Municipal Environmental Assessment: Implications for Sustainable Urban Development

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ABSTRACT

This research investigates municipal environmental assessment (MEA) in Canada and studies the development and implementation of this procedure in order to determine its compatibility with urban planning and sustainable development initiatives. Environmental assessment is the principle means through which Canadian governments plan and manage environmental concerns related to human activity and is currently being reinforced through means such as the World Commission on Environment and Development (W.C.E.D), the Canadian Environmental Assessment Act, and the Commission on Planning and Development Reform in Ontario. Cities, commensurate with their nature and role, have environmental impacts which are left unassessed through current EA procedures. The land use development control process, overseen by municipal governments, is an ideal means through which to accommodate the procedures associated with environmental assessment, and could easily provide for the assessment of both public and private activities. In this manner, environmental assessment can provide a comprehensive and consistent framework for analyzing and addressing all the interrelated issues of urban society in its environmental context.

This is illustrated in a synthesis of two recent surveys which note that, of a total of 26 cities surveyed, eight have formal MEA processes, 13 have "other" MEA processes, and all have some sort of environmental initiatives. The common structural and functional features of these processes are analyzed together with certain aspects of the City of Ottawa's Municipal Environmental Evaluation Process in order to expand on the technical and procedural requirements of such a process as well as the attitudinal and political implications of MEA.

The conceptual framework, the MEA inventory and the case study are then drawn together to profile barriers to, and conditions necessary for, MEA in Canada, and to profile a general framework for MEA. This study concludes that MEA is an efficient and effective means to work towards sustainable urban development.

ABSTRAIT

Cette recherche examine l'evaluation municipale environnementale (municipal environmental assessment MEA) au Canada et etudie le developpement ainsi que la mis en oeuvre de ce procede afin de determiner la compatabilite de la planification urbaine et les initiatives du developpement soutenable. Cevaluation environementale est l'intermediaire par lequel le gouvernement Canadien planifie et gere les inquietudes environementales liees a l'activite humaine. Les agences tels: "World Commission on Environment and Development"(W.C.E.D), "Canadian Environmental Assessment Act" et "Commission on Planning and Development Reform in Ontario Cities" coetendues de leur role ont un impact environemental qui est presentement non-evalue par les procedures du EA. Le processus du developpement du sol, sous le scrutin des gouvernements municipaux, est un moyen ideal par lequel l'adaptation des procedures associees a l'evaluation environementale peut egalement pourvroir au calcul des activiies publiques et privees. De cette facon, l'evaluation environementale peut fournir une methode comprehensive et compatible afin d'analyser et d'aborder tous les domaines communs d'une societe urbaine dans son contexte environemental.

Cette recherche s'illustre par la synthese de deux recentes enquetes qui demontrent que d'apres 26 villes, huit possedent des processus MEA categoriques, 13 disposent de quelqu'autre mecanisme du MEA et que tous illustrent un genre d'initiative environementalle. Les caracteristiques fonctionnelles et structuralles communes de ce processus sont analysees avec certains aspects du "Municipal Environmental Evaluation Process" de la ville d'Ottawa afin de developper la technique et le procede des exigences d'un tel processus ainsi que les implications politiques du MEA.

Dans le cadre methodique, l'inventaire du MEA et l'enquete sont unis afin d'exposer les conditions necessaires et d'etaler les obstacles pour le MEA au Canada tout en y proposant une methode de developpement et d'implantation. Cette etude arrive a la conclusion que le MEA est un moyen efficace et concret d'atteindre le developpement urbain soutenable.

CHAPTER ONE: INTRODUCTION

The world's cities are under pressure. Urban transport is becoming unmanageable; inefficient urban energy provision threatens environmental and economic performance. Air quality standards are not being met, water pollution levels are increasing, and the search for solid waste disposal sites has reached a crisis (O.E.C.D. 1991, p.3). Indeed, conventional planning and management practices associated with human settlement are increasingly undermining social, economic, and environmental progress. Because "the future will be predominantly urban, and the most immediate environmental concerns of most people will be urban ones" (W.C.E.D., 1987, p.255), new directions in urban planning and environmental management are becoming imperative.

Environmental assessment (EA) has traditionally served as the principal means by which Canadian governments plan and manage environmental concerns related to human activity. However, this planning tool has traditionally been reserved for the evaluation of large scale activities by senior governments. Not only does this approach imply that only senior level authorities have the resources to plan effectively for the environment, but it fails to realize the full potential of EA as a planning tool. This narrow approach to environmental assessment omits thousands, perhaps millions, of activities - many of which are associated with urban development - from assessment and leaves them to cumulate indefinitely into the future.

Urban planning literature has been inundated with summons for environmental planning and "sustainable urban development" initiatives within the last several years (eg. C.I.P. 1990; Maclaren, 1992). Few substantive means by which to work toward these goals, however, have been proposed and/or studied in a pragmatic manner. In 1990 the Canadian Environmental Assessment Research Council (CEARC) suggested that "local municipalities might entertain the employment of impact assessment procedures to augment the productivity of existing land use instruments" (Sadler & Jacobs, 1990). This report contends that the time for the operationalization of this recommendation is indeed at hand: the federal government is presently proposing a new Environmental Assessment Act which would make EA mandatory; the Province of Ontario is reviewing its environmental assessment procedures; and the (Sewell) Commission on Planning

and Development Reform in Ontario is reviewing the planning approvals process, all with a view to enshrining widespread environmental planning practice. This report argues that environmental assessment can provide a comprehensive and consistent framework for analyzing and addressing all the interrelated issues of urban society in its environmental context.

The purpose of this research is to investigate a role for the application of environmental assessment to municipal activities in Canada. In studying the development and implementation of municipal environmental assessment (MEA), this research determines the effectiveness of MEA as an urban planning and sustainable development tool. Accordingly, the method is as follows: Chapter Two provides a conceptual framework for MEA based on literature reviewed; Chapter Three combines an inventory of current MEA procedures with a case study of the City of Ottawa's Municipal Environmental Evaluation Process (MEEP) to analyze the nature, extent, and feasibility of this approach; and Chapter Four provides an analysis of the barriers to, and the conditions necessary for, the application of environmental assessment to municipal activities while providing a general framework for MEA in Canada. Chapter Five provides a summary and conclusions.

CHAPTER TWO:

ENVIRONMENTAL ASSESSMENT AND THE NATURE OF CITIES

This chapter provides a rationale for the application of environmental assessment procedures to municipal activities and attempts to define municipal environmental assessment (MEA). Though currently used by several cities in Canada, the pragmatic investigation and evaluation of MEA as an environmental management and sustainable development tool is quite new. Therefore, the literature related directly to this topic is scattered among a plethora of government and academic publications, and across several disciplines. This chapter reviews this body of thought first by examining the legislative authority of municipalities over the environment. The nature of existing environmental assessment procedures, together with the nature of cities and their local government are then analyzed within the context of MEA. Finally these concepts are synthesized to provide a basis for the following pragmatic investigation of municipal environmental assessment in Canada.

2.1 MUNICIPALITIES AND THE ENVIRONMENT - LEGISLATIVE RESPONSIBILITIES

Ontario municipalities derive their legislative and executive powers from the province, under the Municipal Act, R.S.O. 1980. c.302. which allows them to pass by-laws regulating the activities of the inhabitants of the city (Kiernan, 1990, p.17). In Ontario, municipalities are responsible in part for roads, public transportation, education, electrical service, health and welfare, police, sewage and water works within their boundaries (The Municipal Act). In addition, the Planning Act R.O., 1980, c.3 provides that municipalities and regional governments shall share in the responsibility for environmental management (Tomalty, 1989, p.85). Therefore, in providing essential services, municipal governments have direct influence over many aspects of their environment. Most notably for this research, municipalities have control over the use and development of land through building codes, public health legislation, site plan control and development review (Richardson, 1989).

Not only do municipalities have the option under existing legislation to provide services in an environmentally sound manner, it is possible that they may also have the legal obligation to do so. Several court decisions in the United States have imposed a duty on local government to preserve environmental quality through the consideration of regional concerns in their planning strategies and to exclude uses which adversely impact the environment (Corrie, **1986,** p. 148). Local governments in the U.S. have also been held liable for damages arising from the negligent failure to preserve environmental quality, even in the face of compliance with existing state and or federal regulations '(in Corrie, 1988, p.149). Because American environmental policy often guides Canadian environmental policy (Needham, 1990, personal communication), this trend can not be ignored. In Canada, municipal direction over land use provides a ready made authority and an easily adapted mechanism by which to accommodate environmental assessment and other sustainable development initiatives into their activities. Indeed, "the legal authority is firmly established and thoroughly tested: municipal planning could be employed very effectively to enhance the aims of sustainablity" (Richardson, 1989. p.42). Therefore, municipalities have the legislative authority, the practical mechanism, as well as perhaps, the obligation, to implement environmental planning controls.

2.2. THE NATURE OF ENVIRONMENTAL ASSESSMENT

Environmental assessment (EA) has traditionally served as the central means with which Canadian governments plan and manage environmental concerns related to development activities. The Federal Environmental Assessment and Review Process (1973) has as its purpose "to ensure that the environmental consequences of all federal proposals are assessed for potential adverse effects early in the planning process before irrevocable decisions are taken" (Couch, 1988. p.13). The Province of Ontario has an additional environmental assessment process (1975) which addresses the impacts of public activities on the environment. A growing number of federal and provincial ministries, such as the National Capital

[1] For example, the negligent operation of a town landfill led to a $5.6 million damage award to against **a New** Jersey town (Avers vs. Jackson Township.

Commission (N.C.C. 1990) and the Ontario Ministry of Government Services (M.G.S. 1991), have developed their own additional environmental assessment procedures to address specific requirements.

Not only has environmental assessment become a more common approach to environmental management in Canada, but it appears that EA is also becoming increasingly entrenched in legislation. This trend can be traced to the recommendations of the World Commission on Environment and Development in Our Common Future (1987). Its call for improved environmental assessment practices, which are mandatory and entrenched in legislation at all levels of government, has been heard throughout Canada and the world (Charest, 1991). This proliferation of environmental assessment indicates that EA is presently, and will continue to be, an integral environmental management tool in Canada.

In spite of its increasing significance, EA has been subject to a steady stream of critical commentary since its inception, much of which has been primarily concerned with alleged technical or procedural deficiencies (See Beanlands and Duinker, 1983). Other problems with traditional EA are that, as a procedure, it lacks a policy context, appears unable to deal with long-term, indirect, secondary and cumulative consequences, and is unable to guarantee long term monitoring and enforcement (Richardson, 1989,p.29). Environmental assessment as it may apply to municipal undertakings has received significant attention of late as a mechanism to circumvent many of these concerns (Richardson, 1989; CEARC, 1990). The responsibility for managing the environment has typically rested with the Provincial Environmental Assessment Act, which does require municipalities to undertake EA on certain projects. However, "since 1982 the Ministry of Environment has not issued any information packages or documents [on EA] to the local or regional municipalities (A.M.O. 1984, p.9). Furthermore, according to Regulation 293 of the Ontario Environmental Assessment Act, in general "a municipal undertaking is not subject to the Act if it costs less than $2 million, indexed to 1977" (A.M.O. 1984, p.4). To date, less than 12 municipal projects in Ontario have undergone full scale EA's since the process was initiated in 1975 (Hawker, 1992, personal communication).

Two conclusions may be drawn from this, both of which are integral to this study. The first is that the municipality has been overlooked as an environmental manager due to the fact that the environment is perceived as a provincial responsibility. The second is that, clearly, the Provincial Environmental Assessment Act will not and can not seriously take into account all activities which may impact the environment. This means that there are hundreds, perhaps thousands of municipal activities undertaken and approved every day in Ontario, which are not assessed for environmental impacts and have no mechanism to ensure sound environmental planning. Clearly, this situation has a significant cumulative impact on the state of the Canadian environment, as articulated by Sadler and Jacobs.

> Environmental assessment is typically applied in Canada,and in most other countries only to development projects that are individually large enough to generate evident impacts. Other activities and management practices, collectively numerous, escape assessment. The sporadic application of EA contributes to the incremental, cumulative erosion of ecological integrity (Sadler and Jacobs, **1990).**

Municipal activities impact the environment in a similar, if less immediately visible, manner than the more senior government projects which are typically subject to the process. An examination of the nature of cities and municipal structure further clarifies this argument.

2.3. THE NATURE OF CITIES **AND LOCAL GOVERNMENT**

In Canada today, there are over 940 urban areas[2], where more than 20 million people live and work. This makes Canada one of the most urbanized countries in the world, with over three-quarters of its population interacting daily with the urban environment (Gettler and Tyler, 1989). Cities embody all the positive advantages of economies of proximity, scale and concentration (O.E.C.D. 1989. p.9), as well as social and cultural amenities which usually translate into an advanced well-being. However, cities are also responsible for considerable environmental degradation including air, water and noise pollution, land contamination, destruction of wildlife habitat and the generation of most of the nation's solid waste

[2] Statistics Canada defines an urban area as a continuously built up area having a population concentration of 1,000 or more and a population density of 400 or more per square kilometre.

