

# Watershed Planning Initiative



**FINAL REPORT**



**Relevance and Responsiveness Task Group**

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DECEMBER 1997

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Relevance and Responsiveness Task Group

## **Watershed Planning Initiative**

### **FINAL REPORT**

Submitted to the:

Watershed Planning Implementation  
Project Management Committee (PMC)

## **DISCLAIMER**

The Relevance and Responsiveness Task Group Report is one of three Task Group reports prepared as part of the provincial Watershed Management Initiative evaluation project, formerly the Watershed Planning Initiative.

The Task Group was created by the Watershed Planning Implementation Project Management Committee to assess the relevance and responsiveness of watershed management.

This Report represents the views of the Relevance and Responsiveness Task Group. It does not reflect the policy of any provincial agencies, boards or commissions. Any errors, omissions or opinions are those of the Task Group.

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## **Acknowledgements**

This is our opportunity to recognize all team members who took time from their busy schedules to share their expertise. A special thanks to those who helped write the report as well as those who provided their input and worked towards a final product. This report provides a strong basis on which to further explore the relevance and responsiveness of watershed planning to stakeholder needs. Well done team!

John Kinkead (Co-Chair)  
Ministry of Natural Resources

Pat Murphy (Co-Chair)  
Regional Municipality of Halton

## 1.0 INTRODUCTION

In reaction to the need for a more proactive approach to the consideration of water and related resource management issues arising from the pressures of growth and development and the mounting evidence of environmental degradation, three watershed planning documents were developed. In June 1993 the Ontario Minister of Natural Resources and the Ontario Minister of Environment and Energy released three documents entitled "*Water Management on a Watershed Basis: Implementing an Ecosystem Approach*", "*Subwatershed Planning*" and "*Integrating Water Management Objectives into Municipal Planning Documents*" for a two-year voluntary application period. The release of the documents formally marked the beginning of the Watershed Planning Initiative (WPI). This two-year initiative is being led and managed by two committees — the Provincial Steering Committee (PSC) which is providing leadership and the Project Management Committee (PMC) which is providing day to day project management.

The main objective of the Watershed Planning Initiative is to undertake a thorough evaluation of watershed planning in Ontario. The evaluation is focussing on the usefulness and accuracy of the ecosystem-based approach as outlined in the watershed planning guidelines and the success of completed and ongoing local watershed planning activities. Several activities include the initiation and completion of several pilot studies, the establishment of a stakeholder forum and the formation of three task teams.

Seven pilot studies were initiated to test the advice and overall direction provided in the MNR/MOEE watershed planning guidelines. The project sites were chosen based on a variety of resource management issues in both rural and urban areas of southern and central Ontario. The following is a list of the pilot projects with their current status, according to a recent 1995 survey:

PROJECT	STATUS
Nottawasaga Valley Watershed Plan	Completed (Summer 1995)
Stoney Creek Subwatershed Plan	Ongoing
Mill Creek Subwatershed Study	Ongoing
Credit River Subwatershed #19	Ongoing
Chippewa Creek Watershed Management Study	Ongoing
Lovers/Hewitts Creeks Master Watershed Plan	Completed (October 1995)
Jock River Watershed Management Plan	Ongoing

A Stakeholder Forum was also established and consisted of individuals representing a cross section of interests in natural resource management, environmental protection, land development, urban and rural ownership and planning. The stakeholder forum participants,

drawing from their knowledge and expertise, were to define current watershed planning practices, identify specific issues and offer possible solutions or advice for improvement.

In conjunction with the pilot studies and the stakeholder forum, project teams were established to address three issue areas that were identified during the evaluation process and that required additional investigation. The three project teams which were co-chaired by PMC members, were asked to research and provide a report of their findings and conclusions on the following topics:

<u>TEAM</u>	<u>TOPIC</u>
Relevance and Responsiveness	public involvement and the relevance and responsiveness of watershed planning to stakeholder needs.
Science and Technology	state-of-the-art science related to watershed planning and its relevance and application in Ontario.
Resources and Effectiveness	financial, human and information resources related to undertaking a watershed planning exercise in Ontario including the pilot studies.

The purpose of this report is to document the approach used to gather information (Chapter 2.0), assess the information which was gathered, identify linkages to other initiatives, address the topic of implementation planning (Chapter 3.0), and provide key observations and findings (Chapter 4.0). Chapter 3.0 is structured to report on the relevance and then the responsiveness of watershed planning. It is laid out by question in a logical sequence beginning with the introduction of watershed planning and subwatershed planning, common types of plans, the initiation of a watershed plan and leads to the identification of stakeholders and their needs. It focusses on the need for watershed planning which sets the stage for the second part of the chapter which focuses on the responsiveness of watershed planning. These findings relate to stakeholder awareness and their understanding of watershed studies and techniques, their ability and opportunity to participate on and help develop a watershed or subwatershed plan and finally its ability to meet their needs and address their concerns. This chapter also includes information on increasing the responsiveness of watershed planning to stakeholder needs through plan implementation mechanisms and the linkages between watershed planning and other initiatives. Three areas which offer opportunity for plan implementation are through provincial policies/programs, the municipal planning process and private land stewardship.

For the purposes of this report, stakeholders are defined as the public, non-government agencies, consultants, development industry, municipalities, conservation authorities and the province.

## 2.0 APPROACH

### 2.1 Issues Considered During Development of Watershed Planning Guidelines

During the planning and development of the watershed planning guidelines, many key watershed planning practitioners offered their guidance and options based on their local decision making and planning experience. They specifically emphasized the need for a streamlined approvals process which would be more timely thereby avoiding duplication and conflicting requirements. They also reinforced the need to be more sensitive to stakeholder needs and therefore supported the development of guidelines which were flexible allowing for local decision-making based on local watershed conditions and stakeholder needs. The wide range of views and differing aspirations of client groups which were expressed during the development of the guidelines, are also represented in this report. A list of specific groups, associations and affiliations which offered guidance and opinions throughout the development stages of the watershed planning guidelines and were further consulted during the watershed planning initiative are found in the chart below:

Stakeholder Groups	Associations	Affiliations
Consultants	Conservation Authorities	Developers
Conservation Authorities	Community Fisheries Improvement Program	Environmental Planners
Land Developers	Community Liaison Teams	South Simcoe Soil and Crop Improvement Assoc.
Farmers/Farm Associations	Clean Up Rural Beaches	Federation of Anglers and Hunters
Landowners	Community Wildlife Improvement Program	Public Works Departments
Municipalities	Environmental Farm Plans	Councillors
Non Government Organizations	Remedial Action Plans	Environmental Ecological Advisory Committee
Residents	Stakeholder Group (Other)	Volunteer Advisory Committees

The following external reports were considered in the development of the 1993 guidelines. Key excerpts from these reports are provided in *Appendix C "Excerpts From References Consulted During Guidelines Development"* since they speak effectively to widely shared views regarding the need for integrative planning on a watershed basis.

- 1) Conservation Council of Ontario, The. *An Environmental Strategy for Ontario: Draft for Public Review*. July 1990.
- 2) Environmental Assessment Advisory Committee. *The Adequacy of the Existing Environmental Planning and Approvals Process for the Ganaraska Watershed*. November 1989.
- 3) Environmental Assessment Advisory Committee. *Request for Bump-up on the Bradford Public Utilities Commission Well and Water Taking in and Near the Holland Marsh*. June 1990.
- 4) Environmental Assessment Advisory Committee. *Extension of Approval of the Class Environmental Assessment for Water Management Structures By Conservation Authorities of Ontario*. June 1990.
- 5) Environmental Assessment Advisory Committee. *Lake Wilcox - Oak Ridges planning District Request for Designating under the Environmental Assessment Act (OPA #71)*.
- 6) Kanter, Ron. *Space for All - Options for a Greater Toronto Area Greenlands Strategy*. 1990.
- 7) Ontario Ministry of Natural Resources. *Summary of Tactics Proposed by Working Groups to implement a Revised Strategic Plan for Ontario Fisheries (SPOF II)*. July 1990.
- 8) Royal Commission on the on the Future of the Toronto Waterfront. *Watershed*. Interim Report, August 1990.

## 2.2 Task Team Activities

The team, consisting of individuals knowledgeable in the areas of public participation and outreach, watershed planning techniques and policies, municipal land use planning, and ecosystem-based resource management, began their task in December 1994 to explore and define the relevance and responsiveness of watershed planning to stakeholder needs. This report was developed through a joint effort of a number of team members who were responsible for researching and commenting on specific topics. The membership and terms of reference of this team can be found in *Appendix A "Task Team Membership"* and *Appendix B "Terms of Reference"*.

Five questions were posed by the Watershed Planning Initiative Evaluation Plan and directed at the Relevance and Responsiveness task team for investigation. The questions which were to guide the team's efforts were:

1. Does watershed planning address stakeholder needs?
2. Does watershed planning provide for adequate stakeholder input?
3. Are stakeholder concerns being addressed by watershed plans?
4. Are stakeholders informed of the value of watershed planning?
5. Have linkages been established between other initiatives?

Subsequent consideration influenced by the leadership and input of members, feedback from the stakeholder forum, pilot chairs meetings and other knowledgeable watershed planning practitioners, resulted in the expansion of the questions which were originally prescribed in the evaluation plan. The questions were revised as follows:

### Relevance:

1. What is watershed planning?
2. When & How is watershed planning initiated?
3. Who are the stakeholders of a watershed and what are their needs?
4. Is watershed planning needed?

### Responsiveness:

5. Do stakeholders understand watershed planning?
6. Are stakeholders given adequate opportunity to input to watershed planning?
7. Are stakeholder needs and concerns being addressed by watershed planning?
8. Can linkages be established between other initiatives?

The interview process was unable to reach a wide/balanced audience due to time constraints of the process and the willingness or otherwise of stakeholders' time to participate. As a result it was necessary for the team to search out additional sources. In retrospect, and

considering the responses received, it became apparent only at the end of the process that many of the questions were not well understood due to stakeholders limited involvement to that point and the fact that very few of the recommendations had been completed nor implemented.

Information was gathered from a variety of sources to support the discussions and findings which follow. Sources included two Pilot Project chair meetings, two stakeholder Forum sessions, and a questionnaire directed at a variety of watershed planning practitioners.

Information from the Pilot Project meetings was gathered on two occasions when Pilot Project chairs were invited to share their experiences. The first meeting gave PMC members an opportunity to explain the evaluation task and role of the pilot studies and listen to presentations on the study area and local resource/planning issues. The second meeting focussed on a facilitated breakout group discussion relating to the investigations of each task team. An executive summary of the day's events can be found in *Appendix D, Data - Part One*.

The stakeholder Forum sessions were also structured, one-day meetings which involved individuals representing a cross-section of interests in natural resource management, environmental protection, land development as well as urban and rural ownership and planning. The first session involved the identification of issues relating to watershed planning such as initiation, public consultation, study technique, data collection, study resources and implementation of the plan. The second session isolated the key issues which were identified at the initial session and became discussion topics for smaller groups. The small groups chose two issues of interest, provided a definition of the issue and recommended short term and long term courses of action. On both occasions, the representatives were invited to share their organization's view and through facilitated small group discussion came to consensus. The group discussions were recorded and synthesized and the executive summaries can be found in *Appendix D, "Data - Part Two"*.

Another source of information was obtained through a formal interview process which was jointly administered by the Relevance and Responsiveness Task Team and the Coordination and Resources Task Team. The Relevance and Responsiveness team members formulated questions which dealt with issues surrounding stakeholder needs and concerns, participation, and understanding. The questionnaire was administered mainly through telephone interview but on occasion the interviews were done in person. Those interviewed were individuals who were personally involved in at least one of the following completed or ongoing watershed or subwatershed study: Collins Creek (Kingston), Sawmill Creek (Ottawa-Carleton), Joshua Creek (Oakville), Nottawasaga Valley (Simcoe County and area), Jock River (Ottawa-Carleton), Mill Creek (Waterloo), Stoney Creek (London), Lovers/Hewitts Creeks (Barrie) or the Credit River #19 (Orangeville). A total of 28 individuals were interviewed

representing 9 of the watershed/subwatershed initiatives in Ontario. *Please refer to Table 2.1 for a listing of these stakeholders by category and watershed.*

**Table 2.1. Classification of stakeholders by watershed and category.**

Number of Stakeholders from each Watershed/Subwatershed		Number of Stakeholders in each Stakeholder Category	
Collins Creek	3	Consultants	3.5
Credit River Subwatershed #19	3	Conservation Authorities Staff	4
Joshua Creek Watershed	1	Developers	1
Jock River Subwatershed	4	Farmers/Farm Associations/	
Lovers/Hewitts Creeks Subwatershed	3	Landowners	3
Mill Creek Subwatershed	2	Municipalities & Gov't Officials	8
Nottawasaga Valley Watershed	4	Non Government Organizations	5
Stoney Creek Subwatershed	5	Residents	3.5
Sawmill Creek	3		

\* **Please note:** Two of the consultants worked on behalf of developers and one was also a resident; Municipality staff included planners, public works staff, a clerk, a councillor and an official; The Federation of Agriculture were included with the Farmers/Farm Associations/Landowners group; the NGOs included anglers and public advisory committees.

### **3.0 ASSESSMENT OF INFORMATION**

#### **3.1 Relevance of Watershed Planning To Stakeholder Needs**

According to the three guideline documents, the success of a watershed study depends on its ability to meet the broad spectrum of stakeholder needs. However, planning experience dictates that to secure stakeholder involvement, support and "buy-in", a watershed plan must be relevant and well understood by the participants. In general, those contacted during the two-year trial period said that the watershed planning guidelines addressed most areas of concern to them and that there were no other guideline processes which are currently addressing environmental planning as well as the watershed planning process. They did, however, suggest improvements which could be made to the existing guidelines which are outlined throughout this chapter.

##### **3.1.1 What Is Watershed Planning'**

Watershed planning is a process for inventory, analysis and decision making based on all lands drained by a watercourse and its tributaries which ensures the long-term environmental, social and economic well-being of the residents of 'Ontario provided by healthy water and related resources. It involves multi-stakeholders and several levels of municipal and provincial agencies that cross political and jurisdictional boundaries, all of which have many different definitions for watershed planning depending on their individual aspirations. Through support and involvement of watershed planning partners, recommendations which support the protection of water and related resources are developed which help promote a healthy watershed environment in which we live. Depending upon the detail of the study and the size and characteristics of the receiving stream the initiative may result in either a watershed or subwatershed plan (Subwatershed Planning Guidelines, pages 10-14).

