

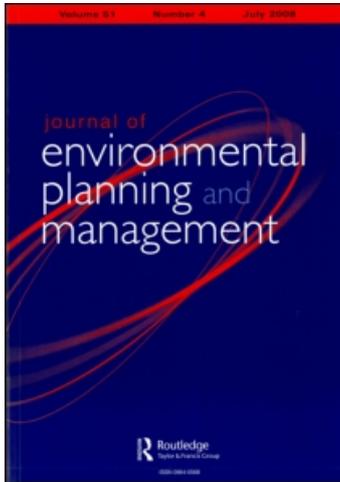
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### Roles of environmental movement organisations in land-use planning: case studies of the Niagara Escarpment and Oak Ridges Moraine, Ontario, Canada

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## Roles of environmental movement organisations in land-use planning: case studies of the Niagara Escarpment and Oak Ridges Moraine, Ontario, Canada

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The paper explores the roles of environmental movement organisations (EMOs) in land-use planning, including domain creation (establishment of new or modified landscape planning boundaries) and regime change (adoption of new or modified legal and planning rules). The research involved two case studies of land-use planning processes: the Niagara Escarpment and Oak Ridges Moraine, Ontario, Canada. The two cases together reveal an evolution of land-use planning towards collaborative processes on mainly private lands in Southern Ontario during the period from 1960 to 2002. The results suggest that EMOs can create new planning domains through agenda setting activities, build landscape value and vision, educate governments and the public, and work to maintain and alter regimes. Collaborative planning has emerged as an important process in which some EMOs are now participating.

**Keywords:** environmental movement; land-use planning; Niagara Escarpment; Oak Ridges Moraine; NGO; law; policy

### 1. Introduction

Governance systems increasingly accommodate new and expanded roles for civil society (Painter 2000). One component of civil society, the environmental movement, successfully lobbied governments to create departments of the environment (Biliouri 1999, van der Heijden 1999, Diani 2000, Wilson 2002), generated public awareness of the importance of the environment (Mangun and Henning 1999, Jamison and Ring 2000), and acted as agents of policy transformation including moves to the precautionary principle, cleaner production and ecological lifestyles (Jamison and Ring 2000). The environmental movement also forced ecological and societal value considerations into private sector activities through certification and boycotts (von Mirbach 1997), and provided leadership in the areas of environmental stewardship and monitoring (Lerner 1993, Lukasik 2002, Whitelaw *et al.* 2003, Hunsberger 2004, Jackson 2004, Pollock and Whitelaw 2005).

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The environmental movement has also influenced land-use planning through advocacy, public participation and collaborative processes (Innes 1996, Burby and May 1997, Brody 2003, Brody *et al.* 2003, Burby 2003, Norton 2005a, 2005b). This paper focuses on the evolving role of environmental movement organisations (EMOs) in land-use planning at the landscape level over a period of 40 years in Southern Ontario. The paper explores the roles of EMOs in domain creation (establishment of new or modified landscape units and boundaries) and regime change (adoption of new or modified legal and planning rules) within land-use planning systems.

The research involved two case studies of land-use planning processes: the Niagara Escarpment (NE) and Oak Ridges Moraine (ORM) (Figure 1). These two cases were selected because they were the most significant regional land-use planning initiatives in southern Ontario from 1960 to 2002, EMOs played major roles in both processes, and the NE process and outcomes (1960–1995) had significant influence over the ORM process (1988–2002). Furthermore, each case occurred at different stages in the evolution of land-use planning and the environmental movement in Canada, and both cases resulted in the establishment of planning regimes substantially different from the ones that prevailed before. The cases are exemplary, thus results cannot necessarily be generalised to broader land-use planning processes. Rather, lessons can be applied in areas with similar planning variables: landscapes with natural heritage, recreation and

