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ASSIMILATIVE CAPACITY STUDY: LAKE SIMCOE AND NOTTAWASAGA RIVER WATERSHED (ACS) PHASE 1 OF THE INTERGOVERNMENTAL ACTION PLAN FOR SIMCOE, BARRIE AND ORILLIA (IGAP)

The Planning and Economic Development Committee recommends the following:

- 1. The recommendation contained in the following report, June 6, 2005, from the Commissioner of Planning and Development Services be adopted; and**
- 2. The report be forwarded to the Minister of the Environment, Minister of Municipal Affairs and Housing, Minister of Natural Resources, Minister of Public Infrastructure Renewal, Minister of Transportation and the local MPPs.**

1. RECOMMENDATION

It is recommended that:

1. The attached report on the Assimilative Capacity Study be received and Provincial Ministers on the Oversight Committee for the Intergovernmental Action Plan for Simcoe, Barrie and Orillia (IGAP) and Provincial staff involved in IGAP be made aware of the April 21, 2005 Regional Council recommendation dealing with the Draft Growth Plan and “leap-frogging” of development into Simcoe County.

2. PURPOSE

The purpose of this report is to advise Committee and Council of the on-going Lake Simcoe Assimilative Capacity Study (ACS) being conducted by the Lake Simcoe Region Conservation Authority in partnership with the Nottawasaga Valley Conservation Authority, as part of the Intergovernmental Action Plan for Simcoe, Barrie and Orillia (IGAP).

3. BACKGROUND

3.1 Intergovernmental Action Plan for Simcoe Barrie and Orillia (IGAP)

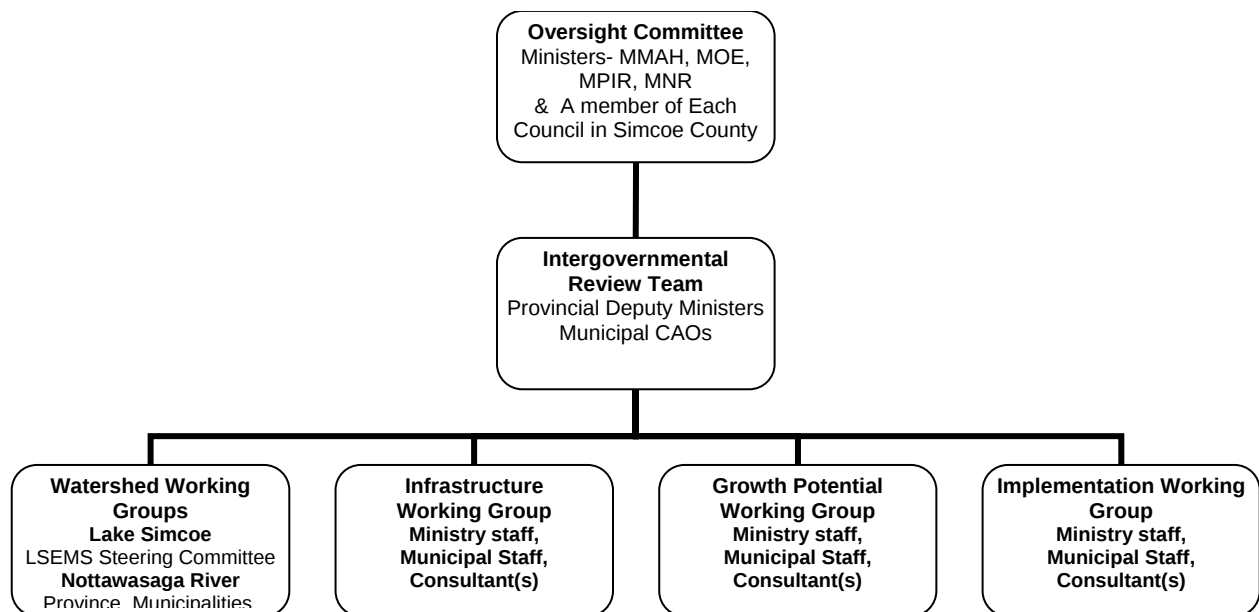
In late 2004, faced with growing development pressures in Simcoe County, and the separated Cities of Barrie and Orillia, the Province of Ontario announced the initiation of the Intergovernmental Action Plan for Simcoe, Barrie, and Orillia (IGAP). This four-phase Plan is to be completed by mid 2006 by the Province in partnership with area municipalities, separated cities, the County and the Conservation Authorities in the area.

