crawford (Alternate - Councillor Joe Dickson)	Town of Ajax
Councillor John Webster	Town of Markham
Declined	Town of Whitchurch-Stouffville
Councillor Susan Self (Alternate - Mayor Gerri Lynn O'Connor)	Township of Uxbridge
To Be Determined	Regional Municipality of Durham
Regional Councillor Jack Heath	Regional Municipality of York
First Nations	
Mr. Kris Nahrgang (Alternate - Ms. Angela Johnson)	Mississaugas of Scugog Island First Nation
Provincial Ministries	
To Be Determined	Ministry of Agriculture and Food
Mr. Keith West, Director Central Region Office	Ministry of the Environment
To Be Determined	Ministry of Municipal Affairs and Housing
Mr. Peter Waring, Area Supervisor York/Durham - Aurora District	Ministry of Natural Resources
To Be Determined	Ministry of Transportation
Federal Departments	
To Be Determined	Environment Canada
Mr. Stephen Woolfenden Fish Habitat Biologist	Fisheries and Oceans Canada
Ms. Patricia Short-Gallé Regional Manager	Transport Canada
Businesses	
Mr. Peter White	Aggregate Producers' Association of Ontario
Mr. Neil Acton	Golf Course Industry
Residents	
Dr. Neil Burnett	Town of Ajax
Dr. Doug Dodge	Town of Ajax
Mr. Alan Wells	Township of Uxbridge

As well, the following municipal staff have been identified as resources in plan implementation but will not be members of the DCWRG:

- Ms. Laura Atkins-Paul - Regional Municipality of York
- Ms. Lilli Duoba - Town of Markham
- Mr. Steve Gaunt - City of Pickering
- Mr. Kevin Heritage - Town of Ajax
- Mr. Andrew McNeely - Town of Whitchurch-Stouffville

Report prepared by : Brent Bullough , extension 5392
For Information contact : Gary Bowen , extension 5385
Date: August 04, 2004

RES.#D80/04 - GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE
Provide comments to the Ministry of Public Infrastructure Renewal on the discussion paper "A Growth Plan for the Greater Golden Horseshoe".

Moved by: Michael Thompson
Seconded by: Frank Dale

THE BOARD RECOMMENDS TO THE AUTHORITY THAT WHEREAS the Growth Plan for the Greater Golden Horseshoe (herein "Growth Plan ")is an important step towards the Sustainable Communities objective of The Living City in that both seek to promote a "smart growth " model of compact urban development that conserves natural resources and energy while promoting increased use and availability of efficient public transit;

THEREFORE LET IT BE RESOLVED THAT the Toronto and Region Conservation Authority (TRCA) advise the Ministry of Public Infrastructure Renewal that TRCA supports the general directions of the growth plan;

THAT to avoid undermining the intent of the Growth Plan, the province consider increasing both the target for intensification and not permitting urban boundary expansions within the Greater Toronto Area (GTA) for a period greater than 5 years, unless the target and other proposed criteria have been met;

THAT the province consider increasing the time horizon for the Growth Plan to beyond 30 years and that the additional projected population growth beyond a 30 year planning horizon be contained within urban growth boundaries established in accordance with environmental carrying capacities identified through watershed plans;

THAT the province consider a growth management strategy that would prevent any new or expanded lake -based water and sewer infrastructure (excluding infrastructure approved but as yet unbuilt or infrastructure required to address serious health or environmental concerns) from being extended onto or over the Oak Ridges Moraine (ORM);

THAT a growth management plan for the Greater Golden Horseshoe recognize the

importance of locally significant natural heritage systems in supporting the ecological integrity of provincially significant features and areas and that as intensification and redevelopment of existing urban areas occurs, an expanded and enhanced natural heritage system will be required for long-term sustainability to withstand the use and pressures of a projected population growth of an additional 3 million people ;

THAT financial tools, incentives and standards, similar to those proposed for brownfields redevelopment and intensification, be developed to encourage the private sector and assist municipalities in the enhancement of local natural heritage systems, implementation of "green infrastructure " such as stormwater management retrofits and the use of green building technologies that reduce energy consumption and improve air quality, including provisions for renewable energy sources, as part of a comprehensive plan to reduce the impacts from and rate of climate change;

THAT TRCA support the coordination of the environmental assessment and land-use planning process to ensure the protection of local natural heritage systems and that the consideration of alternatives reflects emerging technologies, innovative designs and especially an appropriate balance of roads and transit;

AND FURTHER THAT this report be circulated for information to TRCA's watershed municipalities and conservation authorities within the Greater Golden Horseshoe study area.

CARRIED

BACKGROUND

In mid-July, the Province of Ontario released a discussion paper titled "Places to Grow: Better Choices. Brighter Future. A Growth Plan for the Greater Golden Horseshoe". The document outlines a strategy and identifies tools for managing growth in the Greater Golden Horseshoe (GGH) over the next 30 years, where 3 million new residents are expected to settle. The document provides proposed directions for provincial and municipal decisions on a range of growth-related issues such as urban development and land use planning, capital investment planning, housing, transportation and environmental infrastructure and economic development. This document is one component of several provincial initiatives to manage the growth and prosperity of Ontario's communities, and also includes the Golden Horseshoe (GH) Greenbelt Plan, source water protection and planning reform, among others.