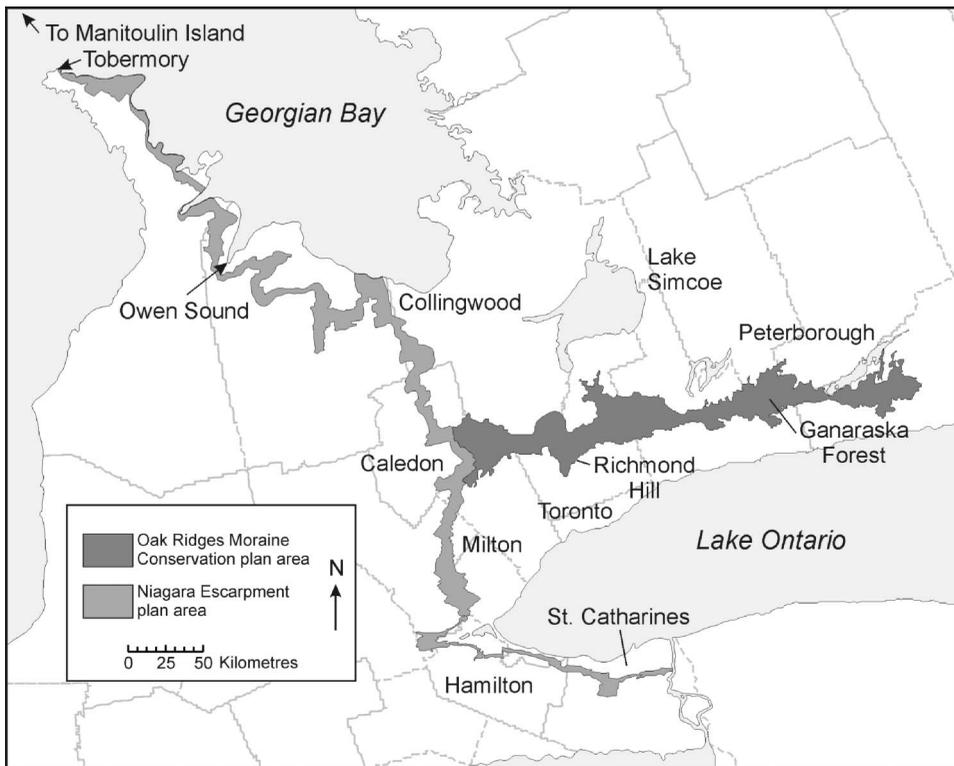


Figure 1. Location map of Oak Ridges Moraine Conservation Plan and Niagara Escarpment Plan areas. Source: Based on information from Niagara Escarpment Commission (2007), Government of Ontario 2007, prepared by Dr James Hamilton.

aesthetic value; locales with inadequate planning policies; and an environmental movement with desire and capacity to advocate and collaborate for change.

The main research methods included policy review of government documents, semi-structured interviews, content analysis of speeches given on the issue of the Niagara Escarpment (Coalition on the Niagara Escarpment 2003), use of secondary research on NE and ORM land-use planning (Plaunt 1978, Parliamentary Commissioner for the Environment 2003, Hanna *et al.* 2007), and media analysis of the NE and ORM (Edey 2004, Edey *et al.* 2006). Personal experiences of the authors with each case were also drawn upon.

## 2. Background

Land-use planning in Ontario is delivered by local and regional municipalities through the authority of the Provincial Government. The Ontario Planning Act provides for municipal implementation through official plans, secondary plans, plans of subdivision, and by-laws under the guidance of the Provincial Policy Statement (Government of Ontario 2007). In the NE and ORM cases, the Province went further in its guidance, passing stand-alone legislation and developing environmental land-use plans to address planning. Furthermore, in the case of the NE, the Province removed the majority of municipal implementation powers and placed them in the hands of the Niagara Escarpment Commission. These changes in land use governance are central to the research here.

The research is informed by previous work in the fields of governance (Francis 1988, 2003), the role of non-governmental organisations in achieving influence (Simmons, 1998), and collaborative planning (Healey 1997, Tewdwr-Jones and Allmendinger 1998, Innes and Booher 1999, Margerum 2002, Healey 2003, Frame *et al.* 2004). Governance involves a range of organisations, including government, civil society and the private sector, all active in the development and implementation of policy. Government became less prominent, while civil society and the private sector increased their role over the last 50 years (Painter 2000). Francis (1988, 2003) developed a conceptual governance framework that uses actor system dynamics to explain changes to domains and regimes. A domain is “a social space as perceived and defined by the actors who share it” (Francis 2003, p. 235). Social spaces can include geographic spaces (e.g. a municipality, national park or landscape), an economic sector such as mining or energy, or an issue such as water, land or air. A regime includes the rules such as laws, regulations and customs that regulate actor interactions. As domains emerge and the numbers of actors that populate the domain grow, the scale of their actions and mutual interdependence increases. Change in the rules can occur as actors respond to each other’s actions. This change “... of the domain starts when certain players strive to structure the domain by forming alliances or mergers, or negotiating certain basic mutually agreed upon rules ...” (Francis 2003, p. 235). Understanding how changes to domains and regimes occur in land-use governance can help actors in their efforts to change rules.