The Intergovernmental Action Plan as a whole is intended to:

1. Define the assimilative (growth/carrying) capacity of the Lake Simcoe and Nottawasaga River watersheds (Phase 1).
2. Provide development (servicing) certainty for intensification and approved growth. (Phases 2 through 4).
3. Define Barrie and area's capacity for additional growth. (Phases 2 through 4).
4. Ensure effective and sustainable municipal governance. (Phases 2 through 4).

The four phases of the IGAP work plan are described in *Attachment 1*. Governance of IGAP is shown on Figure 1 below:

Figure 1
Governance - Intergovernmental Action Plan for Simcoe, Barrie and Orillia (IGAP)



3.2 IGAP Phase 1 – Assimilative Capacity Study: Lake Simcoe and Nottawasaga River Watershed

York Region, by virtue of its membership in the Lake Simcoe Conservation Authority is however, directly involved in the first phase of the IGAP – the Assimilative Capacity Study for Lake Simcoe and the Nottawasaga River Watershed.

On October 14th, 2004 the Province of Ontario announced 100% funding for the Lake Simcoe Region Conservation Authority (LSRCA) and to undertake the assimilative capacity studies within the Lake Simcoe and Nottawasaga River watersheds in partnership with Nottawasaga Valley Conservation Authority (NVCA).

Since the announcement, staff from both Conservation Authorities and Provincial ministries has been working together and have finalized the terms of references for these studies, a work plan outlining how the studies will be completed and retained consultants on several studies. The progress to-date is discussed in Section 4.1 following.

3.3 IGAP Phases 2 through 4 – Growth Issues in Simcoe County

The IGAP study will assist in addressing the issues of proposed Simcoe County developments that have been discussed by Committee and Council during discussions on the Greenbelt Plan and the draft Growth Plan for the Greater Golden Horseshoe.

Regional Council at its meeting of December 16, 2004, in providing comments to the Province on the Draft Greenbelt Plan, requested that:

- 7. The Greenbelt Plan and Growth Management Plan contain provisions to prevent “leap-frogging” of development north of the Greenbelt Plan. For example to proposed developments in the new Bradford- Bond Head community.***

On April 21 2005, in submitting comments to the Province on the Draft Growth Plan, Regional Council re-iterated its position on growth in Simcoe County as follows:

- 3.3 The Growth Plan for the Greater Golden Horseshoe should prevent “leap-frogging” of development north of the Greenbelt Plan into Simcoe County. Further, the Province is requested to undertake a formal, comprehensive review, similar to the process found in the GTA, which includes all of the provisions of the Greenbelt Plan, and this review should specifically address the impacts on York Region.***

These recommendations relate to the exclusion of lands in South Simcoe from the Greenbelt Draft Plan. Committee and Council were of the position that this exclusion could be construed as permitting accelerated growth or expansion or development of new or existing communities with resulting traffic and infrastructure impacts to York Region from this “leap-frogging” of development across Greenbelt. In the case of South Simcoe, amendments to the Town and County Official Plans have been submitted to develop over 3,850 hectares (9,500 acres) of land located between the settlement area boundaries of Bradford and the hamlet of Bond Head, on both sides of Highway 400. The proposed amendments add 66,000 people and 39,000 jobs to that previously projected by the Bradford West Gwillimbury Official Plan at build-out by 2035.