SUMMARY OF THE GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE

The document addresses four primary topics:

1) Where and How to Grow;
2) Infrastructure to Support Growth;
3) Protecting What is Valuable; and
4) Implementation.

1) Where and How to Grow

The document identifies the redevelopment of brownfield and greyfield sites and intensification along higher order transit corridors within urban areas as key opportunities to contain much of the anticipated growth within existing urban boundaries. The review of existing and new financial tools and incentives and the development of standards for greenfield development are some of the strategies proposed to achieve this form of compact urban growth. Priority Urban Centres (PUC) are identified as the location where much of the growth should be accommodated through redevelopment opportunities. PUC within TRCA watersheds include: Downtown Toronto Waterfront, Yonge-Eglinton Centre, North York Centre and the Brampton City Centre. Emerging Urban Centres (EUC) identified within TRCA watersheds include: Scarborough Centre, Markham Centre, Richmond Hill/Langstaff Gateway and Downtown Pickering. Approximately one third of all identified PUC and EUC are located within TRCA watersheds. Strategies to encourage growth within these areas include exploring and developing innovative financial tools and incentives, the development of standards and performance measures for urban centres, including density targets, and establishing the GH Greenbelt to clearly delineate areas off limits to urban growth.

The report also notes that it may be necessary to consider expansions to urban boundaries in some areas, including the areas of the GTA that are south of the Oak Ridges Moraine (ORM) and outside of the proposed Greenbelt. Map 4 shows this conceptually as a rounding out of the existing urban boundaries, leaving a thin strip of potential greenbelt lands south of the ORM. A number of criteria are proposed that would need to be satisfied prior to any expansion of urban boundaries within the next five years, including that 40% of projected growth is accommodated through intensification, natural heritage systems are planned for and protected and appropriate consideration is given to source water protection.

2) Infrastructure to Support Growth

The document proposes to establish new approaches to infrastructure planning such as optimizing the use of existing infrastructure and establishing a more integrated transportation network. A 10-year Strategic Infrastructure Investment Plan is currently under development by the Ministry of Public Infrastructure Renewal (PIR). Strategies are identified for moving goods and people, such as building urban transit, including new inter-regional systems and strengthening the GO rail system, plus a network of High Occupancy Vehicle (HOV) lanes. Map 5 shows conceptually a future inter-regional transit link between Barrie and the GTA through the proposed Highway 427 corridor. Map 6 shows conceptually a future "economic corridor" along the existing urban boundary in York and Peel regions extending from near Highway 400 westwards through Guelph to Kitchener/Waterloo. Sustainable water and wastewater services are given special mention as necessary supports to growth, including the need for strategies to develop methods of treating stormwater and combined sewer overflows, new controls on regulating water takings and assessing the assimilative capacities of receiving water bodies.

3) Protecting What is Valuable

This section of the document largely recaps existing ongoing initiatives such as the proposed greenbelt plan, source water protection, the Nutrient Management Act and other existing legislation. The report notes that greenspace systems are an integral part of the regional fabric which contributes to the quality of life of residents, and that protection is required for significant natural heritage features as well as broader systems such as the Lake Ontario Waterfront, ORM and Niagara Escarpment. As in the greenbelt report, certain agricultural lands (including the Duffins-Rouge Agricultural Preserve) and mineral aggregate resources are also identified as requiring long term protection.

4) Implementation : Moving Forward

The document notes that a provincial facilitator will be appointed to assist on issues arising as the growth plan is implemented. Additionally, a "blue ribbon" panel will be established to monitor and advise on implementation of the plan. Possible planning implementation tools include upper tier official plans, community improvement plans and a development permit system. Planning reform, including Ontario Municipal Board (OMB) reform and the Provincial Policy Statement (PPS) update are other means already ongoing. Provincial legislation is suggested as a possible means to ensure compliance with the Growth Plan. A number of possible fiscal implementation tools are also suggested such as life-cycle pricing, tax increment financing, property tax reform and others. The development and monitoring of community livability and sustainability indicators are suggested to assess the effectiveness of growth plan implementation.

TRCA STAFF ANALYSIS AND COMMENTS ON THE GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE

The document integrates and discusses many of the planning and development issues of concern in the GTA over the past decade. It is, however, fairly general in nature, and relies on many strategies yet to be developed and many tools yet to be explored and evaluated. Together with other recent provincial initiatives such as planning reform and a greenbelt plan, it does deliver a sense that the issues are now going to be seriously investigated and a coordinated action plan adopted. The Growth Plan, though general in nature, is an important step towards the Sustainable Communities objective of The Living City. Both the Growth Plan and The Living City seek to promote "smart growth" models of compact urban development that conserve natural resources and energy while promoting increased use and availability of efficient public transit. In that regard staff recommend that TRCA generally support the directions of the Growth Plan.

There are, however, several areas in which staff believe the directions of the document should be strengthened, such as: 1) in setting timelines and targets for the ratio of greenfield development vs development within existing urban boundaries; 2) the time horizon for the overall Growth Plan; 3) geographical restrictions to the expansion of new lake-based sewer and water infrastructure; 4) recognition that intensification will require planning for a more robust natural heritage system; 5) adding to the list of topics needing to be implemented through new financial tools and standards, additional topics such as enhanced green infrastructure, green building technology and energy efficiency; and 6) requiring better integration and coordination of the land use planning process with the environmental assessment process.