(W.C.E.D., 1987, p.241; O.E.C.D., 1989, p.9) These factors, taken together or in isolation, significantly diminish the quality of life for all residents.

The fact that cities are highly organized socially, politically and economically, indicates they can take a leading role in finding and implementing workable solutions to local, national and global environmental problems. This has seldom been given serious consideration, however, due largely to the widespread perception of the municipality as "the most important and the least important level of government in Canada" (Tindal, 1982, p.1). Local government has a fundamental and essential role in the life of the citizen: its responsibilities in part include paving and ploughing roads, garbage and sewage collection and disposal, public transportation, water distribution and treatment, police and fire protection, building and plumbing inspection, parks and recreational facilities, child care, libraries, schools, health care, public housing and social assistance. The municipality licences over 100 types of business activities and dictates how property is used and how neighbourhoods are developed. It also provides an important vehicle for the administration of numerous provincial programs and constitutes a basic level of democracy in Canada (Tindal, 1982, p.2). However, it is recognized that "only a strong local government can ensure that the needs, customs, urban forms, social priorities and environmental conditions of the local area are reflected in local plans for urban development, but local authorities have not been given the political power, decision making capacity and access to resources needed to carry out their functions" (W.C.E.D. 1987, p.247).

Cities, then, are both the cause of a large part of the environmental degradation in Canada, and are the key to reversing the attitudes, perceptions, practices and procedures necessary to work towards sustainable development. However, cities as catalysts for change in environmental management, and specifically their compatibility with environmental assessment, has been largely ignored in both federal and provincial policy. In recent years, a grassroots movement demanding efficient environmental management at all levels of decision making, driven in part by the publication of Our Common Future in 1987, has brought this omission home. Clearly, the application of environmental management tools such as EA to municipal undertakings is at least reasonable, and at the most, imperative to the future direction of environmental management in Canada.

2.4. MUNICIPALITIES AND ENVIRONMENTAL ASSESSMENT

The application of environmental assessment by municipalities to their own activities has received scattered attention from academics as well as policy makers throughout Canada. The literature can be synthesized into three general trains of thought with regard to the application of environmental assessment to the municipal level. The first is embodied in the perception that "municipalities are incapable of making responsible decisions when it comes to environmental matters" (M.O.E. in List, 1990, p.14). This attitude can largely be traced to the widespread conviction that organizational and management practices by municipalities in Ontario are unable to deal effectively with such large Issues (Turland, 1989, p.4), and further to the perception that municipal decision making has traditionally been based on narrow perspectives and short term gain rather than on an holistic perspective (Crowder and Hendler, 1991).

The second body of thought proposes that reformed provincial policy and/or second tier regional government policy can efficiently incorporate environmental concerns of a local nature, and therefore that first tier municipalities should not be involved in this type of environmental management. However, the fact that neither the province nor the second tier regional municipality has an intimate a connection with the land use planning process and day to day planning activities suggests that these authorities can not do the job as well as municipal government.

The final body of thought involves the relationship between land use planning, for which municipalities are almost exclusively responsible, and environmental assessment! The practical development of this concept has been pioneered largely by the Canadian Environmental Assessment Research Council (CEARC) and Nigel Richardson. Richardson (1989) notes that municipalities have a great deal of power over the use and development of land and therefore that municipalities have the basic instruments necessary to develop and implement environmental assessment, perhaps with even greater efficiency in certain cases than more senior authorities.

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[3] This idea has not been developed in isolation of senior government input; a leaked 1989 report of the Ontario Government recommends, among other things, the integration of the Planning Act and the Environmental Assessment Act into a new Sustainable Development Act (Gov't of Ontario, 1989, p.4).

> Many environmental assessment weaknesses today could have been avoided had the [EA] procedure been treated as an elaboration of the land use planning system, as many European countries have done. (1989, p.42)

Tying EA to land use planning would make EA one component of a multifaceted decision making structure, and would therefore give EA the context and continuity it lacks. This approach would also simplify and expedite the planning process by taking the environment into account along with other factors such as economics and social issues. Finally it would give the implementation of land use plans greater effectiveness and enforceability.

CEARC expanded on these ideas in 1990 to recommend the adoption of EA by local authorities as a means of working towards sustainable development.

> In order to contribute fully to the advancement of sustainable development, environmental assessment must become more than an institutionalized process of senior governments . . . Local municipalities might entertain the employment of impact assessment procedures to augment the productivity of existing land use planning instruments . . . this would be helpful in covering the multitude of activities which presently escape assessment and contribute to cumulative environmental impact (Sadler & Jacobs, 1990).

2.5. MUNICIPAL ENVIRONMENTAL ASSESSMENT (MEA)

This review has demonstrated that activities undertaken by municipalities under their legislated mandate have direct, indirect, and cumulative effects on local, regional and national environments; and further that conventional environmental management tools, specifically environmental assessment procedures, have not been applied in any consistent fashion to these activities. The notion of municipal environmental assessment (MEA) proposes a solution to this dilemma by using the available and well substantiated tool of EA to require the environmentally responsible planning and development of cities. Municipal environmental assessment is an activii specific approach to environmental management at the local level, designed to be implemented by the municipality through the land use control system. MEA is primarily a planning tool which may take many forms, and should be developed individually by municipalities to suit local conditions and specific local requirements. This process is to be applied during the planning phase of project development before irrevocable decisions are made which may affect the local environment. MEA is separate from, but not in duplication of, existing Provincial and Federal environmental assessment procedures. The types of activities screened, and components analyzed, will vary from municipality to municipality. Through development control procedures, municipal environmental assessment may be easily

adapted to evaluate both private and public development projects and activities, as well as to specific parcels of land or to all land within the city. MEA is a means of educating municipal project managers and decision makers as well as the general public and development community, while requiring sound environmental planning.

Although not without its critics, the application of environmental assessment to municipal activities appears to be a logical extension of the environmental assessment process. It is in this manner that "municipal plans could become instruments of national and provincial policies and conservation strategies and would represent an authentic and powerful application of Dubos' behest to 'think globally and act locally (Richardson, 1989, p.42).

CHAPTER THREE:

MUNICIPAL APPROACHES TO ENVIRONMENTAL ASSESSMENT:

AN INVENTORY AND CASE STUDY

Recent studies indicate that municipal environmental assessment is becoming an important trend among the increasing inventory of sustainable urban development initiatives (Maclaren, **1992, p.31).** Indeed, municipalities in Canada have moved independently to incorporate the principles of municipal environmental assessment into their activities. Because there has been little or no provincial or federal direction in this regard, it is important to study these procedures in order to provide information on the positive and negative features associated with them. This section describes and discusses the common features of municipal environmental assessment as exemplified by the City of New York, the State of California, and the Canadian cities of Edmonton, Winnipeg, Kitchener, Guelph, Fredricton, St. John's, Halifax and Ottawa. The on-going development of the City of Ottawa's Municipal Environmental Evaluation Process (MEEP) is studied in depth in order to expand on the procedural, attitudinal, political and economic implications of MEA.

3.1. LOCAL ENVIRONMENTAL ASSESSMENT IN THE STATES OF CALIFORNIA AND NEW YORK

Environmental assessment, as adapted for cities, has been quite common in several states in the U.S. since the early 1970's. The State of California is by far the pioneer in this regard. Under California State legislation, environmental assessments are necessary for all proposals that must go before the County Planning Commission for approval (Magazine, **1977, p.56).** This process, depicted in Appendix A, appears highly comprehensive and is well integrated into the state environmental assessment procedures. Other States, such as Vermont, Colorado, Indiana, Ohio and New York have developed procedures based on the California example. The City of New York implements a detailed City Environmental Quality Review Process, applicable to **specific private and public sector activities within the City. This Environmental Impact Statement requires a treatment of project description and rationale, existing environmental conditions, ecology (including water table, bedrock, wetlands, flora and fauna, and soils), community and traffic impacts, open space, historical resources, air quality, noise, water and sewage, energy use and solid waste. The** EIS is reviewed by a number of agencies, including City Council and the City Planning Commission (City of New York, **1991).**

3.2. MUNICIPAL ENVIRONMENTAL ASSESSMENT IN CANADA[4]

Municipal environmental assessment has been used as a planning tool in some Canadian cities, such as Winnipeg and Edmonton, since the 1970's. tt is only within the last fiie years, however, that MEA has proliferated as a municipal planning and management tool. The data contained in Appendix B demonstrate that out of twenty-six municipalities surveyed by two separate researchers, eight have "formal" environmental assessment processes, and thirteen have "other" forms of environmental assessment incorporated into their decision making procedures. The formal environmental assessment process Implies that the municipality has procedures in place to guide the implementation of the process.

Table 1 summarizes several of the key components of formal municipal environmental assessment procedures in Canada. Clearly, there are many similarities, which, it should be noted, have been developed independently of one another, and without senior government direction. It is typically middle-to-large size urban areas which are more likely to have developed "formal" MEA procedures. The names of the processes vary widely, but usually avoid the term "assessment". Instead, the names refer to "review" and "evaluation", emphasizing the fact that these processes are not designed as replacements for the federal or provincial environmental assessment processes, and that they may not be as complex. The areas and activities screened also vary from municipality to municipality. Typically, those municipalities which have an established environmental strategy and an inventory system opt to use MEA only on specific parcels of land, usually those which are deemed particularly environmentally sensitive. Only the City of Ottawa plans to screen all activities on all lands within the City. Five of eight municipalities with formal processes apply the procedure to private as well as public activities, something that more senior federal and provincial processes have been attempting, with little success, for many years (Ontario Planning Journal, 1992, p. 27). Legislative mandate, or authority for the process, is from by-law, Act, or most typically, the municipal or official plan. The approval authority for MEA usually rests with City Council, although advisory boards and conservation authorities are also used for this purpose. The process is normally administered by the Planning Department.

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[4] This review is based on a synthesis of primarily two sources: Davies, 1991a; and Maclaren 1992b.

TABLE 1:

SELECTED CHARACTERISTICS OF MUNICIPAL ENVIRONMENTAL ASSESSMENT PRACTICE

CITY	NAME/ DATE OF PROCESS APPROVAL	ACTIVITIES/ AREA TO BE SCREENED	SECTOR PUB.	SECTOR PRIV.	AUTHORITY	ADMIN. BY:	APPRWAL AUTHORITY
EDMONTON	Saskatchewan River Valley Redevel Plan (1985)	All development proposals in the North Sask. River Valley System	yes	yes	• Sask River Redevelopment Plan By-law # 7188.	• Planning Dept.	• City Council Circulated with development Plan
	Area Structure Plan EA (1980)	suburbs, transportation corridors, utility networks	yes	no	• General Municipal Plan •By-law 6000	*Planning Dept.	• City Council
WINNIPEG	Environmental Impact Review (1974 - 1977)	All areas.	yes	no	City of Winnipeg Act, 1974.	*Dept. of Env. Planning	• Env. Impact Review Cttee
KITCHENER	Environmental Analysis (1990)	All land in or around Env. Sensitive Policy Areas or ESA's	yes	yes	• Municipal Official Plan; • Regional Official Plan	*Planning Dept.	• City Council • Region . Conservation Authority
	Environmental Impact Statement (1990)	All land in Env. Sensitive Policy Areas.	yes	yes	• Municipal Official Plan; • Regional Official Plan	• PLanning Dept.	• City Council • Region • Conservation Authority
GUELPH	Environmental Report (1990)	For 21 Environmental Constraint Areas, or ESA's.	yes	yes	• Municipal Official Plan	•Planning Dept.	• City Council • Env. Advisory Board
FREDRICTON	In Draft 1991	n/a	yes	n/a	• Official Plan	*Planning	n/a
ST. JOHN'S	Land Use Impact Statements (1990)	For large scale projects - all land	yes	yes	• Municipal Plan	• Planning Dept.	• City Council
	Environmental Analysis (1990)	For ESA's	yes	yes	• Municipal Plan	*Planning Dept.	• City Council
	Conservation Plan (1990)	For certain types of projects on ESA's	yes	yes	• Municipal Plan	*Planning Dept.	• City Council
HALIFM	Environmental Assessments (1984)	Mainly for Large scale projects	yes	yes	*Municipal Plan	*Planning Dept.	• City Council
OTTAWA	Municipal Environmental Evaluation Process (1992)	For all activities on all land	yes	yes	• Official Plan	*Engineering *Planning Depts.	• City Council

Source: Compiled and adapted from Davies, 1991b; Maclaren, 1992a.

