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OAK RIDGES MORaine CONSERVATION PLAN WATERSHED PLANNING STUDIES LSRCA AND TRCA PROGRESS REPORT TO JUNE 30, 2005

The Planning and Economic Development Committee recommends the following:

- 1. The presentation by Mike Walters, Lake Simcoe Region Conservation Authority and Gary Wilkins, Toronto and Region Conservation Authority, be received; and**
- 2. The recommendations contained in the following report, August 3, 2005, from the Commissioner of Planning and Development Services and the Commissioner of Transportation and Works be adopted:**

1. RECOMMENDATIONS

It is recommended that:

1. Council approve the semi-annual progress report on Watershed Planning studies to fulfill requirements of the Oak Ridges Moraine Conservation Plan (ORMCP), submitted by the Lake Simcoe Region Conservation Authority (LSRCA), and the Toronto and Region Conservation Authority (TRCA).
2. Regional staff continue to work with Conservation Authority staff to ensure the timely and cost efficient delivery of these watershed planning components required under the ORMCP.
3. The Regional Clerk circulate this report to area municipalities for information.

2. PURPOSE

This report is an to update Committee and Regional Council on the accomplishments of the LSRCA and TRCA for mid-year 2005 on Watershed Planning studies on the Oak Ridges Moraine. Ongoing updates were requested by Regional Council at its meeting of February 19, 2004.

3. BACKGROUND

The *Oak Ridges Moraine Conservation Act, 2001* required that York Region and local municipalities bring their Official Plans and zoning bylaws (in the case of local

municipalities) into conformity with the ORMCP by April 22, 2003 and October 22, 2003 respectively. This conformity date was achieved by the Region and has been achieved by area municipalities in the Region.

The ORMCP also contains several other critical target dates for the completion of Watershed Planning, including commencement of watershed planning for each watershed originating on the Moraine by April 22, 2003 (Section 24(1)); and completion of watershed plans by April 23, 2007. The section also contains the minimum elements that a watershed plan ought to include.

LSRCA and TRCA have been active in developing and maintaining watershed plans in York Region for many years. With the introduction of the ORMCP, Regional staff and staff of the conservation authorities (CAs) together developed a comprehensive five year work plan to fulfill the ORMCP watershed planning requirements.

This workplan was adopted by Regional Council on February 19, 2004 with the request that the TRCA and the LSRCA provide semi-annual watershed planning progress reports to Committee and Council to ensure that significant progress is being made towards fulfilling the requirements of the ORMCP according to schedule and budget requirements.

The 2004 year end progress report for the authorities was considered by Planning and Economic Development Committee in February 2005.

4. ANALYSIS AND OPTIONS

The watershed plan requirements of the ORMCP encompass a wide number of disciplines and the required watershed plans are expected to influence planning and development initiatives in and beyond York Region.

The update to the 5-year work plan is summarized below, with a more detailed listing of deliverables along with estimated and actual budget and expenditures to date in *Attachments 1 and 2*.

4.1 Highlights of the Mid Year 2005 Watershed Planning Budget Year

4.1.1 Mid Year 2005 - Lake Simcoe Region Conservation Authority

The LSRCA is undertaking work concurrently in all four of its watersheds originating on the Moraine to ensure compliance with ORMCP. The four LSRCA watersheds draining from the Oak Ridges Moraine in York Region are the West Holland River, East Holland River, Maskinonge River and the Black River (See Map *Attachment 3*). The expected completion date of all four watershed plans for these areas is late 2006 – early 2007 to allow time for review and finalization for the 2007 deadline.

Significant progress has been made in completing proposed 2005 ORMCP activities. In the past few months several key 2004/05 ORMCP projects have been completed. These key projects include:

- Technical modelling studies as part of the requirements of a water budget for the East and West Holland, Maskinonge and Black Rivers as required by sections 24(7) and 25(1) of the ORMCP.
- Hydrologic and Hydraulic Modelling of the East and West Holland and Maskinonge Rivers has been completed including detailed flood line mapping.
- Updated Natural Heritage and Ecological Land Classification Mapping including detailed wetland updates.
- LSRCA 2004 Monitoring Report, which includes York Region ORMCP Subwatershed Planning data and mapping.
- Detailed analysis of stream baseflow condition as part of ongoing water use and related projects.

Work is continuing in the second half of 2005 to characterize the watersheds at the higher level of detail, scope and understanding required by the ORMCP and included collecting detailed information on ground and surface water quality and quantity, terrestrial natural heritage and the aquatic ecosystem. Towards the end of 2005 and into early 2006 the shift from watershed characterization to integration and analysis will begin to initiate the development of formalized ORMCP watershed plans.

4.1.2 Mid Year 2005 - Toronto and Region Conservation Authority

The four TRCA watersheds draining from the Oak Ridges Moraine in York Region include: Humber River Watershed, Don River Watershed, Rouge River Watershed, and Duffins Creek Watershed (See Map *Attachment 4*).

A watershed plan was completed for the Duffins Creek in 2003 and an Implementation Task Force has been formed to coordinate the local delivery model for the Plan. Although only a small portion of this watershed is located in the Region, the partnership with the Region and the Town of Whitchurch-Stouffville has resulted in significant success through the creation of the Stouffville Greenway naturalization project, with over 40k of trails, and is an example of sustainable public use.