Simmons’ (1998) work on international non-governmental organisations and how they achieve influence is applicable to the role of EMOs in land-use planning processes. Simmons (1998) identifies four tactics that non-governmental organisations use to influence governance: (1) setting agendas; (2) negotiating outcomes; (3) conferring legitimacy on negotiated outcomes; and (4) implementing solutions. Environmental movement organisations can set agendas through a range of activities that force

government leaders and policy makers to pay attention. These activities include lobbying, press declarations, direct-democratic events and demonstrative events such as petitions, occupations and blockades (van der Heijden 1997) and litigation (Ecojustice 2007). Certain EMOs engage in negotiating outcomes with government and in some cases also private sector actors. Once EMOs have their issues placed on the agenda, governments may invite them to participate in negotiating outcomes in an effort to ensure legitimacy. Legitimacy increases when EMOs endorse solutions adopted. Environmental movement organisations often implement solutions or carry out activities that governments will not, or cannot. This phenomenon has become increasingly common in response to government downsizing. Environmental movement activities may include land acquisition, stewardship, education, research and monitoring (Lerner 1993, Whitelaw *et al.* 2003; Pollock and Whitelaw 2005).

Negotiating outcomes or solutions to planning issues sometimes involves collaborative planning. Collaborative planning is a key component of many land use and resource management processes (Healey 1997, 2003, Koontz *et al.*, 2004). Collaborative planning is an interactive partnership among government, interest groups, major sectors of the community and the public, all identified as stakeholders that work toward consensus on three main phases of any planning issue: problem setting, direction setting and implementation (Margerum 2002). Frame *et al.* (2004) suggest that collaborative planning is an:

... effective means of resolving environmental conflict and produces significant additional benefits such as improved stakeholder relations, skills, and knowledge . . . (that) agreements produced from collaborative planning are also easier to implement and less likely to generate opposition . . . (because) participants . . . can develop shared intellectual capital including agreement on data or analysis, definitions of a problem or objective, and mutual understanding of each other's interests. (pp. 59–60)

Healey (1998, 2003) indicates that the foundation for her thinking on collaborative planning is the structuration theory of Anthony Giddens (1984), specifically “the continual interaction between, and mutual constitution of ‘structure and agency’ . . .” (Healey 2003, p. 106). Planning is seen as involving “some interactive relation and some kind of governance process” (Healey 2003, p. 107). The view is that planning is shaped by wider economic, social and environmental forces that provide structure. However, these forces do not determine relations or necessarily the qualities of place (Healey 2003). Collaborative processes can be transformative based on human agency.

There are significant challenges associated with collaborative processes including overcoming divergent goals, establishing trust, goodwill and mutual respect, addressing the tendency for incremental change due to the need for compromise, ensuring legitimacy, and building the required capacity (Innes and Booher 1999, Takahashi and Smutny 2001).

### 2.1. Niagara Escarpment case

The NE is a prominent geological formation extending across Southern Ontario, from the Niagara River in the south to the Bruce Peninsula and Manitoulin Island in the north. The area of interest for this research is the portion covered by the Niagara Escarpment Plan (Figure 1). The area is 183,311 hectares in size and is a narrow strip of

land between 1 and 12 km wide. The NE is a cuesta developed through differential erosion at the contact zone of resistant dolostone capstone units and underlying recessive shales. It is often expressed by high, prominent limestone cliffs that stand out from the surrounding landscape. In other places it is partially or completely buried by glacial deposits in the form of moraines, drumlins, and eskers (Chapman and Putnam 1984). The abiotic environment of the Escarpment (e.g. karst attributes) creates variability and diverse habitats conducive to high biodiversity levels. The cliffs are dominated by old-growth coniferous trees including the eastern white cedar (*Thuja occidentalis*), the oldest of which are documented at 1555, 1650, and 1890 years old respectively (Larson *et al.* 1989, Moss and Milne 1998, Francis and Whitelaw 2002, Niagara Escarpment Commission 2007).

## 2.2. Oak Ridges Moraine case

The ORM is located north of the City of Toronto extending from the NE in the west to the Trent River in the east (Figure 1). The moraine is a glacial landscape feature created by multiple advances and retreats of glaciers during the Pleistocene. The moraine is approximately 190,000 hectares in size, 160 km in length and is between 3 and 24 km wide. The moraine was extensively deforested by early settlement during the mid-1800s, and this led to extensive soil erosion and water quality and quantity impairment of the many rivers that originate on the moraine. Concerted efforts by the Ontario government in the 1930s and 1940s resulted in significant reforestation. Today the ORM is mainly an agricultural area, with extensive forest cover that supports an abundance of native plants and animal species, serves as a groundwater recharge and discharge area for some 65 watercourses, has dozens of small inland kettle lakes, and is aesthetically unique and distinctive. The moraine is also an important source of aggregate building material for the nearby urban areas to the south. In the 1980s, parts of the moraine came under heavy residential development pressure, including estate home development attractive to the wealthy in nearby urban areas (Oak Ridges Moraine Technical Working Committee 1994, Chapman and Putman 1984, Regional Municipalities York, Durham and Peel 1999, Government of Ontario 2002).