Parts of the IGAP Study would appear to respond to the portion of the Regional Council recommendation calling for a comprehensive review of Simcoe County. However, the IGAP does not appear to specifically address impacts on York Region.

York Region is not directly involved in the preparation of Phases 2 through 4 of the IGAP which will determine the infrastructure and fiscal impacts of accommodating approved growth and assessing future potential growth in the County.

It is recommended that Provincial Ministers on the IGAP Oversight Committee and Provincial staff involved in IGAP be made aware of the April 21, 2005 Regional Council Recommendation through circulation of this report.

In addition to ensure that the Regional issues are addressed, Regional staff will monitor the information and phase outcomes and report and advise Committee and Council of issues as they arise.

4. ANALYSIS AND OPTIONS

Assimilative Capacity can be defined as “the capability of a watercourse and/or lake to resist the effects of landscape disturbance without impairment of water quality.”

Lake Simcoe has been the subject of much study over the past 15 years through the Lake Simcoe Environmental Management Strategy (LSEMS) work. One of the goals of the LSEMS program is to reduce phosphorous loads to Lake Simcoe from its current levels of slightly over 100 tonnes to 75 tonnes per year. The Provincially funded ACS will allow acceleration of several of the LSEMS Phase III components and advance the modelling of the watersheds for predictive purposes.

The terms of the Provincial funding agreement require that the Assimilative Capacity Study be completed by the end of 2005. This deadline represents a considerable challenge for the Authorities, but one which can be met providing that contracts for consultant services are let on-time and deliverables are received in a timely fashion.

4.1 Assimilative Capacity Study (ACS) Workplan

The work plan for the ACS is directed at providing the following information for both Lake Simcoe and for the Nottawasaga River watersheds:

- A comprehensive assessment of the capacity of the watersheds to assimilate impacts from approved and future growth.
- Developing and understanding of growth capacity in the watersheds.
- Developing land-use planning models that can assess the relationship between water quality and land uses and project the impacts from specific growth scenarios.
- Developing a common and accepted scientific framework to address infrastructure master plans, Class EAs and growth planning.

In order to undertake this work, the ACS Study Work Plan will rely heavily on existing data where available. The following is a brief list of some of the key data requirements:

- Detailed land use and vegetation types by watershed.

- Identifying stream “water use”.
- Water quality and quantity data for each sub watershed where available.
- Benthic Community (interacting organisms, found at or near the bottom of a body of water) information for all sub watersheds and Lake Simcoe.
- Information on Lake Simcoe including a detailed analysis of lake processes.
- Information on the Nottawasaga River/Bay mixing zone.

In terms of Lake Simcoe, much of the background information necessary as input to the modelling has been collected as part of past LSEMS work, however this initiative will allow refinement of the Lake Simcoe data, fill in data gaps (including water quality and quantity and benthic information) and provide for greater confidence in modelling of future impacts. Data from Nottawasaga River watershed is less available and the Study will be collecting base line information on the watershed and the mixing zone of Nottawasaga Bay.

A number of consulting contracts for these studies have already been awarded and the studies are well underway including studies of the following:

- Hydrodynamic Mixing Zone Modeling of the Confluence of the Nottawasaga River and Nottawasaga Bay, awarded to SNC Lavalin.
- Three Dimensional (3D) and Hydrodynamic Modeling for Lake Simcoe, awarded to Baird and Associates and Gartner Lee Ltd.

These contracts will complete 3 dimensional models for Lake Simcoe and the area of Nottawasaga Bay impacted by the inflow of the Nottawasaga River. This information is important in order to determine assimilative capacity of the two water bodies and to set targets relative to impacts on aquatic life and fisheries, human health and recreation issues.

- Lake Simcoe Phosphorus Loadings/Empirical Model, underway with MOE-EMRB staff

This study will refine the location and amounts of phosphorous inputs around the Lake and permit greater reliability and refinement of the modelling. The results will also provide update phosphorus loads up to 2004.