Municipal environmental assessment then, is surprisingly well used for a procedure which has had little or no provincial direction and little academic study. The remainder of this chapter explores the ongoing development of the City of Ottawa's Municipal Environmental Evaluation Process (MEEP), with a view to further defining the conditions necessary for, and the barriers to, an effective MEA process.

3.3. THE CITY OF OTTAWA'S MUNICIPAL ENVIRONMENTAL EVALUATION PROCESS (MEEP)

The City of Ottawa has been working since 1989 on an environmental management strategy and is well on its way to implementing one of the most comprehensive municipal environmental assessment processes in Canada.

3.3.1. THE CITY OF OTTAWA: BACKGROUND

The City of Ottawa is one of eleven municipalities within the Regional Municipality of Ottawa-Carleton (RMOC). The RMOC, together with another additional **10** municipalities, forms the National Capital Region. Figure 1 depicts the boundaries of these areas. In all, the National Capital Region contains 45 jurisdictions - 29 municipalities, two regional governments, two provincial governments, 12 major agencies with substantial land holdings, including Parks Canada, Agriculture Canada and the National Capital Commission (Kirby, 1990, p.9).

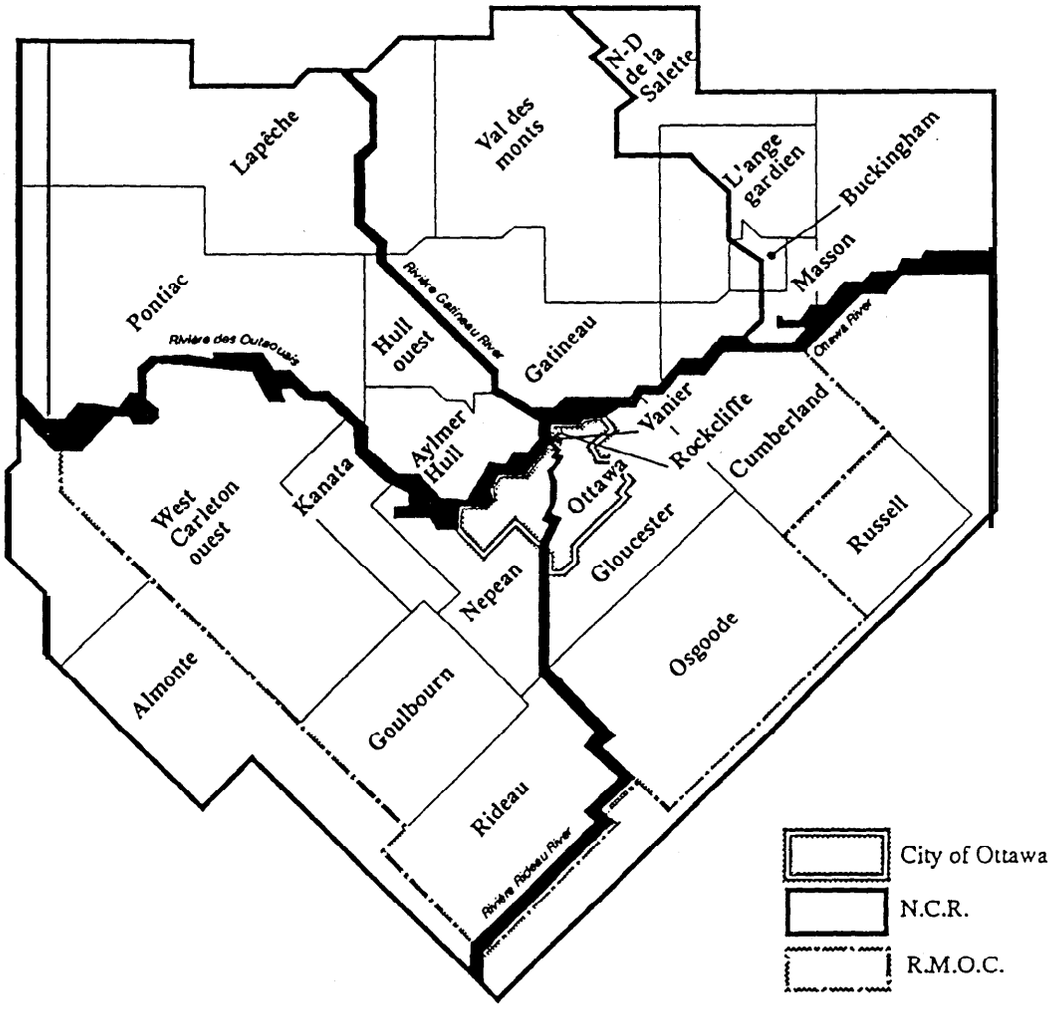
The City of Ottawa is, in terms of both population and employment base, the largest and most influential municipality in the area (see Table 2).

TABLE 2: COMPARISON OF CITY OF OTTAWA TO REGIONAL MUNICIPALITY

INDICATOR	CITY OF OTTAWA	REGIONAL MUNICIPALITY OF OTTAWA-CARLETON	CITY AS A % OF R.M.O.C.
Population	300,770	696,639	49.6%
Employment	253,896	340,817	74.5%
Dwelling Units	128,615	228,130	56.4%
Value of Bldg. Construction	$330.3 million	$817.3 million	49.4%

Source: R.M.O.C. Employment Survey, Stats Canada Survey in Info Update #3: Review of Growth Trends - City of Ottawa and Surroundina Reaion City of Ottawa, 1988.

FIGURE 1: MAP OF CITY OF OTTAWA AND SURROUNDING REGION



SOURCE: CITY OF OTTAWA, 1988, p.8.

While the City of Ottawa is one of many political organizations in the National Capital Region, it is a central actor in the social, political, and economic quality of life of the Regional Municipality of Ottawa-Carleton. It is for this reason that Ottawa also has the opportunity, and the responsibility, to protect and conserve the natural, social, and built environment within its jurisdictional limits.

3.3.2. ENVIRONMENTAL MANAGEMENT

Urban planners and decision makers in Ottawa have traditionally respected their unique landscape and provided, for example, a sunlight by-law restricting building site and situation, 2% and 5% for Parkland by-laws providing for open space, and noise by-laws to limit noise pollution. Although the core of the city is densely built up, it has been a long standing rule that no building in the core will be permitted to obstruct certain views and vistas (City of Ottawa, Community Planning Branch, 1990). Until recently, for example, no building in the area was permitted to be taller than the Parliament buildings. Other programs initiated to benefit the natural environment include a sewer separation program to improve water quality, a policy to enhance the urban forest, and a procurement policy for environmentally friendly products (City of Ottawa, Environmental Management Branch, 1991).

However, there are many examples of defeat in environmental stewardship; these cases are often not well documented due to the fact that they are not easily detectable, and have cumulated, unseen and unmonitored over time.

- Ottawa once had several public and private beaches along the Rideau and the Ottawa Rivers. Most are now closed for swimming and recreational activity while the remaining three are open less often each summer due to significantly deteriorated water quality in the Rideau and Ottawa rivers (Dept. of Recreation and Culture, City of Ottawa, 1990).

- The level of ozone in the City of Ottawa, caused in part by emissions from automobiles and other technologies, has been cited as one of the highest in the country, comparable to urban areas such as Toronto and Hamilton (Millyard, 1991, p.7). Carbon dioxide is one of the major contributors to global climactic change.

- The National Capital Commission's Greenbelt, a unique open space reserve for wildlife, vegetation, and landscape, which borders the City of Ottawa, is under review and has a questionable fate due to development pressures from Ottawa and the neighbouring municipalities (Dare, 1992, p.A1).

While these are only illustrative examples, land, water and air in Ottawa, as in most urban centres, is deteriorating. Although decision makers in the City of Ottawa have demonstrated a desire to protect the natural environment, there is much to be done.

3.3.3. STRATEGY FOR CHANGE

In a 1969 Official Plan review, the City made a clear commitment to the protection and conservation of the urban environment, to "sustainable urban development," and to the development and implementation of the Municipal Environmental Evaluation Process.

The Official Plan

Perhaps one of the most serious attempts at addressing environmental concerns from a municipal policy perspective is in the City of Ottawa's 1991 Council approved Official Plan. The last Official Plan in Ottawa dated back to 1953, and the new Plan is a welcome, if controversial, upgrade. "More than any other Ottawa master plan, this one advances the notion that municipal government has a duty to subjugate the rights of property owners to advance the common good" (Eade, 1991). In this context, the common good refers, almost exclusively to the natural environment. The Mission statement adopted in this document embodies the theme of sustainable urban development and "recognizes that preservation and restoration of the environment and careful stewardship of finite resources will contribute to an economic and social quality of life" and intends to "conserve our natural resource base and enhance the natural environment, thereby promoting the health of Ottawa's inhabitants and communities" (City of Ottawa, 1991).

While this theme is seen throughout the document, Chapter 6 of the Official Plan addresses environmental management specifically. Among the environmental initiatives approved is Section **6.20,** attached here as Appendix C. This calls for a municipal environmental evaluation process which will:

- prevent or minimize adverse impacts of a proposed development, land use, or activity, on the environment;
- ascertain the potential impact on the environment of a proposed development; and
- ensure the undertaking of measures that minimize or eliminate the potential adverse impacts (mitigating measures) on the environment resulting from a project or activii (City of Ottawa, 1991, p.29).

Thus, the Official Plan introduced the concept of municipal environmental evaluation as a tool to assess the impact of planning and land use activities on the natural environment in the City of Ottawa.

The Municipal Environmental Evaluation Process (MEEP)

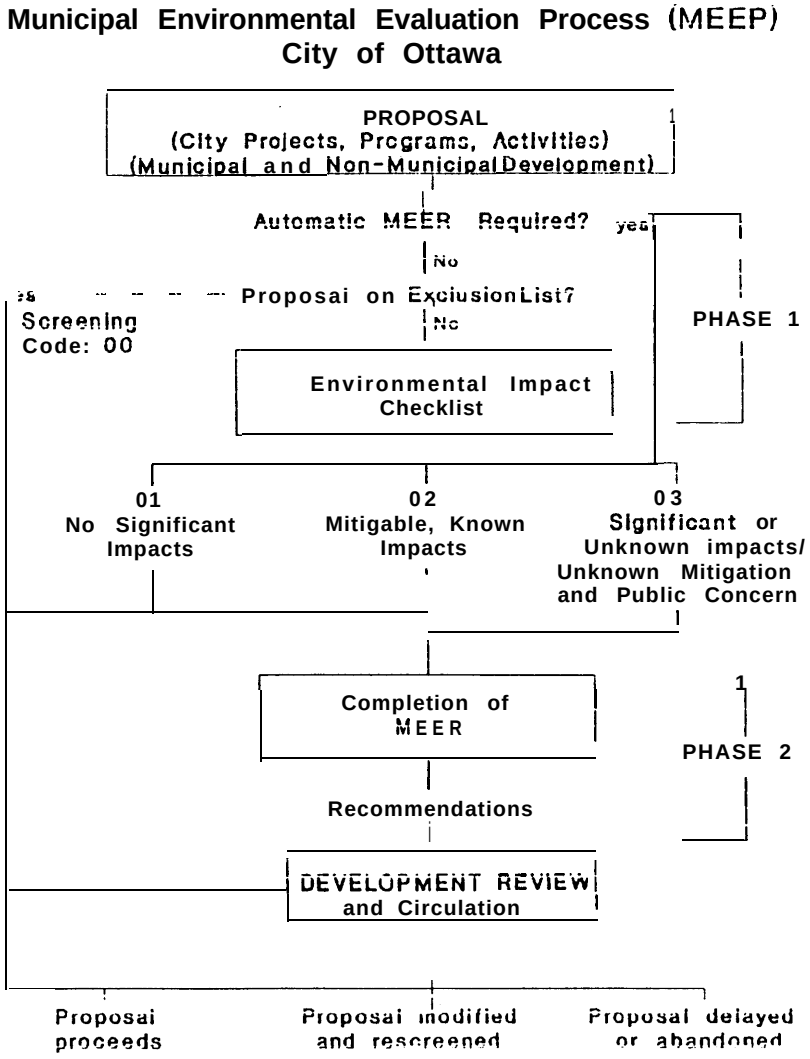
Commensurate with federal and provincial counterparts, MEEP is designed to ensure that potentially adverse impacts on the biophysical and socio-economic components of the environment are considered in a comprehensive and consistent manner in the planning and implementation of public and private sector undertakings within the City of Ottawa (City of Ottawa, Environmental Management Branch, 1992, p.1). Appendix D summarizes the guidelines to MEEP, including definitions, goals, and operating principles. It is important to note that MEEP applies to all lands and all corporate activities within the City of Ottawa, and will in time be applied to private sector proposals. MEEP is a process of self-assessment and will require no extra funding unless this self-assessment determines significant impacts. Furthermore, MEEP applies only in the absence of existing environmental assessment procedures and thus will not duplicate existing procedures. The technical procedure involved in MEEP is depicted in Figure 2 on the following page.