Comprehensive subwatershed planning is a relatively recent application of the watershed approach (i.e. the last 3-4 years). Practitioners and stakeholders at the forefront of this activity have documented a variety of positive results and experiences including fewer development referrals to the Ontario Municipal Board (OMB), more naturalized approaches to the management of drainage and stormwater, protected watercourses and fish habitat, more attractive/marketable residential communities and streamlined development approvals. The process, however, continues to evolve and greater focus on extending practices from successful applications to other locations is warranted.

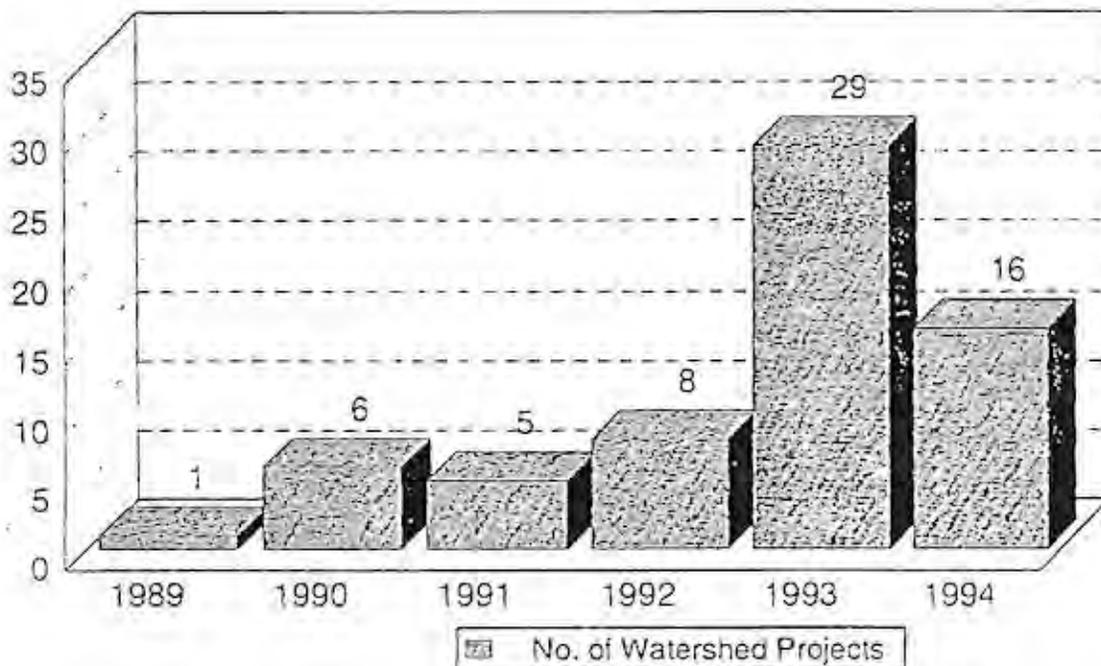
According to the Science and Technology task team, and scientific interests, there are several types of watershed or subwatershed planning initiatives which are generally driven by one

or a combination of the following four interests: Environmental Resources, Land Use Change, Land Use Management and/or Redevelopment/Restoration. Specific examples illustrating the types of watershed plans were provided by a number of conservation authorities and are provided in *Appendix E, "Types of Watershed Plans"*.

### 3.1.2 When & How Is Watershed Planning Initiated?

According to a 1995 survey of watershed planning activities in Ontario, approximately 65 watershed/subwatershed plans have been initiated since 1989 — the most dramatic increase of which, occurred in the past two years. The following graph illustrates the distribution of watershed/subwatershed plan start-ups by year since 1989.

**Figure 3.1 Initiation of Watershed Projects**



Of the 65 plans, the majority were initiated by CAs for strategic planning, resource planning and for input to municipal planning and Fill, Construction and Alteration to Waterways Regulations. Municipalities initiated several as input to Official Plans and Developers as part of the subdivision plan approval process. CA Watershed Planning was

initiated through the approval of transfer payments from MNR as requested by the CA in conjunction with the local municipality(ies). Municipal projects were funded from current budgets as approved by Council within the Engineering Departments usually to address stormwater management provisions in the Official Plan, municipal drainage by-laws, subdivision approvals or as part of the rehabilitation of existing stormwater management works. Developers initiated studies to fulfil conditions of draft approval for plans of subdivision.

As demonstrated by the 65 plans which were inventoried, the process and length of time required to initiate a watershed plan varies considerably from area to area due to the type of issues involved, the lead agency, their related experience and available resources, as well as the pressure for final plan recommendations and associated implementation needs. The goal is to analyze and compare study techniques, consultation methods and implementation products. Sharing this information and exchanging ideas will hopefully improve the knowledge base around undertaking a study from the planning stages through to the implementing phase. The watershed plan documents currently provide a planning framework which outline three main stages (set the stage, prepare the plan and adopt the plan), as illustrated in Figure 7 of "Water Management on a Watershed Basis: Implementing an Ecosystem Approach."

Watershed planning is usually initiated because of issues around environmental resources, land use change, land use management and/or redevelopment/restoration. They are usually initiated in one or a combination of three ways:

- by a CA as part of their mandate under the Conservation Authority Act, as input to Official Plans or to protect particularly sensitive environments;
- by a municipality in order to address environmental components in the Official Plan or major Land Use Change process;
- by a developer or land owner as part of the subdivision approval process;

### **3.1.3 Who are the Stakeholders of a Watershed and What are Their Needs?**

"Stakeholders", according to the Oxford dictionary are "each of those who have an interest or concern". When asked the question "who are the stakeholders of a watershed plan", the pilot project chairs responded:

- Government, Agencies and Corporations (provincial, federal municipal, Conservation Authorities, Ontario Hydro)

- Land developers and agents (real estate, consultants)
- Resource Users and watershed residents (including farmers)
- Academic Community, students
- Non Government Organizations (national and local)
- Special Interest Groups ("Friends of \_\_\_\_\_" groups, ratepayers)
- Business/Industry

A recent survey identified a range of agencies who have participated in selected watershed and subwatershed plans. According to Table 3.1 found in the "Assessment of Benefits of Subwatershed Planning and Naturalizing Stream Systems" report, agency participation included the Provincial ministries of Natural Resources, Environment and Energy, Municipal Affairs and Housing, Agriculture, Food and Rural Affairs, Municipalities, and Conservation Authorities. The report was prepared by the Ministry of Natural Resources, Environment Canada, and the Credit Valley Conservation Authority in March 1994.

The MNR/MOEE watershed planning guideline documents also identify a number of target audiences who should be invited to participate in a watershed plan. These stakeholders include:

- "Friends" - people who are supportive of the planning effort and who are already "on board".
- Affected parties - individuals or groups who may be contributing to watershed degradation, but who also have a potentially important role in solutions.
- Local elected officials - key decision-makers and opinion leaders who have an influential role in allowing a watershed planning effort to be accepted and implemented.
- Government agencies - officials and technical staff from a wide range of local, provincial and federal agencies, who can provide technical and political support to the planning effort.
- The "general public" - this group is typically the target of any public participation effort.

In addition to identifying a number of probable target audiences, the watershed planning guideline documents also provide information on identifying the stakeholders in the watershed and reiterate the benefits of public awareness and involvement in a watershed plan, and information on designing a public consultation strategy, key planning phases requiring

public direction and review, and opportunities for direct participation in data collection and information tools and outreach programs.

Preliminary discussions of the Project Management Committee identified potential needs of watershed planning partners and community stakeholders as follows:

- a commitment to support, lead, accept and deliver the plan
- assurance of minimum negative impact on property rights or on resource features
- compensation and technical assistance from government
- ability to influence process, be involved and have the right of appeal
- responsible/accountable delivery agencies/partners
- level playing field, awareness of the rules upfront
- coordinated initiatives and political agendas
- identifiable and reliable implementation timetable and plan
- maximum social and economic benefits such as savings, efficiency/effectiveness
- understanding and appreciation of scientific and environmental experiences
- responsible financial resource management and value for money
- awareness of consequences of no action on environmental quality
- awareness of alternatives to watershed planning
- protection of the "provincial interest"
- effective communication and implementation techniques
- establish formal direction on the application of watershed planning
- establish realistic, achievable plans with definitive criteria aimed at future development/land use changes
- integration tools with other initiatives, prioritizing watershed planning initiatives, and defining the provincial interest

#### **3.1.4 Is Watershed Planning Needed?**

When investigating the relevance of watershed planning, the question was asked: "Is there a need?" Discussions around the relevance of watershed planning are separated into four areas including: a) the perceived need for watershed planning, b) the leadership of watershed planning, c) mandatory application of watershed planning and d) alternatives to watershed planning. Together the response to these four themes helped to guide the task team in commenting on the need for watershed planning.

### Perceived Need For Watershed Planning

When asked if there is a need for watershed planning in your area and/or provincially those interviewed generally responded positively. A few respondents felt that there was a need for watershed planning in the distant future, but the majority felt that there was a proven need for watershed planning to help deal with existing issues and prevent further environmental degradation.

Reasons for their support related to perceived development or agriculture pressure and the need for holistic or ecosystem management and to take stock of cumulative impacts caused by development infrastructure and isolated planning. They felt that there was a need to better understand natural resources and deal with erosion, flooding, unrestricted release of stormwater, clear cut forest areas and water quality degradation in streams. The *development industry* expressed concern that they were being asked to meet strict water quality standards in urban areas while the water from rural parts of the watershed were of a lot worse quality and had no controls. There was a perceived need to protect resources including agricultural lands, while allowing for planned development and public participation (Forum, Pilot Chairs).

Those who felt that there was not a need for watershed planning were not as supportive about the process. They felt that environmentally sensitive practices were already in place to achieve the same results or that it was not needed after the area surrounding a water course was fully developed. One respondent from *Joshua Creek (Credit)* indicated that there was no need for a watershed plan because the area was totally developed. Another respondent from *Collins Creek (Cataraqui)* felt that there was no need because Environmental Farm Plans addressed environmental issues.

### **Observations:**

A broad cross-section of stakeholders support watershed-based planning as the best of the currently available approaches to implementing the ecosystem concept where water and aquatic resources are at risk. They are supported in this view by the acknowledgement that traditional site-specific planning approaches have failed to protect watershed resources and environmental health. They also point to the recognition and rapid adoption of watershed planning in many other jurisdictions.

### Leadership of a Watershed Plan

Watershed and subwatershed planning is a multi-stakeholder exercise that involves all members of the community, including municipal and provincial agencies that cross political and jurisdictional boundaries. Although conservation authorities, which have

watershed-based boundaries, generally coordinate watershed planning initiatives, municipalities, developers, and in at least one case a member of the general public have also assumed the lead or coordinating role. Other agency involvement is usually defined by specific watershed issues and related mandates. Based on Task Team findings:

- Consultants indicated that watershed planning should be community driven but that the general public are not in a position to provide a leadership role.
- Conservation Authorities felt that watershed planning should be community driven and lead with an agency such as a CA as the facilitator.
- Municipalities were evenly split between a leadership role being provided by the CA and the community.
- NGO's were divided among the province, community and CA as providing the leadership role.

### **Observations:**

When asked questions relating to the leadership and application of watershed planning, most of the respondents felt that watershed planning should be community driven. They felt that there was no better way to get taxpayers involved and on board. They felt that through community mobilization, taxpayers' dollars would be best used.

Others felt that the community could not lead the watershed planning exercise alone due to their overall lack of knowledge and expertise. Although they felt that it was important for watershed planning to be responsive to all stakeholders' views, they deemed it necessary for local or provincial government or the conservation authority to facilitate the process. Respondents felt that those agencies were better able to get through legislative roadblocks and they would likely be less influenced by local agendas.

Preference of leadership between government or the CAs was not specified. However, they did state that leadership was dependant upon the location/boundary of the study area and the study issues and local situation. There was general consensus that the leader should act as the facilitator or coordinator to encourage participation of stakeholders and be a contact point for public inquiry.

### Mandatory Application of Watershed Planning

When asked whether watershed planning should be mandatory in certain situations, the majority response was positive in areas of land use change, active growth, environmental degradation and cross-boundary issues, etc. Respondents did not however support the mandatory application of watershed planning everywhere and in every situation across the province.

- Consultants Only one consultant commented on this aspect and felt that watershed planning should be mandatory in all areas of active growth.
- Conservation Authorities gave a strong indication that watershed planning should be mandatory but for differing reasons from integration to addressing cumulative impacts.
- NGO's and Municipalities also gave a strong indication that watershed planning should be mandatory especially when addressing development pressures and urgency of protecting environmental features.

#### **Observations:**

Stakeholders agree that there should be a clearly defined need for the application of watershed planning in the proposed study area, where, for example, *Land Use Change Plans* question whether development pressure is likely to a) result in significant impacts on water quality and instream uses, b) contribute to increased flooding or erosion, c) interfere with the availability of supply or d) significantly alter or disrupt surface water/groundwater systems. Other examples include *Environmental Resource Plans* which question whether there are significant environmental features in the watershed which need to be identified for protection prior to any land use or resource management planning changes and *Redevelopment/Restoration Plans* which question whether there are existing conditions of water quality or fisheries habitat degradation, flooding, erosion, or water supply interference that warrant the development of a watershed management plan to guide enhancement and remediation efforts.

Generally, it was felt that watershed planning was warranted in areas of active growth, development pressure, where there existed an urgent threat to water resources, in areas where restoration or enhancement of the watershed was required/desired and/or in areas where land use was threatening the environment. Conversely, in areas of non-active growth and site specific development, watershed planning should not be mandatorily applied but that ecosystem principles (as defined in the Science and Technology Report) should be adhered to. Due to the comprehensiveness and scope of a watershed plan it may not be appropriate to complete all aspects or components but only those areas of concern and the related ecosystem. In addition, the scope of watershed plans should be

dictated by the available budget and data and therefore phased or planned for budget purposes over a subsequent fiscal year(s).