- Canadian Arcview Nutrient Water Evaluation Tool (CANWET) Modelling, awarded to Greenland International Consulting

This contract will continue a collaboration between by the Authority, the Province and Penn State University to develop a model to predict nutrient load outputs resulting from different land use practices and scenarios, mitigation strategies identify priority areas for restoration and remediation. This is a far reaching and important tool for making land use and infrastructure planning decisions more sustainable.

A future contract will be awarded to study Water Quality Target Setting and TMDL (Total Maximum Daily Load) Development.

As well, the ACS Steering Committee has also contracted with LM Marketing and Communications to assist in the development of a communications plan and facilitate the public participation aspects of this project.

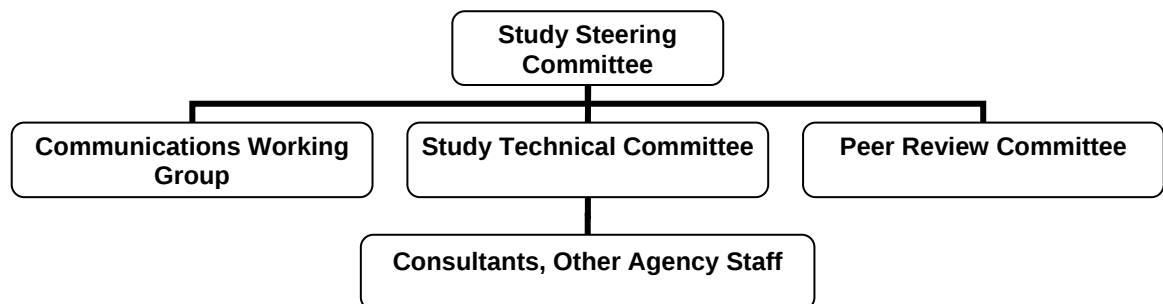
4.2 Governance of the ACS Study

The Governance Structure for the ACS is illustrated in Figure 1 below. The ACS is jointly Chaired by the CAOs of the Lake Simcoe Region Conservation Authority and the Nottawasaga Conservation Authority with a Steering Committee composed of Provincial Ministry representatives and the federal Fisheries Ministry, Regional and County municipalities, area municipalities and the Chair of the Technical Committee along with the Project Manager. The purpose of the steering Committee is to guide the Study on the basis of recommendations from the reporting Committees and the Project team.

Reporting to the Steering Committee are three additional Committees - The Communications Working Group, charged with the responsibility of determining the appropriate communications and stakeholder involvement, The Study Technical Committee made of the technical Experts of the Ministries and local and Regional/County governments and the Peer Review Committee consisting of recognized stakeholder leaders and academics. The task of the latter Committee is to review the technical veracity of the resulting studies, based on industry standards and accepted scientific standards. The organization chart of the ACS is below as Figure 2. York Region staff sit on the Steering, Technical and Communications Committees.

The ACS Steering Committee is also providing monthly updates to stakeholders. Updates

Figure 2
Governance - Assimilative Capacity Studies – Lake Simcoe
and Nottawasaga Watersheds



1 through 5 are appended to this report as *Attachments 2.1 through 2.5* for the Committee's information.

4.3 Potential Implications for York Region

York Region has a significant interest in several of the aspects of both the Assimilative Capacity Study and the wider IGAP for Simcoe, Barrie and Orillia. Our issues relate to areas of Greening and Sustainable Development and to Growth Management.

Greening and Sustainable Development

The Assimilative Capacity Study will provide a “quick-start” for a number of LSEMS components that must be undertaken in order to proceed with further clean up efforts in Lake Simcoe. In addition, the results of the ACS, and particularly the modelling exercises, will assist in focusing remediation efforts and our Greening Implementation.

