# Natural Heritage Planning in Ontario, Canada: the Interpretation of the Provincial Policy Statement by the Ontario Municipal Board

Christopher J. A. Wilkinson

and

Paul F. J. Eagles

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Dr. Christopher J. A. Wilkinson
14068 Guelph Line, R.R. #1
Campbellville, Ontario,
L0P 1B0, Canada.
Telephone: 519-856-2446
E-mail: chris_wilkinson@sympatico.ca

Dr. Paul F. J. Eagles
Department of Recreation and Leisure,
Faculty of Applied Health Sciences,
University of Waterloo,
200 University Avenue West,
Waterloo, Ontario,
N2L 3G1, Canada.
Telephone: 519-888-4567
E-mail: eagles@healthy.uwaterloo.ca

**Abstract**

Administrative tribunals are widely used in Canada to resolve planning conflicts. The Province of Ontario, Canada, utilizes such a tribunal, the Ontario Municipal Board, to resolve municipal land-use planning conflicts. The Province of Ontario can also establish provincial policy on planning matters under the *Planning Act*. This paper presents an analysis of Ontario Municipal Board decisions that involve the Natural Heritage Section of the Provincial Policy Statement. This policy is of particular significance for environmental protection as its intent is to protect a variety of types of ecological features and functions during the land-use planning process. The authors conclude that this policy was effectively applied by the Ontario Municipal Board. In most cases, the burden of planning conformity with the policy rested entirely with the developer. In other cases, expert witnesses from government ministries, non-governmental organizations or the consulting industry provided evidence on natural heritage matters and on planning conformity. In the majority of cases the Ontario Municipal Board interpreted the *Planning Act* phrase "have regard to" as obligating the application of and adherence to the Natural Heritage Section of the Provincial Policy Statement. This analysis concludes that this utilization of an administrative tribunal to adjudicate land-use disputes enables natural heritage policy to be considered and applied successfully in most cases within Ontario's municipal planning structure. The admission of expert evidence on natural heritage matters and on planning conformity matters assisted the Board. The presence and active involvement of staff from relevant government ministries, such as the Ministry of Environment and Energy, the Ministry of Natural Resources and the local Conservation Authority, was of assistance to the Board and was important to increased level of natural heritage protection in municipal planning matters. Unfortunately, the involvement of government ministries was infrequent.

**Introduction**

Administrative tribunals are widely used in Canada to resolve planning conflicts. Compared to the courts, these tribunals have the advantage of making their own rules in regards to the admissibility of evidence. Applying their own weight to evidence, these tribunals possess considerable latitude in resolving disputes that involve technical, opinion, and hearsay evidence, such as occurs within land-use planning. The Province of Ontario, Canada, utilizes such a tribunal to adjudicate land use disputes under its *Planning Act*. This paper presents an analysis of Ontario Municipal Board decisions on planning disputes that involve the Natural Heritage Section of the Provincial Policy Statement. This policy is of particular significance for environmental protection as the Natural Heritage Section has as its intent the protection of a variety of ecological features and functions in the Province of Ontario. This paper explores the interplay between policy and legislation as mediated by a quasi-judicial process.

The Ontario Municipal Board is composed of individuals appointed by Ontario's Lieutenant Governor in Council, the Ontario Cabinet, to resolve planning disputes under the authority of the *Planning Act* and the *Ontario Municipal Board Act*. This tribunal "listens to the appeals and concerns of people, public bodies or corporations who object to the decisions of public or approval authorities… under more than 100 pieces of legislation" (Ontario Municipal Board 2000:1). The Ontario Municipal Board possesses significant powers to interpret and rule on the implementation of legislation and policies affecting environmental issues.

