

Landscapes in Transition:
Planning for uncertain futures and alternative scenarios
in resource-dependent regions

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Abstract

Resource-based regions face a unique set of challenges and vulnerabilities regarding environmental, social, and economic sustainability and stability. Such regions are characterized by complex relationships with the landscape and resource industry, a distinctive Northern identity, multiple spatial and temporal scales of planning, complex power relations, shifting environmental values, and high uncertainty. These challenges and dynamics can preclude the utility of long-range environmental planning and the agency to undertake it.

This dissertation examines three key research questions: (1) How can regional environmental planning processes address the cumulative, multi-scale challenges inherent to resource-dependent regions experiencing social, economic, and environmental transitions?; (2) How can uncertainty and long-term futures be planned for by utilizing scenarios, and how can scenario planning be integrated into existing environmental planning and assessment frameworks to manage uncertainty?; and (3) How do the diverse values and power relations inherent to a post-productivist landscape shape environmental planning and resultant outcomes?

These research questions were addressed through a case study analysis of the Northeast Superior region utilizing semi-structured interviews, focus groups, site visits, and document analysis. Key findings include the need for: (1) Better recognition of planning participants' complex, multi-dimensional relationships with the landscape and each other; (2) Planning that is both place-based and transferable to other contexts; (3) Transparent planning processes that co-exist with their inherently political nature; (4) Governmental

commitment to planning outcomes; and (5) The incorporation of scenarios into existing approaches to long-range environmental planning to both strengthen these approaches and facilitate acceptance of scenario planning in managing uncertainty.

Dedication

To my family – past, present, and future

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Chapter One

Introduction

1.1 Defining the research problem and context

The challenges inherent to forest- and resource-dependent communities and regions often appear to preclude both the utility of long-range planning and the agency to undertake it. This problem is especially manifested in forest-dependent regions undergoing social, economic and environmental transitions and subject to the boom-bust cycles typical to such areas (Hanlon and Halseth, 2005; Hill et al. 2008). In particular, the uncertainty associated with a reliance on resources and the landscape is often perceived to be a major stumbling block for achieving a stable future for such regions. Such regions are also subject to multiple spatial and temporal scales of planning, involving economic, political, social, and ecological boundaries (Culp et al. 2000a; 2000b; Dube et al. 2006).

These challenges for resource-dependent areas are set against the backdrop of shifting landscape values and decision-making structures. Persistent difficulties in long-range environmental planning revolve around the power conflicts and multiple values inherent to the movement from productivist (in which a region is dependent on a single commodity and a limited, top-down power structure) to a post-productivism (in which a region's landscape is recognized as containing multiple interests and is subject to a more diverse power-sharing model) (Mather, 2001; Mather et al. 2006). The benefits, drawbacks, and feasibility of top-down versus bottom-up management approaches continue to pose a long-running tension in environmental planning, but take on unique

dimensions in these regions. Often, both provincial policy makers and northern residents view such areas as “resource banks” from which resource withdrawals are made by the metropolitan areas of the province without reciprocal reinvestment in infrastructure or rural development needs (Markey et al. 2008a). In response, many resource-dependent communities which rarely cooperated or planned together due to the previous strength of their resource economy and geographical remoteness, have been forced towards a locally-directed and cooperative approach to regional economic planning (Markey et al. 2007a).