### Alternatives to Watershed Planning

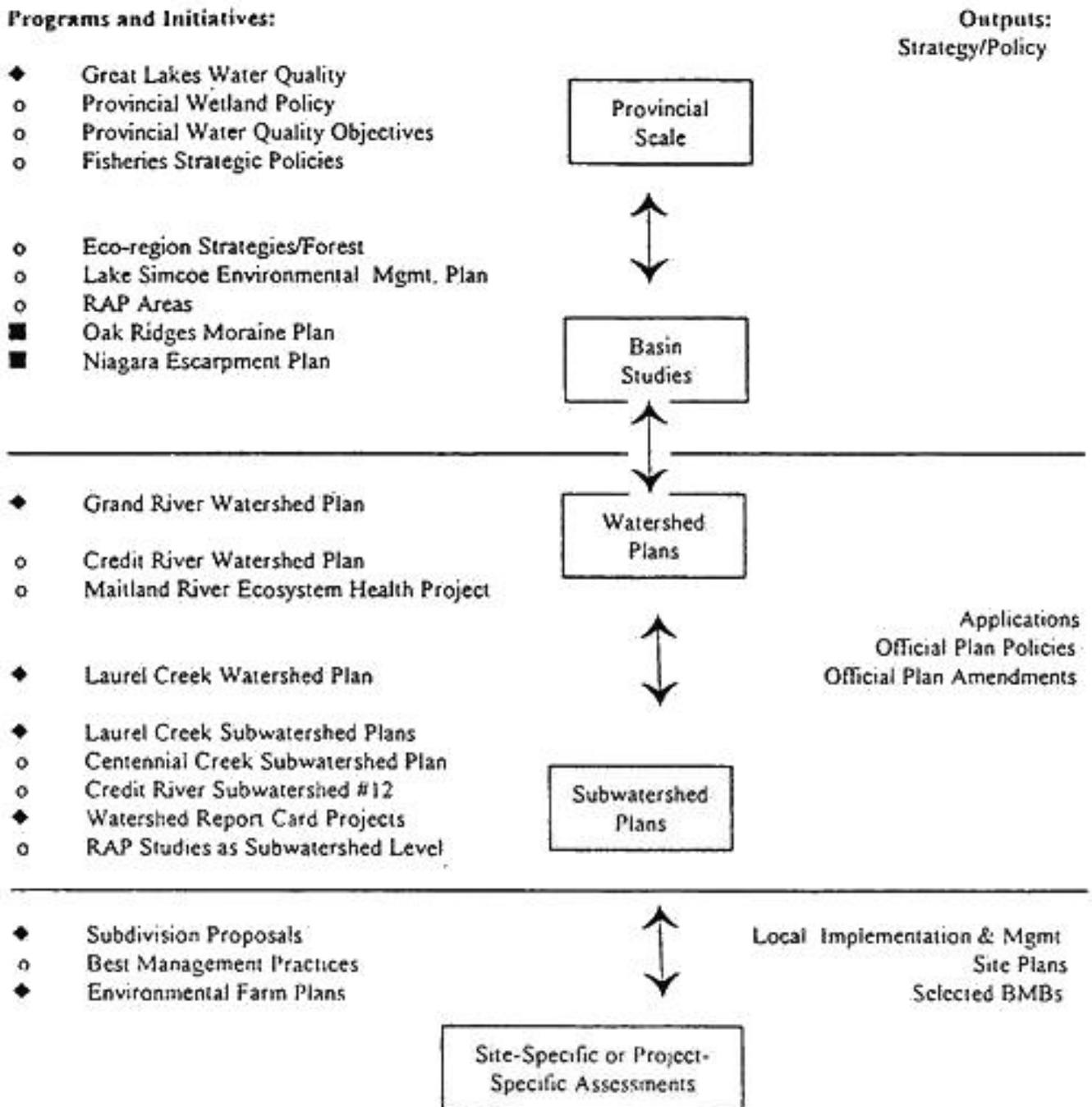
Alternatives to watershed planning were also explored. The majority of respondents strongly agreed that a true alternative to watershed planning did not exist which provides the necessary link between land, water and biota. Local implementation requires additional details and assessments to address protection on a sustainable basis. Further specific input to land use planning, in addition to generic policies, is critical via watershed planning including compatible land uses, stormwater management, cumulative assessments, servicing options and input to environmental assessments for a specific project undertaking.

On the other hand, several respondents felt that there are approaches and planning units which can satisfy the planning needs in certain situations depending on the characteristics and scale of the study area. They support site-specific planning approaches in situations of isolated or small-scale land use change where the range of environmental impacts is expected to be confined to the immediate development area. Some alternatives which they had identified include environmental farm plans, official planning, master drainage plans, escarpment plans, moraine plans, or terrestrial ecosystem units. Respondents felt that some of these processes could better inform the public of the various damages and directs to the environment. Their key concern was the need to avoid duplication of efforts which may be posed by a full-blown watershed planning exercise.

### **Observations:**

Respondents who offered environmental farm plans or master drainage planning as likely alternatives were most likely viewing the question of alternatives to watershed planning from a site specific or local perspective without addressing upstream/downstream or cumulative impacts. Similarly, those respondents suggesting the Niagara Escarpment or Oak Ridges Moraine fail to recognize that these are terrestrial and geologic units which contain the headwaters of many different watersheds. Therefore, it appears to be important that the definition of watershed planning and the associated nested hierarchy of planning and scale is emphasized. There is an increasing level of detail required as one moves from a watershed plan to a subwatershed plan to a site-specific plan or project impact assessment (see Figure 3.2). Programs and initiatives are grouped based on the following types of output: 1) general strategies and policy areas; 2) specific policy application & policy integration with linkages of ecosystem functions, resources, local resolution of cause and affects; and 3) local implementation & source (site) management.

**Figure 3.2 Planning and Management Hierarchy**



(Source Modified from the Science and Technology Task Team Report, 1995)

Here are two examples, represented by two different symbols, which help to further explain the management hierarchy figure:

◆ **Grand River Watershed**

The Grand River Watershed offers one approach to watershed hierarchies including heritage issues. Initially, this approach was guided by provincial objectives and policies including the *Great Lakes Water Quality* policy.

The *Grand River Basin Water Management Study*, completed in 1984, dealt with the issues of flooding, water quality, and water supply at the watershed scale.

A management plan called "*The Grand Strategy* for Managing the Grand River as a Canadian Heritage River" was facilitated by the Grand River Conservation Authority and developed as part of the designation process. The Grand Strategy was developed with the assistance and support of watershed residents and agencies.

Integrated watershed planning is very active at the tributary and subwatershed scale in the Grand River Basin. A number of subwatershed plans were completed such as Strasburg Creek, Hanlon Creek and *Laurel Creek*. However, beyond these limited areas, resource program delivery is still focussed on addressing specific problems and issues.

The findings and recommendations from the studies/activities in the Grand River above are implemented through their adoption into municipal documents and *applications for subdivision proposals*. Most recently, this approach also enhances linkages and efforts around rural management practices through adoption of the *watershed report card* with the emphasis on the *Environmental Farm Plan*.

■ **Niagara Escarpment Plan/Oak Ridges Moraine Plan**

There are other types of approaches to planning and management based on larger ecosystems and special features. They may start with a larger special policy areas that may have additional policy mechanisms, such as the land use policies including consideration for more stringent uses and practices, ie, land use types, servicing policies, etc. However, the follow-through process of their application and implementation requires comprehensive and detailed evaluation using watershed and subwatershed planning principles and tools. Some good examples are: The *Niagara Escarpment Plan* and the *Oak Ridges Moraine Plan*.

### **3.2 Responsiveness of Watershed Planning To Stakeholder Needs**

The second field of inquiry was responsiveness, which focuses on whether watershed planning exercises provide an opportunity for stakeholders to become involved and affect the outcome of a watershed plan. To assess responsiveness, individuals were asked to comment on whether: stakeholders understood watershed planning, whether they were given adequate opportunity to provide input and whether their needs and concerns were being addressed.

#### **3.2.1 Do Stakeholders Understand Watershed Planning?**

In order to garner support for the development of a watershed or subwatershed plan, it is often necessary to demonstrate how that initiative directly affects the stakeholder. For example, while the benefits of adopting an ecosystem approach to land use planning may seem readily apparent to proponents of such a strategy, this description does little to impress a landowner who does not identify where he/she lives in terms of an ecological unit. A common understanding and acceptance of the issues under consideration is necessary. Individuals must identify with their watershed in order to make informed contributions to the planning process for watershed management.

- Consultants indicated that there is generally a good understanding of watershed planning by everyone except the general public. In this area much more work is required and environmental issues (watershed planning) should be part of the school curriculum.
- Conservation Authorities thought that public education was lacking but is an essential component of watershed planning. The public generally became aware by participating in the watershed or subwatershed planning process.
- Municipalities felt that much more public education is required. They also indicated that the benefits of watershed or subwatershed planning needs to be conveyed to the Province. It was most frequently mentioned that they saw it as "government" responsibility to train/educate.
- NGO's indicated that more public education is required but it is such a large undertaking, they didn't know how it could be done. The public is more interested in on-the-ground work than "planning".

The comments offered by those involved in watershed planning initiatives indicate strong support for efforts to increase public awareness and understanding of the concept of a watershed approach to planning. Most individuals who became involved in a local

watershed planning exercise were unfamiliar with the provincial watershed planning initiative and were uncertain about the specific starting and closing dates of the project. Similarly, while local public education initiatives are underway in some areas, generally led by conservation authorities, there appears to be very little general public awareness of these activities.

### **Observations:**

The general public were the least likely to be aware of what watershed planning was all about. They were either concerned with their local neighbourhood or they became interested when there was a major issue which personally concerned them. The lack of an overall communication and education strategy presented a challenge to many of the initiatives undertaken. Individuals commented about the lack of clarity of the various roles and responsibilities and of the relationship of watershed planning to other exercises. In addition, experience gained from one exercise was seldom shared with another. This may prove particularly problematic when attempting to measure the success of a watershed approach: it may be difficult to distinguish between a poor approach and poor communication. Information which was requested by respondents included: a "layman's" overview of the concept of a watershed and watershed planning, information on what citizens can do to improve the quality of local water sources in their watershed, information on the impacts of watershed planning on stakeholders, the roles and responsibilities of watershed planning partners, land stewardship mechanisms, linkages to existing programs and where to obtain information on other ongoing or completed watershed studies.

For the wide variety of stakeholders, each with individual needs and concerns, this becomes a difficult question to answer. For those involved in watershed planning on an ongoing basis (Provincial ministries, CAs, municipalities and consultants) there was a good general understanding. Those interest groups and the general public often came into the process with a particular view or cause to promote (i.e. stopping a specific development) and through the consensus building exercise, did not have their view supported and felt that they did not understand watershed planning.

### **3.2.2 Are Stakeholders Given Adequate Opportunity to Input to Watershed Planning?**

Public, stakeholder or community input is viewed as a fundamental component of fair and open decision making. Involvement, according to the Oxford Dictionary, means "to cause to participate, or share in the experience or effect". The Ministry of Natural Resources, in its *Policy Statement on Public Involvement Processes*, describes involvement as "notification, consultation and contribution opportunities". Ministry of Environment and

Energy's Public Consultation Guide suggests that public consultation is "a process involving interactive or two-way communication between the ministry and the public, through which both become informed about different perspectives on issues and proposals, providing the public with *the* opportunity to influence decisions to be made by the ministry" The roles of each stakeholder are outlined in Section 4.1, "Roles and Responsibilities" and Section 6.0, "A Word on Public Participation" of the Draft Watershed Guidelines.

- **Consultants** did not feel that there was adequate public involvement although the opportunities did exist. In some cases the involvement was rolled into other processes such as consultation related to Official Plan development.
- **CAs and Municipalities** indicated that there was ample opportunity for stakeholder input. In some cases though, the opportunity did not translate into actual stakeholder attendance or involvement.
- **NGO's** felt that there were no "big gaps" in stakeholder involvement but that there was general community apathy.

### **Observations:**

Surveys and discussions indicated that some opportunity for local involvement had been provided. Reasons for stakeholder involvement in watershed planning have been due to a number of influences. Recent interview results show that involvement in watershed planning from an agency perspective was due to high development pressure and servicing issues. From a citizen perspective involvement was due to recreational interest or proximity of their household to the stream. All watershed evaluation methods (surveys, forums, pilots) participants used vehicles such as public meetings, discussion forums, open houses, newsletters, workshops, questionnaires and direct contact were used to varying degrees. Concern was expressed, however, that efforts to garner interest were insufficient. In particular, several respondents indicated that representation was often unbalanced and not reflective of the make-up of the community. This situation most often arose when a local, organized group encouraged the efforts of its constituents and those sympathetic to their cause by lobbying a single viewpoint.

Participants recommended that the process be made more open, and that all interested individuals be informed early in the process of when and how decisions are to be reached. The challenge, then, is to provide adequate opportunity and the needed tools for meaningful involvement. In achieving this, the proponent of the initiative will secure a valuable partner, and the community will have a feeling of "ownership" of the product which may in the long run translate to savings as the community work towards protecting

and enhancing resources and avoiding practices and resource uses which will cause degradation and expensive rehabilitation efforts. A framework has been proposed that aims to involve all stakeholders in the watershed planning process; it can be found in *Appendix F "Community Involvement Framework"*.

For those individuals not normally involved in the watershed planning process there seemed to be a lack of understanding of what the process was and therefore the issue of "an adequate opportunity to input" received responses changing from "yes to no and I don't now." Others felt that there was adequate opportunity but that the time commitment was too great to attend all Steering Committee meetings, Technical Committee meetings, public meetings and review all of the reports produced. For practitioners there seemed to be ample opportunity which ranged from membership on committees to open houses, displays, and media notices.

### **3.2.3 Are Stakeholders Needs and Concerns Being Addressed by Watershed Planning?**

Considering that both stakeholders and their needs are quite diverse, it is a challenge for planning activities to address all needs and concerns.

- **Municipalities** indicated that their needs were similar to local, regional, and provincial needs, although services such as water supply and storm water management were emphasized.
- **NGO's** also indicated that their needs were similar to local, regional, and provincial needs although green space, recreation, and development control were their main emphasis.
- **Consultants** comments related mainly to information needs, availability and use. The terms of reference should clearly indicate what is to be studied, where the emphasis should be placed, level of detail and making use of existing locally available knowledge and expertise.
- **Conservation Authorities** indicated that watershed planning is needed for coordination and there are no other processes to replace it. Technical Committees need to have as many interests as possible represented at the table but also need to be restricted to a reasonable size. Databases are lacking and more guidance is needed for implementation and monitoring.

- **NGO - Farming** felt that they were not consulted enough, that more time needs to be spent on actual works such as Community Fisheries Improvement Program and Community Wildlife Improvement Program and that there should be compensation for the protection of resources on private land.
- **Municipalities** indicated that watershed planning is a great tool for looking at water and related issues but that it should not become an additional planning process; access to better information needs to be improved and more public information/education on environmental issues is required.
- **NGO - Environmental** commented that watershed planning is needed and met their expectations but there was too much "turf protection" and it did not get specific enough to establish and monitor targets. The reference to "turf protection" appeared to refer to the various mandates of provincial ministries, CAs and municipalities.

### **Observations:**

A review of comments from those who have been or are currently involved in a watershed planning initiative indicates that a majority of stakeholders are supporting the concept and feel that their involvement made, or will make, a difference to the result. This positive response, however, was often tempered with a sense of frustration with the effort required to achieve this objective. Concern was expressed with respect to unclear expectations about roles and responsibilities and uncertainty about the anticipated outcome of the exercise. Many respondents found the experience of consensus building to be adversarial, and indicated that much of the time and effort was spent on education, negotiation, mediation and consensus building, often because of the inconsistency between the level of understanding between parties. Respondents did recognize that all concerns could not be entirely addressed without tradeoffs being made.