Background to the Development of MEEP

As part of the strategic planning process followed by the City of Ottawa, a number of corporate priorities are established each year. The development of the Municipal Environmental Evaluation Process was established as a corporate priority for 1991 (Harper, 1992, personal communication). The direction of the Official Plan, a consultant's report outlining MEA initiatives of other cities, the federal and provincial EA examples, and an examination of the established planning approval process in Ottawa came together to produce the first draft of MEEP in August 1991. This draft was reviewed internally by several departments to obtain comment on the feasibility of the process and to focus on any omissions or concerns which needed to be addressed. This initial staff review resulted in several changes to the original draft. For example, it was determined that environmental evaluation of City proposals must be tied to final project approval, and not just to site plan control. Exclusion lists can not be specific during initial phases, and must include classes of activities to avoid the narrowing of the process. Further, one or two people per department should be responsible, under the direction of the Commissioner, to ensure that evaluations are completed properly and to act as information sources and provide liaison to the Environmental Management Branch.

After incorporating these concerns guidelines for the process were developed based on individual departmental activities and responsibilities. An inventory of departmental activities and potential environmental impacts was initiated and completed by all departments. Environmental Management Branch

FIGURE 2: CITY OF OTTAWA MUNICIPAL ENVIRONMENTAL EVALUATION PROCESS (MEEP)



OVERVIEW OF PERTINENT MEEP CHARACTERISTICS

- **Proposal**
  The term 'proposal' includes all activities, public and private, capital, operating and maintenance activities. Generally, a proposal is anything which requires funding of any kind and/or Council approval.

- Automatic Inclusion
  The Process is modeled after both provincial and federal programs and works on the basis of inclusion as well as exclusion of activities to the Process. Page 5 of Appendix D illustrates those activities which automatically require a MEER, or a detailed Municipal Environmental Evaluation Report as outlined in the Official Plan.

- Automatic **Exclusion**
  If a proposal is not automatically included under the Process, it must be determined if it is excluded from further evaluation on the basis that it is predetermined that the activity will have no significant effect on the environment. Page 5 of Appendix D outlines the exclusion list. These are typically activities which are either routine, already assessed under another program. or without significant impacts, such as administration and personnel services.

- **Environmental** Impact **Checklist**
  If the project is not automatically included. or automatically excluded, the project manager must complete the Environmental Impact Checklist, as illustnted on pages 4 and 5 of Appendix G. This form asks the reviewer to indicate the degree of significance the proposed activities may have on certain aspects of the environment. Again. the process is self-assessment, and should require no special expertise, or outside staff. Regular use of this process will have an enormous educational function, for City staff. elected representatives, and the development community as well as the public. The Federal Environmental Assessment Review Office provides training in this respect, and workshops are to be arranged to provide some basic training for those who may be involved.

- **Mitigation**
  The final draft of MEEP includes a 25 page appendix. called 'Guidelines to the Environmental Impact Checklist and Mitigation Methods,' which is designed to help reviewers determine what activities are associated with common proposals, what the potential impacts associated with these impacts ate, and possible mitigative and compensatory measures for each of the environmental components listed. For example, Appendix F demonstrates how this appendix will function for the soils component.

- **Municipal Environmental** Evaluation Report
  A MEER is a more detailed environmental report, which is required for certain areas within the City, (as per page 5 of Appendix D) and for those activities which have received a screening code of 3. indicating they have significance or unknown impacts, **and/or, unknown mitigation, during an initial evaluation. These may require professional environmental expertise.**

Source: City of Ottawa, (1992). City of Ottawa Municipal Environmental Evaluation Process (MEEP). Environmental Management Branch, Department of Engineering and Works.

staff then met with departmental representatives to work out the details of MEEP. This phase served to formalize guidelines and disseminate information across the City. It also determined that flexibility, and the ability to adapt these procedures to individual activities, is an essential premise of any MEA process.

The legal implications of MEEP were a major issue during the development of the process. In particular the mandate of the City to require MEEP for both public and private activities was at issue from both internal and external sources. To this end, the Legal Department was asked to review and comment on the City's authority to implement MEEP for Departmental purposes as well as for private proposals. The response to these questions was in favour of the prescribed approach, under review of the Planning Act and the Environmental Protection Act. Excerpts to this effect are included in Appendix E.

3.4. THE BARRIERS

MEEP has elicited a significant amount of controversy from the development community, as well as from internal staff and elected officials. An article in the Ottawa Citizen (Dec. 1991) reflects this attitude from the development community. 'The development approval process in Ottawa is already lengthy . . . environmental assessments could make the process considerably longer" (Business owners and Management Association). "Environmental issues are already addressed in the current approval process" John Oliver, of Oliver, Mangione McCaila Associates (Ottawa Citizen, Dec. 1991). These issues remain largely unresolved.

In addition to the private-public debate, other controversy of a political, economic and administrative nature exists. The timing of MEEP development has been less than ideal for political reasons as well as economic ones. A municipal election held in the fall of 1991 replaced many of the members of Council who had originally approved the Official Plan, and MEEP, including most notably the Mayor. The new Mayor has taken the position that environmental management should be a regional issue, overseen by the RMOC. The resulting lack of coordination and direction at the political and Department Head level has filtered down into staff attitudes and perceptions. The staff of the Environmental Management Branch remain seconded from other departments, with their mandate largely undefined and are unable to set long term goals. Staff from

other departments are less than willing to, perhaps, waste their time developing a process which may never be implemented or may be changed into a lesser being. These problems are complicated further by economic ones. Economically, the proposal for MEEP could probably not have happened at a worse time. The decrease in provincial transfer payments in 1992 together with frozen tax hikes meant no funding for any new programs at the City of Ottawa. A final issue here is the original placement of the responsibility for MEEP. The Environmental Management Branch was attached, from the beginning, to the Department of Engineering and Works. The rationale for this decision is unclear as the development of MEEP appears tied much more closely to Planning than to Engineering. Perhaps if the Branch had been attached to the Planning and Development Department, or to the CAO's office, many of these coordination, legitimation and administration problems could have been avoided.

The Municipal Environmental Evaluation Process (MEEP) is currently in final draft format. Once Council approval of the draft procedures and guidelines is obtained, an extensive public consultation will be carried out. This exercise will provide the development community, City staff and the general public a means to provide input; it will also determine the training requirements and an implementation schedule. A final process will then be devised and, once approved, will be implemented for all City of Ottawa activities. After a sufficient trial period, MEEP will be applied to private sector development proposals. Approval of the draft procedures is expected in the summer of 1992, with public consultation taking place in the fall. Implementation for City works is likely in early 1993 (Harper, K. 1992, personal communication).

CHAPTER FOUR - ANALYSIS:

A FRAMEWORK FOR MUNICIPAL ENVIRONMENTAL ASSESSMENT

This research has attempted to build a case for the development and implementation of environmental assessment procedures for municipal activities. This chapter synthesizes the conceptual and practical frameworks into a general working framework for municipal environmental assessment. This section reviews the barriers to MEA, together with proposed or applied solutions, with a view to recommending ways in which these obstacles can be overcome and/or circumvented.

4.1. ANALYSIS OF BARRIERS **AND SOLUTIONS TO MUNICIPAL ENVIRONMENTAL ASSESSMENT**

The factors which work against a successful MEA program are largely those of an economic, political, attitudinal and procedural nature. These can be further broken down into structural and functional barriers. The structural barriers are those larger issues pertaining to the nature of the existing frameworks which guide municipal management and environmental assessment. These include jurisdictional authority for the application of MEA to private and public proposals, and the nature of municipal politics and management styles. The functional barriers stem from these structural problems but pertain more specifically to characteristics of the MEA process itself. These include issues of funding and trained expertise, compatibility of the development control and public participation procedures. These are discussed below in the context of the conditions necessary for a successful MEA strategy.

4.2. **STRUCTURAL BARRIERS**

4.2.1. MUNICIPAL AUTHORITY TO IMPLEMENT MEA

The jurisdictional authority, or the mandate, of a municipality to require environmental assessment of activities, is a central issue underlying many of the barriers to MEA. The case study suggested that both private and public officials alike site authority as a problem in implementing MEA. The discussion in Chapter

Two, of the Planning Act and the Municipal Act, as well as the review of successful MEA programs across Canada, indicate that this may be a perceived obstacle rather than a real one. Not only do municipalities have the authority to implement programs to safeguard the environment, they may soon be required to do so, according to U.S. trends (Corrie, 1988). Furthermore, as stated in the current recommendations of the Seweil Commission: "the principles of environmental assessment can be built into municipal policies and the local planning process" (Silversides, 1992, p.12). Almost exclusively, the legislative vehicle for the implementation of MEA is the municipal or official plan, which **governs** the long range planning of a municipality, under the authority of the Ontario Planning Act. Official Plans are reviewed, however, on a very infrequent basis, typically every 10 to 25 years. This research has shown that several cities, including Ottawa, Fredricton and Kitchener, which have recently developed new official plans, tend to include environmental management policies such as MEA within them. Thus, cities which have not reviewed their official plans recently and do not plan to do so in the near future, will have to use other means to implement and enforce MEA. **The City of Edmonton's use of a by-law is an interesting solution to this problem, and is certainly an option for Ontario municipalities as well, if Official Plan** review or amendments to an Official Plan are not forthcoming.

The uncertainty related to MEA legislative authority is largely associated with the lack of provincial direction in this area. Although States in the U.S. direct **local** environmental assessment, no province in Canada has policy related to MEA and most take a fairly hands off approach to any new environmental initiatives undertaken by municipalities. Provincial policy directing the development and implementation of MEA would reduce many of the associated barriers.

4.2.2. MUNICIPAL POLITICAL STRUCTURE

In Ontario, municipal politicians are elected every three years without the basis of party affiliation. Therefore, long term planning is quite often a problem, as "councils tend to focus on the immediate pay off. Long range plans do not have political pay offs, yet they are the keystone of effective governance" (Bernard, 1985, p.284). The case of the City of Ottawa demonstrates the example of a new council having different

objectives with regard to environmental problems than a previous one. Although this problem can be viewed as one of the most unmitigable barriers to MEA, again the solution can be found in incorporating MEA into Official Plans, corporate prioriiies and other long-term planning instruments. In this manner, councils may change and approaches may change, but the basic long term goals remain intact.

4.2.3. MUNICIPAL MANAGEMENT STRUCTURE

The structure of municipal management is another related barrier to MEA. Municipal structure is inherently hierarchical, characterized by top-down management, and as such is often cited as one of the leading problems in efficient environmentai management at the local level (Davies, 1991). One of the consequences of this type of structure is that it encourages vertical, top-down power relationships, as opposed to horizontal, cooperative relationships. This form of organizational structure is prone to fragmentation and creates difficulties in coordinated approaches to municipal operation (Tindal, 1982, p.39; Turland, 1989, p.4). Thus, current municipal organization does not encourage the interdepartmental collaboration necessary to deal with issues of the environment, where 'everything is related to everything else'.

The solution to this problem is found partially in the Chief Administrative Officer (CAO) approach to municipal management, which provides a link on broad ranging issues spanning all departments such as human rights, social planning, etc. It is the contention of this research that the environment is another such issue requiring a coordinated, multifaceted approach. ideally, the environmental management branch, or its equivalent should be located in the CAO's office in the case where it exists, and in the Planning Department, where it does not, in order to create the management structure necessary for MEA. Interdepartmental committees on the environment, environmental advisory committees and citizens groups may also assist in the environmental management restructuring of municipalities.

4.3. FUNCTIONAL BARRIERS

4.3.1. FINANCIAL RESOURCES

Perhaps the most commonly cited barrier to MEA, and indeed to any proposed or ongoing municipal environmental management strategy, is that of resources, specifically including issues of funding and trained personnel (Davies, 1992; W.C.E.D., **1987; Rees** and Roseland, 1991; Hardy, 1991; Tomalty and Hendler, 1991; Gov't of Ontario, 1989). The funding issue is inherently connected with the jurisdictional issue. Funding for any new program is indeed a problem. However, as the case study has illustrated, because EA procedures are readily adaptable to the current public participation process and development control process, set up costs should be minimal. The self-assessment principle and the checklist approach to assessing impacts also incur **little additional cost.** For example, the City of Ottawa's process is expected to exclude or mitigate approximately 85% of activities, and approximately 10% will undergo a simple process, costing less than $5,000 (Ottawa Citizen, 1991). Significant cost to the proponent, public or private, will then only occur in the case that an activity is screened and deemed to have additional unknown or significant impacts to the environment, and therefore requires a full scale report. Again, in the case of the City of Ottawa, "fewer than 1 project in 1000 is likely to encounter costs of more than $5,000, (Ottawa Citizen, 1991). When this cost is weighed against the costs of not evaluating municipal activities, is appears small. For example, in one city a large scale construction project on a particular development site was proposed without mitigating measures proposed for a stream which traversed the site. This caused the MOE to require an expensive environmental report on the entire project, which could otherwise been avoided if the city had included mitigating measures in its plans from the beginning. No one can claim that environmental planning and management incurs no cost. Increasingly however, the cost for failing to take the environment into account is higher than doing so, in terms of dollars and in terms of human and environmental health. Furthermore, because the municipality has the mechanisms already in place, EA at the municipal level appears to be a cost-effective approach to environmental management.