Significant changes to the process of municipal land-use planning in Ontario were undertaken in the early 1990s under the government of the New Democratic Party. These reforms strengthened the planning process by increasing its capability to address environmental

issues. A series of reports were generated during a four-year process of analysis and consultation on reform to the planning process (Doering *et al*. 1991, Commission on Planning and Development Reform in Ontario 1993, Ontario Environmental Assessment Advisory Committee 1989 and 1990, Royal Commission on the Future of the Toronto Waterfront 1992). These reforms included a new set of policy statements establishing provincial interest in a number of planning issues, including natural heritage. These reforms faced opposition from development interests who claimed the changes were too restrictive (Attridge 1996). The Progressive Conservative Party, upon election to office in 1995, announced that these reforms were "unworkable," and subsequently introduced further reforms, this time without further public consultation (Attridge 1996:339). A quickly revised Provincial Policy Statement was approved by the Lieutenant Governor in Council in 1996. The most significant changes in legislation in regards to natural heritage revolve around a change in the wording of the *Planning Act* concerning the applicability of Provincial Policy to land-use planning.

The binding nature, or lack thereof, of policy statements is dependent upon the phrasing within the Act itself. The earlier *Planning Act* required that all planning decisions be "consistent with" policy statements. However, this phrasing was deemed to be too inflexible by some interests, most specifically land development corporations (see Environmental Commissioner of Ontario 2001). Subsequently, the Progressive Conservative majority government enacted amendments with Bill 20, the *Land Use Planning and Protection Act* (1996), which allowed for greater municipal discretion and less provincial control. The amended *Planning Act* (Section 3), after 1996, stated that planning authorities must "have regard to" policy statements.

The incorporation of this "looser" phrasing, moving from "be consistent with" to "have regard to" was often interpreted as meaning the Provincial Policy Statement was non-binding by both developers and various levels of government (Attridge 1996:339). However, the Ministry of Municipal Affairs and Housing, the responsible branch of government for the *Planning Act*, considered this phrasing to be binding. In the annual report of the Environmental Commissioner of Ontario (2000:148), the Ministry of Municipal Affairs and Housing attempted to clarify this issue by stating:

> "Have regard to" means that a decision-maker is obligated to consider the application of a specific policy statement when carrying out its planning responsibility. Failure to conscientiously apply the "shall have regard to" standard could result in the approval authorities, members of the public, or the province intervening to ensure that this that this standard is considered. This involvement could include an appeal to the Ontario Municipal Board on land use planning applications. Land use planning decision-makers are responsible for ensuring that this aspect of the Provincial Policy Statement is adequately considered.

Irregardless of these various opinions, the interpretation of the Act and the Policy was ultimately the responsibility of the Ontario Municipal Board when it was called to resolve planning conflicts.

The Natural Heritage Section is valuable in its contribution to environmental protection in general and more specifically to issues such as biodiversity conservation (Wilkinson 2002). The Natural Heritage Section of the Provincial Policy Statement requires that:

> 2.3.1 Natural heritage features and areas will be protected from incompatible

development.

1. Development and site alteration will not be permitted in:

   · significant wetlands south and east of the Canadian Shield; and,

   · significant portions of the habitat of endangered and threatened species.

b. Development and site alteration may be permitted in:

   · fish habitat;

   · significant wetlands in the Canadian Shield;

   · significant woodlands south and east of the Canadian Shield;

   · significant valleylands south and east of the Canadian Shield;

   · significant wildlife habitat; and,

   · significant areas of natural and scientific interest if it has been demonstrated that there will be no negative impacts on the natural features or the ecological functions for which the area is identified.

2.3.2 Development and site alteration may be permitted on adjacent lands to a) and b) if it has been demonstrated that there will be no negative impacts on the natural features or on the ecological functions for which the area is identified.

2.3.3 The diversity of natural features in an area, and the natural connections between them should be maintained, and improved where possible.

2.3.4 Nothing in policy 2.3 is intended to limit the ability of agricultural uses to

continue.