## 3. Results

The results for each case are presented more or less in chronological order with the NE case covering the period from 1960–1995 and the ORM case covering the period from 1988–2002.

### 3.1. Niagara Escarpment domain creation and regime change

The first step towards creating the NE planning regime involved the creation of the NE planning domain. Prior to 1960 there was no widespread recognition of the NE as a distinct landscape feature or geographic space. There is evidence that the environmental movement was the initiating force in changing societal recognition of the value of the area (Plaunt 1978, Gertler 2004).

One dramatic event in 1962 raised awareness of the Escarpment. In that year, Dufferin Aggregates Inc. blasted a hole through the face of the NE in their Milton quarry. This highly visible scar on the landscape could be observed from Ontario's busiest highway, Highway 401. This visibility increased public awareness of both the landscape value of the

NE and development threats to it, contributing to the creation of the NE domain. Today, the environmental movement views the creation of the 'gap' as a significant episode that helped launch the NE protection campaign (Calderisi 2003). This 1962 event also gave some urgency to the creation of the Bruce Trail, a long-distance hiking trail, during the period 1963 to 1967.

The development of the Bruce Trail was instrumental in the creation of the NE domain. This trail was modelled on the highly successful Appalachian Trail in the eastern USA. Its use by thousands of people popularised the concept of long-distance trail hiking along a ridge feature (Zealand 2007). In 1963 a grassroots organisation called the Bruce Trail Association initiated development of the Bruce Trail along the length of the NE. The Bruce Trail was almost entirely located on private lands and public use was allowed through handshake agreements between trail organisers and landowners. As Bruce Trail hiking increased, widespread public recognition of the NE as a landscape developed along with appreciation of the area's scenic beauty, biological value and high sensitivity. The Bruce Trail Association believed increased use of the NE would build landscape value and lead to its protection (Plaunt 1978). The work of the Hamilton Field Naturalists, Federation of Ontario Naturalists and subsequently the Bruce Trail Association contributed to the creation of the NE as a planning domain.

Public and EMO concern and action over NE protection prompted the Honourable John Robarts, Premier of Ontario, to announce in March 1967 a wide-ranging study of the Escarpment, with a view to preserving its entire length (Niagara Escarpment Study Group 1968). The 'Niagara Escarpment Conservation and Recreation Report' also known as the Gertler Report, named after the lead author Leonard Gertler, mapped and documented the NE domain. This study also led to a government process that resulted in the creation of a new planning regime for the NE through the passage of the Niagara Escarpment Planning and Development Act by the Ontario Parliament in 1973.

Neither the Gertler study nor the government process that led to the Act involved collaborative activities with stakeholders. This conclusion is based on an analysis of the Gertler Report and subsequent government decision making on NE matters. Although the Gertler process involved public consultation along with 61 interviews with key informants, it did not include any formal collaborative processes that brought stakeholders together. Rather, the study was led and prepared by experts. The entire Gertler team was composed of professionals (Niagara Escarpment Study Group 1968). The Gertler Report was "... the product of a research group of planners and geographers" working within the Regional Development Branch, Treasury Department, Finance and Economics (Niagara Escarpment Study Group 1968). Even though NE EMOs were not involved beyond consultation, the movement supported Gertler's proposals and were recognised by the government as a significant base of political support for establishment of a new regime.

The government responded to the Gertler Report in 1971 with steps to increase funding for land acquisition, development of a policy framework and statutes governing mineral resource extraction, and the formation of the Niagara Escarpment Inter-Ministerial Task Force to consider an overall comprehensive policy for the Escarpment. The Task Force carried out public consultation but did not engage in any collaborative processes. The Task Force recommended a provincial planning system featuring strong land-use regulation of private land and public ownership of small portions (Niagara Escarpment Task Force 1972). In response to the Task Force's recommendations, the government introduced, and Parliament passed, the Niagara Escarpment Planning and Development Act in 1973.