4.3.2. STAFFING RESOURCES

Two separate surveys inventorying municipal environmental management and sustainable development indicated that 26 out of 26 municipalities have staff and initiatives to deal with issues of the environment (Maclaren, 1992; Davies, 1991). Therefore, it could be argued that municipalities can and will obtain the required expertise in time. As indicated previously, training programs regarding EA are available from FEAR0 and various consulting agencies. While it is unavoidable that some work may have to be sent out to consultants in the short term, the importance of formulating hiring policies for in-house environmental specialists can not be overemphasized. In-house expertise improves the coordination of long term information gathering which has implications for dealing with cumulative impacts, and it provides city councils with on-hand expert advice with a sensitivity to a community's needs (Turland, 1989). If municipalities are ever to become local managers of local resources in a cost effective manner, expertise must be retained in-house. It should also be noted that solid MEA guidelines and training programs can easily retrain current personnel to undertake the initial evaluation procedures.

4.3.3. DEVELOPMENT CONTROL

Inherent in the argument that MEA will complicate the existing development approval procedure and create further delay is the widely held opinion that current development control procedures in Ontario are out of hand. MEA is not yet another approval mechanism, but rather a means to synthesize information and provide continuity to the current approval mechanisms while ensuring the activity is not degrading the environment. In her survey of Canadian Municipalities, V. Maclaren lists 15 separate initiatives, undertaken in different cities related to requirements for new developments alone (1992, p.9), many of which could be provided for by a single MEA procedure. This research contends that MEA can combine and streamline the current planning approvals process and provide continuity between planning and approval.

An evaluation of environment-related concerns is one of many requirements of development control, including the granting of a building permit, site plan approval, rezonings, subdivision approval, etc. This approach is commensurate with ecosystem planning concepts which view the environment as one of, and

part of, many factors involved in the approval of an activii by standing committees, committee of adjustment and/or city council. This implies that in a successful MEA program, environmental considerations must become one part of a multifaceted decision making procedure. Therefore, an environmental evaluation should not be a means of approval or disapproval of any development related or other activity. Rather, MEA procedures incorporate EA reviews and approvals into the already established development control procedures. This means that all EA reports become part of the development application to be assessed and prioritized along with the many other issues involved in development approval, such as site plan approval, zoning changes, aesthetics and design, and financial implications, among others. The example provided by the City of Winnipeg demonstrates that environmental assessment procedures which are unduly complicated and lengthy, are not viable. In Winnipeg, separate public participation procedures were developed independently, which served to lengthen and complicate the development review process. As a result the EA program itself became unacceptable. Environmental considerations must become a formal part of municipal decision making and be integrated into existing structures as such.

4.3.4. ADAPTABILITY AND FLEXIBILITY OF MEA

The cities which have successful EA programs appear to have different procedures to suit different purposes. The City of Edmonton, for example uses one process for specific activities on specific lands as well as a more generally applicable EA process. The City of St. John's uses one process for very large scale developments and another for ESA's. A Conservation Plan, or a type of enforcement mechanism is used to implement both programmes. It would appear then, that MEA should not be designed as one general program in an attempt to be all things for all local environments, such as could be said of the federal or provincial program. Municipal requirements for such a process are specific and localized and may require variations to accomplish specific objectives.

4.3.5. PUBLIC PARTICIPATION

Public participation and community input were cited by most municipalities as central impetus for the development and implementation of an MEA process (Maclaren, **1992, p.31).** Public participation is an important part of all planning and decision making processes, and perhaps none as much so as that pertaining to the environment. Federal and provincial environmental assessment policies include extensive processes for public review, and these procedures are widely proclaimed as the most expensive part of any EA process (A.M.O. 1984). However, public participation features of MEA are again built into the current municipal process and should require no new mechanisms. Most municipalities have public participation policies that require all activities and development proposals to actively solicit public participation through public meetings, written submissions, etc. Furthermore, most standing committee and council meetings are public, and often incur lively debate among elected representatives, staff as well as interest groups and the general public. Because MEA is one part of a multifaceted decision making structure, and should be integrated as such in order to be effective, it is not required that any new public participation policies focused specifically on environmental issues be implemented. Rather, environmental concerns of a proposal, reviewed and documented through MEA, can be addressed through normal public participation means within the municipality.

4.4. A FRAMEWORK FOR MEA - SPECIFIC CHARACTERISTICS

The purpose of this final section is to propose a general framework for the application of EA to municipal activities. Any framework for this approach must be general because, as indicated above, the **process must be flexible and adaptable to varying local conditions and concerns.**

Any MEA process should first ask what types of activities should be screened for environmental consequences. The examples of the federal and provincial processes, together with the compatibility of the municipal development control process, demonstrate that the ideal answer to this question is all activities. Municipal development control/EA can incorporate both private and public activities, operation and maintenance activities, capital projects as well as rezonings, minor variances, subdivisions, etc. All activities

which require Council approval and/or funding should undergo screening for environmental impacts. For operation and maintenance activities, this could be undertaken by budget line item, or on a "class assessment" basis. An alternative is to designate certain lands within the City, which may be environmentally sensitive, on which any activity requires MEA. However, this approach is not in line with the concept of ecosystem planning, which points out that everything is related to everything else, and consequently, the environmental degradation of one site, due to bad planning can have consequences for adjacent or distant sites which are to be protected. Another alternative is to screen only certain projects, which are deemed significant enough to warrant concern. This has largely been the procedure of the Provincial government, which does little to account for cumulative on-going impacts. Therefore, ideally, all activities should be screened and recorded for monitoring purposes by any MEA process.

Having said this, a method to streamline the process, and to exclude activities which have been determined to have no significant impact on the environment, is to develop a list which excludes particular activities from further evaluation. Based on an examination of municipal activities, this list should be fairly general, and include items such as administrative and personnel services, and activities which are already subject to a more senior EA process (See "Determining What Actions Should Appear on Exclusion Lists, FEARO, 1990). As activities are screened through the years and determined to have no significant impacts, items may be added to the list. Mechanisms for monitoring excluded proposals should be included.

If an item is not excluded from further evaluation, the project manager or proponent should perform an initial evaluation on the activity, which could consist of a simple checklist in which the reviewer would evaluate the current environment together with proposed activities and indicate the level of significance of impact and any mitigation measures available. Pilot projects and training programs should be implemented to help train those involved and maintain consistency **in evaluation techniques.** This initial evaluation could result in one of three outcomes. It could be determined there are no significant impacts, in which case this activity could be considered for the exclusion list; it could be determined that any significant impacts can be mitigated by changing plans; or it could be determined that significant or unknown impacts exist, and

therefore that a full scale environmental report should be prepared by someone with the necessary expertise. This outcome would be coded (1, 2, or 3) and the evaluation would accompany the activity proposal to development control, or to council approval. In this manner, the environmental concerns of an activity are evaluated, and registered, to the best of the reviewer's ability. Accordingly plans may be altered and decisions may be made which cause less harm to the environment than would have occurred if no one had to think about these issues. An example of a completed initial evaluation under MEEP is included as Appendix G.

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

This research has provided a rationale for the development and implementation of environmental assessment procedures to municipal undertakings, inventoried its nature and extent, and studied the barriers to, and conditions necessary for, MEA in Canadian municipalities. A general framework for MEA, based on this has been provided. The rationale for this process is contained in the argument that environmental assessment is the primary environmental planning and management tool in Canada and is currently being strengthened through such agents as the W.C.E.D, Bill C-13, and the Commission on Planning and Development Reform in Ontario. Further this research has illustrated that cities, commensurate with their nature and role in Canada, have environmental impacts which are left unassessed by existing EA procedures. This research contends that the solution to this problem lies in the application of EA to municipal activities through existing development control procedures. This approach could easily provide the context and continuity current EA and development control procedures lack, and provide for the local assessment of both public and private activities.

Chapter Three synthesized material from two independent surveys to note that, of a total of 26 surveyed, eight municipalities have formal MEA processes, 13 have “other” MEA processes, and all have some sort of environmental initiatives. From this the conditions necessary for a successful MEA process were identified, which included legislative authority, from either an Official Plan or by-law; effective assimilation and adaption of the process into existing development review procedures, so as not to further complicate the private and/or public development review procedure; a flexible, adaptable procedure, to be developed by each municipality according to its particular environmental and structural components; staff expertise, and/or the use of citizen advisory committees or other agencies for input on environmental impacts; and provincial direction. A case study of the City of Ottawa’s Municipal Environmental Evaluation Process expanded on the technical and procedural requirements of such a process as well as the attitudinal and political implications of this process. Chapter Four has synthesized this material to outline the barriers

and solutions to MEA in Canada, and to propose a general framework for the development and implementation of MEA.

CONCLUSIONS

Municipal environmental assessment is a relatively new concept among Canadian municipalities, which has yet to be comprehensively and consistently applied in any city. Increasingly however, municipal governments are called upon by the public, various interest groups, as well as other levels of government to be environmentally accountable for their decision making. In addition, municipalities are currently facing important local planning issues, made even more significant due to environmental considerations. Municipal environmental evaluation is not designed to make things more difficult or time consuming. It is simply a means of documenting environmentally sound planning practices in order to provide accountable, environmentally responsible decision making, before costly financial and political decisions are made. MEA provides a means of formalizing many of the procedures already in practice at the local level.

There will always be sceptics to this approach, which are endemic to the national and global attempts to protect the environment. If a municipal environmental assessment process such as MEEP does what it is ultimately supposed to do, which is promote and sustain environmentally responsible planning of local activities then it may continue to be perceived as a process with no tangible product. It must be understood that the product is, in fact, is a clean, healthy, livable urban environment, in which cities contribute their share in the drive toward global sustainablity. In conjunction with its planning implications, MEA is a tool of education about the impact of human activity on the environment. It is a means through which decision makers, project planners, developers and the general public will learn and appreciate how their activities impact their personal environment, and what they can do to mitigate these making their environment more enjoyable and livable.

Sustainable urban development has been defined as

> the continuing maintenance, adaption, renewal and development of a city's physical structure and systems and its economic base in such a way as to enable it to provide a satisfactory human environment with minimal demands on resources and minimal adverse effects on the natural environment (N. Richardson, in Maclaren, 1992, p.2)

Furthermore, in a recent study which asked municipal practitioners to define sustainable urban development, the **most** common theme appearing was the need to minimize or eliminate damage caused to the environment by development (Maclaren, 1992, p.7). For the reasons outlined in this paper, this research submits that the adoption of municipal environmental assessment, in policy and in process, is an effective means to achieve this end.

To this end, future research on this topic should focus on how MEA can be integrated into senior governmental policy so as to provide provincial and national direction for this approach without compromising the necessary flexibility of individual MEA processes. Future research should also test the contentions of this research by studying those municipalities which have used MEA for a number of years to delineate specifically how approvals process and the environment have benefiied from this approach.

REFERENCES

REFERENCES

Association of Municipalities of Ontario (A.M.O.). 1984. The Ontario Environmental Assessment Act and Its Cost Impact on Municipalities. Ministry of Municipal Affairs and Housing: Toronto.

Babbie, E. (1983). The Practice of Social Research. (3rd. ed.) Wadsworth Publishing Co.: Belmont California.

Beanlands, G.E., and Duinker, P.N. (1983). An Ecological Framework for Environmental Impact Assessment in Canada. Institute for Resource and Environmental Studies, Dalhousie University: Halifax.

Bernard, G.S. (1985). "Era of Change: Implications for City Management." in Municipal World. May 1985. pp. 284-285.

Canadian Institute of Planners (C.I.P.). (1998). Reflections on Sustainable Plannina. A discussion paper based on a workshop held in Montreal. Sept. 7-9.

Charest, J. (1991). In a speech from the Minister of Environment to the legislative committee on Bill C-13. Oct. 1991.

Christie, W.J. "A Perspective on the Application of Environmentally Sustainable Economic Development by the Government of Ontario". Unpublished document.

Citizen's Greenprint Committee of Ottawa-Carleton. (1998). The Ottawa-Carleton Greenprint. RMOC: Ottawa.

City of New York. (1991). City Environmental Quality Review: Interim Environmental Assessment Statement. New York.

City of Ottawa. (1988). Ottawa: Its City Government. Ottawa.