It is widely agreed that input from all stakeholders is crucial for a successful plan and that all participants feel that they play an important role in the decision making process and implementation phase of a watershed plan.

Similar to the question "Do Stakeholders Understand Watershed Planning?" Provincial ministries found their needs met through watershed planning for prioritizing and coordinating initiatives, and resolving cross-boundary conflicts; CAs through the administration of "Fill, Construction and Alteration to Waterways Regulations", Plan Input and Review commenting; the development industry and consultants through streamlining the approvals process and "knowing the rules upfront"; municipalities through the development of "environmental" policies for Official Plans and Zoning By-laws. Interest

groups and the general public on the other hand felt that the process did not go far enough to protect the environment; their representation on "committees" was outweighed by "development interests" and were unsure whether the final recommendations would ensure a better future environment for the watershed.

Participants recommended that the process be made more open, and that all interested individuals be informed early in the process of when and how decisions are to be reached. The challenge, then, is to provide adequate opportunity and the needed tools for meaningful involvement. In achieving this, the proponent of the initiative will secure a valuable partner, and the community will have a feeling of "ownership" of the product which may in the long run translate to savings as the community work towards protecting and enhancing resources and avoiding practises and resource uses which will cause degradation and expensive rehabilitation efforts.

### **3.3 Implementation of Watershed Planning Recommendations/Linkages to Other Processes & Initiatives**

The actual implementation of watershed planning recommendations is a critical part of the overall watershed planning process. Planning for implementation helps to define the associated activities and identify the roles and responsibilities of the watershed planning partners. It also helps to identify linkages between agency programs and policies as well as opportunities to develop program delivery partnerships.

Watershed and subwatershed planning recommendations can be implemented using a combination of methods. The three implementation methods which are summarized in this chapter are:

- provincial programs and delivery partnerships
- municipal land use planning
- private land stewardship

#### **3.3.1 Provincial Programs and Delivery Partnerships**

The protection, conservation and restoration of Ontario's natural environment is achieved through several statutes which are administered by a myriad of ministries and agencies. In the context of watershed planning, the principal regulatory players are the Ministries of Environment and Energy, Natural Resources, Municipal Affairs and Agriculture, Food and Rural Affairs along with conservation authorities and municipalities. Watershed planning provides an opportunity for these agencies to incorporate regulations, policies and implementation programs which were originally designed one by one to protect separate, individual ecosystem components or project areas. The initial investment of time and effort

in developing the watershed helps to facilitate a smoother approvals process such that significant review is not required except for situations where implementation is inconsistent with a specific design.

It is important that the province take steps to coordinate inter-ministerial programs and partnerships as well as those between the province and other agencies. For example, it is difficult to promote the ecosystem approach to watershed planning and management if at the same time the province is providing grants for rural drainage, issuing water taking permits which exceed the baseflow of watercourses, CURB grants are only issued once a watercourse has reached a certain level of degradation or municipal population projections are completed without considering sustainable drinking water supplies or sufficient base flows in watercourses for sewage treatment plant discharge dilution. In light of the mixed messages which can result from the above noted example, it may be beneficial to consider establishing a standing inter-ministerial committee to coordinate provincial priorities, funding, programs and partnerships.

### **3.3.2 Municipal Land Use Planning**

Municipalities have the legislative authority and political responsibility to undertake comprehensive land use planning and to provide a coordinated approach to land use, social and economic development. This activity is prescribed under the *Planning Act* and is known as the 'official planning' process.

The coordination of upper tier and lower tier official plans provides a unique opportunity to achieve a strategic and multi-disciplinary approach to land use planning. Upper tier municipalities often develop strategies and provide direction which protect environmental and resource features and areas. Lower tier plans most often adhere to the broad strategic framework and address community needs at a local, detailed level. Both upper and lower tier plans usually have a long-term horizon, but at different levels of detail, and different geographic perspectives.

Effective integration addresses the capacity of the watershed to accept growth and development without jeopardizing the natural resources as well as provide direction for the equitable sharing of the resources. The integration of municipal land use planning with watershed planning does not necessarily preclude all future development but provides for sustainable development.

Similarly, land use planning can also help watershed management and visa versa by using the policy direction of official plans in estimating impacts of future growth, and by taking the watershed planning recommendations and implementing them through land use policy and development decisions. Policies regarding growth can be better determined through

early consideration of background information/data, a framework for evaluating implications of growth, the monitoring of water conditions, and a framework for considering the cumulative impact of land use decisions.

Watershed planning is required where the resource base is identified and then land uses and servicing is designated as opposed to land uses and servicing being established and then the resource base being studied to determine how impacts can be minimized or mitigated.

Recognizing that the integration of watershed management and municipal land use planning may pose several challenges such as updating or developing a new official plan or establishing an interim development approval process while a watershed or subwatershed study is being undertaken, there are some general policies and approaches worth considering:

General Policy: *Recognize and commit to the importance of water and related resources*

Specific Policies:

- a) *commit to integrated and coordinated water and related resource management*
- b) *maintain natural watercourses*
- c) *control discharges to surface water and ground water*
- d) *enhance water conservation practices*
- e) *target water quality/quantity*
- f) *identify and protect significant hydrogeological areas*
- g) *protect inland lakes*
- h) *protect human life and property from water related hazards.*

There have been a number of municipal official plans which have integrated watershed plan recommendations since 1990. Two official plans which have been examined are York Region and Waterloo Region. Although these regional municipalities take different approaches, they are using watershed planning as a tool to plan sustainable communities. The province's new planning system provides policies and legislation to achieve sustainable communities. Both York and Waterloo prove that watershed planning and municipal land use planning can be integrated.

### **3.3.3 Private Land Stewardship**

The implementation of the recommendations usually relies on a number of implementation mechanisms and on the many watershed partners. Although provincial ministries, conservation authorities and municipalities play a large role in plan implementation, many

resource management and protection activities primarily lies with landowners and residents which are known as 'stewardship' activities.

Private landowners and residents play a large role in stewardship, and have the potential to contribute significantly to a better land scape. According to an article in the Natural Heritage League's newsletter entitled *Land Matters*, watershed planning can help landowners and residents learn "what the indicator species are and where the 'weak links in the chain' are. These plans can help landowners learn more about natural features and processes...[thereby] helping them to make the best use of their land without causing negative long term effects." The article goes on to say that "the stewardship of land resources can become more effective and efficient when more people become well informed and work as a team towards common goals. This is what watershed planning is all about".

A landowner initiative in the State of Michigan, specifically the Mitchell Creek watershed, provides a good example of successful private land stewardship activities requiring the active participation of both the government and the public. *The Mitchell Creek Landowner's Handbook* encourages the community to participate in the protection of local resources through best management practices, voluntary land protection programs and land use regulations. According to the handbook: "best management practices are simple actions that any landowner can take to reduce the impact of human activities on the environment." Several common sense cures for non-point pollution sources include improved landscaping, lawn and garden care practices, septic system maintenance, water conservation, wise use and disposal of hazardous household chemicals, fuel storage and agriculture practices. Land protection programs aimed at protecting critical areas such as wetlands, streamside greenbelts and groundwater recharge areas are also described in the handbook. Some tools geared to assist private land protection include conservation easements and gifts of land to local conservancy agencies as well as through the consideration of alternative design practices and the execution of "conservation-minded development".

In Ontario, government and non-government agencies recognize the growing need for and shared interest in private land stewardship which has resulted in a growing list of initiatives that are promoting resource and environmental land stewardship. It is recognized however, that there is also a growing need for improved coordination between initiatives to make better use of resources thereby reducing the overlapping promotional and funding processes. A short list of best management practices and land protection/enhancement initiatives are found in *Appendix G, "Stewardship Initiatives"*.

## **4.0 FINDINGS & OBSERVATIONS**

The Relevance and Responsiveness Task Group's mandate was to "gauge stakeholder needs, concerns, and participation related to both the watershed planning initiative and local watershed planning activities looking towards improving stakeholder involvement and response to their needs." In carrying out its assessment, the Task Group made many observations about areas of strength and weakness, areas in which improvements are needed, and initiatives that could support watershed planning in the Province. This chapter of our report outlines some key observations. However, it is not intended to be complete or by itself, and should be read in conjunction with the body of the report.

### ***Stakeholder Views on Commitment***

Stakeholders recognized that there must be a commitment by all parties to pursue their share of responsibilities for implementation actions identified in recommendations arising from the development of the watershed plan/strategy. For example, in order for the plan to be relevant it must be both implementable and implemented. The plan must also address the range of important issues identified at all of the provincial, regional and local levels. At the same time, the recommendations must consider the appropriate distribution of costs among those that must implement change and those that will benefit from it.

### ***Stakeholder Views on Involvement***

It has become clear that meaningful opportunities must be offered to all interested and affected parties in the watershed in order to receive input on study direction, to define the vision/goals for the watershed, to evaluate the resulting data and information, to formulate recommendations and to monitor the implementation of the plan.

The watershed plan should allow for the balancing of stakeholder needs and should promote fairness and openness in negotiation and consensus-building. This could be achieved through independent facilitation. The public should be kept informed of study progress through regular, client-oriented reporting. While it was agreed that detailed technical and scientific studies/inventories were required to validate the recommendations of the plan, it was also felt that the final plan should be a plain language document that is easily understood by the general public.

***Stakeholder Views on Leadership***

Stakeholders felt that it was mandatory to have a full-time leader for the watershed plan who possessed facilitation and consensus building skills as well as being responsible for the success of the "process" as opposed to promoting any one agency's views. To date, that function has been performed predominately by Conservation Authorities and in some cases municipalities although it could be performed by any group with adequate monetary and staff resources. The Province should provide leadership of watershed planning with other growth and development planning, resource management and environmental protection programs, practices and initiatives to ensure an efficient and comprehensive ecosystem approach.

***Stakeholder Views on Cost***

Stakeholders agree that watershed planning will result in enhanced protection of natural resources and environmental quality and avoid the need for costly remediation measures. At the same time stakeholders are united in their belief that costs for undertaking watershed planning must be reduced to the minimum level consistent with meeting the study needs. This should be achieved through better scoping of study direction, the best use of available data, the sharing of resources and the rapid transfer/sharing of experience among ongoing or completed watershed plans.

***Stakeholder Views on Scope***

Stakeholders agree that scope of the watershed planning effort must be inclusive of those components of both aquatic and terrestrial ecosystems, of the built environment and of human activity that have influence over the attainment of sustainability objectives that the stakeholders set for the plan. Stakeholders are seeking clearer direction on the inclusion in watershed planning of resource management interests/concerns that extend beyond those aspects essential to effectively managing water resources and aquatic ecosystems. For example, several existing watershed planning initiatives have/are developed/ing broader-based recommendations pertaining to the protection of greenspace, natural corridor systems, woodlots and forested landscapes. The rationale for doing so appears to support a fully integrated resource management planning as being more effective and efficient than segmented planning approaches. The relationship of watershed planning to other/supplementary planning requirements should be recognized and guidance provided on harmonizing objectives, coordinating timing, sharing resources and anticipated outcomes.

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**APPENDICES**

- A Task Team Membership
- B Terms of Reference
- C Excerpts From References Consulted During Development of 1993 Guidelines
- D Data - Parts 1, 2, and 3
- E Types of Watershed Plans
- F Community Involvement Framework
- G Stewardship Initiatives

**A TASK TEAM MEMBERSHIP**

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Pat Murphy (Co. Chair)	Regional Municipality of Halton
Alan Bacchus	Ministry of Environment and Energy
Raymond Biette	Ministry of Natural Resources
Valerie Gust	Ministry of Natural Resources
Don Greer	Ministry of Natural Resources
Rhonda Gribbon	Ministry of Natural Resources
Ken Kelly	Ontario Federation of Agriculture
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Zdenek Novak	Ministry of Environment and Energy
Rizaldo Padilla	Ministry of Municipal Affairs
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Phyllis Miller	Ministry of Environment and Energy
Wendy Moss	Ministry of Environment and Energy

## **B TERMS OF REFERENCE**

### **INTRODUCTION**

As set out in the Watershed Planning Initiative Evaluation Plan, three task groups were struck to assist the Project Management Committee (PMC) in the development of recommendations regarding the future direction of watershed planning in Ontario. Task groups will be looking at three broad issues relating to the watershed planning initiative: Science & Technology, Relevance & Responsiveness, and Resources & Effectiveness. This task team will focus on the issue of RELEVANCE & RESPONSIVENESS.

### **MANDATE**

The responsiveness task team will gauge stakeholder needs, concerns, and participation related to both the watershed planning initiative and local watershed planning activities looking towards improving stakeholder involvement and response to their needs.

### **ISSUES TO BE ADDRESSED**

Whether stakeholders feel that:

- the need for watershed planning has been demonstrated;
- the watershed planning process, as described in the MNR/MOEE documents, addresses that need;
- the watershed planning initiative is addressing the *need* to formalize future program directions;
- they have adequate opportunity for meaningful participation in the watershed planning process;
- their concerns are being adequately addressing by watershed plans

### **TIME FRAME**

February 15, 1995	Findings and preliminary recommendations due
March 31, 1995	Formal recommendations for input to cabinet submission due
June 30, 1995	Task complete; team disbands

**C EXCERPTS FROM REFERENCES CONSULTED DURING DEVELOPMENT OF 1993 GUIDELINES****Conservation Council of Ontario, The. An Environmental Strategy for Ontario: Draft for Public Review. July 1990.**

As one suggested target, the report recommends:

"Develop integrated watershed planning" through the following actions:

- "Develop(ment of) watershed plans as a requirement for all municipal Official Plans. These plans should ensure that all land uses are designed to maintain optimal water flow and quality. They should be developed by the CA's in cooperation with municipalities. Each municipality should ensure that their Official Plan supports the objectives of the watershed plan."
- "Ensure that new water treatment facilities support the objectives of the watershed plans."
- "Develop(ment of) a provincial water resource policy statement under the Planning Act."

The policy should set the provincial requirements for aquatic ecosystems that include ambient water quality, habitat, rates of flow, sewage, drinking water, ground water, etc. Requirements for rehabilitation and enhancement should be incorporated into Official Plans and policy statements under the Planning Act, and municipalities should also adopt stream enhancement bylaws for watercourses in urban areas."