The Ministry of Municipal Affairs and Housing started a review of the Provincial Policy Statement in 2001. Our research analysis of Ontario Municipal Board decisions in regards to the application of the Natural Heritage Policy was undertaken to understand the policy interpretation by this tribunal, to better understand the implications of the wording of the *Planning Act* and the Provincial Policy Statement, and to assist with the review of both the policy and the law. Further, this analysis is warranted as "interpretations of these policies by the Ontario Municipal Board, and the extent to which they are 'regarded' and thus implemented through planning decisions, remain to be seen" (Attridge 1996:341).

**Methods**

Ontario Municipal Board cases were selected for analysis using the QuickLaw™ computer program. This legal database allows keyword searches to compile sets of cases. The sampling of the selected cases can be replicated. A sampling of Ontario Municipal Board decisions was obtained using the keyword search: "natural heritage" and ecol! or policy / p 2.3 & @date after 1997. These keywords search for Ontario Municipal Board cases which contain the words "natural heritage," use the prefix "ecol" (e.g., ecology, ecological, etc.) within the case, use the word "policy" within a paragraph which contains "2.3" and includes all decisions after the year 1997. This sampling was done in late 2000.

This search of Ontario Municipal Board cases generated 29 hits. These 29 cases were reviewed in their entirety. Ten of these cases were deemed to be incompatible with the objectives of this analysis. This refinement of the sampling was warranted as (1) the excluded cases did not in fact

address the Natural Heritage Section of the Provincial Policy Statement or (2) they were pre-conference hearings and not final decisions. The remaining 19 cases were the chosen representative sampling of Ontario Municipal Board decisions that involved the application of the Natural Heritage section of the Provincial Policy Statement. These cases were heard by the Ontario Municipal Board between the years of 1997 to 2000.

**Analysis**

The existing Provincial Policy Statement issued under Section 3 of the *Planning Act* came into effect on May 22, 1996. It is important to note that individuals, municipalities and members of the Ontario Municipal Board need "have regard to" these policies. The *Planning Act* states:

> 3.1. The Minister, or the Minister together with any other minister of the Crown, may from time to time issue policy statements that have been approved by the Lieutenant Governor in Council on matters relating to municipal planning that in the opinion of the Minister are of provincial interest.
>
> 3.5. In exercising any authority that affects a planning matter, the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board, commission or agency of the government, including the Municipal Board and Ontario Hydro, shall have regard to policy statements issued under subsection (1).

Despite the apparent, non-binding nature of this policy, our analysis found that it was applied by Ontario Municipal Board Members in the vast majority of the reviewed cases. In the case of *Victoria Point Homes Inc. v. Orillia (City)*, Board Member S. D. Rogers stated in his ruling that the Ontario Municipal Board is legally obliged to have regard to the policy:

> Section 3 of the Planning Act requires the Board to have regard to provincial policies adopted under the auspices of the Planning Act in exercising any authority that affects planning matters. The Board holds what it considers a practical view of the meaning of 'have regard for'. Although this direction provides flexibility in the consideration of matters of provincial interest and in the application of provincial policy by the approving authority, it does not mean that the Board should disregard these matters and policies.

This particular case was divided into two phases, design and implementation, by the Ontario Municipal Board Member. The first phase required the appellant to make a *prima facie* case in its argument for a proposed subdivision. Indeed, the appellants "freely admitted that this proposal did not meet some of the provisions of the Provincial Policy Statement, 1996; in particular the provisions of the Natural Heritage sections of the Policy.... Furthermore, counsel for the developer urged that provincial policy is not binding." In ruling in an ecologically precautionary manner, based solely on the evidence presented by the appellants, Board Member S. D. Rogers dismissed the appellants' case in favour of the Natural Heritage section of the Provincial Policy Statement. A similar burden of proof was placed on proposed development in *Metrus Central Properties Ltd. v. Brampton (City)*, in which Board Members G. J. Daly and S. D. Rogers ruled:

> The Board finds that the proponent's interpretation of the Official Plan provisions regarding woodlots, in a municipality for which the identified forest cover is less than 5%, is unacceptable, given the clear provisions of the Provincial Policy Statement... For the owner of a woodlot to abdicate responsibility for the protection of a significant woodlot, because a municipality has not demonstrated an intent to

> purchase the woodlot, does not constitute due regard to the intent of the Provincial Policy Statement with respect to such woodlots. In any event, the proponent has not demonstrated to the satisfaction of the Board that it is not practicable to retain the whole of the woodlot.... And if the proponent truly intends to protect the woodlot as is, the Board was not presented with any reason why the whole of that woodlot ought not to be conveyed to a government authority for continued preservation and management.