The Growth Plan provides several case studies of the ratio of greenfield development to development through intensification in existing urban areas. Sydney, Australia recently adopted a target requiring 75% of new dwellings to be built within existing urban areas while allowing for 25% as greenfield development. A new national target for the United Kingdom is to build 60% of new dwellings on previously developed land by 2008. The target of the Vancouver Regional District's strategic plan is to capture 70% of growth by 2021 in the growth concentration areas. In contrast, the GGH Growth Plan sets a target of a minimum of only 40% of projected growth to be met through infill and intensification. Further, this is one of the criteria that would permit urban boundary expansions in GTA municipalities within the next 5 years, even as the Growth Plan states that most municipalities have sufficient land designated to accommodate urban growth in the GGH for the next 15 to 25 years, even without implementing compact urban form measures. Clearly, the proposed target and timeline needs to be strengthened so as not to undermine the intent of the Growth Plan. TRCA staff recommend increasing both the target for intensification and not permitting urban boundary expansions within the GTA for a period greater than 5 years, unless the target and other proposed criteria have been met.

With respect to the 30 year time horizon of the Growth Plan, this is only marginally greater than most regional official plans within the GTA. The document specifically references an approximately 40 year horizon for Highway 407 from planning to implementation. It also notes that Waterloo Region has a 40 year Growth Management Strategy. Therefore, to avoid simply duplicating municipal official plans and to provide true provincial leadership in this exercise, a time horizon for the Growth Plan of greater than 30 years should be considered. Further, no indication is provided as to how to accommodate additional population growth beyond the 30 year horizon of the Growth Plan. Environmental modelling undertaken through watershed plans to be conducted over the next few years will provide guidance as to the environmental carrying capacity of lands within the GGH to accommodate additional urban growth. This may establish significant environmental constraints to urban boundary expansions within GTA watersheds, and the Growth Plan should account for the potential need to accommodate projected population growth beyond the 30 year planning horizon within the urban boundaries established for the 30 year plan.

To ensure that future urban growth within GTA municipalities unfolds as proposed in the Growth Plan, the province should consider a specific policy/strategy that would not permit any new or expanded lake-based water and sewer infrastructure to be extended onto or over the Oak Ridges Moraine (this would **not** apply to approved but as yet unbuilt infrastructure or infrastructure required to address serious health or environmental concerns). Such a policy would support the implementation of the Growth Plan by ensuring that sewer and water system funding contributes to the optimization of existing infrastructure, concentrates new growth in Priority Urban Centres and Emerging Urban Centres and minimizes the impacts to environmental features and groundwater resources.

The Growth Plan suggests that for future growth areas, especially for urban boundary expansions, a number of criteria should be met, including demonstrating that the environmental capacity, particularly sustainable water-taking, to support the projected growth is available and that natural heritage systems have been planned for and protected. This supports the proposed revisions to the PPS that would promote watershed studies being conducted prior to urban expansions. The wording, however, should be strengthened to recognize that simply protecting existing natural heritage features is not sufficient to ensure the long-term sustainability of a robust natural heritage system. TRCA's draft Terrestrial Natural Heritage System Strategy clearly demonstrates that given the projected population growth, even if the currently existing natural heritage system is maintained, it will continue to decline in quality as urban development occurs. Through watershed planning exercises, municipalities must be able to identify, protect and enhance locally significant natural heritage systems as the connecting links between and among the protected provincially significant features, which function as the anchors of local systems. Similarly, as intensification and redevelopment within existing urban areas occurs, the existing natural heritage system also needs to be enhanced and augmented to withstand the use and pressures from the projected population growth and servicing requirements of an additional 3 million people. The Growth Plan speaks to "minimizing" or "mitigating" environmental impacts of infrastructure expansion but staff hold the opinion that a much more proactive approach is necessary, such as the protection and restoration of additional lands as compensation for losses to the natural heritage system. The mapping and policy framework included in TRCA's draft Terrestrial Natural Heritage System Strategy provide an example of a proactive approach to achieving a robust natural heritage system. Staff note the reference to the Seaton lands in the Growth Plan and observe that it can serve as a good model for planning urban growth within an effective and appropriate natural heritage system.