**Environmental Assessment Advisory Committee. The Adequacy of the Existing Environmental Planning and Approvals Process for the Ganaraska Watershed. November 1989.**

The report makes the following recommendations:

- "The Minister of the Environment should urge the Region of Durham to carry out studies of the following as part of its current Official Plan Review:

- nature and extent of groundwater resource in the headwaters area and potential cumulative impacts of land use changes;
  - nature and extent of surface water resources including all information required for the creation of a master drainage plan for the Watershed; and
  - wildlife (flora and fauna) in the area and its vulnerability to the potential cumulative impacts of land use changes in the area."
- "The Province should initiate immediately a process for developing a comprehensive approach to land-use planning and environmental protection for the Oak Ridges Moraine."
  - "The Minister of the Environment should direct Ministry representatives involved in reviewing proposed official plans, plan amendments and site-specific proposals, to comment on the nature and significance of any cumulative environmental effects likely to result from an approval."

**Environmental Assessment Advisory Committee. Request for Bump-up on the Bradford Public Utilities Commission Well and Water Taking in and Near the Holland Marsh. June 1990.**

This report recommends the following:

- "A Water Management Plan for the Holland Marsh area should be carried out by York Region and Bradford/West Gwillimbury in consultation with affected municipalities and relevant agencies including the MOE, OMAF and MNR."
- "Water Management plans should not be tied to a single jurisdiction but to the natural boundaries of the water resource and to the water needs of the wider area."

**Environmental Assessment Advisory Committee. Extension of Approval of the Class Environmental Assessment for Water Management Structures By Conservation Authorities of Ontario. June 1990.**

This report recommends that "Because watershed plans are necessary for protecting, conserving, and wisely managing watersheds...":

- The Ministers of the Environment and Natural Resources should require all CA's to have watershed plans, and that they be developed and approved under the EA Act.
- As part of the current review of the planning process, it should be ensured that watershed plans are effectively incorporated into the land use planning process.

A related recommendation suggests that:

"A new Class EA for water management should be developed by the CA's in order to ensure improvements in the following areas:

- meeting the requirements of the EA Act, including full consideration of alternatives, meaningful public and agency notification and consultation, assessment of environmental impacts and monitoring of impacts;
- strengthening and clarifying the relationships among the Class EA, watershed plans and water quality concerns; and
- monitoring the effectiveness of the Class EA".

**Environmental Assessment Advisory Committee. Lake Wilcox - Oak Ridges planning District Request for Designating under the Environmental Assessment Act (OPA #71). No Date.**

"Because it was required prior to any subdivision approvals in the Planning District, the Drainage Plan is capable of setting out, in advance, the parameters and design requirements for different kinds of development in specific locations within the Planning District. This represents a significant step towards comprehensive ecosystem evaluations and planning, but it is still limited for a number of fundamental reasons.

The master drainage plan for an area should be developed as part of, not after, the development of the OPA in order to allow the full range of land use options to be considered in light of the natural features of the area. When a drainage plan follows the completion of an OPA, there is the tendency, and indeed the need, to try to manage and design around any unforeseen problems. "From the Authority's perspective, Master Drainage Plans were intended to be the second of three key steps in planning of urban drainage. The first step is the preparation of an overall watershed strategy such as the one recently completed by the Authority for the Rouge River. The third step is the preparation of detailed storm water management on a subdivision by a subdivision basis."

What is needed is incorporation of drainage studies and plans into more comprehensive evaluations of ecosystem capacities and vulnerabilities and such studies should be used in the identification and assessment of general land use options as well as in the more detailed elaboration of preferred alternatives into official plans and official plan amendments. Achieving this will require not only expansion of the concept of master drainage plans but also the completion of watershed plans, particularly in the Greater Toronto area. As we recommended in Report #43 on the ACAO's Class Environmental Assessment for Water Management Structures, conservation authorities should be required to have watershed plans developed and approved under the Environmental Assessment Act, and these plans should be effectively incorporated into the land use planning process."

Kanter, Ron. Space for All - Options for a Greater Toronto Area Greenlands Strategy. 1990.

The report recommends that:

"To guide land-use planning and development, appropriate ministries (should) prepare guidelines addressing:

- a) urban drainage/storm water management;
- b) water conservation (including groundwater); and
- c) how existing tools under the Planning Act can appropriately address greenlands."

**Ontario Ministry of Natural Resources. Summary of Tactics Proposed by Working Groups to implement a Revised Strategic Plan for Ontario Fisheries (SPOF II). July 1990.**

The report recommends that the province:

- "Require (and fund) the development and implementation of watershed plans" including the following specific actions:
- "Develop watershed plans with stakeholders, including all agencies with a mandate;
- Develop provincial interests in the watershed plans and create a format whereby government and non-government organizations can work cooperatively to ensure that all concerns and values work towards accepted ecosystem objectives. Staff and fund plan review with Ministries, to facilitate joint preparation of plans."

- "Conduct research and develop methods to rehabilitate watersheds.
- Develop planning processes that include consideration of cumulative impact of development and the development planned within an entire watershed, on the aquatic ecosystem including water quality and quantity.
- Encourage the adoption of an urban drainage planning process. Ensure maintenance of natural stream courses and look for alternatives to channelization and piping of watercourses."
- Conduct two major demonstration projects based on watershed plans; one in an urban setting and one in an intensive agricultural area.
- "Retrofit water works and storm drainage, including provision of grants, to make them more environmentally-friendly."

**Royal Commission on the Future of the Toronto Waterfront. Watershed. Interim Report, August 1990.**

The report recommends the following:

- "All federal, provincial, and municipal governments and agencies with an interest in or influence over the waterfront should adopt the ecosystem approach and principles outlined in this report as a basis for planning."
- "Over the next year, the Province should work with the Commission to review ways in which the philosophy and principles of the ecosystem approach could best be integrated into the Planning Act and other relevant provincial legislation, as it affects the Greater Toronto Bioregion."
- "The single most important recommendation of the interim report was the proposal that a watershed approach be adopted to protect Toronto's vital ecosystem." (Regeneration, December 1991, pg. 6)

**D DATA - PARTS 1, 2, AND 3****Part 1  
Pilot Project Chair Meetings 1 & 2****NOTES FROM THE  
Provincial Management Committee/Pilot Project Chairs  
Meeting  
June 16, 1994  
Black Creek Pioneer Village  
10:00 a.m. to 4:00 p.m.****AGENDA**

- |               |  |
|---------------|--|
| 10:00 - 10:30 | Coffee (mix and mingle)                          |
| 10:30 - 10:35 | Introductions (everyone)                         |
| 10:35 - 10:45 | Overview of PMC (Phyllis Miller)                 |
| 10:45 - 12:30 | Pilot Project Presentations (Pilot Chairs)       |
| 12:30 - 12:45 | Task: Identify priority issues - max. 4 (all)    |
| 12:45 - 1:30  | Lunch  |
| 1:30 - 3:30   | Discussions of priority issues - ½ hr each (all) |
| 3:30 - 4:00   | Next Steps (all)                                 |

**ATTENDEES:**Project Management Committee Members:

P. Miller MOEE (Chair), Rob Messervey MNR, Sue Harrison MMA, Maxine Kingston OMAFRA, Don Greer (for J. Kinhead), Hazel Breton CVCA, Karen Jones MOEE (Secretary)

Pilot Project Participants:

Vicki Barron CVCA, Tony Smith GRCA, Tom Hogenbirk LSRCA, Paula Scott NB-MCA, Wayne Wilson, Charles Burgess & Wendy Gleason NVCA, Bruce Reid RVCA, Gregg Barret

(City of London), Rick Goldt UTRCA

Invited Guests:

Gordon Framst OMAFRA, Geoff Kettel MNR, Valerie Gust MNR, Rhonda Gribbon MNR, Alan Bacchus MOEE, Zdenek Novak MOEE

## **OVERVIEW**

P. Miller provided a brief overview on: the watershed planning initiative which was announced in June 1993; an introduction to the Watershed Planning and Implementation Project Committee Structure which has now been established to undertake the evaluation which was committed to oversee the implementation of watershed planning demonstration projects and examine ways to improve the utilization and effectiveness of watershed planning; identification of what is to be evaluated; the importance of evaluation and the objectives of today's meeting.

## **PILOT PROJECT PRESENTATIONS**

The following presentations were made:

1. Subwatershed 19 - Credit Valley Conservation Authority (Vicki Barron)
2. Mill Creek - Grand River Conservation Authority (Tony Smith)
3. Lovers and Hewitts Creek - Lake Simcoe Region Conservation Authority (Tom Hogenbirk)
4. Chippewa Creek - North Bay-Mattawa Conservation Authority (Paula Scott)
5. Nottawasaga Valley Conservation Authority - NVCA (Wayne Wilson)
6. Jock River - Rideau Valley Conservation Authority (Bruce Reid)
7. Stoney Creek - Upper Thames River Conservation Authority (Gregg Barret, Rick Goldt)

Completed Fact Sheets were prepared by each of the project participants for the seven pilot projects and were distributed to all those attending today's meeting.

## **ISSUES**

The following issues were initially identified:

- agency commitment/proprietary/sharing
- perception - who is in control/"CA Plan"/turf protection/land use planning

- understanding - study process/ecological process
- monitoring/implementation - how/who pays/buy-in
- what should province be doing?/who at provincial level "adopts" plan? - value of information coming back to province
- how to scale - what is best? - influenced by funding and resources  
- need for information can determine scale
- goals - resource oriented

## KEY ISSUES

1. The following four key issues were then identified and discussed in further detail:
2. commitment - agencies/public
3. information - data/science/transferability (what we learn)
4. purpose - goals objectives/planning
5. implement and assess

1. **COMMITMENT** - all the partners

- all must see need - some see better
- too complex
- not only agencies to solve problem/public role in implementation
- not confident of implementability
- fears - (landowner - my land/agencies - trade off)
- takes time for understanding to grow
- requires new way - ecosystem attitude adjustment - tests beliefs

### Overcome:

- reassurance: not land use plan/not development prohibition/is "how to"
- senior/representative input; must reflect agency/consistent
- documents: team and communications
- "care and feeding" needed
- team dynamics\*\*
- critical role of coordinator - skills not technical/dedicated/neutral
- education
- keep simple - what should study really focus on
- agency commitment on non-pilots
  - information that they can bring
  - continuity, personal as well as agency
  - accountability

- seek out specific input on specific issues
- training - for coordinators, participants
  - role, what expected to do - confidence in who they speak to
  - what is the process all about
- awareness
- more specific for some
- "team" training
- demonstrating success
- science-based people driven - need to drive all the way through
  
- public commitment:
  - may be higher than councillor commitment
  - specific issue may be bigger ie. IWA, aggregates
  - flexibility the key
  - drama in posing question environment"
  - build identity for project, process
  - touring displays - PSA/newsletters/cable TV
  - community leaders and interest groups

## 2. INFORMATION

- too much! - bogged down in data/strategy poor
- technologies (GIS)
- province should be able to help - how?\* \*
  - identify information needed, find it in useable form
  - guidelines on information needed
  - related to scale/not just technology
  - also water quality/groundwater quality
- what information exists, where is it
- province's technology not up to date (when/how to use/standards or model)
- standard models - what to expect for what cost
- need more experts in hydrogeology\* \*
- use of "study money" to develop technology not justified
- compatibility of systems/technologies that are developed
- what is the end product? therefore, what do you need know to get there?
- better use of existing data/information
- integrate what we have - different agencies
- knowledge and expertise - modelling geomorphology - share with review agencies

### 3. **PURPOSE - goals/objectives/planning**

- what is shared vision? what is end product?
- goals of plan: what is important in watershed - key words/other plans
- six goals - NVCA - boil down
- something self evident eg. good fishery/maintain it
- what is achievable? \*\* - reviewed and assessed many times
- linked to baseline conditions
- key words: restore, enhance
- degree of reasonableness
- implementable - business case for process
- not general - specific enough to relate to
- terminology/jargon - how do people understand
- goal=vision
- objective - quantifiable
- upfront work helps set targets
- ?? how much to suggest to public re: targets
- establish principles: consultation, ecosystem

### 4. **IMPLEMENTATION/ASSESSMENT/MONITORING**

- documents may be lacking
- what to do about land identified as "undevelopable" eg. play ball in the woods  
- Alberta 10% dedication/5% park
- traditional standards create expectations that cannot be met if we are to meet ecosystem objectives
- Bill 163, S.34 - include some provisions
- tools: zoning changes, environmental farm plans
- how to draw link between personal role and the big picture - fits into context
- seed money eg. CURB - for best practices
- no development conclusion - remediation (septics/servicing alternatives)
- key indicators - low cost
- watershed monitoring - assess innovative techniques
- monitoring must be understandable
- documents recommend implementation plan/optimistic  
- behaviour change needed  
- money
- sign off? each agency doing its own thing? - where has it worked?
- every five years reassess \*\* more frequent - therefore, more effort required

- role of private sector? - monitoring building facilities
- effectiveness monitoring - DOE

### **NEXT STEPS?**

- problem quantifying benefits - cost of capital projects that have been done
- support at senior policy levels reality/perception, dynamics of partnerships
- two year interim period to demonstrate
- Premiers Council - "community mobilization"
- municipal structure/province needs to exercise power
- how to make it easy for municipalities to do
- leverage of concerted action
- communications - issues, successes, benefits
- need to meet again - six months
- municipal buy-in/provincial buy-in
- "internal" training everywhere
- training of consultants

The meeting adjourned at 4:15 p.m.