This bottom-up approach to regional socio-economic planning is reflective of a move towards a new regionalist planning approach which is defined by the involvement of specific territories; increased cooperation and coordination of several communities or regions to achieve a greater political voice and more efficient scale of planning (Wheeler, 2002); a spatial versus sectoral approach to planning and development (Markey et al. 2008a) with regions being viewed as the most appropriate scale at which to plan and enact policies (Marsden et al. 2004); and a focus on place and local context (Marsden et al. 2004; Jackson et al. 2008; Markey et al. 2008a; Markey et al. 2008b). Most new regionalist literature also exhibits a primary focus on economic development, with a secondary concentration on the links between social and economic development, rather than environmental planning (MacLeod, 2001; Markey et al. 2008a; 2008b; Marsden et al. 2004). These regions are increasingly characterized by a more diverse power and governance structure, with decision-making moving from the hands of a few industry and government players to multiple local and regional actors (Mather, 2001; Mather et al. 2006; Reed and Gill, 1997). Establishing and achieving long-range visions of the future can also crystallize the multiple – and frequently conflicting – needs, wants, desires and

voices present in such post-productivist areas, as well as highlight the deep and enduring uncertainties that seem to accompany long-range planning in these regions (Williams and Stewart, 1998; Myers and Kitsuse, 2000). These trends towards new regionalism and post-productivism can be seen throughout many northern and/or remote regions, including northern Ontario. This movement is particularly typified by the Northeast Superior region, which is the case study my research focuses on.

The Northeast Superior region is located on the north-eastern shore of Lake Superior and is composed of six municipalities (Wawa, White River, Dubreuilville, Manitouwadge, Chapleau, and Hornepayne) and nine First Nations communities (Michipicoten, Chapleau Cree, Chapleau Ojibwe, Pic Mobert, Brunswick House, Pic River, Constance Lake Hornepayne and Missinabie Cree) (See “Chapter 4: Research Design” for description of how case study boundaries were determined). Traditionally, the region has been heavily dependent on primary resource industries, notably forestry and mining, and is subject to resultant boom-bust cycles. Especially recently, mine closures, mill closures, and the forestry industry downturn have led to economically and socially vulnerable communities. However, other landscape-dependent industries such as tourism, non-timber forest products, hydro electric power generation, and biomass harvesting, also play or are beginning to play important roles. Therefore, environmental planning in these regions involves diverse interests including heterogeneous communities, First Nations, various industries mentioned above, and conservation organizations, all of whom hold multiple visions of how the landscape and forest should be managed. Frequently, attempts at long-range planning – both in environmental and

socio-economic planning – are thwarted by perceived immediate survival needs and the massive uncertainties facing the region.

Adaptive management is frequently utilized as a form of long-range planning for managing uncertainty in complex systems, and is particularly applied in the realm of Canadian forest management and environmental planning. However, the promise of adaptive management can also be derailed by institutional barriers, a lack of resources for monitoring and learning, discounting non-scientific forms of knowledge, and entrenched social norms (Allan and Curtis, 2005; McLain and Lee, 1996; Stankey et al. 2003). As well, while few practitioners reject this method, many now echo Spaling et al.'s (2000) call to not utilize adaptive management as “trial and error” and instead advocate a precautionary approach in the face of uncertainty, particularly in northern ecosystems which are particularly sensitive to anthropogenic disturbances (Culp et al. 2000a), may be subject to extremely large stochastic natural disturbances such as fires, and upon which human livelihoods depend (Yamasaki et al. 2008).

Similarly, while environmental assessment (EA) is a common – and importantly, legislated – form of planning, it is also criticized as being reactive, insufficiently addressing cumulative impacts, providing inadequate public accessibility to the EA process, and occurring at too narrow a scale and too late in the planning process to effect significant changes (Baxter et al. 2001; Sinclair and Diduck, 2001; Diduck and Mitchell, 2003; Dube, 2003; Duinker and Greig, 2006; Noble, 2008; Noble, 2009; Gibson et al. 2010). At the same time, from a proponent perspective, the EA process is often viewed as redundant, overly expensive, and inefficient (Gibson et al. 2010; Hegmann and Yarranton, 2011). These criticisms are especially pointed in the assessment of cumulative

impacts, either through project EA or through higher-level strategic EA (SEA) (Noble, 2009; Gibson et al. 2010). Therefore, current approaches to planning are viewed as increasingly unacceptable, especially as extractive pressures on the land increase, adverse cumulative effects and associated uncertainties multiply, and tolerance for the further proliferation of assessment processes declines. However, there are many recent advances available to enhance understanding of how to guide strategic and project level undertakings to make positive contributions to sustainability, to embrace and accommodate complexity, and to engage relevant interests in planning, decision-making, and governance. Increasingly, northern stakeholders and planners are looking beyond existing and commonly used approaches for other forms of long-range planning that can account for uncertainty, surmount place-based barriers to long-range planning, and integrate multiple and conflicting landscape interests and jurisdictions.