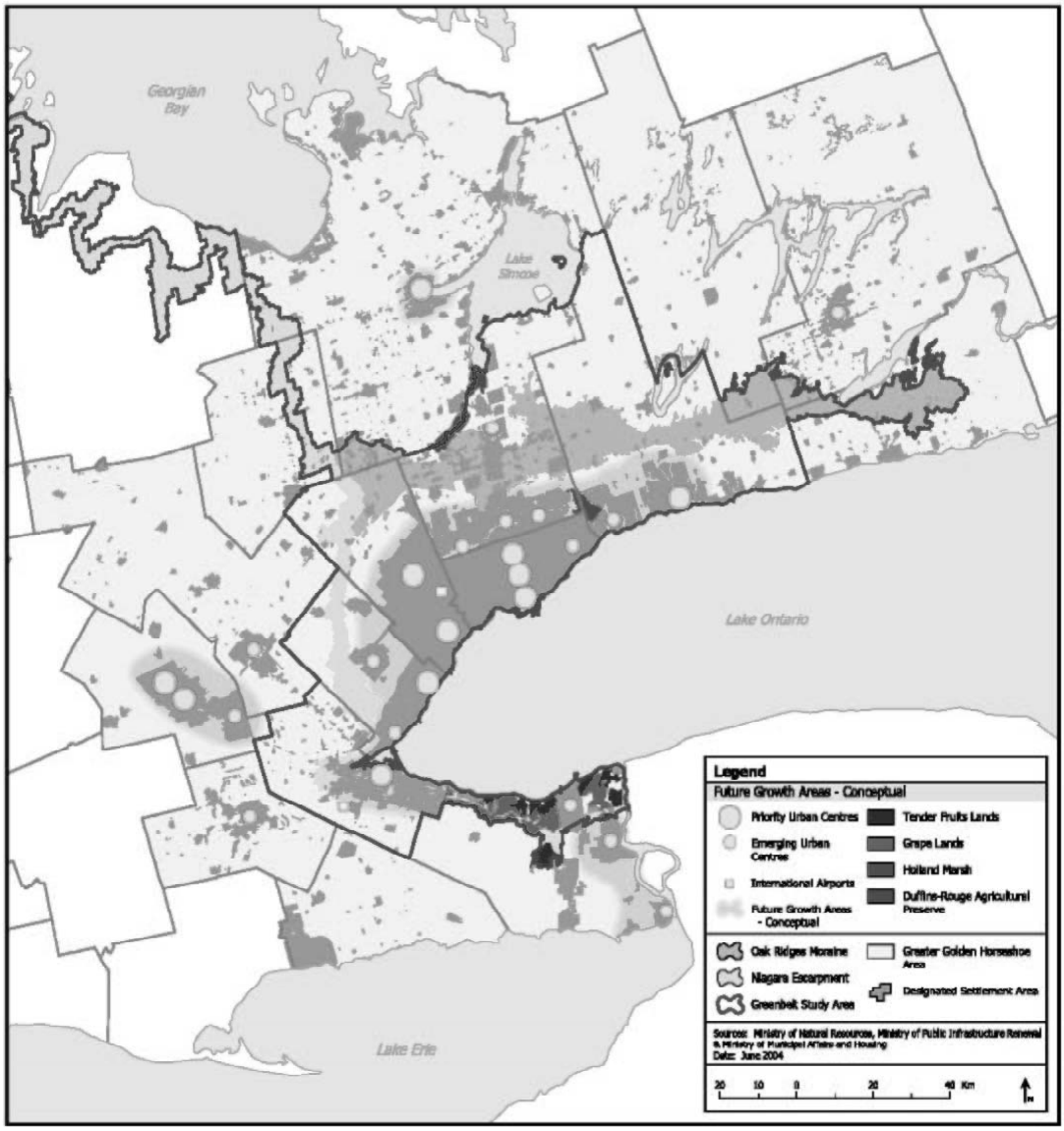
The Growth Plan identifies a number of possible strategies for promoting intensification and compact development in PUCs, including changes to the Development Charges Act to encourage and provide incentives for compact urban form as well as the development of standards and performance measures for urban centres, such as transit ridership, density targets and others. Staff suggest that the Development Charges Act could be amended to also permit the collection of funding for the enhancement of "green infrastructure", natural heritage system lands enhancement and for implementing energy efficiency programs. Significant financial assistance and incentives will be needed by municipalities to enable implementation of projects to protect and enhance water quality (such as source water protection and wet weather flow projects) and to prepare for and mitigate the potential impacts of climate change (such as stormwater management retrofits and the enhancement of local natural heritage systems). Additionally, the list of standards and performance measures for urban centres should be expanded to include energy efficiency and the use of green building technologies, including provisions for renewable energy sources and conservation measures. Rating systems such as Leadership in Energy and Environmental Design (LEED) provide excellent examples of guidelines that promote improved standards in new building technology. This should be further supported as one of the "complementary investment" areas, similar to transit system investments to support compact urban form, and funding should be allocated in the budget of the Ministry of Public Infrastructure Renewal to advance this direction.

The Growth Plan identifies as one of its strategies for effectively managing future growth the coordination of the environmental assessment process, the land-use planning process and infrastructure planning to ensure that appropriate infrastructure capacity is in place to support planned growth. While staff acknowledge the importance of this strategy for the reasons provided, staff experiences lead us to support the strategy for entirely different reasons. TRCA experience has been that land use changes have been approved in advance of the environmental assessment process, thus leading to the necessity of approving environmental assessments for infrastructure to service the development, no matter the environmental costs, and often resulting in the loss and degradation of portions of the local natural heritage system. Better integration and coordination of the land-use planning process and environmental assessment (EA) process, particularly for transportation planning, is urgently needed to ensure the sustainability of communities offering a high quality of life. Additionally, the consideration of alternatives through the EA process needs to reflect emerging technologies, innovative designs and especially an appropriate balance of roads and transit.

Report prepared by : David Burnett , extension 5361
For Information contact : David Burnett , extension 5361
Date: , 2004
Attachments : 1

Attachment 1

PLACES TO GROW
Better choices. Brighter Future.
A GROWTH PLAN
for the Greater Golden Horseshoe
Discussion Paper, Summer 2004



Map 4 : Future Growth Areas - Conceptual

SECTION IV - ITEMS FOR THE INFORMATION OF THE BOARD

RES.#D81/04 - **TORONTO AND REGION REMEDIAL ACTION PLAN (RAP) INTERIM TARGETS 2002-2007 AND THE 2004/2005 BUDGET**
Receipt of the Toronto and Region Remedial Action Plan Interim Targets for 2002-2007 and the 2004/2005 budget.