Updated plans are being prepared for the remaining three watersheds as per the approved workplan. Highlights of the progress as of mid year 2005 are as follows (See *Attachment 2* for details):

Rouge River Watershed

- Modelling and analysis of eight future land use and management scenarios is underway, addressing various urban growth forms, stormwater retrofits, enhanced natural cover, and climate change.
- A series of workshops is planned to advance management direction for key issues, including: in-stream erosion, water balance, and lack of natural cover.

- Framework for the final management strategy, implementation plan and model policy is being drafted and discussed with key partners.
- Convened four Task Force meetings to guide the study.

Humber River Watershed

- Current conditions reports are well underway, with reports on water quality, aquatic and terrestrial systems nearing completion.
- Future modelling scenarios have been defined and reviewed by municipal staff.

Don River Watershed

- Workplan was finalized, emphasizing data gaps and regeneration priority setting.
- Wet weather water quality monitoring and supplemental temperature, fish and benthos monitoring underway.

4.2 Status of Overall Program

4.2.1 Lake Simcoe Region Conservation Authority

The 2005 program is on track and on budget. Watershed planning activities that are underway in 2005 all four watersheds include:

- Detailed geomorphic assessment of the watersheds.
- Watershed based analysis of fisheries, benthics, temperature, baseflow and water use assessment.
- Finalization of Terms of Reference and approach to developing an Integrated Ecosystem Framework approach to evaluate proposed water takings. Project to begin in early fall 2005.
- Complete subwatershed wide terrestrial natural heritage analysis and updates where required.
- Water budgets final reviews and ongoing calibration.
- Development of a micro-website outlining, distribution of a newsletter as part of public involvement/engagement process and public open houses.
- Begin process of consolidating all technical information and development of report formats, map standards and associated products.

The above list captures all the primary activities planned for 2005. There are some minor projects and activities specific to individual watersheds, which will be described and reported on, in the 2005 Year End report.

4.2.2 Toronto and Region Conservation Authority

The key deliverables anticipated by year end 2005 include: a full draft Rouge Watershed Plan; completed modelling and preliminary Humber Watershed Plan; and current conditions reports well underway for the Don watershed. As previously reported, the modelling work in the Rouge and Humber watersheds was delayed to take advantage of improved data sets and provincial confirmation of the Greenbelt Plan designations.

Provided no unforeseen difficulties arise during the analyses, these delays are not expected to affect the year-end targets.

A six month extension of the Rouge Watershed Task Force's mandate is expected to be requested to oversee the finalization of the Rouge watershed plan by June 2006.

The 2003 Watershed Plan for Duffins and Carruthers meets the province's requirements under the draft ORMCP technical guidelines for watershed planning and has been used by MMAH as a case study on how watershed planning should be done on the Oak Ridges Moraine.

The plan has been used extensively in planning for Seaton, the City of Pickering Growth Management Study and initial environmental planning for the proposed Pickering Airport.

4.3 Outlook for the Remaining Watershed Planning Program to 2007

4.3.1 Lake Simcoe Region Conservation Authority

The overall program endorsed by Council in February 2004 is on schedule and no difficulties are anticipated at this time. The comprehensive approach adopted by the LSRCA ensures a timely transition from characterization through implementation on all four watersheds.

Primary data collection activities to inventory natural features and understand their functions will be completed in 2005. Detailed modelling, analysis and integration of the various natural heritage features and surface water quantity and quality will continue in 2005. The results of the modelling analyses will be used in the development of management plans for the four watersheds, which will be the primary focus in the latter half of 2006. These efforts will culminate in 2007 with the development of watershed implementation plan including potential rehabilitation projects and policies for the ORMCP Area. The draft policies will be provided to the stakeholder municipalities to be incorporated, where appropriate, in York Region and local area municipal official plans.

The LSRCA in 2005 is undertaking the completion of an Assimilative Capacity Study to evaluate the linkage between land use change, development and water quality. This project is Phase 1 of the Province of Ontario's Intergovernmental Action Plan (IGAP) for Simcoe County. The work being completed as part of this project is complementary and the LSRCA will review this program in the context of ORMCP to ensure that all efforts are maximized, opportunities for savings are identified and no duplication of effort occurs.

4.3.2 Toronto and Region Conservation Authority

The watershed plans are still expected to be completed before the 2007 deadline and within the originally forecasted budget. Final delivery of the Rouge Watershed Plan is expected by June 2006 and the Humber and Don plans by December 2006.

Further refinements in the Duffins Creek watershed are expected as a result of continuing YPDT studies and Drinking Water Source Protection Studies. This new knowledge will be incorporated in implementation protocols.

A York Region staff review of implementation progress in the Duffins Creek watershed will assist the TRCA in developing more effective management actions.

4.3.3. Water Budget Analysis and Conservation Plan Component of the ORMCP – Section 25 of the Moraine Plan

Section 25 of the ORMCP requires that the Region prepare Water Budgets and Conservation Plans as part of watershed planning efforts.