The Natural Heritage Section was seldom disregarded by an Ontario Municipal Board Member in a ruling. The sole exception to this regard for the Natural Heritage section was in cases presided over by Board Member R. J. Emo. Despite the testimony and evidence in support of the Natural Heritage Section, the final rulings did not result in natural heritage protection. No weight was given to the Provincial Policy Statement, as R. J. Emo stated in *Ajax (Town) Official Plan Amendment No. 47A*, in which the appellants were developers, that should he "find that indeed the hooded warbler is a 'Threatened' species, the Planning Act simply requires that the Board 'have regard' to the sections of the PPS." Indeed, R. J. Emo went as far as stating in *Nature Conservancy Canada v. Norfolk (Township) Committee of Adjustment* , in which the Nature Conservancy Canada was the appellant, that "...the role of the NCC and its consultant in this hearing is troublesome" in their use of the Natural Heritage section. In both cases, the Ontario Municipal Board Member established a rigid barrier between conservation and development interests. R. J. Emo stated that he "had regard" to the Provincial Policy Statement in both cases, but ruled against natural heritage protection.

It is necessary to submit sufficient testimony and evidence to support a ruling which applies

the Natural Heritage section. As Board Member G. J. Daly ruled in *London (City) Official Plan Amendment No. 131*, "the Planning Act and the Provincial Policy Statements further establish that there are areas of land, which for rational, quantifiable reasons should not be developed." In this case, the Ontario Municipal Board Member ruled against the developer by protecting an area based on Section 2.3.1, while stating that the ecological "sum of the whole could be greater than the parts." Despite this relatively successful application of the Natural Heritage Section, ecological linkages were not generally ruled for in this instance as the City made no apparent argument for them. However, M. A. Rosenberg in *Pickering (Town) Official Plan Open Space System - Natural Areas Amendment* stated that "environmental linkages and corridors are legitimate planning considerations that the Board must have regard to in any application."

Seldom was the Ontario Municipal Board persuaded by lay testimony, unsupported by expert evidence. However, G. J. Daly in *London (City) Official Plan Amendment No. 131* stated "that witnesses with specific knowledge and experience will assist the Board in understanding the complexity of function within the system being studied, explain the inter-connectivity which exists, if any, between the various features, prioritize their importance, and then advise on what action to take as a result." Based on part due to this lay testimony, the Ontario Municipal Board member protected an area as the lay witness enjoying seeing "deer and coyotes come, under the cover of a pine forest, to the water to drink under the protection of these trees."

In contrast to this use of lay testimony to protect natural heritage, Board Member R. J. Emo in *Nature Conservancy Canada v. Norfolk (Township) Committee of Adjustment* sympathized with the difficult financial situation of a lay party who routinely cut trees from an ANSI (Area of Natural and Scientific Interest) for firewood. R. J. Emo ruled that this logging constituted an "agricultural

activity" as the retired steelworker was acting as a "farmer" and that no Environmental Impact Statement was required. The Ontario Municipal Board Member ruled that the wetland complex in question was not a "wetland" according to the relevant planning documents and, therefore, it was not subject to the Natural Heritage section. Contrary to this particular decision, N. C. Jackson in *Prince Edward (County) Official Plan Wetlands Amendment (Re)*, in which the appellant was a private citizen, ruled that "forestry may be an activity that can be viewed as agriculture for income tax purposes or more to the point under the new County Official Plan, that in no way alters the type of forestry referenced under the Provincial Policy Statement and the Wetland Evaluation Manual."