Moved by: Gay Cowbourne
Seconded by: Cliff Jenkins

IT IS RECOMMENDED THAT the Toronto and Region Remedial Action Plan Interim Targets for 2002-2007 be received ;

THAT the 2004/2005 Budget for the Toronto and Region Remedial Action Plan Memorandum of Understanding budget be received .

AND FURTHER THAT Environment Canada and the Ministry of the Environment be thanked .

CARRIED

BACKGROUND
At Authority Meeting #4/02, held on April 26, 2002, Res.#A100/02 was approved as follows:

> *THAT staff be directed to develop, in conjunction with Environment Canada and the Ontario Ministry of the Environment, a multi-year agreement for the implementation of the Toronto and Region Remedial Action Plan with the TRCA.*

The Toronto and Region Conservation Authority (TRCA) has entered year three of a five-year Memorandum of Understanding (MOU) between Environment Canada and the Ministry of the Environment as the lead implementation coordinator for the Toronto and Region Remedial Action Plan (Toronto RAP).

The Stage 2 document for the Toronto RAP, *Clean Waters, Clear Choices*, details specific goals and objectives for the Toronto RAP to move towards restoring impaired uses in the Area of Concern (AoC). The Toronto RAP Team (consisting of staff representatives from Environment Canada, Ministry of the Environment, Ministry of Natural Resources and TRCA) have taken these goals and objectives and developed Interim Targets to guide activities under the 2002-2007 Toronto RAP MOU. Implementation of projects under the MOU and RAP advocacy efforts will focus on meeting these targets. A copy of the interim targets is included as Attachment 1.

The 2004/2005 Toronto RAP MOU budget is composed of $500,000 provided jointly from Environment Canada and the Ministry of the Environment ($250,000 each annually). These funds are used to implement key projects in association with the goals and objectives of the Toronto RAP and the 2002-2007 interim targets. In many cases funding from this MOU is used to provide seed funding in order to leverage support for RAP projects and initiatives from other key stakeholders and the Great Lakes Sustainability Fund.

FINANCIAL DETAILS

2004/2005 Toronto RAP MOU Budget

CLEAN WATERS

Greenroofs - $30,000
The Greenroofs for Stormwater Management project will continue to be carried out at two locations to assess the potential of green roof infrastructure to reduce the quantity and improve the quality of stormwater run-off in a new building (York University site) and in a retrofit situation (Eastview Community Centre site) which involves the modification of an existing building to accommodate a greenroof. Information and monitoring results will be shared among project participants and partners. The findings of this study (i.e. after sufficient data has been collected) will be used to evaluate the potential benefits of implementing rooftop gardens on a broader scale (i.e. subwatershed basis). The benefits will be quantified through a modelling exercise using the HSPF model which was previously developed for the City of Toronto's Wet Weather Flow Management Master Plan (WWFMMP). In addition, the benefits of rooftop gardens, which will be clearly documented during this project, will potentially support the implementation of new stormwater policies requiring rooftop gardens for new developments or redevelopment projects within Toronto and surrounding regions.

Erosion and Sediment - $30,000
The objectives of this project are to enhance and assist in the development of guidelines for effective control of sediment and other run-off pollutants from construction sites. A performance analysis of the Richmond Hill sediment control pond will be conducted that incorporates a continuous simulation model with ongoing field data, to increase awareness of erosion and sediment control, and to implement an Erosion and Sediment Control By-law.

Porous Pavement - $30,000
The Toronto and Region Conservation Authority is preparing plans to install porous pavement in one of the student parking lots at the Seneca College King Campus. Incorporating monitoring considerations into the construction of this parking lot will provide an opportunity to conduct a demonstration project that will assess the performance of this type of pavement and its ability to contribute to improvements in stormwater management. A key objective of this project is to demonstrate the contribution of porous pavement to maintaining localized hydrological balances and protecting ecological habitat. The demonstration study will compare typical parking lot stormwater run-off to stormwater infiltrated through permeable pavement (quality and quantity). In association with Guelph University, a monitoring protocol will be developed based on research experience at a site on the Guelph University Campus.

HEALTHY HABITATS

Terrestrial Natural Heritage and MetroQUEST Layers - $30,000
The Terrestrial Natural Heritage (TNH) Program Team has been synthesizing data and inventory work into the formulation of the targeted natural heritage system. The draft Terrestrial Natural Heritage System Strategy was released in the spring of 2004 and is currently in the consultation stage.

MetroQUEST is a powerful computer simulation tool that allows users to quickly create and compare 40-year future scenarios of their region. MetroQUEST is an extremely useful tool for groups interested in promoting smart growth, sustainability, visioning, long term strategic planning, stakeholder and public engagement, collaboration and consensus building. The purpose of this project is to apply the MetroQUEST software in the Greater Toronto Area which includes the Toronto Area of Concern. MetroQUEST clearly demonstrates the complex inter-relationships between regional planning choices and consequences. Support will specifically be used to assemble the terrestrial natural heritage layers of the MetroQUEST project.

Habitat for Migratory Shorebirds - $10,000

In order to establish a protocol for improving shorebird management practices, this project will create a baseline study of current use and opportunities of existing habitat in urban areas. The methodology will identify potential wetland sites and monitor them for shorebird activity. The project will employ methodology's from the Canadian Shorebird Management Plan in support of increasing the general understanding of factors affecting shorebird population dynamics, ecology and migration systems. The project will focus on the Don River watershed.