The Water Budget is intended to quantify the availability of water within the watershed. These studies will be used to develop targets that will be followed by York Region in planning use of groundwater sources and by the MOE in permitting other water use in the watershed.

The Water Conservation Plan will be developed to meet any targets identified in the Water Budget Study. York Region has contracted United Utilities Canada Limited (UUCL) to work with LSRCA and TRCA and York Region to develop watershed-specific water conservation programs to meet the water conservation requirements of the ORMCP. This role is an extension of their role in overseeing the *Water for Tomorrow* Program.

Both the water budget and the Water Conservation Plan articulated in Section 25 are necessary components of the watershed plans currently being prepared.

Section 24(7) of the ORMCP relates specifically to that portion of the Moraine served by the Yonge Street Aquifer. This section prohibits *major development* from occurring in these areas after April 22, 2004 if water budgets and water conservation plans have not been completed to demonstrate that the water supply required is sustainable. This clause was subsequently extended to June 9, 2005 by the Minister of Municipal Affairs and Housing. The area on the Oak Ridges Moraine served by the Yonge Street Aquifer is relatively small, but does include partially developed urban areas on the Moraine within the Towns of Newmarket and Aurora.

A draft of the required water budget for the Yonge Street Aquifer area has been received and Regional, LSRCA and consulting staff met with MOE and MMAH representatives on August 19, 2005 to present the draft water budget, receive feedback and determine how to proceed to ensure that this clause has been fulfilled. Ministry staff were supportive of the extensive work that has been undertaken and have provided some minor comments for our consultants. The water budget will be finalized on the basis of these comments and the review by staff of the Region and LSRCA.

The water budget is intended to provide background for watershed based targets as part of the watershed plans that are underway, but not scheduled for completion until 2006/2007. As such, the manner of establishing compliance with the ORMCP provisions for the area served by the Yonge Street Aquifer is somewhat complex.

The Section 24(7) prohibition on *major development* could potentially affect applications for uses whose footprint is greater than 500 m², applications for greater than 4 lots or the establishment of a major recreational use if the water use is not sustainable. Regional and Conservation Authority staff do not anticipate this to be a major issue as there are no proposed increases in groundwater aquifer use in the Aurora and Newmarket area and new development (such as could be proposed in these areas) is intended to be serviced by the Lake Ontario system.

The issues relating to compliance with this clause have been discussed with Provincial and Conservation Authority staff and a process for resolution is being formulated. Following discussions with staff of the Town of Newmarket and Aurora, a report will be prepared for Planning and Economic Development Committee which further describes the recommended method of satisfying clause 24(7) of the ORMCP.

5. FINANCIAL IMPLICATIONS

The 2005 watershed planning allocations to the Conservation Authorities were approved by Regional Council as part of the 2005 budget. Both Authorities are to provide twice yearly progress reports to Planning and Economic Development Committee and Regional Council on the watershed planning process required under the ORMCP. In addition, Authority staff were requested to provide an itemized list of deliverables for each year of the program along with their estimated updated budgets and the incurred costs. This itemized list is provided in *Attachments 1 and 2*.

Table 1 shows the 5 year budget and the expected costs of watershed planning between now and the 2007 study completion year. Approximately \$1,667,000 remains to be spent before 2007.

Table 1
Five -year Watershed Planning Budget Estimates

Conservation Authority	2003	2004	2005	2006	2007	Total Work Plan Length 2003-2007
LSRCA	\$300,000	\$600,000	\$360,000	\$260,000	\$250,000	\$1,760,000
TRCA	\$330,000	\$600,000	\$500,000	\$400,000	\$200,000	\$2,030,000
Total	\$630,000	\$1,200,000	\$860,000	\$660,000	\$450,000	\$3,790,000

These annual budget estimates will be confirmed each year during yearly budget discussions and allocations to the CAs. For the period from 2003 to 2007 funds these projects are funded as special Capital Projects from Regional water rates. After 2007, funding for watershed planning will solely be funded under normal operating allowance to the Conservation Authorities from the Region's tax levy.

6. LOCAL MUNICIPAL IMPACT

Local municipalities have been invited to actively participate in the watershed planning process through advisory committees and during policy formulation. Ultimately, implementation of the objectives and principles of watershed plans may be implemented through amendments to Regional and/or local planning documents.

7. CONCLUSION

Watershed planning work is well advanced in the Region and the CA's work plans are also well underway with no significant issues or delays expected at this time.

While Regional staff is confident that the target dates for completion will be met, it should be noted that the Province has not yet provided the anticipated technical guidelines in a final form that will indicate the specific technical requirements under the ORMCP including water budget requirements. Regional staff is in contact with our Provincial counterparts to finalize these elements.

Funds for the 2005 budget year were included in the 2005 Transportation and Works budget and funds to 2007 are included in the 10 year Capital Plan. Funding for watershed planning activities after 2007 will proceed through the normal Regional/CA budget allocation and approval process.

In order to ensure that efforts remain on track, the Conservation Authorities will continue to provide semi-annual updates to Committee on the workplan elements.

The Senior Management Group has reviewed this report.

(The attachments referred to in this clause are attached to this report.)