Scenario development and planning has been offered as a promising approach to long-range planning. Potential uses include visioning (Malaska and Hostius, 1999), and back casting (Tansey et al, 2002; Robinson, 2003; Quist and Vergragt, 2006), both of which can be important tools for setting and attaining regional objectives. However, scenarios may be a particularly powerful means of identifying and managing the uncertainty that accompanies long-range environmental planning, especially that experienced by rural and resource-dependent regions (Cizek, 2005; Frittaion et al. 2010; Ghisa et al. 2011). Strengths for the development of scenarios in these regions include their participatory and exploratory nature (Mulvihill and Kramkowski, 2010), their focus on the future (as opposed to historical trends) (Myers and Kitsuse, 2000), and the space they provide for multiple perspectives, differing visions, diverging interests, conflicting

perspectives, and the questioning of deeply held beliefs. Most importantly, scenarios can be utilized to develop plausible long-term future narratives to provide strategic direction for present and future challenges. This is especially cogent for regions that are – or may – be subject to complex, cumulative impacts, multi-sectoral industries and pressures, and for which there is limited baseline knowledge (Mulvihill, 2003; Duinker and Greig, 2007).

However, the participatory and exploratory aspects of scenarios which are such an asset, can also pose challenges to their use, both generally but especially in a transitioning post-productivist forest-dependent region. The political and psychological content of scenarios and potential stakeholder agitation over undesirable scenario can heighten the politicization of the scenario development process, and result in emotional repercussions, and an erosion of the credibility of the exercise (Duinker and Greig, 2007; Volkery et al. 2008). As well, participants' biases towards what they perceive the future to hold (Lindgren and Banhold (2009: 71), difficulties suspending disbelief (Frittaion et al. 2010), an aversion to the incorporation of extreme or discontinuous events (van Notten et al. 2005), enduring predictive tendencies, and essentialist perspectives (Mulvihill and Kramkowski, 2010) can hinder the application of scenarios. Conflicts can also occur between experts and members of the public due to differing ideas about what information, developments, or scale of inquiry may be relevant (Volkery et al. 2008). However, while an open, communicative approach to scenario development has been encouraged to address some of these issues (Myers and Kitsuse, 2000), and while scenarios *can* incorporate diverse and differing views, such an approach disregards the power relations which are often inherent to public processes, particularly in remote

resource-based communities where residents may experience a high degree of familiarity and connectivity.

There are several key questions embedded in these challenges and frameworks that my research seeks to explore by examining the case study of the Northeast Superior region.

1.2 Core research questions and objectives

1.2.1 Research questions

My research focuses on the following core questions:

1. How can regional environmental planning processes address the cumulative, multi-scale temporal and spatial challenges inherent to forest¹-dependent regions experiencing social, economic, and environmental transitions?
2. How can uncertainty and medium- to long-term futures be planned for in environmental planning for forest-dependent regions in transition?
 - a. How can scenario development be utilized in planning for long-term futures and uncertainty?
 - b. How can scenario planning be integrated into regional environmental planning and assessment frameworks in order to explore, assess, and plan for alternative futures and accompanying uncertainty?

¹ While the term “forest-dependent” denotes communities and regions that rely on conventional forestry operations and mills, this dissertation considers “forest-dependent” to also include all economic, social, and cultural activities and reliances on the forest and associated landscape. This can include – but is not limited to - traditional resource industries such as mining, as well as tourism and associated activities, non-timber forest products, hunting and fishing, ecosystem services, and cultural and spiritual relationships.