EDUCATION AND NGO /COMMUNITY ACTION

Stewardship Projects - $70,000

Watershed on Wheels

TRCA delivers a wide array of exciting hands-on, outdoor educational experiences through multiple facilities. Programs focus on natural systems and the consequences of our social and economic interactions with the environment. Through life-long learning opportunities individuals gain the knowledge and skills necessary for making wise environmental decisions.

Aquatic Plants Program

Since 1995 the TRCA has offered people of all ages the opportunity to grow native aquatic plants to improve the wetland habitats in their community. This is a seasonal program that is offered from February to June each year. Participants are supplied with all the required equipment, instructions and information on wetlands. An in-class presentation is optional. In June volunteers join the TRCA at a local wetland for guided tours and planting.

Yellow Fish Road (YFR)

The YFR is a community-based program that has been designed to reduce the amount of hazardous waste that enters our waterways via storm drains. Yellow Fish Road was developed by Trout Unlimited in 1991. The TRCA has been delivering the Yellow Fish Road storm drain marking program on behalf of Trout Unlimited in the Toronto area since 1998. Currently we are revamping the program through the use of lexan storm drain markers, community signage and improvements to the social marketing aspects of the program. Yellow Fish Road promotes community participation in the prevention of water pollution. Through an in-class presentation participants discover how the storm sewers in their neighbourhood drain into the nearest body of water. The presentation relates information about the negative impact on aquatic ecosystems caused by hazardous wastes entering the sewer system from poor land management, spills or dumping. The volunteers then take the lessons learned into the community by distributing educational leaflets to local households and painting yellow fish on the storm drains that remind us of the sewers' connection to our local streams.

Stewardship Resource Centre

The resource centre offers our watershed residents a library of information on various land management issues. The resource centre houses books, videos, pamphlets and fact sheets which are available at little or no cost to the public. The TRCA website will provide some of this information electronically to service those watershed residents with internet access. This site will provide the general public with information about the Toronto and Region RAP and provide access to information on stewardship related topics in downloadable form, links to other relevant sites and our partners (MOE and Environment Canada).

Stewardship Conservation Seminars

These seminars provide a venue in which watershed residents can benefit from the knowledge and experience of the experts in land stewardship. TRCA hosts a number of seminars on various topics, such as: "green" lawn care, butterfly gardens, backyard naturalization and urban wildlife. These seminars offer valuable information and a "hands on" learning experience, without cost to the participants. In 2003 more than 50 seminars were delivered.

Multicultural Environmental Stewardship

The TRCA promotes community participation in stewardship based planning and monitoring. The emphasis is on new Canadians and multicultural groups to participate in these activities through the Multicultural Environmental Stewardship Program. Since 1998, this unique program has been facilitating an active outreach program by engaging new Canadians in habitat restoration and providing opportunities for environmental education. The goal of this program is not only to preserve resources, such as land, water and habitat with multicultural communities, but also to look at community development, health and access to information. This program is one of the few environmental programs that has been able to engage the growing ethnic community of Toronto and surrounding regions.

Private Land Stewardship Agricultural Program

This program supports the Rural Clean Water Program, an agricultural grant program geared towards helping farmers and rural residents deal with the protection of water resources on their lands. While the program has typically focussed on farmers as part of the problem, this project will focus on celebrating some of the accomplishments, showcase partnerships and provide educational messages and products which will assist in achieving specific Canada-Ontario Agreement (COA) targets for rural non-point source water pollution, and serve to Increase public awareness on the importance of rural water quality issues, source protection, watershed management and best management practices.

Highland Creek Stewardship Program

In 2003/04, the Highland Creek Environmental Stewardship Program (HCESP) was initiated to build capacity within this priority urban watershed in support of the City of Toronto's WWFMMP. The HCESP engages businesses, residents, schools and the overall community, in hands-on restoration and sustainable living activities which target three Community Action Sites (CAS) within the watershed. A Highland Creek Steering Committee has been established to reflect the various interests of the community and further direct and support the outcomes of this program.

Rouge Park Best Management Practices (BMPs) - $10,000

In the Rouge watershed less than a quarter of the agricultural land is owned by the farmer who manages its operation. Another quarter of the agricultural land is owned publicly and leased out to be farmed. The Rouge Park Public Lands BMPs Program will work with the farming tenants of the publicly owned lands to complete environmental farm plans, prioritize implementation of the plan to improve BMPs, and source funding to implement the priorities identified.

MONITORING AND RESEARCH

Regional Monitoring Program - $35,000

The Regional Watershed Monitoring Program has been developed in order to provide a comprehensive, integrated and coordinated approach to environmental monitoring in the Greater Toronto Area, that fulfills the watershed monitoring and reporting needs of the Toronto RAP, the TRCA and those of the individual watershed and waterfront councils and alliances, while furthering the interests of municipal, provincial and federal partners. This annual monitoring program was initiated in 2001 with a focus on four primary areas: aquatic habitat and species/fluvial geomorphology (the physical features and processes of rivers), terrestrial natural heritage, surface water quality and, flow and precipitation.

"Needs Further Assessment" - $35,000

The *Clean Waters, Healthy Habitats - Progress Report 2001*, identifies progress needed on several fronts. Under the Assessing Progress section, one of the priority actions is to undertake the specific studies to confirm the status of the three beneficial uses currently listed as "Requires Further Assessment". In 2003/2004 fish tumour and deformities was addressed (results are pending). For the 2004/2005 RAP MoU, further action will be taken on deformities in birds.