The purpose of the Niagara Escarpment Planning and Development Act is to maintain the NE as a continuous natural environment and to ensure compatible development (Government of Ontario 1973). The Act created the 17-member Niagara Escarpment Commission to oversee decision making and dictated the development of a land-use plan for the entire NE area in Southern Ontario, except for Manitoulin Island. The Niagara Escarpment Plan process included the use of Advisory Committees, as provided for in section 4 of the Niagara Escarpment Planning and Development Act (Government of Ontario 1973). A Regional and County Advisory Committee was formed composed of elected municipal officials and planners from Escarpment municipalities. An Interest Groups Advisory Committee was formed composed of representatives from tourism, mineral resource extraction, urban development, recreation and environmental interests. These advisory committees did not participate in collaborative processes designed to generate consensus solutions to issues. Interest groups and government representatives were on separate committees. Recommendations from each committee were interpreted by the Niagara Escarpment Commission. The Committees assisted the Commission in the planning process. "Both committees were required to advise and make recommendations to the Provincial Secretary for Resources Development, through the Commission, on the preparation and implementation of the Escarpment Plan" (Niagara Escarpment Commission 1983, p. 2). This placed the Niagara Escarpment Commission as an intermediary between the committees and the Secretary, and in a position of power over the committees.

Public hearings on the proposed Plan proceeded for 26 months, starting in 1980. The Coalition on the Niagara Escarpment, an EMO, participated in the public hearings advocating for a Plan with strong environmental policies (Coalition on the Niagara Escarpment 2007). However, critics of a new planning approach for the NE were also active. Interests associated with aggregate extraction, residential development and rural landowners, especially in the northern portion of the Plan area, lobbied to limit the NE domain and the proposed new planning rules. These interests were successful in having the provincial government decrease the size of the proposed Niagara Escarpment Plan area by over 60%. After five years of deliberation, the Niagara Escarpment Plan was approved in 1985 (Government of Ontario 1985).

The Plan has seven land use designations (Escarpment Natural, Escarpment Protection, Escarpment Rural, Escarpment Recreation, Minor Urban, Urban and Mineral Resource Extraction). Mineral resource extraction is prohibited in Escarpment Natural and Protection designations, and Escarpment Rural areas must undergo a Plan Amendment to allow for aggregate extraction. Subdivision development is prohibited in Escarpment Natural, Escarpment Protection, and Escarpment Rural designations.

Although most EMOs approved of the Niagara Escarpment Plan and conferred legitimacy on it, in particular the land use implementation role of the Niagara Escarpment Commission, the EMOs were not equal partners in its creation. The environmental movement was only one of many parties to an adversarial hearing process. Other prominent parties included rural landowners, the aggregate industry and outdoor recreation groups.

The environmental movement has a long history of implementing solutions on the NE in two main areas. One involves policy monitoring that includes tracking the decision-making behaviour of each NE commissioner and evaluating results to determine if the Plan is being followed. Policy monitoring findings are reported in the press. The second area of activity emerged in response to the designation of the NE as a United Nations Education Scientific and Cultural Organisation World Biosphere Reserve in 1990. Major

budget and staff reductions after 1995 limited the ability of the Niagara Escarpment Commission to implement Biosphere Reserve activities. Out of necessity, the Commission focused on its core mandate, administration of the development permit system, plan amendment process and five-year plan reviews (Francis and Whitelaw 2002). Niagara Escarpment EMOs have, in some cases, filled the Biosphere Reserve management void left by government agencies due to these cutbacks. Although the Coalition on the Niagara Escarpment and other NE EMOs had little to do with the process of Biosphere Reserve designation, many subsequently embraced the concept and used it as a vehicle for a variety of activities along the Escarpment, including signage installation, education and reporting on policy monitoring (Pim 2003). These EMO activities represent an evolving contribution to NE governance.

The new NE regime that resulted in the Niagara Escarpment Planning and Development Act, the Niagara Escarpment Plan and the Niagara Escarpment Commission was a significant outcome of EMO activism. The activity of NE EMOs led to a major regime change. This activity from 1960 to 1985 provided a model for the next major EMO guided regime change, centred on the ORM in the 1990s.

### **3.2. *Oak Ridges Moraine domain creation and regime change***

The creation of the ORM planning domain dates to the late 1980s when numerous local grassroots EMOs, many of them initially driven by 'Not-In-My-Back-Yard' concerns, emerged to fight local battles against subdivision development. The emergence of small grass roots EMOs was the first step in the creation of a broad-based network, the Save the Oak Ridges Moraine (STORM) Coalition that came to understand the overall ORM as an important landscape worth protecting. The key role played by the STORM Coalition in the early days was agenda setting, specifically, creating a vision for the moraine, establishing the ORM as a valued landscape and sharing the need for its protection.