Growth Management

The Province of Ontario through the new Provincial Growth Forecasts and the Draft Provincial Growth Plan has identified the future growth forecasts and locations for York Region and Simcoe County. While the Greenbelt Plan 2005 has provided for very limited growth potential in the majority of the Lake Simcoe Watershed in York Region, a large area of the Region, near the Towns of Aurora, Newmarket, Sharon, Holland Landing and Queensville and the intervening lands are excluded from the Greenbelt Plan, Subject to the Provincial Growth Plan and Regional and local growth management studies, additional population may be anticipated in this area on the basis of a York Durham Servicing System extension.

Regional Council’s review of the Draft Growth Plan indicated concerns with respect to the Region’s ability to accommodate the growth forecasts and the Growth Plan should infrastructure investment and environmental approvals not be received. Should the results of the Assimilative Capacity Study indicate that further growth in the Lake Simcoe watershed in the area excluded from the Greenbelt Plan is inadvisable, the Region’s ability to accommodate the Provincial population forecasts may be further compromised.

Regional staff will continue to participate in the ACS and raise the issue of the need to accommodate Provincial growth forecasts in the ongoing work. Committee and Council will be advised of the results of these studies in future reports.

The results of the IGAP Study also have the ability to impact York Region and have been previously discussed in Section 3.3 of this report.

4.4 Relationship to Vision 2026

The Assimilative Capacity Study for Lake Simcoe and the Nottawasaga River and the larger Intergovernmental Action Plan for South Simcoe County support a number of goals of Vision 2026 dealing with growth management and environmental sustainability.

5. FINANCIAL IMPLICATIONS

The Assimilative Capacity Study is being 100% funded by the Province of Ontario, with an anticipated budget of \$1.5 million. Phases 2 through 4 of the Intergovernmental Action Plan for South Simcoe County, which do not involve the Region of York, will be cost shared between the Province and the area municipalities in Simcoe County with the Province contributing an additional \$750,000 to cover half of the costs.

6. LOCAL MUNICIPAL IMPACT

Local municipalities in the Lake Simcoe watershed in York Region are members of the ACS Steering Committee in the same manner as the Region. Region and area municipal staff will continue to coordinate input and responses to the studies where necessary.

7. CONCLUSION

The Lake Simcoe Region and the Nottawasaga Valley Conservation Authorities are responsible for a very ambitious and needed Study to determine the assimilative capacity of Lake Simcoe and the Nottawasaga River and Bay. The Study is 100% funded by the Province of Ontario and is the first phase of a four phase Intergovernmental Action Plan for South Simcoe County.

Regional staff sit on several of the Governing and Technical Committees dealing with this Study and will continue to participate and provide input where required.

The Assimilative Capacity Study is Phase 1 of the larger Intergovernmental Action Plan for Simcoe, Barrie and Orillia being conducted by the Province and municipalities in Simcoe County. Phases 2 through 4 of the IGAP will determine the infrastructure and fiscal impacts of accommodating approved growth and assessing future potential growth in the County. York Region is not directly involved in Phases 2 through 4 and is not required to contribute financially to the Study.

Regional Council at its meeting of April 21, 2005 in recommendations dealing with the Draft Growth Plan, requested that the Province prevent “leap-frogging” of development north of the Greenbelt Plan into Simcoe County and that the Province conduct a formal comprehensive review of the County similar to the process found in the GTA, which includes all of the provisions of the Greenbelt Plan and impacts on York Region. It is recommended that Provincial Ministers on the IGAP Oversight Committee and Provincial staff involved in IGAP be made aware of the April 21, 2005 Regional Council Recommendation through circulation of this report.

The results of the Assimilative Capacity Study will assist the Region in its Greening Strategy, in its growth management work, in implementing the Provincial Growth Plan

and in its infrastructure master planning for northern York Region. Regional Committee and Council will be advised on an as needed basis regarding the results of the Assimilative Capacity Study and other elements of the IGAP.

Regional staff will monitor the information and phase outcomes and report and advise Committee and Council of issues as they arise to ensure that the Regional issues are addressed.

The Senior Management Group has reviewed this report.

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