City of Ottawa, Community Planning Branch. (1989). Information Update #3: Review of Growth Trends - City of Ottawa and Surroundina Reaion. Ottawa.

City of Ottawa, Community Planning Branch. (1998). Central Area Buildina Heiahts: Views and Vistas Study. Resource Paper #4: Central Area Development Capacity Analysis (CADCA): Ottawa.

City of Ottawa, Department of Recreation and Culture. (1990). Beaches Study. Ottawa.

City of Ottawa. (1991). Citv of Ottawa Official Plan: A Vision for Ottawa. Ottawa.

City of Ottawa, Departments of Engineering and Works and Planning and Development. (1991). MEEP: Proposed Guidelines for City and Private Sector Development Applications Summary Document - The Process at a Glance. Ottawa.

City of Ottawa, Environmental Management Branch. (1991). City of Ottawa Environmental Conservation and Manaaement Strateav. Approved by City Council Oct. 16, 1991.

City of Ottawa, Environmental Management Branch. (1992). The Citv of Ottawa Municipal Environmental Evaluation Process (MEEP). DRAFT. Ottawa.

Corrie, P. (1986). "An Assessment of the Role of Local Government in Environmental Regulation." in UCLA Journal of Environmental Law and Policy. Vol. 5(145). pp.145165.

Couch, W.J. (ed.) (1988). Environmental Assessment in Canada: 1988 Summarv of Current Practice. CCREM: Ottawa.

Couch, W.J. (1990). Determinina What Actions Should Appear on Exclusion Lists. Federal Environmental Assessment and Review Office: Ottawa.

Crowder, A., and Hendler, S. (1990). "Municipalities and the Environment - A One-Year Feasibility Study." A research proposal granted to Queen's University (June 1991) from the Ministry of Environment, Ontario.

Dare, P. (1992). "Forever in Tranquil? Not in the Greenbelt." An article appearing in the Ottawa Citizen, June 6, 1992. pp.A1-A2.

Davies, K. (1991 a). The Role of Environmental Considerations in Municipal Decision Makina in Canada and Some Preliminarv Comments on Municipalities and the Proposed Canadian Environmental Assessment Act (Bill C-13). A Paper Prepared by Ecosystems Consulting Ltd. for the Federal Environmental Assessment and Review Office: Ottawa.

Davies, K. (1991 b). Municipal Environmental Assessment Processes of Canadian Cities. A Paper Prepared by Ecosystems Consulting Ltd. for the Department of Engineering and Works, City of Ottawa: Ottawa.

Dorney, R.S. (1991). The Professional Practice of Environmental Manaaement. L.S. Dorney, (ed). Springer-Verlag: New York.

Eade, R. **(1991).** "Ottawa's Master Plan for the 21st Century." An article appearing **in the Ottawa Citizen,** April 6, 1991, pp.B5.

Farrow, **J. (1991). "Management Accountability for the Environment." in Ontario Planning Journal. Vol. 6(2). p.21.**

Gertler, L., and Tyler, M. **(1989).** The State of Canada's Urban Environment. A Paper Prepared for the State of the Environment Reporting Branch, Canadian Wildlife Service, Environment Canada: Ottawa.

Government of Ontario. (1969). Reformina Our Land Use and Development Svstem. A leaked government document. Photocopies available from the Canadian Environmental Law Association: Toronto. **27 pages.**

Hardy, D. (1991). "Maclaren Takes Pulse of Sustainable Urban Development Initiatives." in Ontario Planning Journal, **Vol. 6(5).** .

Harper, K. (Personal Communication, **1991-I 992).** Environmental Management Branch, Department of Engineering and Works, City of Ottawa.

Hawker, K. (Personal Communication, **1991).** Ministry of Environment, Ontatio. Environmental Assessment Division.

Holtz, S. (1999). "Environmental Assessment and Sustainable Development: Exploring the Relationship." in Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future. Jacobs and Sadler (eds). CEARC: Ottawa.

Kiernan, M.J. **(1990).** "Urban Planning in Canada: A Synopsis and Some Future Directions." in Plan Canada, Vol. 30(1).

Kirby, G.M. **(1991).** "The Greening of Policy." in Green Cities: Visionina a More Livable Habitat. University of Waterloo School of Urban and Regional Planning. Working Paper Series #28.

List, R.G. **(1990).** Svstems Planning and the Environment. R.G. List Planning Ltd.

Maclaren, V. **(1992a).** Sustainable Urban Development in Canada: From Concept to Practice. Volume I: Summary Report. On permission from ICURR Press: Toronto.

Maclaren, V. (1992b). Sustainable Urban Development in Canada: From Concept to Practice. Volume III: Compendium of Initiatives. On permission from ICURR Press: Toronto.

Magazine, A. (1977). Environmental Manaaement in Local Government: A Studv of Local Response to Federal Mandate. Praeger Publishers: New York.

Millyard, K. (1991). A Preliminarv Carbon Dioxide Inventory for the Cl of Ottawa. Prepared on behalf of Friends of the Earth Climate Change and Energy Program for the Engineering and Works Department, City of Ottawa: Ottawa.

Ministry of Government Services, Ont. (M.G.S.) (1991). Parent Class Environmental Assessment Process for M.G.S. Realtv Group Activities. M.G.S.: Toronto.

National Capital Commission (N.C.C.). (1990). Environmental Assessment Review: Preliminarv Document. N.C.C.: Ottawa

Needham, R. (Personal Communication, 1990). Professor of Geography, University of Ottawa.

O.E.C.D. (1991). New Environmental Policies for Cities: The Role of Cities in Sustainable Development. O.E.C.D.: Paris.

Ontario Environmental Assessment Advisory Committee. (1989). The Adequacy of Existina Environmental Planning Approvals Process for the Ganaraska Watershed. Report # 38 to the Minister.

Poch, H. (1989). Corporate and Municipal Environmental Law. Carswell: Toronto.

Rees, W.E., and Roseland, M. (1991). "Sustainable Communities: Planning for the 21st Century." in Plan Canada. Vol. 31(3). - 25 .

Regional Municipality of Ottawa-Carleton (RMOC). (1991). State of Environment Report: An Environmental Health Perspective. Ottawa-Carleton Health Department: Ottawa.

Richardson, N. (1989). Land Use Planning and Sustainable Development in Canada. Canadian Environmental Advisory Council: Ottawa.

Sadler, B., and Jacobs, P. (1990a). "A Key to Tomorrow: On the Relationship between Environmental Assessment and Sustainable Development." in Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future. Sadler and Jacobs,(eds). CEARC: Ottawa.

Sadler, B., and Jacobs, P. (1990b). "Conclusions and Recommendations on Further Direction for Research and Development in Sustainable Development and Environmental Assessment," in Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future. Sadler and Jacobs,(eds). CEARC: Ottawa.

Silversides, A. (1992). "Reforming the Planning Process: A Summary of Proposals for Reform." in New Planning News. Commission on Planning and Development Reform in Ontario. Vol. 2(2).

Tindal, R.S. (1982). You and Your Local Government. Ontario Municipal Management Development Board: Toronto.

Tomalty, R. (1989). "Is Sustainable Development Sustainable?" A Master's Degree Project submitted to Queen's University School of Public Administration.

Tomalty, R. and Hendler, S. (1991). "Green Planning: Striving Toward Sustainable Development in Ontario Municipalities." in Plan Canada. Vol. 31(3). pp.27-32.

Turland, R.S. (1989). "Municipal Organizations and Environmental Assessment in Ontario: Challenges and Opportunities." A Report Prepared for CEARC: Faculty of Environmental Design, University of Calgary: Calgary.

Vigod, T. (1990). "Is Anybody Planning for the Environment?" in Ontario Planning Journal. Vol. 5(2). pp. 4-5.

Willms, J.R. (1990). "Environmental Planning: Conflicting Initiatives." in Municipal World. Vol. 100(5).

World Commission on Environment and Development (W.C.E.D.). (1987). Our Common Future. Oxford University Press: Oxford.

..... (1991). "Ottawa Call for Environment Studies Upsets Builders." An article appearing in the Ottawa Citizen, Dec. 12, 1991.

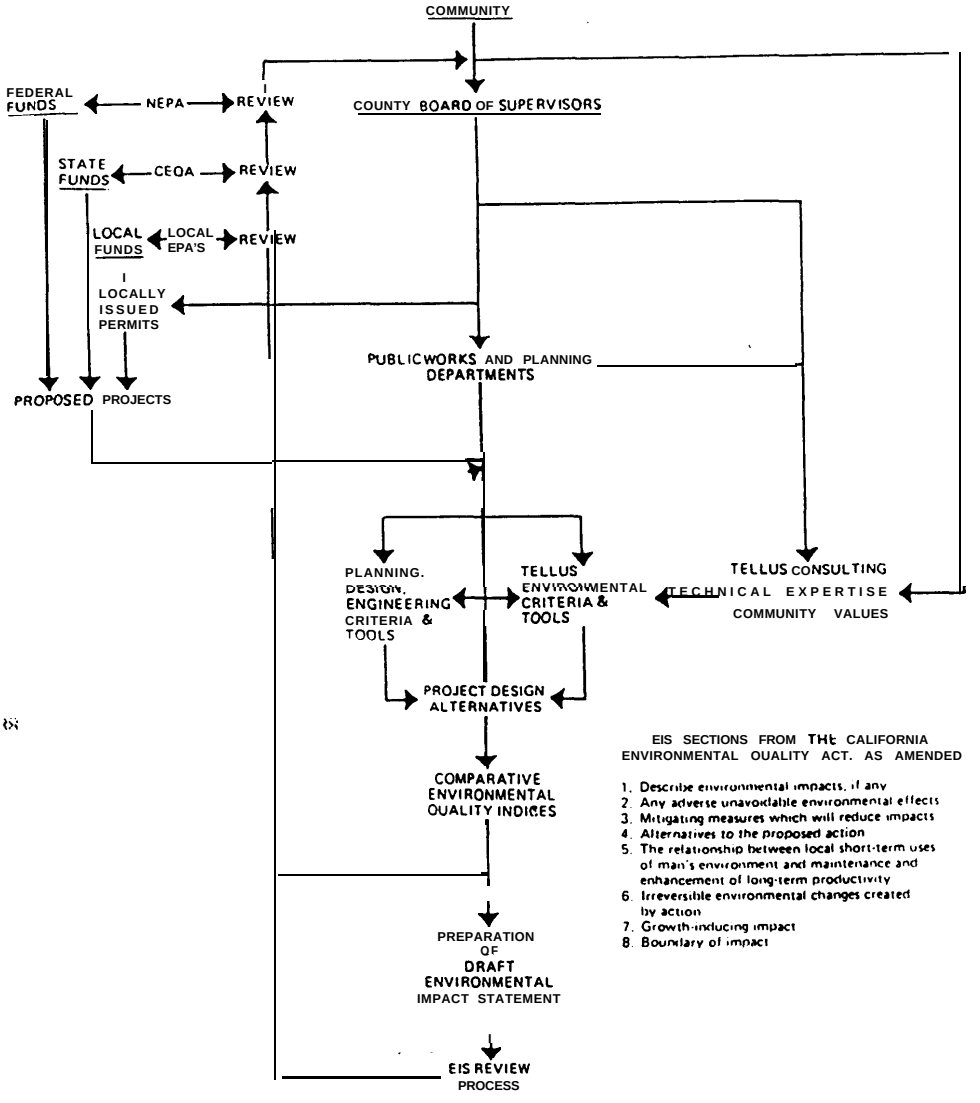
..... (1992). "Ministry of Environment Moves to Enlarge EA Process." in Ontario Planning Journal. Vol.7(1). pp.27.

APPENDIX A

APPENDIX A:

STATE OF CALIFORNIA

Local Environmental impact Statement Review Process



Source: ***TELLUS:*** *A Computer-Aided Environmental Impact Assessment Methodology* (San Jose, Calif.: George S. Nolte, 1974).

FROM: **MAGAZINE, A. (1977).**

APPENDIX B

APPENDIX B:

MUNICIPAL ENVIRONMENTAL ASSESSMENT INVENTORY

MUNICIPALITY	USE OF ENVIRONMENTAL ASSESSMENT	
	FORMAL	OTHER
VICTORIA	NO	NO
VANCOUVER	NO	YES
BURNABY	NO	YES
WHITEHORSE	NO	YES
EDMONTON	YES	NO
CALGARY	NO	YES
REGINA	NO	YES
WINNIPEG	YES (DISCONTINUED)	YES
WATERLOO	NO	YES
IUTCHENER	YES	NO
GUELPH	YES	NO
PETERBOROUGH	NO	NO
TORONTO	NO	YES
OTTAWA	YES	NO
LAVAL	NO	YES
MONTREAL	NO	YES
LASALLE	NO	YES
SHERBROOKE	NO	NO
QUEBEC CITY	NO	NO
FREDRICTON	DEVELOPED	NO
CHARLOTTETOWN	NO	YES
HALIFAX	YES	YES
DARTMOUTH	NO	NO
ST. JOHN'S	YES	NO
WHITEHORSE	NO	NO
YELLOWKNIFE	NO	NO
TOTAL	**8**	**13**

Source: Compiled from Davies, 1991; and Maclaren, 1992.