In the late 1980s, the STORM Coalition influenced the content of three important government studies that led to broader recognition of the ORM domain (Environmental Assessment Advisory Committee 1989, Kanter 1990, Royal Commission on the Future of the Toronto Waterfront 1992). First was an inquiry by the provincial Environment Minister's Environmental Assessment Advisory Committee that explored the ability of conventional municipal land-use planning in the Ganaraska watershed (a major watershed east of the City of Toronto) to address the cumulative effects of multiple subdivision developments. The local EMO Save the Ganaraska Again, a founding organisation of the STORM Coalition, requested the Committee to hold the hearing. The Environmental Assessment Advisory Committee Study Report 38 of 1989, 'The Adequacy of the Existing Environmental Planning and Approvals Process for the Ganaraska Watershed', is identified by the environmental movement as the first government supported study to recommend that the ORM be protected through better planning (Environmental Assessment Advisory Committee 1989). The second government study was led by the Honourable Ron Kanter, Member of Provincial Parliament. The STORM Coalition met Kanter, and supported him in making the connection between the ORM and a larger southern Ontario greenway strategy. Kanter's report, 'Spaces for All: An Option for a Greater Toronto Area Greenlands Strategy' (Kanter 1990) called for further study and supported the declaration of provincial government interest in the moraine and related steps to secure its protection. The third government study was by the Royal Commission on the Future of the Toronto Waterfront, led by the high profile former City of Toronto Mayor David Crombie. The waterfront study findings were presented in two reports:

'Watersheds', an interim report, and 'Regeneration', the final report (Royal Commission on the Future of the Toronto Waterfront 1990, 1992). In these reports the Commission recommended that the Province should take immediate steps to preserve the ORM and to carry out studies on conservation, groundwater protection, trail locations, cumulative effects and future development. All three of these government studies mapped the ORM, identified the value of the landscape and recommended further study and protection measures, leading to the creation of the ORM domain.

In 1991, responding to EMO agenda setting and the recommendations of these three studies, the provincial government issued an expression of provincial interest in the ORM within the Greater Toronto Area and announced a comprehensive planning study to explore ORM planning issues. The Province also issued 'Interim Guidelines – Provincial Interest on the Oak Ridges Moraine Area of the Greater Toronto Area' (Government of Ontario 1991) to implement the expression of provincial interest and in 1992 established the ORM Technical Working Committee. The ORM Technical Working Committee was collaborative and had representation from the Federation of Ontario Naturalists, the STORM Coalition, municipalities, conservation authorities, developers and aggregate industry. The Technical Working Committee guided the three-year planning study designed to recommend long-term protection for the Moraine. The 'Oak Ridges Moraine Strategy for the Greater Toronto Area' was released in December 1994. However, a change in government led to the report being shelved.

The decision by the STORM Coalition to withdraw from direct agenda setting to focus mainly on educational activities was made after the Technical Working Committee submitted the 'Oak Ridges Moraine Strategy for the Greater Toronto Area' Report (Oak Ridges Moraine Technical Working Committee 1994). This decision was in response to the election of the Progressive Conservative government in 1995. The strategy report had been prepared by the previous New Democratic Party government. The new Conservative government began dismantling environmental programmes and the STORM Coalition did not want to bring attention to the ORM issue, hoping that the existing ORM Guidelines (Government of Ontario 1991) would, in the interim, protect the moraine. The STORM Coalition was concerned the Conservative government might initiate pro-development moraine policy early in their mandate. One of the activities undertaken during this period of passive agenda setting was the preparation of the coffee table book *Oak Ridges Moraine* (Save the Oak Ridges Moraine Coalition 1997). This book proved useful in building public recognition of the ORM landscape and in raising money for future protection efforts.

Re-engagement of the environmental movement in agenda setting activities occurred after the 1999 provincial election when the Conservative government was re-elected. In September 1999, the Regional Municipalities of York, Peel and Durham issued a state-of-the-moraine report that urged provincial leadership on the issue. This report helped place the ORM issue on the provincial government's agenda. A turning point during the ORM protection effort occurred when the Minister of Municipal Affairs was accused of wrongdoing by development sector interests in October 1999. The environmental movement was able to shift this event into media coverage for the ORM protection effort (Edey *et al.* 2006). In November 1999, EMOs including the Federation of Ontario Naturalists and the STORM Coalition released an action plan to protect the moraine.

In a poll commissioned by the environmental movement in early 2000, 85% of those living on the moraine said that the moraine was a political and election issue, and of those respondents, 60% had voted Conservative in the previous election. This poll launched the STORM Coalition's political campaign to get Members of Provincial Parliament on side. Various campaign activities were initiated such as take action week, call Members of

Provincial Parliament during constituency week, partnerships with Toronto area EMOs, regular use of email for updates and action alerts, radio adverts and partnerships with a number of savvy political strategists who managed to position the ORM as a key political issue. The Federation of Ontario Naturalists produced a four-page colour brochure on the ORM and distributed it widely and used their quarterly magazine *Seasons* to advocate for moraine protection. Environmental movement organisations also successfully engaged scientists in the agenda setting effort. By early 2000, moraine EMOs compiled a petition signed by 465 scientists calling for the protection of the ORM.