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**EXECUTIVE SUMMARY**

Project Management Committee/Pilot Project Chairs  
Meeting #2

November 30, 1994  
John L. Jose Environmental Learning Centre  
Tiffin Conservation Area

ATTENDEES: (based on those who confirmed attendance prior to meeting - role was not taken)

Provincial Representatives

Phyllis Miller MOEE - Chair Provincial Management Committee  
Rob Messervey MNR, Don Greer MNR, John Kinkead MNR, Geoff Kettel MNR, Valerie Gust MNR, Karen Abrahams MNR, Sue Harrison MMA, Karen Jones MOEE, Allan Bacchus MOEE, Bill Snodgrass MTO, Brian Trushinski C. of Waterloo, Jennifer Messervey student, Matthew Kinkead student

Pilot Project Participants

**Stoney Creek Project**

Rick Goldt UTRCA, Ron Standish C. of London,  
Greg Barrett C. of London, Henry Komarek LDI

**Subwatershed #19 Project**

Hazel Breton CVCA, Dave Maunder Aquafor Beech Limited,  
Rick Schwartzer T. of Orangeville

**Mill Creek Project**

Tony Smith GRCA

**Lovers/Hewitt Project**

Tom Hogenbirk LSRCA, Bob Lemon T. of Innisfil, Bill Gilbert C. of Barrie

**Chippewa Creek Project**

Paula Scott NBMCA, Jeff Celentano Chair SC, Sarah Campbell Member Public Liaison Committee

**Nottawasaga Valley Project**

Wayne Wilson NVCA, Wendy Gleason NVCA, Charles Burgess NVCA,  
Constance Spek NVCA Member

**Jock River Project**

Bruce Reid RVCA, Lynn Preston RVCA,  
Susan Springthorpe RVCA Provincial Representative

1. Welcome - Rob Messervey
2. Overview of Watershed Planning Evaluation Process - Phyllis Miller
  - The evaluation process structure consists of a Provincial Steering Committee which is an inter-ministerial committee struck to provide direction, ensure the evaluation and to provide recommendations to Cabinet on the future of Watershed Planning in Ontario; a Project Management Committee to manage the evaluation process; 3 task groups to evaluate specific components of watershed planning; and a Public Advisory Forum consisting of many agencies and individuals to provide input to the evaluation process.
  - An evaluation plan has been developed outlining the purpose, structure, method and schedule for the evaluation. Methods include the evaluation of seven Pilot Projects (through pilot project chairs meetings), forums, questionnaires, interviews, content analysis (eg. Official Plans). Recommendations will be made to Cabinet by June 1995.
  - Challenges identified to date with respect to the evaluation process include ensuring the equity of views from all stakeholders. Challenges with respect to the watershed planning process itself include ensuring the plan is proactive, selling the ecosystem approach (eg. this is not just a drainage plan), ensuring input from all stakeholders and determining the "ownership" of the plan.
3. **Summary of Pilot Project Chairs Meeting #1 held June 16, 1994 at the Black Creek Pioneer Village - Hazel Breton**
  - The seven pilot projects were identified and the criteria for selection were reviewed.
  - Main issues identified at Pilot Project Chairs Meeting #1 were - Proprietary (who owns the plan), the need for the further identification of the roles of participants, the need for further information about project monitoring (eg. who pays, when), the need for clarification of the provincial role (eg. with Bill 163, will the province play less of a role), and the need for better direction with respect to information (eg. how much science is enough).

#### Discussion

It is difficult to measure the success of watershed planning. "Mind-shifts" or changes in perception of participants are difficult to quantify and scientific successes (eg. 10% improvement in water quality) may take a long time to realize and not be easily attributable to the plan. The number of subwatershed planning studies currently underway is indicative of the interest in watershed planning but not necessarily the success of watershed planning.

#### **4. Status Report - Pilot Projects**

Representatives from the seven pilot projects provided status reports on the projects. For this executive summary, noteworthy successes/issues/challenges are identified.

#### Nottawasaga Valley Project - Wendy Gleason/Wayne Wilson

- The working group developed a form for the identification of issues by stakeholders.
- An implementation chart was developed which identified issues (eg. evaluation of natural corridors, to establish a wetlands policy for the NVCA) and key players involved in implementation. The chart provides a summary of the plan and is a good "selling-tool" as findings are obvious "at a glance".
- An endorsement sheet is being developed for stakeholders to ensure "buy-in" of plan.

#### Mill Creek Project - Tony Smith

- Public information techniques included "Mill Creek Week" (study sessions for students), and erection of signs "You are entering Mill Creek Watershed"
- A community liaison group has been established. It is challenging to get support from some groups (eg. gravel industry). It is recommended that community involvement up front (eg. Terms of Reference preparation) can be useful.

#### Jock Creek Project - Bruce Reid

- Much time was devoted to addressing issues and developing study structure (eg. steering committee for municipal representatives and a community liaison group).
- Issues pertained to conflicting concerns (eg. recreational use of river corridor areas conflicting with private landowner rights).
- Scepticism was encountered with potential representatives of community liaison groups with regards to getting involved in a government process (given recent problems related to the Wetlands Policy Statement). Study team is trying to balance not pushing people to participate for fear of alienating them with the fear of moving too slowly.
- Participants are hesitant to donating time to technical component - roles have to be clarified.

#### Chippewa Creek Project - Jeff Celentano

- One municipality is involved.
- Consultant is just underway.
- The study team is determining how to best generate interest.

#### Stoney Creek Project - Rick Goldt/Ron Standish

- Detailed studies are complete.
- Alternatives are being developed (for terrestrial/aquatic/benthic strategies).
- Criteria for evaluating alternatives are being developed (eg. ease of implementation, acceptance by public).
- Slow downs being experienced with GIS/Mapping component.
- Role of agencies require clarification (eg. are provincial representatives giving personal or policy views)
- Public participation is inconsistent - some people drop out as they lose interest.
- The process and deadlines have been forced on London by the Province through annexation legislation. The province, however, has been hesitant to provide needed

information pertaining to new policy initiatives associated with Bill 163. The province is not providing enough funding for all studies.

- The role and concerns of the agricultural community have to be clarified.
- The requirement for endorsement of participants will ensure "buy-in".

Lovers/Hewitts Creeks Project - Tom Hogenbirk

- Main issue is recharge (eg. base flow for Lovers Creek and recharge of regional aquifer)
- Data gathering has revealed that Hewitts Creek is not as clean as thought.
- Farmers are nervous about having areas designated as "recharge".
- Have been developing a strong GIS database and intend on recovering some costs through selling information.
- To be complete by June 1995.

Subwatershed #19 Project - Dave Maunder

- A general finding is that physiography and geology dictate ecosystem health even more than land use.
- GIS is proving to be an effective tool for determining relative interdependencies and linkages.
- It is challenging to get people involved. Generally, people are only interested if there is a major problem.

## 5. Break Out Groups

Three break-out sessions were held to answer questions pertaining to the mandate of the three task groups. Main themes emerging from the answers are presented:

### Session 1 - Coordination. Resources and Effectiveness Resources

#### Provincial Representation

- The role of the provincial agencies must be clarified.
- MNR/OMAFRA/MMA should be prepared to commit financial and staffing resources to projects if required.

#### Information Management

- GIS is an effective tool for data storage and analysis, but can be expensive and time consuming to set up.
- There may be some opportunity for selling GIS products to recover costs.
- GIS effectively determines relative interdependencies and linkages.
- Existing information should be evaluated for relevance and quality.
- There is a lack of coordination of information resources - it is everywhere, inconsistent, and not always accessible, and not synthesized.
- Maps are useful for public understanding.

- Hydrogeographical information is crucial and may span beyond watershed boundaries.

#### Effective Representation of Stakeholders on Study Team

- It is important to involve stakeholders in the process early (Terms of Reference stage).
- To ensure early "buy-in", have stakeholders endorse the plan.
- It is challenging to obtain effective community involvement. People lose interest, are indifferent. People may be reluctant to get involved as they are sceptical of bureaucratic processes or afraid of future regulation/land use constraints.
- The role of and tie in with the agricultural community must be clarified.

#### Effective Representation of Staff/Consultants on Study Team

- Role of consultants should be clarified.
- Methods and opportunities for quality control should be documented (Ensuring you get what you pay for).
- There is a need for multi-disciplinary professional input - engineers, planners, biologist. It is important to establish linkages among disciplines.

#### Financial Participation

- There are various abilities to pay among participants.
- Documentation is required on what the cost should be.
- Documentation is required on alternative legitimate sources of funding (eg. mill rate sources, developers, NGOs, in-kind, banks, water royalties)
- What have agencies/levels of government been paying?
- Does the fact that an agency contributes financially ensure greater decision making power.

#### "Marshalling" the Plan

- is the study team empowered. Can the study team by-pass head office?

#### Coordination

##### Priorizing Watershed Management Projects

- The purpose and need for the study should be well documented early in the process.
- Clear criteria are required for determining priority areas for watershed planning (urban and rural).

##### Overall Coordination

- Who should be the study lead (CA, municipality) and what is the role of the lead agency?

- How are the local and provincial interests balanced?
- What is the linkage to planning reform?

### Effectiveness

#### Introduce the Human/Social Context

- Plan products must meet human needs
- There is a health aspect to the studies (eg. water quality issues). Health units/Ministry of Health must be tied in.

#### Follow Through of Study Team With Implementation and Monitoring

- What is the role of the study team in implementation and monitoring
- When and how and how much?
- Participants must be committed to implementation early, to avoid refusal to implement findings when study has been completed.
- Implementation may be dependent on the sense of urgency/critical issues.
- Agencies have to implement findings of plans too - (eg. water taking permits should be based on ecosystem approach).

#### Public Information

- Grass roots support is important. Various techniques assist in informing the public of the study and the study findings - Community events, signs.
- Public understand issues like wells and septic tanks, but watershed issues are not readily understood or communicated.
- There is a need for public education

#### How to Measure Success of Plan

- Improved plan review

Session 2 - Responsiveness

Session 3 - Science and Technology

## **6. Wrap-Up - Rob Messervey**

**Part 2**  
**Stakeholder Forum Meetings 1 & 2**

**WATERSHED PLANNING FORUM MEETING #1**  
**EXECUTIVE SUMMARY**  
**OCTOBER 27, 1994**  
**BLACK CREEK PIONEER VILLAGE**  
**SOUTH THEATRE**

## **BACKGROUND**

A number of organizations representing a cross-section of interests in natural resource management, environmental protection, land development, as well as urban and rural ownership and planning were originally invited to participate in the Watershed Planning Forum sessions. The purpose of these Watershed Planning Forum sessions is to bring together an invited group of representatives and individuals with an interest in watershed management for their feedback and input to the process to date, and to consider future directions.

The objectives of the first forum session were to raise the level of awareness and understanding among participants of the process, and to identify the critical issues of concern to them. Nineteen participants representing eighteen organizations attended the first Watershed Planning Forum session which was held on Thursday, October 27, 1994 at the Black Creek Pioneer Village in Toronto.

The format for the first meeting involved plenary sessions and small facilitated breakout groups. Based on group discussion at the first session, five central themes were identified around the provincial watershed planning initiative including: cost/financial considerations, ecological basis and state-of-the-science, participation/stakeholder involvement, planning process/scope and implementation. The following information provides an overview of the main benefits, cautions, needs and concerns which were identified based on the five central themes.

## **THEMES**

### 1. Cost/Financial Considerations

Some participants felt that watershed planning was cost-effective because it prevents the cost of remediation. However, other participants felt that watershed planning was costly and money might be better spent on implementing environmental protection/remediation measures. There were concerns raised with respect to delay costs while studies are

ongoing. There were also concerns expressed as to who should pay for the cost of the studies as well as implementation, and whether public and/or private funds should be utilized.

## **2. Ecological Basis and State-of-the-Science**

The following benefits were identified around the science of watershed planning:

- watersheds are easily identifiable logical planning units for resource and
- environmental planning;
- opportunity to set goals;
- generates certainty (establishes standards/criteria); and
- links land/water/natural processes.

The following cautions/needs/concerns were raised around the science of watershed planning:

- the science is still developing;
- participants questioned whether this initiative is truly ecosystem-based planning or a continuation of master drainage planning or something in between;
- there are gaps in knowledge-and understanding around the science of watershed planning;
- monitoring actions and effectiveness is important and essential; and
- data limitations (existence and accessibility).

There was also some concern expressed that the guidance documents are "too limited" in that they emphasize water quality issues while other areas such as geology are not embodied in the documents. -There was also concern that two of the three documents, *Water Management on a Watershed Basis: Implementing an Ecosystem Approach* and *Subwatershed Planning*, are not specific enough in the direction which they provide.

## **3. Participation/Stakeholder Involvement**

A major benefit which was expressed around the participation/stakeholder involvement is that it addresses multi-stakeholder interests.

The following cautions/needs/concerns were identified around participation/stakeholder involvement of watershed planning:

- achieving equity with respect to the representation of stakeholders' views is a challenge;
- requires consensus-building;
- there was insufficient public involvement in the development of the guidance

documents and there is a need to involve stakeholders in defining the process of watershed planning and the next steps in the process;

- a recognition that there is a need to increase public understanding;
- need to determine who owns the plan;
- need to increase public understanding of watershed planning;
- need to pursue "partnering";
- need to develop facilitation skills; and
- requires a change in thinking from a narrow to a holistic approach for professions and agencies involved in watershed planning.

#### **4. Planning Process/Scope**

Benefits which were identified around the planning process/scope of watershed planning are that it is seen as being a proactive versus a reactive approach and that it helps to streamline development approvals.

The following cautions/needs/concerns were identified around the planning process/scope of watershed planning:

- watershed planning is not needed everywhere across the province;
- some participants saw it as over planning with no action - collecting data forever;
- guidance documents need to identify common core elements for watershed/subwatershed planning;
- concern that there was no closure to the watershed planning process;
- insufficient linkage with approval process;
- concern was expressed with regards to impact on previous planning/development decisions which had been made;
- it is hard to buy "two years" planning time with development application pressures (from the planning and development perspective); and
- concern with how it fits with other planning and resource management processes.

#### **5. Implementation**

There were two very distinct views on whether watershed planning should be voluntary or made mandatory across the province.

The following cautions/needs/concerns were identified around the implementation of watershed planning:

- need to strengthen linkages with approval processes such as environmental approvals, The Planning Act, The Environmental Assessment Act etc.;

- some participants expressed a need for case studies, examples, templates to develop watershed/subwatershed plans; and
- need for a practical, common sense approach.

## **NEXT STEPS**

This information has been provided to the three Task Teams (Science and Technology, Responsiveness, and Resources and Effectiveness) which have been established to collect and analyze data based on the issues identified in the *Watershed Planning Initiative Evaluation Plan*, and report findings and recommendations to the Project Management Committee.

The focus of the second session will be to discuss how to resolve, address and refocus the specific issues which were identified at the first meeting, leading to solutions regarding the cautions and concerns which were expressed. Case studies will be utilized to further inform and explore how issues have been dealt with in a number of ongoing or recently completed watershed/subwatershed studies.

The second forum session is scheduled for Wednesday, February 8, 1995 at the Black Creek Pioneer Village in Toronto with the third session tentatively scheduled for April/May 1995. The Watershed Implementation Project Management Committee will ensure that organizations missing from the first Forum session are invited to attend subsequent Watershed Planning Forum sessions.

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**WATERSHED PLANNING FORUM MEETING #2  
SUMMARY**

**FEBRUARY 8, 1995  
BLACK CREEK PIONEER VILLAGE  
SOUTH THEATRE**

**BACKGROUND**

The second Watershed Planning Forum session was held on Wednesday, February 8, 1995 at the Black Creek Pioneer Village in Toronto. This meeting is the second of three meetings which are being held to gain input from an invited groups of representatives and individuals with an interest in watershed management for their feedback and input to the Watershed Planning Initiative process.

The objectives of the second forum session were:

- to recap the first meeting of the forum, and receive feedback on content;
- to illustrate the approaches, benefits and issues arising from watershed planning through the use of two case studies: Mill Creek and Collins Creek;
- to report on progress from each of the evaluation task teams;
- to define issues identified by the two case studies, the notes of the previous meeting, and the task teams; and
- to suggest possible solutions or approaches to address each issue.