Testimony and evidence given by government ministries often did support the application of the Natural Heritage section of the Provincial Policy Statement. Further, evidence based on government reports or mapping presented by other parties was typically well received by the Ontario Municipal Board. For example, G. A. Herron in *Simcoe (County) Official Plan Clearview (Township) Amendment (Re)*, in which a local citizen was the appellant, gave a great deal of weight to a detailed map produced by the Geological Survey of Canada and Ontario Geological Survey in ruling to protect an area. The Ministry of Natural Resource's mapping of wetlands, along with the related policy documents, were extensively used in applicable cases such as in *Pickering (Town) Official Plan Open Space System - Natural Areas Amendment* and *Prince Edward (County) Official Plan Wetlands Amendment (Re)* in which the Board ruled against the applicant, a developer.

The expert testimony provided by government ministries is valued, as expressed in *Sherborne (Township) Zoning By-law No. 1979-50.* This hearing involved a local citizen who was the appellant seeking a re-zoning of an island to permit a cottage; the Ontario Municipal Board Member stated that with regards to fish habitat that the "appropriate jurisdiction for assessing whether or not negative

impact is likely rests with the Ministry of Natural Resources and/or the Federal Department of Fisheries and Oceans." However, such valuable testimony needs to actually be given to the Board on the witness stand to ensure of the proper application of the Natural Heritage Section. It is apparent that the burden of involving government ministries with appropriate expertise rests with those individuals attempting to argue for the application of the Natural Heritage Section. For example, despite the acknowledgment of the value of information which could be provided by the Ministry of Natural Resources or the Federal Department of Fisheries and Oceans, no testimony was actually given by these government agencies in *Sherborne (Township) Zoning By-law No. 1979-50.*

The frequency of the direct involvement of provincial government agencies was minimal in the sampling of cases. In illustration, the Ministry of Municipal Affairs and Housing, under whose authority the Provincial Policy Statement was issued, was not a party in any of the sampled cases. Further, the Ministry of the Environment and Energy was only minimally involved in one of the sampled cases. This lack of government agency involvement did not necessarily hamper the application of the Provincial Policy Statement, but, as a general rule, qualified evidence is necessary to support the Natural Heritage Section in rulings. To err on the side of caution in the protection of Ontario's natural heritage, the authors conclude that the active involvement of government agencies is valuable.

For example, despite being in attendance with counsel in *Ajax (Town) Official Plan Amendment No. 47A*, the Toronto Regional Conservation Authority "did not take an active role. The Board [R. J. Emo] took notice of this action" and ruled against natural heritage protection. Conservation Authorities were seldom directly involved in Ontario Municipal Board cases, only taking an active role in *Prince Edward (County) Official Plan Amendment Ridge Road Aggregates*

*(Re)* which dealt with fish habitat and in *Prince Edward (County) Official Plan Wetlands Amendment (Re)* which dealt with a Provincially Significant Wetland. These two cases were brought before the Ontario Municipal Board by an aggregate company and a local citizen respectively.

However, a lack of involvement by government ministries did not necessarily harm the application of the Natural Heritage Section. In *Sherborne (Township) Zoning By-law No. 1979-50*, the Ministry of Natural Resources was not involved despite a proposed residential development on a canoe route leading into Algonquin Provincial Park. Further, the lack of involvement by the Ministry of Natural Resources in *London (City) Official Plan Amendment No. 131,* which dealt with several rare species of flora and fauna, did not harm the case. Based on the sampling of cases, the Ministry of Natural Resources did not take an active role in Ontario Municipal Board hearings despite their institutional expertise in natural heritage issues.