A critical focus point of interest then occurred when a consortium of land development companies, energised by a supportive provincial government, proposed a major urban expansion in the Town of Richmond Hill for over 5000 houses on one portion of the ORM. This massive development led to a major public backlash in the local area. Approximately 1600 citizens packed a Town of Richmond Hill Council meeting in February 2000 to oppose these development applications on the moraine. The proposed development was in an area that linked the east and west moraine land corridor at its thinnest point. Developers had referred their proposals to the provincial land use hearing tribunal, the Ontario Municipal Board, to fast track their approvals. The EMOs opposed approval of the Richmond Hill residential developments on the grounds that the area in dispute was the Town's urban separator. The EMOs successfully translated the Town of Richmond Hill Ontario Municipal Board hearing process into a widespread public debate on residential development threats across the entire ORM.

Environmental movement organisation advocacy and widespread media coverage (Edey et al. 2006) of the confrontational Richmond Hill Ontario Municipal Board hearing during 2000–2001 led the Government of Ontario to introduce legislation into Parliament that imposed a six-month development freeze on the ORM. Passage of this legislation was followed by a short period of intense, long-range planning activity. The government appointed a multi-stakeholder collaborative Advisory Panel with representatives from the environmental, development, agricultural and mineral resource sectors to recommend protection and planning rules for the moraine. Based on the recommendations of the Advisory Panel, the government introduced and passed the Oak Ridges Moraine Conservation Act in 2001. The government approved the associated Oak Ridges Moraine Conservation Plan in 2002 (Parliamentary Commissioner for the Environment 2003).

The vision for the Oak Ridges Moraine Conservation Plan is:

a continuous band of green rolling hills that provides form and structure to south central Ontario, while protecting the ecological and hydrological features and functions that support the health and well-being of the Region's residents and ecosystems. (Government of Ontario 2002)

The Plan has four land use designations: natural core, natural linkage, countryside and settlement. Residential development is mainly limited to the settlement designation and includes a range of residential, commercial, industrial and institutional uses (Government of Ontario 2002). Some key policies of the Plan include no new aggregate resource extraction in natural core, and stringent review and approval standards for new mineral resource extraction in natural linkage. New recreation developments such as golf courses are excluded from the natural core and linkage designations. New transportation and utility corridors are permitted in natural core and natural linkage designations only if need is demonstrated and no alternative is available (Government of Ontario 2002).

By the end of the process, the STORM Coalition and the other participating EMOs had gained a substantial public profile and credibility. Their support for a new planning regime therefore enhanced the evident legitimacy of the approach taken in the Oak Ridges Moraine Conservation Act and Plan including their environmental protection provisions. Key to the environmental movement's support was the delineation of a natural heritage system and the limitation of new development to existing urban areas. The establishment of the Oak Ridges Moraine Foundation was also important, a funding body that the EMOs had been able to negotiate as part of the outcome. The Foundation became an important vehicle used in support of EMOs implementing solutions on the ground. Numerous EMOs continue to carry out ORM activities including stewardship initiatives (Oak Ridges Moraine Foundation, 2007), land acquisition (Oak Ridges Moraine Land Trust 2007), exploration of possible Biosphere Reserve designation for the moraine, establishment of a comprehensive monitoring programme (Citizens Environment Watch 2007), and ORM trail development (Oak Ridges Moraine Trail Association 2007).

#### **4. Discussion, implications and conclusions**

The two cases together reveal an evolution of land-use planning in Southern Ontario, affecting landscape-level natural heritage identification, protection and management on private lands. Both landforms attracted intense environmental movement interest from existing and new EMOs. The Bruce Trail Association formed to create a hiking trail and promote Escarpment protection. On the moraine various local groups formed with initially narrow objectives. These groups came together to form the STORM Coalition. Environmental movement organisations set agendas in both cases that led to domain creation and regime change. The Federation of Ontario Naturalists played a key role in both cases. In the case of the Niagara Escarpment, the Federation contributed to the Bruce Trail effort, and initiated and nurtured the Niagara Escarpment EMO network, in the form of the Coalition on the Niagara Escarpment. In the case of the ORM, the Federation joined with the STORM Coalition and adopted the ORM issue as one of its key initiatives. Networking among EMOs was vital to successful domain creation and regime change.