APPENDIX C

6.20 Municipal Environmental Evaluation

6.20.1 Objectives

MINIMIZE ADVERSE IMPACTS

a) To prevent or minimize adverse impacts of a proposed development, land use or activity **on the environment.**

ASCERTAIN IMPACT

b) To ascertain the potential impact on the environment of a proposed development

ENSURE MITIGATING MEASURES

c) To ensure the undertaking of measures that minimize or eliminate the **potential adverse impacts (mitigating measures) on the environment resulting from a** project or activity.

6.20.2 Policies

M.E.E.R. REQUIRED

a) City Council shall require a Municipal **Environmental** Evaluation Report as the basis for assessing development proposals within the Greenway System, including those areas designated Environmentally Sensitive Area, Waterway Corridor, Linkage, Major Open Space, and contaminated sites and existing pits and quarries; and for any proposed waste management **facility and snow disposal site.**

ADDITIONAL SITES

b) **City Council may also require a** Municipal **Environmental** Evaluation Report as **the basis for assessing development proposals,** which have **not been identified as per Policy a) above; but where it appears that the** proposal may **have the potential to adversely effect the environment** and/or the **health and safety of the citizens.** In this regard:

ESTABLISH SCREENING PROCESS

i) City Council shall establish a screening process for development or planning proposals, as the basis to determine, upon receipt of the development application, the need for a Municipal Environmental Evaluation Report; and

ii) all development that is the subject of secondary planning, including a zoning, official plan, subdivision, condominium or site plan approval process shall be subject to the aforementioned screening procedure and, upon determination, may be required to submit a Municipal Environmental Evaluation Report.

EVALUATE AS PART OF ESTABLISHED APPROVAL PROCESS

c) City Council shall evaluate the Municipal Environmental Evaluation Report as part of the established approval procedure for development applications, as amended from time-to-time, and shall not be the subject of an independent decision-making process (i.e., the report shall form part of the background information to the application as in the case of a transportation study or a marketing report).

INSTRUCTIONS TO GUIDE EVALUATION

d) City Council shall prepare and implement, as a priority, detailed instructions to guide the preparation of the Municipal Environmental Evaluation Report. In the interim, City Council shall require that the Municipal Environmental Evaluation Report **submitted must include, but not be limited to, the following:**

i) **a description of the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly;**

ii) **the effects that will be caused or that might reasonably be expected to be caused to the environment; and**

iii) **the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy and monitor the effects upon or the effects that might reasonably be expected upon the environment, by the proposed development.**

M.E.E.R. NOT REQUIRED

e) City Council shall not require a Municipal Environmental Evaluation Report as the basis for assessing a development proposal as outlined **above, where the subject undertaking is already subject to a federal or provincial environmental impact assessment** process, provided such report satisfactorily **addresses those** environmental matters of municipal interest.

APPENDIX D

APPENDIX **D:**

MUNICIPAL ENVIRONMENTAL EVALUATION PROCESS (MEEP)

Proposed Guidelines for City and Private Sector Development Applications

Summary Document: The Process at a Glance

Prepared By The
Departments
Of
Engineering and Works and Planning and Development

Municipal Environmental Evaluation Process (KEEP)

Summary Discussion: The Process at a Glance

1.0 Introduction

The following provides excerpts from the proposed guidelines report for the Municipal Environmental Evaluation Process (MEEP). The Process is presented in a step-by-step chart form for easy reference.

1.1 Why Municipal Environmental Evaluation?

Urban development has traditionally been characterized by the dominant perception that human settlements are somehow detached from their resource base and the imperatives of sustainable development (Jacobs, 1988). Increasingly, municipal government is called upon by the public, various interest groups, as well as other levels of government to be environmentally accountable in its decision making. Therefore, municipal government is currently facing important local planning issues that are made even more significant due to environmental considerations.

As a means of addressing not only local planning issues, but also the environmental considerations of them, the City of Ottawa's 1991 Council approved Official Plan outlines the idea of environmental evaluation at the municipal level as a means of assessing the potential adverse impacts on the environment of both Civic and private sector development. The City of Ottawa is the first municipality in Ontario to propose a comprehensive environmental evaluation process to be integrated into the already established development review procedure.

1.2 What is the Municipal Environmental Evaluation Process (MEEP)?

The Municipal Environmental Evaluation Process (MEEP) has been designed to ensure that potentially adverse impacts on the biophysical and-socio-economic components of the environment are considered in a comprehensive and consistent manner in the planning and implementation of public and private sector undertakings within the City of Ottawa. The Process will provide a mechanism which can respond to a wide variety of impacts consistently and efficiently and is designed to be accommodated within the already existing approvals procedure so as not to create any undue delays in the municipal development control process.

1.3 Operating Principles of MEEP

The Process has a number of founding principles upon which its implementation and operation are based. The principles include the following:

1.3.1 MEEP will conserve and protect the natural environment within the City of Ottawa, including it's land, air, and water;

1.3.2 MEEP will ensure those lands with significant environmental value are considered for protection or mitigation in project development;

1.3.3 MEEP is a self-assessment tool designed to enable project managers to take the environment into consideration;

1.3.4 MEEP is to be applied early in the proposal planning stages so that effective environmental consideration can be made in the beginning, instead of in the end when costly design changes

and alternatives are an onerous burden;

1.3.5 MEEP is a planning and management tool for considering the impacts on the environment of municipal works and private sector development;

1.3.6 MEEP will not duplicate the existing Federal and Provincial environmental assessment processes;

1.3.7 MEEP will have no further requirements where Provincial regulations, standards, and guidelines are already met by the municipality;

1.3.8 MEEP will not require further mitigation if the Municipal Engineers Association's accepted "Environmental Construction Guidelines" are applied;

1.3.9 MEEP will standardize the evaluation of potentially adverse environmental impacts on the environment;

1.3.10 MEEP application requires little or no environmental expertise, unless detailed study into significant impacts is needed;

1.3.11 MEEP application requires no extra person-years or funding, unless detailed study into significant impacts is needed;

1.3.12 MEEP will be completed based on the knowledge and expertise available within each Department at that time;

1.3.13 MEEP will prevent project delay and associated costs of unknown environmental concerns *or* public concerns for a project after final design is complete;

1.3.14 MEEP is designed to streamline the review of proposals with little or no environmental impact through the use of exclusion lists;

1.3.15 MEEP allows project managers to spend time where it is required: on those proposals with environmental impacts; and,

1.3.16 MEEP will help improve the City of Ottawa's image as a conscientious manager of the environment.

1.4 Relationship of MEEP to the Official Plan

The Draft Official Plan released in September 1989 introduced the concept of Municipal Environmental Evaluation as a tool to assess the impact of planning and land use activities on the natural environment. Since then, this idea has received significant support from the public.

The 1991 Council approved Official Plan of July 1991 introduced specific policies to better define the intent of the Municipal Environmental Evaluation Process. These include:

a) the need to establish a screening process for development proposals as the basis to determine upon receipt of an application, the potential adverse environmental impacts and the need for a Municipal Environmental Evaluation Report (MEER);

b) the desire that MEER be evaluated as part of the established approval process and not be subject to independent decision-making procedure; and,

c) the need for guidelines in the preparation of a MEER when required,

The approach is designed to evaluate the impact of development proposals on the natural environment as early in the planning process as possible.

1.5 Relationship of MEEP to the Provincial and Federal Environmental Assessment Processes

The Federal concept of environmental assessment in Canada is expressed in the Federal Environmental Assessment and Review Process (EARP). Initiated in 1973 and later established by an Order-in-Council in 1984, the process requires mandatory environmental screening of all Federal proposals.

The Province of Ontario Environmental Assessment Act (1975) calls for mandatory environmental screening of all capital projects. Unlike the Federal process, the Provincial one relies on class assessment in determining the level of impact an activity of a certain nature will have.

The City of Ottawa MEEP is modelled after both the Federal and Provincial processes to ensure the most comprehensive and efficient means of determining the potential for adverse environmental impacts. The Process is also one of self-assessment, and although no extensive background or knowledge in environmental matters in necessary to apply the Process, the information necessary to evaluate environmental impacts and for the design of proper mitigative measures is readily available.

The application of KEEP by the City of Ottawa recognizes the fact that it is at the municipal level that most environmental concerns originate. Municipal environmental evaluation is the next logical step in the evolution environmental assessment as a planning tool.

1.6 Application of MEEP to the Plannins Process

The intent of MEEP is to establish a consistent framework for assessing the impact of development on the biophysical components of the environment as part of the established planning process. The MEEP will provide additional background information to be used to evaluate an application to Planning and Development. As a result, the MEEP will assist Planning and Development staff in formulating a recommendation(s) regarding a proposal, together with the broad range of information (i.e., on the social, economic, or physical impact of the development) that is normally gathered as part of the planning process. Planning Committee and/or City Council will make the decision on the basis of all the available information.

The Steps of the Process

PHASE ONE: INITIAL EVALUATION

STEP I: ITEMS AUTOMATICALLY REQUIRING A MEER

1. As established by the Official Plan, the follouing types of applications will automatically require a Municipal Environmental Evaluation Report, unless otherwise included on the Exclusion List, as described in Step II on the following page.

Proposals which are subject to an Official Plan, Zoning By-law, Subdivision (including Part-Lot Control), Condominiua or Site Plan Control application uhich are:

a) uithin the Creenuay System, (including those areas designated Environmentally Sensitive Area, Waterway Corridor, Linkage and Major Open Space) as designated on Schedule A - Land Use in the Official Plan;

b) on any contaminated site as designated on Map 3 - Environmental Constraint Areas in the Official Plan;

c) on an existing pit/quarry as designated on Map 3 - Environmental Constraint Areas in the Official Plan;

d) within an area designated as an unstable slope on Map 3 - Envi ronmental Constraint Areas in the Official Plan;

e) uithin an Area of Natural and Scientific Interest as designated on Hap 3 - Environmental Constraint Areas in the Official Plan;

f) for a uaste management facili ty;

g) 'for a snou disposal site; or

h) for any other development that on the basis of Step V below, it is determined that there is the potential for significant adverse environmental impact(s) and the mitigation requires specialized study.

SCREENING DECISION CODE - 03

STEP II: THE EXCLUSION LIST

1. The applicant then compares the proposal to an Exclusion List uhich outlines a number of activities that are not expected to produce any adverse environmental impacts. These types of proposals are automatically excluded from more detai led environmental evaluation under HEEP.

2. This evaluation will be completed by the applicant Upon submission of an application.

3. Automatic exclusion will be determined on the basis of the Exclusion List.

SCREENING DECISION CODE - 00

The EXCLUSION LIST includes:

a) any application for a permit that is not subject to an Official Plan, Zoning By-lau, Subdivision (including Part-Lot Control), Condominiun or Site Plan Control application;

b) any application excluded from the Site Plan Control approvals process under By-law # 331-85, as amended;

c) any undertaking subject to a Federal or Provincial environmental assessment process.

STEP III - DETERMINING LEVEL OF IMPACT - NO ADVERSE IMPACT IDENTIFIED I. If the proposal does not appear on the Exclusion List or is not automatically included as per Step I, above, the applicant must complete an ENVIRONMENTAL IMPACT CHECKLIST to determine the level of impact of the proposal on the biophysical environment. 2. This evaluation will also be completed by the applicant. 3. The Environmental Impact Checklist addresses a number of environmental matters which could potentially be adversely impacted by the proposal. The checklist assists in determining the level of impacts of the proposal and suggests means to mitigate them. 4. The checklist must be completed prior to submission of subject application. If it is found that there are no adverse impacts, the HEEP requirements are now complete and the application may proceed. SCREENING DECISION CODE - 01	The ENVIRONMENTAL IMPACT CHECKLIST evaluates the potential for the proposal to adversely impact: a) stormwater runoff; and b) the urban forest/wildlife corridors and habitats; Guidelines to the Environmental Impact Checklist and Mitigation Methods are provided in Appendix 1.0. The conclusions of Step III uill be reviewed during the planning approval process to confirm the accuracy of the self-assessment.
STEP IV - DETERHINING LEVEL OF IMPACT - POTENTIAL ADVERSE IMPACT IDENTIFIED, BUT MITIGABLE BY CURRENT ACCEPTABLE TECHNOLOGY Proposals which on the basis of the initial evaluation using the ENVIRONMENTAL IMPACT CHECKLIST, have been determined to have the potential for adverse environmental impacts, but the impacts may be mitigated by current acceptable technology. The impacts identified and the mitigation methods proposed are recorded by the applicant, and attached to the application to be reviewed, The HEEP requirements are now complete and the application may proceed. SCREENING DECISION COOE - 02	The mitigation methods wi 11 be integrated into the planing report as part of the established approval procedure for the proposal (e.g., using Site Plan Control or Subdivision agreements).