SUSTAINABILITY

Watershed Strategy Implementation - $100,000

Since 1989 the TRCA has been in the process of developing and implementing individual watershed strategies for each of its watersheds. The Comprehensive Basin Management Strategy for the Rouge Watershed was finalized in 1992, with Forty Steps to a New Don in 1994, Legacy for the Humber watershed in 1997, and the Greening our Watersheds strategy adopted in 2002 for the Etobicoke Creek and Mimico Creek watersheds. Toronto RAP funding has been utilized for the development of these strategies, and to support their implementation. This work has contributed within the City of Toronto in developing a watershed constituency interested and committed to protection and restoration of the watershed resources including water quality, and aquatic and terrestrial habitats within these watersheds. Public advisory groups have been developed and regularly participate in, and contribute to, enhanced water management efforts. Public outreach through events, publications and the development and publication of watershed report cards has established a unique approach to fostering watershed protection and restoration. In addition, strategy implementation increases upstream understanding and attention to resource protection and thus benefits the receiving watercourses with the City of Toronto.

The Living City Charette - $15,000

TRCA, through The Living City vision, intends to take a leadership role in developing the Toronto area as one of the most sustainable and liveable urban communities in the world. The Sustainable Communities Charette is a project that will help to accelerate the use of best practices in green community design, including among many others, naturalization and protection, pesticide use and stormwater management. It is proposed to engage public and private-sector leaders and project managers who are working on sustainable community developments to share best practices. The aim of this project is to enrich existing sustainable community initiatives and to support transformation of the urban development market as a whole.

RAP Annual Meeting - $3,000

Each year the Toronto RAP will hold an open public meeting to discuss progress and current challenges. Costs associated include: planning, meeting space, materials and refreshments.

Communication Products - $22,000

Extensive updates will be made to the RAP website in order to improve the current availability of public information. A design element, folio and exhibit will also be completed.

Technology Transfer Workshops - $20,000

Funding will be used to plan and deliver technology transfer workshops for the public and stakeholder agencies on spills management (fall 2004) and stormwater management (winter 2005).

Administration - $15,000

Supports senior staff time and part-time administrative costs for the RAP MOU are supported.

RAP Liaison /Supplies/Materials - $45,000

This allocation supports the salary, benefits and materials of one full-time staff member as the RAP Community Liaison Officer. This also includes team meetings, communications and project work expenses.

DETAILS OF WORK TO BE DONE

TRCA will continue to work with Environment Canada, the Ministry of the Environment and Ministry of Natural Resources to move the Toronto RAP agenda forward.

In 2004/2005 particular focus will be paid to updating some of the various communication pieces for the Toronto RAP, including a re-vamping of the RAP website, among other activities.

The Toronto RAP Team will liaise with Environment Canada to assist in offering direction and support for the renewal of the Federal Great Lakes Program in order to assure that the unique characteristics of the Toronto RAP are considered.

The Toronto RAP is very pleased to have had the Ministry of Natural Resources (MNR) join the RAP team in late 2003. The further integration and strategic thought around MNR and Ministry of the Environment Canada-Ontario Agreement for the Great Lakes Basin Ecosystem projects, in relation to other RAP related activities and projects, will help to maximize efforts to restore beneficial uses in the Toronto and Region Area of Concern.

Report prepared by : Lisa Turnbull , extension 5325
For Information contact : Lisa Turnbull , extension 5325
Date: September 04, 2003
Attachments : 1

Attachment 1

TORONTO AND REGION REMEDIAL ACTION PLAN

INTERIM TARGETS
(2002-2007)

CLEAN WATERS

Wet Weather Flow

- Support scheduled implementation of the City of Toronto's Wet Weather Flow Management Master Plan (WWFMMP) – Phase one.
- Increase grassroots involvement in WWFMMP implementation (e.g., through community delivery funding program).

Stormwater Management

- Complete and commence implementation of stormwater management retrofit strategies in middle and upper portions of watersheds.
- Develop and initiate next generation Stormwater Assessment and Monitoring Performance (SWAMP) Program, including assessments of stormwater optimization at the sub-watershed level, and the severity of impacts of suspended sediment.

Spills Management

- Support the development and implementation of a multi-stakeholder strategy to enhance watershed and waterfront spills prevention and response programs consistent with the new interagency habitat compliance protocol.
- Complete Geographic Information Services (GIS) sewershed management database (2004).

Urban and Rural Best Management Practices

- Research, develop and promote Green Roofs as a fundamental design option for commercial, industrial and institutional uses.
- Support the development of guidelines for more effective construction site erosion and sediment control

HEALTHY HABITATS

Terrestrial Habitat

- Complete the Target Terrestrial Natural Heritage System Strategy (2004); Develop implementation policies (2005); and, support incorporation of the strategy into municipal official plans.

Riparian Regeneration

- Regenerate stream corridors to meet targets established in watershed strategies and the WWFMMP (e.g. 23% of Etobicoke-Mimico by 2006).
- Complete evaluations of historic and existing Area of Concern wetlands in the Area of Concern's watersheds.