The analysis of the sampled cases leads to the conclusion that a significant factor in applying the Natural Heritage section is the presiding Ontario Municipal Board Member. Even in cases where it is apparent that the appropriate ministry should be present and, indeed, is a party at the hearing, a ruling may be ordered which is contrary to the expert evidence given by the government agency. For example, in *Ajax (Town) Official Plan Amendment No. 47A*, despite evidence presented regarding a species at risk and the importance of protecting its habitat, Board Member R. J. Emo ruled in favour of development. Further, specifically in this case, the weakness of Ontario's *Endangered Species Act* and its related policies, such as species classification and listing, severely hindered the proper application of the Natural Heritage Section. In illustration of the confusion created by a lack of supportive polices related to natural heritage protection, R. J. Emo stated in his decision that

> ...more study by a recognized hooded warbler expert is needed to confirm the

> implications of the hooded warbler and the extent of habitat that should be protected.... The Board has therefore had to weigh the hearsay evidence in the context of the viva voce testimony from the four experts. In addition, should I find that indeed the hooded warbler is a "Threatened" species, the Planning Act simply requires that the Board "have regard" to the sections of the PPS quoted previously.... In the absence of testimony by... MNR staff, I will not make a finding as to whether or not the species is vulnerable or threatened.... I agree with [the experts testifying for the developers] that one sighting does not automatically create a habitat concern. The Planning Act requires that "regard be had to" the PPS. I have had regard to the Natural Heritage section of the PPS and am satisfied that the proposed development is not in conflict with these policies.

The lack of a comprehensive program and commitment to endangered species protection on the part of the Province detracted from the importance of this natural heritage issue. Effective expert testimony by a professional consultant on behalf of the developers was also a significant factor in this ruling.

Other provincial statutes were sometimes at issue in relation to the Natural Heritage Section. In *1245724 Ontario Ltd. King (Township) Fill Application*, the appellants argued "that Provincial Policy Statement that speaks of fill or alteration of a PSW [Provincially Significant Wetland] was passed pursuant to the Planning Act. This is a matter arising under the Municipal Act and the section 3 policies of the Planning Act, as they are known, do not apply." In response to this argument and the proposal to in-fill a Provincially Significant Wetland, Member B. W. Krushelnicki ruled that

> ...the Planning Act and the Provincial Policy Statement, when read together, clearly

> establish a regime that is applicable generally to all municipal planning matters whether they arise specifically under the Planning Act or under some other authority such as the Municipal Act. It follows from this and it is the simple conclusion of the Board that, despite the statutory origin of the matter, the present application and appeal is a "matter relating to municipal planning" and that the Board is "exercising an authority that affects a planning matter.

This decision is of particular significance to the Natural Heritage Section of the Provincial Policy Statement as the Ontario Municipal Board Member ruled that it must be considered in all planning decisions despite their statutory origin. Therefore, the Natural Heritage Section may also be applied in planning issues under the auspices of other legislation, such as the *Municipal Act*.

Consideration was also given to the *Niagara Planning and Development Act*. In *Niagara Escarpment Commission v. Halton (Regional Municipality) Land Division Committee*, Board Members N. C. Jackson and J. R. Aker ruled that "the Niagara Escarpment Plan takes a priority position under Section 13 of the Niagara Escarpment Act in the event of conflict, this is not a case where the Niagara Escarpment Act conflicts with a Plan from another planning jurisdiction.... All parties and the Board have had regard for the Provincial Policy Statement."

Other provincial policies and interests affect the application of the Natural Heritage Section. In *863935 Ontario Inc. v. Durham (Regional Municipality)*, M. F. V. Eger ruled that consideration of the document "Implementation Guidelines: Provincial Interest on the Oak Ridges Moraine Area of the Greater Toronto Area" is necessary as it is:

> ...intended as an interim expression of provincial interest pending completion of an overall study of the Oak Ridges Moraine. While it was expected that a formal policy

> statement under the Planning Act would subsequently issue, no specific policy statement has issued to date and the Guidelines therefore do not have status as provincial policy. However, by specific reference to the Guidelines in The Regional Municipality of Durham Official Plan, certain elements of the Guidelines now form part of the regional planning context.