The format for the second session included plenary discussions, case study presentations and small breakout group discussions. A total of five issues were originally identified by the participants for discussion based on themes/issues identified at the first session and from the morning discussion. These issues included: integration, financial considerations, public/stakeholder input, implementation/monitoring, and data/infrastructure. Each small table group was asked to explore two of these issues in further detail by: 1) defining the issue, 2) determining root causes, and 3) identifying solutions, ideas, new approaches.

**ISSUES**

The following represents a synopsis of the four table group discussions of the issues identified:

1. **Integration** - None of the table groups chose to discuss this issue in further detail.

**2. Financial Considerations (Discussed by two table groups)****Issues**

- high cost of doing watershed studies
- disincentives for watershed planning exist because current provincial programs are reactive not proactive (rehabilitation versus remediation)
- what is best use of dollars?
- is a full watershed study required?

**Approaches/Solutions**

- need to redirect dollars from remediation to watershed planning
- need to prioritize where watershed planning should be undertaken across the province and where it needs to be done now
- need criteria to determine whether a watershed study is required
- need to examine compensation to landowners
- beneficiary pays - upstream/downstream users
- developers in urban areas
- municipalities through Development Charges Act, province, conservation authorities

**3. Public/Stakeholder Participation (Discussed by one table group)****Issues**

- who/how to implement watershed studies?
- how to get balanced views -- sustainable community?
- dealing with different publics (not a homogeneous group)

**Approaches/Solutions**

- identify who stakeholders are
- need to listen to public at outset of process
- need to advise all stakeholders of issues
- require a variety of communication tools for getting public involved (eg. mail outs, public meetings etc.)
- need to recognize issue of public versus individual landowner rights

#### **4. Implementation/Monitoring (Discussed by three table groups)**

##### **Issues**

###### General

- lack of guidance, re: responsibilities - who does what?
- what should provincial involvement be?
- Implementation
- concern that municipalities will be stuck with implementation
- what needs to be implemented and at what cost?
- no legislative basis for implementation
- lack definition of when we have achieved successful implementation (ie. when do we know we have adequate uptake of plan recommendations of watershed plan in municipal planning documents - do we keep pushing for full implementation?)
- need time to achieve implementation

###### Monitoring

- monitoring is not included as a strong element of the plan from the start
- legal/cost/logistical issues, re: long term maintenance and monitoring
- who provides funding for monitoring?
- not getting consensus on what it is that we need to monitor, science not sufficient or consistent with monitoring activities
- what are targets that we measure performance against?
- when is watershed planning complete? (ie. has the necessary information been acquired, have opportunities and constraints to development been evaluated, and remedial needs to achieve targets?)

##### **Approaches/Solutions**

###### General

- need clear direction of roles and flexibility for different situations
- province should provide general guidelines which can be refined locally
- need to recognize differences between urban and rural in municipal policies

## Implementation

- start the watershed planning process with implementation needs in mind to improve buy-in
- province should be responsible for research and development, continue government research into more effective and cheaper best management practices
- training is required to develop expertise
- strive for stakeholder agreement to shared implementation responsibilities versus legislation and regulation
- beneficial compensation to landowners facing remedial costs or restrictions to current practices
- more government support/attention to compensation strategies
- stress private land stewardship education and awareness
- implementation team of stakeholders
- standard review periods for plans
- start education in elementary schools - interests, involvement and stewardship
- consider stewardship council/land trust ie. non-government
- need major group/body at municipal level responsible for implementation
- need integration into the planning process
- need permanent coordinator and educator

## Monitoring

- creative sources of funding required for monitoring
- need to consider the economics of monitoring plans
- involve public in monitoring (eg. NGO volunteers) - thereby reducing costs

## 5. Data/Infrastructure (Discussed by One table group)

### Issues

- data sharing
- data standards/compatibility
- easy, quick access required
- adhering to Freedom of Information (FOI) requirements
- getting the essential data/information
- extrapolation across watersheds to save costs
- information systems development (eg. GIS)

- all data sources and types (ie. groundwater) need to be considered/made available

### **Approaches/Solutions**

- clearly identifying the critical resource/environmental sustainability issues to guide priorities/type/intensity of the data required
- reducing costs, obtain community/volunteer involvement in data collection (with government support/expectation, standards, training, lab analysis, seed money)
- comparing existing quality to range of expected quality and Provincial Water Quality Objectives (PWQOs) for similar areas
- make optimum use of local watershed institutions (ie. schools, universities etc. in data collection)

### **NEXT STEPS**

It was suggested that the third session should focus on the conclusions and recommendations which have been identified in the three Task Groups which will have been completed.

It was also suggested that the following items should be brought back to the third forum session meeting for further discussion:

- list of gaps/weaknesses in guidance documents;
- financing options (development charges, partnerships with developers); and
- watershed planning and its relationship to Bill 163.

The third forum session is planned for late April/May 1995.

**Part 3**  
**Interview Questions & Glossary of Acronyms**

- 1(a) Why did you become involved in the watershed planning exercise? What were your interests and expectations?
- (b) Were your needs/expectations similar to local/regional/provincial needs?
- (c) Did the exercise meet your expectations?
- (d) If not, how did the exercise fall short?
- 2(a) Did the process provide opportunity for community/agency involvement?
- (b) If yes, how was it achieved?
- (c) If no, how could the process be improved?
- 3(a) Do you feel that your involvement did/is/will make a difference?
- (b) Do you feel that your concerns are being adequately addressed?
- (c) If so, how?
- (d) If not, what can be done to address them?
- 4(a) Was/is there public support for the watershed planning exercise in which you were involved?
- (b) If so, how was public support obtained?
- (c) What improvements would you recommend?
- (d) Would it be valuable to inform/educate the general public about watershed planning?
- 5(a) Should watershed planning be community driven;
- (b) If not, who should take the lead?
- (c) Should watershed planning be mandatory in certain situations? Explain.
- 6(a) Do you feel that the need for watershed planning has been demonstrated in your area? Provincially?
- (b) Why do you feel that there is/isn't a need?
- (c) Are there other approaches (other than watershed planning) that could meet those needs?
7. Please share any other comments on the need for and relevance of watershed planning.
8. What lessons were learned from your study?

## Glossary of Acronyms

WATERSHED/SUBWATERSHED		STAKEHOLDER GROUP	
NV	Nottawasaga Valley Watershed	C	Consultants
SC	Stoney Creek Subwatershed	CA	Conservation Authority
MC	Mill Creek Subwatershed	CR	Credit River Subwatershed#19
CC	Chippewa Creek Subwatershed	D	Developers
LC	Lovers/Hewitts Creeks Subwatershed	F	FASSOC/Farm Assocns.
JR	Jock River Subwatershed	L	Landowners
JC	Joshua Creek Watershed	M	Municipalities
		NGO	Non Government Agency
		R	Residents

### ASSOCIATIONS

DEV	Developers
ENVPLAN'R	Environmental Planner
SSSCIA	South Simcoe Soil and Crop Improvement Association
FOA	Federation of Anglers
PUBWORK	Public Works Department
COUNCIL'R	Councillor
FFPAC	Environmental Ecological Advisory Committee
VAC	Volunteer Advisory Committee

### ABBREVIATIONS

ASSOCN	Association
CFIP	Community Fisheries Improvement Program
CWEF	Community Wildlife Improvement Program
CLT	Community Liaison Team
CURB	Clean Up Rural Beaches
EFP	Environmental Farm Plan
GIS	Geographic Information System
O.P.	Official Plan
RAP	Remedial Action Plan

## E TYPES OF WATERSHED PLANS

### "A" ENVIRONMENTAL RESOURCES (NOTTAWASAGA WATERSHED PLAN)

In 1992, the Nottawasaga Valley Conservation Authority expressed the need to identify and prioritize environmentally sensitive areas within the watershed. It was decided that a Watershed Plan would provide the N.V.C.A. with an effective resource management tool that would lead to better land use planning. They have recently published the Nottawasaga Valley Watershed Management Plan (Draft, 1995) that is based on the following:

Objectives	<ul style="list-style-type: none"> <li>■ identify existing and potential problems and concerns with regard to natural resources, (administration, organization, and communication), land use practices and management;</li> <li>■ prioritize subwatersheds for further study and remediation;</li> <li>■ identify methods to effectively inform all stakeholder about resource management;</li> <li>■ prioritize services and programs offered for resource management;</li> <li>■ provide background support and direction for municipal planning documents and Ontario Municipal Board hearings;</li> </ul>
Issues	<ul style="list-style-type: none"> <li>■ the preservation, conservation, enhancement, and rehabilitation of natural heritage features;</li> <li>■ the preservation and enhancement of surface water and groundwater quality and quantity;</li> <li>■ the utilization of environmentally sound land use practices;</li> <li>■ a need to reduce duplication of services and programs offered for resource management;</li> <li>■ communication needs for resource management;</li> </ul>
Approach	<ul style="list-style-type: none"> <li>■ work in conjunction with watershed stakeholders to prepare a Watershed Management Plan for the Nottawasaga Valley;</li> </ul>
Products	<ul style="list-style-type: none"> <li>■ development of a resource management directory which would assist municipalities and developers to incorporate Watershed planning and management objectives;</li> <li>■ establishment of a land stewardship program to provide information and services to landowners that desire assistance, as well as the establishment of local land trusts;</li> <li>■ partnerships between resource management agencies for a more streamlined and coordinated delivery of services and programs offered for resource management;</li> </ul>

**"B" LAND USE CHANGE  
(GRAND RIVER WATERSHED PLAN: EXAMPLE #1)**

One example of a watershed planning approach which is acknowledged by most reviewers as indicative of leading edge thinking for an area under development pressure and changing land use can be found in the Waterloo area. Through the cooperation and involvement of the municipality, the conservation authority, and provincial ministries an active watershed planning program has resulted. The Grand River Conservation Authority (GRCA) is in the midst of making plans to initiate a study which focuses on the entire grand river watershed.

Objectives	<ul style="list-style-type: none"> <li>■ identify environmental resources</li> <li>■ characterize the natural system functions</li> <li>■ involve the broad spectrum of stakeholders</li> <li>■ establish shared protection and management objects</li> <li>■ use an ecosystem approach</li> </ul>
Issues	<ul style="list-style-type: none"> <li>■ cross-boundary issues expressed by municipalities such as the ability of the river to remain healthy in the face of expected growth or the quality protection for groundwater and surface water resources across municipal boundaries, particularly as it affects water supplies</li> <li>■ challenges and opportunities expressed by communities such as water quality to attract and support recreation and tourism or the understanding of ecosystem functions and interconnections</li> <li>■ implementing shared responsibility for resource management as well as implementing Planning Reform</li> </ul>
Approach	<ul style="list-style-type: none"> <li>■ consider watershed management issues in terms of natural processes and effects of related land management behaviours (ie: cause and effect)</li> <li>■ set priorities and make decisions based on all the components of the hydrologic cycle and ecological systems and with Knowledge the combined effects on the system as a whole</li> <li>■ maximize the use of current investment in information and analytical tools and pool information collected for many programs</li> <li>■ continuously maintain and update the activities which are most effective in meeting watershed goals by identifying and incorporating them into action oriented programs and partnering initiatives ensuring that effective monitoring is built into normal routine</li> </ul>
Products	<ul style="list-style-type: none"> <li>■ a watershed based information system organized from information resources and analytical tools, continuously maintained</li> <li>■ regular reports on Current Watershed Conditions outlining problem issues, opportunities, effectiveness of current activities, priorities for action</li> <li>■ a strategic look forward at the implications and actions for sustainable growth in the watershed, updated as new questions arise</li> <li>■ a structure which allows us to continuously monitor, assess set priorities, partner and act</li> </ul>

**"B" LAND USE CHANGE  
(UPPER THAMES SUBWATERSHED PLANS: EXAMPLE #2)**

In May of 1993 the City of London, together with the Upper Thames River and Kettle Creek Conservation Authorities, began a five phase study of thirteen London subwatersheds. The studies will indicate a means of protecting the environment as land use changes occur and will allow stakeholders to develop an understanding of ecosystem health and the factors which influence the integrity and sustainability of the subwatersheds. The extent of existing urbanization within the boundaries of the subwatersheds covers a large range (from almost 50 percent for Pottersburg Creek to less than 5 percent for Medway Creek). With such a wide variation in the physical characteristics of the subwatershed system, the resulting water management issues will require different approaches to their resolution within individual subwatershed plans.

Objectives	<ul style="list-style-type: none"> <li>■ gather, synthesize and assess available data and information, from a subwatershed planning and management perspective;</li> <li>■ develop strategies to restore, enhance, and protect areas as land uses change;</li> <li>■ begin the public involvement program by seeking to determine the issues of greatest importance to the people in the subwatersheds;</li> <li>■ establish plans for the management of the subwatersheds;</li> <li>■ provide input to the City's Official Plan;</li> </ul>
Issues	<ul style="list-style-type: none"> <li>■ the combination of agricultural practices and increased development pressures are placing increased stress on water resources and fisheries in the London area;</li> <li>■ high erosion and sedimentation potential in all tributary ravines exists where, for example, banks have been severely eroded by inlet structures;</li> <li>■ increased pressure exists for recreational opportunities (i.e. trails, linkages) in urban areas;</li> <li>■ need to protect, maintain, and improve linkages between riparian areas within the subwatersheds</li> <li>■ need for future urban development to address protection of natural resources;</li> </ul>
Approach	<ul style="list-style-type: none"> <li>■ collect additional fisheries, terrestrial and benthos information due lack of information; available results will be used in this study to assess aquatic system potential;</li> <li>■ use hydraulic models to assess flooding and erosion problems;</li> <li>■ orient terrestrial resource management towards protection, restoration, and enhancement;</li> <li>■ expand database for terrestrial features in each of the subwatersheds;</li> <li>■ gather additional groundwater based data on those springs feeding creeks within the subwatershed due to lack of geologic information;</li> </ul>
Products	<ul style="list-style-type: none"> <li>■ implementation plan providing policy direction for the City's new Official Plan;</li> <li>■ develop a terrestrial strategy aligned with Bill 163;</li> <li>■ recommended approaches for the implementation of the Subwatershed plans relevant to urban land use change and urban and rural land use management practices;</li> <li>■ recommendations that lead and support the roles of municipalities, agencies, and the public in addressing implementation;</li> </ul>

**"C" LAND USE MANAGEMENT  
(MAITLAND ECOSYSTEM HEALTH PROJECT)**

The Maitland Valley Conservation Authority is currently undertaking a 5 year work plan for their watershed which focuses on understanding land uses as they affect soil, water, and air in the basin. Since 78 percent of the Maitland watershed is used for agriculture, agricultural land management practices play a significant role in the quality of the soil and water ecosystems. One of the goals proposed for the Maitland Valley Ecosystem Health project is to encourage the adoption of land management practices that will allow for the sustained use of these resources.