Aquatic Habitat

- Complete fisheries management plans – including multi-year implementation schedules – for all watersheds: Humber (2004); Etobicoke and Mimico Creeks (2004); Don River (2005); Highland Creek (2005); and, Rouge River (2007).
- Connect the Rouge River from Lake Ontario to Major Mackenzie Drive for all native species of the watershed (2005).
- Connect the Humber River from Lake Ontario to Highway 9 for all native species.

Waterfront

- Complete the Toronto Waterfront Aquatic Habitat Restoration Strategy (2003) and implement priority plans and projects.
- Complete Terrestrial Natural Heritage System Strategy for the Toronto waterfront (2004).

SCIENCE AND MONITORING

Monitoring

- Provide ongoing, necessary information to assess the health of watersheds and waterfront ecosystems in the Area of Concern through regular reporting.
- Sustain integrated monitoring network for watersheds and the waterfront with federal, provincial, municipal and academic partners.

Beneficial Use Impairment Assessments

- Complete assessment of beneficial uses: Fish tumours and other deformities (2005); Bird or animal deformities or reproductive problems (2006); Degradation of phytoplankton and zooplankton populations (2007).
- Complete analysis of a 15 year fisheries data series for the Toronto waterfront to help in the revision of objectives for the nearshore aquatic community.
- Develop interim targets (2004) and continue to develop and assess long-term ecological end-points and specific targets.

SUSTAINABILITY

- Support the development of new or next generation watershed strategies for the Rouge (2004), Highland and Humber (2005), Don (2006) and Etobicoke and Mimico (2007) – *Watershed strategies will address, source water protection, water balance, quality and quantity, and the integration of ground water study information.*
- Enhance and sustain the watershed council based implementation model.

- Support the development (2004) and implementation of the Toronto Waterfront Revitalization Corporation's Waterfront Sustainability Framework.

EDUCATION AND INVOLVEMENT

- Develop (2003) and implement Toronto RAP Communications Strategy including a redesigned web-site (2004), information folio (2004), and display (2005).
- Sustain key education and community stewardship initiatives (e.g., Watersheds on Wheels).
- Support the development of social marketing tools (e.g., The Living City Report Card and Sustainable Communities Charrette).

Last Updated: July 16, 2004

RES.#D82/04 - **ETOBICOKE-MIMICO WATERSHEDS COALITION**
Minutes of Meeting #3/04, July 22, 2004. The minutes of Etobicoke-Mimico Watersheds Coalition meeting #3/04, held on July 22, 2004, are provided for information.

Moved by: Gay Cowbourne
Seconded by: Michael Thompson

IT IS RECOMMENDED THAT the minutes of the Etobicoke-Mimico Watersheds Coalition meeting #3/04, held on July 22, 2004, as appended, be received.

CARRIED

BACKGROUND
The Terms of Reference for the Etobicoke-Mimico Watersheds Coalition, dated May 2002, and adopted by the Authority at meeting #5/02, held on May 24, 2002, by resolution #A124/02, includes the following provision:

3.5 Reporting Relationship
The Etobicoke-Mimico Watersheds Coalition is considered a subcommittee of the Watershed Management Advisory Board. The Watersheds Coalition Chair will report, at least, on a semi-annual basis on projects and progress.

Report prepared by: Lia Lappano, extension 5292
For Information contact: Chandra Sharma, extension 5237
Date: September 02, 2004

RES.#D83/04 - **HUMBER WATERSHED ALLIANCE**
Minutes of Meeting #2/04, July 20, 2004. The minutes of the Humber Watershed Alliance meeting #2/04, held on July 20, 2004, are provided for information.

Moved by: Gay Cowbourne
Seconded by: Cliff Jenkins

IT IS RECOMMENDED THAT the minutes of the Humber Watershed Alliance #2/04, held on July 20, 2004, as appended, be received.

CARRIED

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 : Lia Lappano , extension 5292
For information contact : Gary Wilkins , extension 5211
Date: September 02, 2004

RES.#D84/04 - **ROUGE WATERSHED TASK FORCE**

Minutes of Meeting #3/04. The Minutes of Rouge Watershed Task Force Meeting #3/04, held on June 24, 2004 are provided for information.

Moved by: Gay Cowbourne
Seconded by: Cliff Jenkins

IT IS RECOMMENDED THAT the Minutes of the Rouge Watershed Task Force Meeting #3/04 be received .

CARRIED

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 : Patricia Mohr , extension 5624
For Information contact : Sonya Meek , extension 5253
Date: September 1, 2004

NEW BUSINESS

RES.#D85/04 - **MIMICO WATERFRONT LINEAR PARK**

Moved by: Gay Cowbourne
Seconded by: Michael Thompson

THE BOARD RECOMMENDS TO THE AUTHORITY THAT the Toronto and Region Conservation Authority (TRCA), the City of Toronto and the Toronto Waterfront Revitalization Corporation (TWRC) staff be congratulated on the approval of the provincial environmental assessment for the Mimico Waterfront Linear Park;

THAT the Chair of the Authority be requested to discuss with the Minister of the Environment the protocol for such announcements at a suitable time ;

AND FURTHER THAT staff be directed to work with all partners to develop suitable events to celebrate publicly the approval and other significant milestones in the implementation of the Mimico Waterfront Linear Park and the Port Union Waterfront Improvement Project .

CARRIED

TERMINATION

ON MOTION, the meeting terminated at 11:00 a.m., on Friday, September 17, 2004.

Nancy Stewart
Vice Chair

/ks