3. How do the diverse values and power relations inherent to a post-productivist forest-dependent landscape shape regional and long-range environmental planning, and resultant outcomes?

1.2.2 Objectives

Based on the above questions, my research will pursue the following objectives

1. Identify the views and challenges particular to the Northeast Superior region typical of similar forest-dependent regions regarding the long-range planning process and in managing environmental, social, and economic uncertainty.
2. Examine how the multiple values, interests, and power relations that revolve around the landscape can influence and shape visions of the long-term future and associated uncertainty, and identify the implications.
3. Develop a preliminary scenario building and planning framework appropriate for forest-dependent regions in transition which can be applied to both long-range visioning and management of uncertainty
4. Explore means of integrating scenarios into existing regional environmental planning systems and approaches for such regions. A specific strategy for achieving this - and one of my major contributions - is an exploration of the links between post-productivism, new regionalism and associated bottom-up forms of management, adaptive management, multi-scale challenges and planning, value conflicts, reshaping power relations, uncertainty, and the role of scenarios and

future narratives. These links are where the key opportunities lie for effective long-range environmental planning for forest- and resource-dependent regions.

1.3 Organization of dissertation

This dissertation is organized into 8 chapters.

In Chapter One, I have outlined the research problem and introduced my case study. I have also introduced the themes and concepts of post-productivism and new regionalism in forest-dependent regions, and associated long-range environmental planning processes. This chapter concludes with my key research questions and objectives.

Chapter Two outlines the current state of Canadian resource- and forest-dependent regions, the development of new regionalist modes of socio-economic planning, and the shift from a productivist to post-productivist view of the landscape. I also examine the evolution of current approaches to regional and long-range environmental planning in such areas including adaptive management, project-based and class environmental assessment, cumulative environmental assessment, strategic environmental assessment, watershed and bioregional planning. Finally I explore approaches to, and tensions in, articulating and negotiating multiple and conflicting values, interests and power discrepancies including top-down and bottom-up environmental planning and local control and/or ownership of natural resources.

In Chapter Three, I explore the concept and process(es) of scenario development in long-range planning. This includes an overview of its application in visioning and backcasting, but specifically focuses on the use of scenarios for managing uncertainty. The diverse, and sometimes inconsistent or chaotic, application of scenarios is examined. I also delve into opportunities and challenges to utilizing scenarios for collaborative and explorative planning purposes.

Chapter Four describes my research design. I explore the seemingly conflicting paradigms of positivist quantitative research and constructivist qualitative research, thereby positioning my own work within the school of pragmatism and associated mixed methods. I lay out my case study-based research process and describe my methodology for data collection and analysis.

I present an overview of my case study - the Northeast Superior region of Ontario – in Chapter Five. This includes a description of biophysical and jurisdictional boundaries, the communities of the region including Aboriginal and Settler community history, and an overview of the development of historical, current, and emerging forest- and landscape-based industries. Current approaches to regional environmental planning and long-range planning that have been attempted or utilized in the region are then laid out, including participant perceptions of these processes.

In Chapter Six I present results from both interviews and document analysis outlining the influence of historical and current driving forces and uncertainties that have, or may,

shape the future of the region and influence planning approaches. These include forces at multiple and varying spatial and temporal scales, and which can be social, economic, political, or environmental in nature. I then elucidate how the political nature of environmental planning and management is heightened in resource-dependent regions and how an embracing of these politics, greater transparency, and a more developed use of the sense of place concept can mitigate challenges inherent to environmental planning in these regions.

Chapter Seven explores the results of interviews and exploratory focus groups to analyze how scenarios can be utilized in environmental planning for post-productivist forest-dependent regions in transition. I examine how the multiple values, interests, and power relations that revolve around the landscape, influence and shape long-range planning in the region. In particular, I analyze how the social, economic, political and environmental uncertainty inherent to forest- and resource-dependent regions can be managed through the use of scenarios. The potential of integrating scenarios with existing environmental planning regimes is explored.