The application of the Natural Heritage Section was also affected by the other sections of the Provincial Policy Statement, such as the Aggregate Extraction Section. In a conflict between natural heritage protection and aggregate extraction, N. C. Jackson in *Prince Edward (County) Official Plan Amendment Ridge Road Aggregates (Re)* states that "the dividing line should be between the proposed designations of Extraction and Environmental Protection. Both designations are equally significant in terms of local and Provincial policies." Despite the difficulty of balancing planning priorities, B. W. Krushelnicki in *Peel (Regional Municipality) v. Peel (Regional Municipality)* ruled that area municipalities must have regard to provincial policy, including the Natural Heritage Section, in establishing "comprehensive mineral aggregate resource policies."

The Ontario Municipal Board typically attempted to achieve such a balance, if possible, in its rulings. However, *Simcoe (County) Official Plan Clearivew (Township) Amendment (Re)* demonstrates that this balance must not be at the expense of adequate natural heritage protection. G. A. Harron ruled against a re-zoning to Agriculture as the:

> ...undisputed evidence is that the Moraine is a fragile important resource as a recharge area where the protection of areas of permeable soils that promote infiltration should be top priority. The County is attempting to protect the identified natural features and carefully monitor any proposed development. The Board finds

> the Greenland designation is appropriate for the... property. Even if the Board had determined the... property was not part of the Oak Ridges Moraine, it would have dismissed the appeal and the property would remain designated Greenland on the overlay. The Board is mindful of the Provincial Policy Statement (P.P.S.) that we must have regard to that directs municipalities and this Board to protect natural heritage features from incompatible development.

**Conclusion**

This review of Ontario Municipal Board decisions determined how the Ontario Municipal Board applied the Natural Heritage Section of the Provincial Policy Statement. Based on this analysis, the authors conclude that the Natural Heritage Section was generally applied in a thoughtful and effective manner by most Ontario Municipal Board Members. In many cases, the burden of conformity with the policy rested entirely with the developer, nevertheless the Board ruled for natural heritage protection indicating a precautionary and enlightened approach by most members of the Ontario Municipal Board. In the majority of cases, the Members of the Ontario Municipal Board interpret that "have regard to" obligates the application of and adherence to the Natural Heritage Section of the Provincial Policy Statement.

The role of government agencies is important to protecting natural heritage, given their institutional responsibilities and expertise. Unfortunately, the involvement of government ministries was minimal in the Ontario Municipal Board cases reviewed. Their lack of direct participation in this planning process sometimes contributed to the Ontario Municipal Board ruling against natural heritage protection. However, the natural heritage information created by some government ministries, such as the Ministry of Natural Resources wetlands mapping, was

critical for the establishment of evidence in support of the Natural Heritage Section. Conversely, the weakness of some government programs, such as Ontario's species at risk program, created undue burden on members of the public in acquiring evidence to support the Natural Heritage Section. Strengthening such policies and programs of government ministries would directly aid the application of the Natural Heritage Section.

This paper serves to inform those individuals concerned with environmental protection in the land-use planning process in the Province of Ontario and across jurisdiction in North America. The sampled cases revealed the dynamics between the scientific, organizational, and policy fields in the pursuit of environmental protection (Clark 1994). Each field or form of knowledge plays a significant role in environmental protection. An understanding of ecological issues, the involvement of the responsible government agencies, and the support of sound policies and legislation are necessary. The absence or weakness of one of the aforementioned elements can be detrimental to the final outcome as it relates to natural heritage or environmental protection. It is clear that natural heritage protection involves sound science, sound municipal planning legislation, appropriate provincial environmental policy, the involvement of professional experts in science and in planning, the application of science and planning in front of the courts and tribunals and a competent and independent tribunal. All of these elements are necessary for natural heritage protection to be given due regard in the conflictual world of land use and development planning within municipalities.

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