Objectives	<ul style="list-style-type: none"> <li>■ determine the health of terrestrial, aquatic and soil ecosystems of the watershed;</li> <li>■ identify key stresses for each ecosystem type;</li> <li>■ develop this information based on the 41 sub-basins that make up the watershed;</li> <li>■ establish a benchmark of present health to enable trends in ecosystem health to be measured over time;</li> </ul>
Issues	<ul style="list-style-type: none"> <li>■ improper rural waste management practices are having an adverse impact on aquatic and terrestrial ecosystems in the Maitland watershed;</li> <li>■ continued conversion of wetlands, floodplains, stream corridors, and headwater areas to agricultural use;</li> <li>■ standard drainage practices can lead to lower water tables, fragmentation, loss of important habitat, lower base flows, and the disruption/destruction of resource lands;</li> <li>■ in highly erodible soils, the construction of buildings and other structures can lead to erosion and loss of land, sedimentation in watercourses, and more clean-outs;</li> </ul>
Approach	<ul style="list-style-type: none"> <li>■ determine the criteria for measuring the health of each ecosystem;</li> <li>■ collect data on the conditions that influence ecosystem health;</li>   <li>■ survey property owners attitudes and preferences towards the health and management of the environment;</li> </ul>
Products	<ul style="list-style-type: none"> <li>■ report card for each sub-basin highlighting present conditions and key stresses;</li> <li>■ ranking of sub-basin health in relation to other basins in the watershed;</li> <li>■ identification and development of projects, services and information materials which focus on changing peoples attitudes and actions towards the management of watershed ecosystems;</li> <li>■ development of a sub-basin pilot project to test new services and information</li> </ul>



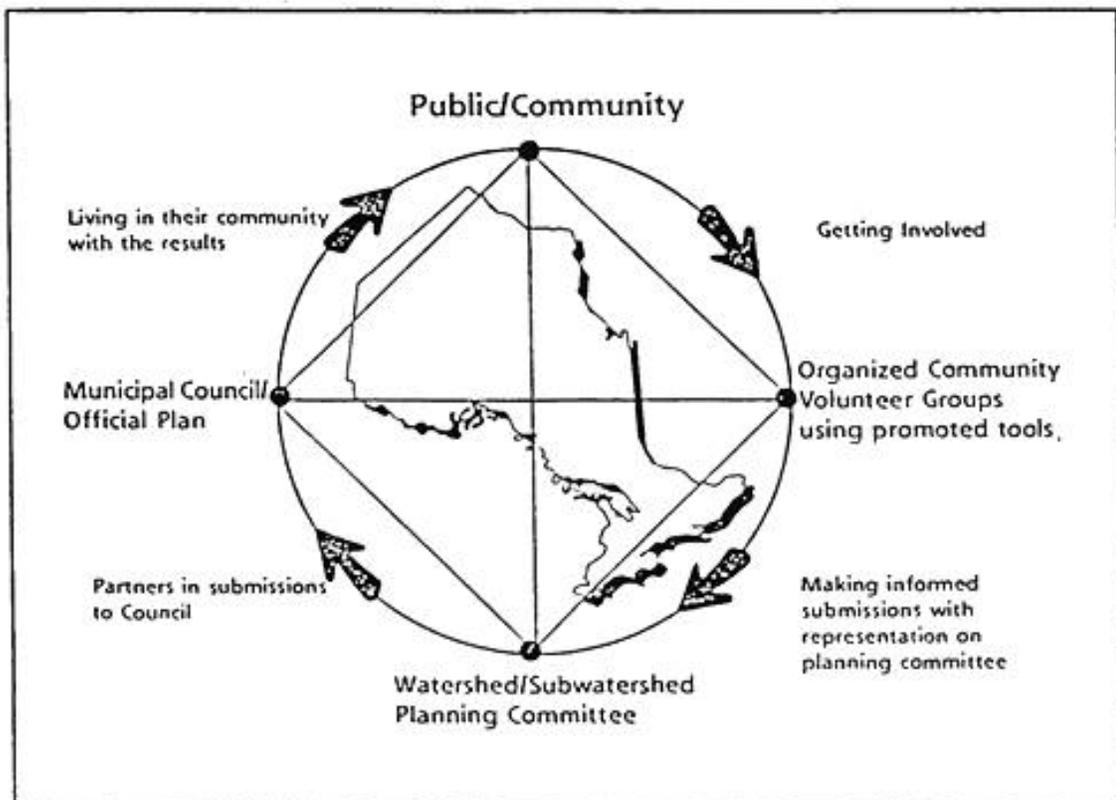
## F Community INVOLVEMENT FRAMEWORK

Further examination of public involvement specific to watershed planning has resulted in a proposed framework with which to build a public involvement model. This framework suggests that the model should be designed to get all stakeholders involved, provide necessary information to facilitate informed contributions, promote partnership in decision-making and to provide ownership of the product.

This proposed framework outlines a model for public involvement which:

- ✓ Gets the public/stakeholders/community actively involved;
- ✓ Provides the necessary information to facilitate informed contributions;
- ✓ Promotes partnerships in decision-making;
- ✓ Provides for ownership of the product.
- ✓ This model is represented graphically, below.

**Figure 6.1 Public Involvement Model for Water/Subwatershed Planning**



### Strategy for...Getting People Interested in the Watershed Study

Responses to questions of individuals who have been involved in a watershed or subwatershed planning exercise were varied in opinion on methods for creating public interest in the initiative. Many felt that the approach used in their specific situation was ineffective but, again, the approaches varied. While newsletters and open houses were successful in some areas, they failed in others.

One methodology that seems to have had some success is the representation by sectors of the community. For example, the agricultural or business community comes together with a representative voice to the exercise. Individuals with a common perspective and common interest will often galvanize in response to an initiative such as the development of a watershed or subwatershed plan. Given that this is a natural phenomenon, the creation of public and stakeholder interest may best be achieved by facilitating the organization of community groups and proactively providing them with a common interest.

To reach groups already organized, it will be necessary to link the development of a watershed plan to their organization. The agricultural community, for example, will need to see the connection between watershed planning and Environmental Farm Plans. Similarly, individuals involved in existing programs (Remedial Action Plans, Community Fisheries Involvement Programs, Landowner Resource Centres, etc.) should be accessed and their initiatives linked. If a network already exists, tap into it.

To reach the general public, it is necessary to establish an understanding of and identification with the watershed in which they live. A landowner handbook (see Mitchell Creek handbook, for example), can help create a sense of living within an ecological unit. Conservation Authorities, through their regular provision of information at the local level can contribute to this awareness and understanding.

### Strategy for...Providing Appropriate Information to Participants

Having provided local groups with an awareness and understanding of the relationship of watershed planning to their interests (or facilitated the creation of community groups specific to the initiative), the groups must now be given the tools and information upon which to base informed contributions to the process. One criticism levelled against the existing process was that involvement was limited to the opportunity to comment on a plan that was already developed. To effect active and meaningful participation, individuals must be given the opportunity to undertake their own observations and arrive at their own conclusions.

One initiative which promises to help achieve this objective is the Watershed Report Card. The Watershed Report Card is an initiative sponsored by Fishermen Involved in Saving Habitat, an umbrella group of interested individuals and groups from a wide variety of disciplines and backgrounds. The Report Card is a three-step tool to assist individuals and communities determine the characteristics of their local watershed, determine the extent to which the watershed has been affected by human activities, and devise methods to improve watershed health. It provides the framework within which groups are guided through the three-step process.

Similarly, the Environmental Farm Planning program and associated Best Management Practices guides the individual through an identification, assessment and determination of priorities exercise. Imparting watershed planning objectives into this process may help to facilitate the contribution of important information from this sector, and avoid duplication of effort.

Other avenues, as mentioned earlier, include Remedial Action Plans and Community Fisheries Improvement Programs. The important concept is the provision of individuals and groups with the tools and support they require to become active, informed participants.

#### Strategy for...Promoting Partnerships in Decision-Making

Respondents to the questions of responsiveness were generally positive with respect to their voice being heard. Most individuals indicated that their involvement had made a difference. This is key to the success of public participation.

To create a working partnership, all groups involved require a clear understanding of the expectations and possible outcomes of the exercise. The process must be clear, open, equitable and honest. Roles and responsibilities should be agreed upon at the outset, as should timelines and deliverables. In short, the partners to the initiative should negotiate a project plan to guide involvement.

The benefits of a partnership arrangement are many. Shared responsibilities and shared decision making often results in an improved product, particularly when all partners to the initiative have an interest in it and bring informed opinions to the table. With the creation of a watershed or subwatershed plan, this partnership has the added benefit of establishing local support for plan implementation through the municipal planning process.

Strategy for...Encouraging Ownership of the Watershed Plan

The implementation of a watershed or subwatershed plan brings back to the community the product of their contribution to its development. With effective public involvement, this implementation creates ownership. Individuals living and working in the community have chosen to accept and adopt the plan as their guide to water resource management. While there still may be differences of opinion with respect to the specifics of how the plan is implemented, the vast majority of individuals surveyed agreed that planning based on an ecological unit, the watershed, is rational, and recognize the benefits of the plan development and their involvement.

## G STEWARDSHIP INITIATIVES

### Best Management Practices:

- **Agricultural Best Management Practices** (BMPs) are VOLUNTARY, practical, affordable approaches to conserving soil and water resources without sacrificing productivity. In essence, they provide a balance between current economic, environmental and social interests without sacrificing the ability of future generations to enjoy a sustainable agricultural system. BMP publications completed, or under development to date include: Farm Forestry and Habitat Management, Field Crop Production, Horticultural Crops, Livestock and Poultry Waste Management, Soil Management, Nutrient Management, Water Management, Integrated Pest Management, Irrigation, and Fish and Wildlife Management.
- **Storm Water Management/Urban Drainage Design**
- **Erosion and Sediment Control at Urban Construction Sites**
- **Natural Channel Systems Management and Design** is a process provided by MNR to manage and design natural channel systems while taking into account the ecological functions of the watercourse, where land-use controls can maintain the quality of the fragile ecosystem while allowing for compatible development. The information can be used by municipal, water resources, environmental and other design professionals as well as review and approvals agencies. The manual is an integration of disciplines and knowledge which is aimed at reconciling human needs and environmental requirements as well as relating holistic concerns in a watershed context. The natural channel design approach should fulfil requirements for flood and erosion control, drainage, and recreation within the context of a fully functional and stable ecosystem.
- **Alternative Development Standards** were developed by Ministry of Housing and Ministry of Municipal Affairs. They represent a range of choices over and above those standards/rules governing the planning and engineering of residential development currently in use. One objective of these voluntary guidelines is to achieve 'environmental sustainability by using less land for development, requiring less infrastructure and non-renewable resources, minimizing adverse environmental impacts and enhancing efficient use and management of resources.
- **The Environmental Farm Plan** (EFP) initiative is a farmer-led program which helps farmers develop a practical plan for operating their farm in a way that is

environmentally responsible. Through the voluntary EFP process, farmers note areas of environmental strength on their farm, identify areas of environmental concern, and set goals for the improvement of environmental conditions.

- **Fishermen Involved in Saving Habitat** is a coalition of groups that worked together to develop a *Watershed Report Card* to provide a tool that would enable non-expert residents to better understand the watershed within which they live. The *Watershed Report Card* is designed to introduce people to the concept that nothing occurs in isolation. For this reason, activities in one area of the watershed have implications throughout the entire watershed, and with adjacent watersheds as well.
- **Green Communities Initiatives** have been set up to educate residents and offices and encourage their wise use of water, energy, chemical, paper etc. Some "greening" programs include: 3Rs Program (Reduce, Reuse, Recycle), Home GreenUp Program, Blue Box Program, Build Green Program, Green Workplace Program, Energy Conservation/Efficiency Program, Water Conservation/Efficiency Program.

#### Resource Protection and Enhancement:

- **The Private Land Forestry Program** dates back to the late 1800's and early 1900's. It enables MNR to provide services to landowners such as inexpensive planting stock, woodlot improvement agreements, advisory services program, agreement forests program, and the private forests sustainability program.
- **The Natural Heritage Stewardship Program** was established by the Natural Heritage League in 1982 to coordinate activities aimed at protecting natural areas as carried out by the Ministry of Natural Resources, the Nature Conservancy of Canada, the Ontario Heritage Foundation and other government and non-government organizations. Activities include the Natural Heritage Stewardship Program, Carolinian Canada and the Niagara Escarpment Natural Heritage Stewardship Pilot Project. Staff training in support of these activities has been provided by the University of Guelph, Centre for Land and Water Stewardship.
- **The Conservation Land Tax Reduction Program** was initiated in 1988 under the Conservation Land Act to provide a monetary incentive, through property tax rebate, to private landowners who protect conservation lands defined as class 1, 2 and 3 wetlands, provincially significant areas of natural and scientific interest, natural areas designated within the Niagara Escarpment planning Area and other conservation lands owned by non-profit charitable organizations.

- **The Wetland Habitat Agreement/Eastern Habitat Joint Venture** was initiated in 1990 and sought to focus on the protection of significant wetlands in southern Ontario through negotiations with private land owners around securement, stewardship, land-use modification, education, communication, improvement and management.
- **Rails to Trails** has initiated several pilot projects to protect significant linear corridors through public ownership and community-based management through alternative uses for abandoned railway lands.
- **Conservation Easements** can be established for the conservation, maintenance, restoration or enhancement of land or wildlife and the access of land for these purposes by qualified charities, municipalities, First Nations and government agencies.
- **The Community Fisheries Improvement Program (CFIP)** and the Community Wildlife Improvement Program (CWIP) were initiated by the Ministry of Natural Resources to provide grants to local individuals and clubs to undertake fish habitat and wildlife restoration and improvement projects.
- **Land Trusts** grew out of discussions at the Natural Heritage League resulting in the operation of fifteen land trusts which are assisted by a land trust support network. Land trusts are dedicated to the protection and management of natural areas, open space, agricultural landscapes and/or affordable housing communities.
- **Innovative Stewardship Mechanisms** including the Grand River Strategy, and the Draft Rouge Park Management Structure build on stakeholder commitment to specific actions in support of the long term health and well-being of the river.
- **The Private Land Stewardship Pilot Initiative** was established to undertake a "one window" service project for rural landowners. Three pilot sites were chosen - Manotick in Eastern Ontario, Oxford County in South/Central Ontario and Lambton County in South Western Ontario. The projects are still underway with final evaluation expected in 1996.