STEP V - SIGNIFICANT ADVERSE IMPACT IDENTIFIED -MUNICIPAL ENVIRONHENTAL EVALUATION REPORT REWIRED Proposals which on the basis of: a) automatic inclusion as set out in Step I, above; or **b) initial evaluation,** using the **ENVIRONMENTAL IMPACT CHECKLIST**; or **c) as a result of the technical/public circulation of the application** genuine concern is raised relating to **known** or suspected significant adverse **environmental impacts;** it is determined that there is the potential for significant adverse **environmentalimpact(s)** and the mitigation requires **specialized** study, **will** be subject **to** a **MEER.** **SCREENING DECISION CODE-** 03	All Initial Evaluations **completed** by applicants, **for which the proposals were** not automatically **excluded, will be reviewed as part of the normal technical circulation of** the application. This review **uill ensure** that the applicant has **completed** the initial evaluation properly, that all potential adverse **environmentalimpacts** have been considered, and that appropriate mitigation measures **will be applied.**

PHASE TWO: THE MUNICIPAL ENVIRONMENTAL EVALUATION REPORT	
STEP 1 - DECISION TO PREPARE A MUNICIPAL ENVIRONMENTAL EVALUATION REPORT 1. When a MEER is required, it is the responsibility of the applicant to provide the necessary environmental expertise. If the MEER cannot be sufficiently completed by the applicant, a consultant may have to be retained.	The HEER shall generally include: a) PROPOSAL DESCRIPTION - all aspects of the proposal including the intent, physical layout, design, timetables, milestones...; b) PROPOSAL RATIONALE - why the proposal is being requested (i.e., socio-economic factors) and any alternatives, if considered; c) PRESENT ENVIRONMENT - an inventory of the site's physical characteristics and environmental features, including areas of the site that may be worthy of preservation/ conservation; d) ENVIRONMENTAL IMPACTS - a description of the potential adverse impacts to the environment, including features which may require special treatment; e) MITIGATION OF IMPACTS - a description of the measures necessary, to prevent, mitigate and/or compensate for the adverse impacts upon the environment; f) MONITORING - to assess the effectiveness of the proposed mitigation, to ensure that the chosen measures remain appropriate during construction and beyond; g) PROPOSAL CONCLUSIONS - an overall statement of the environmental impacts and proposed mitigation, indicating why the proposal, and/or any alternatives chosen, should proceed as planned.
STEP 2 - EVALUATION OF THE MUNICIPAL ENVIRONMENTAL EVALUATION REPORT 1. Consideration of the detailed report by staff will result in one of three possible evaluations, as follows: a) the adverse environmental impacts are understood and can be satisfactorily mitigated; b) the adverse environmental impacts cannot be satisfactorily mitigated; the proposal must either be modified or the mitigation methods adjusted to reduce impacts; c) the adverse environmental impacts are significant, without mitigation and unacceptable.	The MEER will be evaluated as part of the established planning approval procedure for each proposal (i.e., the MEER shall form part of the background information that will accompany the planning report to Committee and, where required under the established process, to Council).

APPENDIX E

APPENDIX E:

CITY OF OTTAWA MUNICIPAL ENVIRONMENTAL EVALUATION PROCESS: LEGAL QUESTIONS AND ANSWERS

DOES THE CITY HAVE THE AUTHORITY TO IMPLEMENT MEEP FOR DEPARTMENTAL PURPOSES?

Implementation of MEEP for departmental proposals would not require enabling legislation in that the City's pro-active approach would represent monitoring and control procedures of internal projects. To the City's advantage, the courts would likely interpret the initiative as mitigation of environmental hazards and due diligence on the part of the corporation and its officers.

DOES THE CITY HAVE THE AUTHORITY TO IMPLEMENT MEEP FOR PRIVATE PROPOSALS FOR LAND DEVELOPMENT AFFECTING ZONING, VARIANCES, SEVERANCES, SUBDIVISION, SITE PLANS?

Environmental protection is under provincial and federal jurisdiction pursuant to the respective Environmental Protection Act's and the Ontario Water Resources Act. However, municipal interests are generally addressed in the official plan and realized through by-laws. That is, according to the Planning Act, the municipality adopts official plans to provide guidance for the "physical development of a municipality" having regard to "social, economic or environmental matters". These broad definitions have resulted in various court decisions which have attempted to limits around the environmental powers of planning authorities. The basic view however, follows two principles: so long as the municipal standard does not contradict the provincial standard, it may improve upon it; the municipal standard cannot be more stringent than is set by the provincial ministries. MEEP appears to be within the provincial standard but it is difficult to assess it, fully, in its present form.

SOURCE: Excerpts from City of Ottawa memorandum dated October 29, 1991.

APPENDIX F

APPENDIX F: GUIDELINES TO CHECKLIST EVALUATION
AND MITIGATION : SOILS COMPONENT

COMPONENT	ACTIVITY	IMPACT	MITIGATION
LAND – Soils	• reduction or removal of ground cover vegetation • removal of soil • hard surfacing or soil compaction (paving) • change in slope • use of hazardous materials (fuel) • other	• reduction or interruption of soil activity in the ecosystem • reduction or interruption in the capacity of soil to recharge the groundwater regime • reduction in ground-water supply • increased soil erosion • increased siltation and sedimentation into receiving surface waters • soil contamination at sufficiently high levels to be considered dangerous to human health or otherwise • pollution of surface water • contamination of ground-water supply • other	• minimize soil excavation through design and siting of development • minimize grubbing and topsoil stripping on slopes or areas erosion sensitive • locate stockpiled materials away from watercourses • maximize soft surfaces through design • monitor potential contaminating activities *maintain vegetation buffer along nearby surface water features to minimize siltation and sedimentation

APPENDIX G

APPENDIX G:

Initial Evaluation of Proposed Curling Facility at Brewer Park

Introduction

The Initial Evaluation (IE) for potential environmental impacts of the proposed curling facility at Brewer Park took place July 26, 1991 with a site visit. Two staff members from the Environmental Management Branch of the Department of Engineering and Works and two from the Department of Recreation and Culture, including a landscape architect, toured the site. The findings are described as follows.

The proposed curling facility is to be located south of the Brewer Pool (216 Hopewell Ave.) and north of the City training centre (214 Hopewell Ave.), directly west of the Brewer Arena. This configuration is meant to "complex" existing facilities by linking them together. The curling facility will range in size from approximately 41 000 $ft.^2$ to 50 000 $ft.^2$ with a preliminary cost estimate of approximately $5 million to $7 million. It is proposed there be twelve to eighteen sheets of ice.

The proposed facility is reasonably removed from the residential area located east of Brewer Park as it will be surrounded on the north, east and south sides by existing facilities, and on the west by Bronson Avenue. Access to the site may be gained from an entrance on Bronson south of the site, and from two entrances on Sunnyside; for the purposes of "complexing" the existing facilities, the roadway between the pool, arena, and training centre will be blocked off at the arena. The development calls for the expansion of existing parking north of the arena, and south of the training centre. Traffic and parking studies will be carried out as part of the development of Brewer Park.

Impacts and Mitigation

The open area between the pool and the training centre, where the curling facility is to be located, is approximately 50 m. by 50 m. Vegetation consists of drought resistant grass typical of City of Ottawa parks; there are nine (9) pine trees clustered in the middle of the lot, approximately ten years old. Scattered around the lot are roughly six (6) deciduous trees about twenty years old. At each corner of the pool and training centre buildings, facing the lot, there is landscaping consisting of small shrubs and bushes.

This portion of Brewer Park, the northwest corner, is within the 1 to 100 year flood line of the Rideau River, but flooding will not affect the facility since a dyke was constructed a decade ago. The site is also believed to be north of those areas of the Park comprised of old landfill. The soil study completed for the site shows no evidence of old landfill waste material. Should old landfill waste materials be found, they should not be stockpiled in order to prevent potentially hazardous runoff from entering the environment, and should be removed and disposed of immediately in accordance with Ontario Waste Regulation 309.

Although the residential areas east of the site are separated from the construction lot by existing buffers and the arena and pool buildings, standard measures to mitigate the impacts of noise will be required to ensure compliance with the City of Ottawa Noise By-law. Standard measures to mitigate the impacts of dust should be pursued. Landscaping for the new facility should be provided to compensate for the loss of urban forest., and relocation of the removed vegetation should be considered. Soft surfaces should be maximized and standard engineering methods for stormwater management will be required. Attempts to address stormwater management using natural methods may be possible (preferable). Finally, under the parking study, parking cannot be expanded beyond the limits of the preliminary design.

Decision

This proposal has potentially adverse environmental impacts which may be mitigated with known technology. The requirements of the Process are satisfied.

Screening Decision Code 02.

CITY OF O-I-TAWA MUNICIPAL ENVIRONMENTAL EVALUATION PROCESS
PROJECT REGISTER AND SCREENING DECISION SUMMARY

Proposal: CURLING FACILITY - BREWER PARK

Project Number: _____ Municipal Address: 214 Hopewell Avenue

Construction Start Date: N/A Estimated Project Cost: $7 Million

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SUMMARY OF OVERALL PROJECT SCREENING DECISION

_____ **Municipal Environmental Evaluation Report (MEER) AUTOMATICALLY REQUIRED (Project in Designated Area as per Official Plan sec. 6.20.2.a.)**

___00 - Automatic exclusion; project proceeds.

___01 - Environmental Impact Checklist completed. No adverse environmental impact identified.

_X_02- Environmental impact Checklist completed. Potential **adverse** environmental impact(s) identified, but mitigable by current acceptable technology.

- 0 3 - Environmental Impact Checklist completed. Significant adverse environmental impact(s) identified, mitigation requires specialized study, genuine public concern raised relating to known or suspected environmental impacts. MEER required.

___04 - MEER complete. Adverse environmental impact(s) understood and mitigable. Recommend project proceeds with required mitigation and monitoring.

___05 - MEER complete. Adverse environmental impacts cannot be satisfactorily mitigated. Recommend project be modified and rescreened.

___06 - MEER complete. Adverse environmental impacts are significant, without mitigation, and unacceptable. Recommend project be abandoned.

Prepared by: K. Leach _____ July 26, 1991
Name Signature Date

Recreation & Culture/Planning and Project Development
Branch/Company

Received by: _____ _____ _____
Name Signature Date

_____
Departmental Authority/Planning Department

ENVIRONMENTAL IMPACT SCREENING CHECKLIST
FOR MUNICIPAL DEPARTMENTAL APPLICATION

The following lists components of the environment which could be adversely Impacted throughout the life of the project, including: site investigation and preparation, construction, operation and maintenance, future and related activities and otherwise. Any positive impacts should be noted **as well.**

INSTRUCTIONS: Check any environmental components adversely impacted and the significance. Where impact(s) exists, provide information and sources on **additional sheets as necessary.**

		I	M	P	A	C	T	S
ENVIRONMENTAL COMPONENTS		**NONE**	**POSITIVE**	**MITIGABLE**	**SIGNIFICANT (MEER REQUIRED)**	**UNKNOWN**		**COMMENTS**
1-	**LAND**							
	Urban Forest			X				Loss of Urban Forest
	Soils	X						
	Vegetation			X				Loss of Ground Cover
	Wildlife	X						
	Other							
2-	**AIR**							
	Air Characteristics			X				Use of Heavy Equlpment
	Noise Pollution			X				
	Industrial Emisslons	X						
	Other							
3-	WATER							
	Stormwater			X				**Loss of** Ground Cover
	Groundwater	**X**						
	Wetlands	**X**						
	Other							

COMMENTS

- Transplant trees where possible/plant new trees as part of development;
- Maximize soft surfaces in development **design/minimize** ground cover loss;
- Minimize CO, and particulate emissions from heavy **equipment/equipment** maintenance and minimize Idling;
- Standard mitigation for noise required (included in contract) and comply with City Noise By-law;
- **Standard engineering methods** for stormwater required... attempts at natural methods may be feasible.

ENVIRONMENTAL IMPACT SCREENING CHECKLIST
FOR LAND DEVELOPMENT APPLICATIONS

COMMENTS

- **Any discovery** of old landfill in excavation material requires proper disposal (Regulation 309);
- Old landfill material will not be stockpiled due to potential run off;
- Transportation Study to be completed to determine requirements for increased traffic and parking as part of Brewer Park Development Plan;
- **Overall** impacts are minimal as this portion of the park is 'urbanlzed' or built;
- **Screening decision 02 -** Adverse Impacts identified but mitlgable (mitigation to appear in terms of reference).