The ORM case followed a similar pattern to that of the NE. Initially there was a period of domain creation that established the ORM landform as a unique and identifiable feature with clear boundaries. This was followed by EMO advocacy and collaboration over a period of many years. This advocacy and collaboration led to regime change, including a new legal framework for long-term landscape planning and management. The main difference between the NE and ORM cases is that in the 1960s and 1970s the NE EMOs did not participate in truly collaborative processes during the lead up to either the Niagara Escarpment Planning and Development Act or Niagara Escarpment Plan. This is because the NE land-use planning process emerged during the dominance of rational comprehensive planning. In addition, the environmental movement in Canada had not yet institutionalised to the point where collaboration was possible (Wilson 2002). This can be contrasted with the ORM process where collaborative planning was utilised. Collaborative processes were built into the Technical Working Committee (1992–1994) and ORM Advisory Panel (2001). Both the Technical Working Committee and Advisory Panel processes demonstrated characteristics of collaboration including reductions in power imbalances, development of trust and respect between stakeholders, and the ability of the group together to develop solutions that no one individual group or representative could

achieve on their own (Frame *et al.* 2004, Healey 1998). The Technical Working Committee (1992–1994) process provided much of the background work relied upon by the Advisory Panel in 2001. Both processes also provided forums that allowed for multi-stakeholders to arrive at consensus.

The findings from the ORM case support Healey's (1998, 2003) conception of collaborative planning theory. Collaborative processes can be transformative based on human agency and in the case of the ORM included integrative place making, collaboration in policy making, inclusive stakeholder involvement, use of local knowledge and the building of relational resources (Healey 1998, 2003). Moraine EMOs also brought to the collaborative process important contributions of initiative and innovation through landscape vision building, enhanced public engagement and the use of leading-edge science including conservation biology (Whitelaw and Eagles 2007). Collaborative planning processes on the ORM appear to have had beneficial results in a number of areas when compared to the NE. These include government acceptance of the Advisory Panel's recommendations with no reductions in land area or changes to policies, timely preparation and implementation of the ORM Conservation Plan, and broad acceptance among the majority of stakeholders involved.

Although both NE and ORM EMOs conferred legitimacy on government decisions, in the case of the ORM, EMOs conferred legitimacy on a Plan they had an equal part in creating through a collaborative planning process. Niagara Escarpment EMOs conferred legitimacy on a Plan developed by the Niagara Escarpment Commission and vetted through a planning tribunal. Niagara Escarpment EMOs did not initially help implement solutions (with the exception of the Bruce Trail Association). It was not until 1978, when the Coalition on the Niagara Escarpment was established that planning activities began in earnest and developed into a sophisticated form of policy monitoring (Coalition on the Niagara Escarpment 2007). Policy monitoring provides one of the tools the Coalition on the Niagara Escarpment uses to stabilise and maintain the existing domain and regime. Niagara Escarpment EMOs are also helping implement biosphere reserve activities focused on education and stewardship (Bruce Peninsula Biosphere Association 2007). Oak Ridges Moraine EMOs are developing similar monitoring capabilities (Monitoring the Moraine 2007) and are also involved in stewardship and an exploration of the possible designation of the ORM as a United Nations Education, Scientific and Cultural Organisation biosphere reserve (Francis 2005). Collaborative planning appears to have also resulted in a multi-party stewardship model on the ORM through the Oak Ridges Moraine Foundation (Oak Ridges Moraine Foundation 2007). No similar funding body exists for the Niagara Escarpment.

In both the NE and ORM cases, EMOs went beyond reaction and adopted a broader agenda that includes ongoing and long-term planning activities. The Oak Ridges Moraine and NE EMOs appear to be less constrained than government and private sector land use actors in part because they are able to develop and nurture long-term visions, and evolve and share emerging concepts such as landscape level land-use planning. In these case studies, planning innovations developed in large part due to EMO initiative, advocacy and collaboration, gained societal relevancy over the long-term and have influenced other planning activities, for example, the recent Greenbelt Act and Plan that protects agricultural lands adjacent to both the NE and ORM (Government of Ontario 2007). The STORM Coalition and Coalition on the Niagara Escarpment have evolved from advocacy groups to organisations capable of continued managerial collaboration with government. The ongoing efforts described above suggest that NE and ORM EMOs will continue to be incubators of planning innovation.

The finding that the EMOs in these two cases influenced land-use planning governance systems is consistent with EMO activities in other domains including pollution prevention (Jamison and Ring 2000), environmental law (van der Heijden 1999, Wilson 2002, Diani 2000), and resource management (von Mirbach 1997). The results suggest that EMOs involved with landscape level planning issues can create planning domains through agenda setting activities, build landscape value and vision, educate governments and the public, and work to maintain and alter regimes through activities such as agenda setting, collaboration and monitoring. Collaborative processes can also enhance EMO effectiveness. Additional research in other jurisdictions would be worthwhile to further our understanding of the role and potential of EMOs in land-use planning.

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