In Chapter Eight I synthesize my major research findings in reference to my core questions and objectives. The major practical, theoretical and methodological contributions of my work are delineated, and the main conclusions of my research are outlined. Nine recommendations emerging from my research are highlighted. I then discuss the strengths and limitations of my work, and suggest gaps and opportunities for future research.

Chapter Two

The current state of Canadian forest-dependent regions and associated trends in environmental planning

Forest- and resource-dependent regions in Canada and Ontario are acted upon by various political, economic, social, cultural, and environmental driving forces and trends. These forces work at multiple spatial and temporal scales and affect how environmental planning takes place in these regions. This chapter outlines the current state of Canadian resource- and forest-dependent regions, including the development of new regionalist modes of social, economic, and environmental planning, and the shift from a productivist to post-productivist view of the landscape. I also examine the development of current approaches to regional and long-range environmental planning in such regions including adaptive management and project- and strategic-level environmental assessment. I conclude by laying out how multiple and conflicting values, interests and power discrepancies are articulated and negotiated in environmental planning for post-productivist forest dependent regions and the tensions inherent to these issues.

2.1 New regionalism and forest-dependent regions: Historical and current approaches to governance and planning

Increasingly, small, formerly “independent”, resource-based communities are moving towards a new regionalist mode of planning. While new regionalism is sometimes defined in the context of inter-country relations in international trade (Ethier,

1998; Esteradeordal et al. 2001), in this research and in the circumstance of forest- and resource-dependent communities, new regionalism refers to economic and/or social planning and development which focuses on specific territories and involves the co-operation and co-ordination of several communities or regions (Wheeler, 2002).

Although the term “new regionalism” has been used as far back as seventy years ago, its current incarnation originated in the mid-1990’s. In particular, this form of new regionalism focuses on specific territories and spatial planning, takes a more holistic approach to planning which often integrates various planning specialities and goals, emphasizes physical, social, and economic planning, and adopts a normative or activist perspective (Wheeler, 2002). However, while Wheeler (2002) contends that new regionalism features equity and environmental concerns alongside social and economic ones, most new regionalist literature exhibits a primary focus on economic development and competitiveness, with a secondary concentration on the links between social and economic development (MacLeod, 2001; Norris, 2002; Marsden et al. 2004; Markey et al. 2008a; 2008b). Furthermore, although much of the new regionalist literature tends towards an urban focus (Deas and Ward, 2000, MacLeod, 2001, Norris, 2002, and Wheeler, 2002 as examples), the enactment of new regionalist concepts in planning is effectively illustrated by governance shifts in many resource-dependent and rural areas.

Deas and Ward (2000) note the emergence of new regionalism in British cities as a response to governmental policies which have shifted their emphasis from “one based on redistribution and equity to one based on growth and ‘opportunity’” along with “parallel changes in the supporting institutional infrastructure”. In a rural context, Markey et al. (2007a; 2008a) observe that while the provincial government of British

Columbia explicitly invested in new communities and high quality infrastructure in Northern BC during the 1950's and 1960's, current trends to new regionalism have been at least partially in response to withdrawal of governmental support for such regions. Although the shift in governmental support is sometimes framed as moving from equity-based policy to so-called "enabling" policy, Markey et al. (2007a) observe the sense of governmental abandonment that has resulted for such regions. Similarly, in their study of new regionalist trends in economic and ecological governance in rural Australia, Morrison and Lane (2006) note the increased emphasis on "results or outputs" versus "control of inputs or processes" which results in flexible "post-bureaucratic" implementation consisting of outsourcing of information, services and incentives.

At the same time, the emergence of new regionalism in resource-dependent areas also reflects increased calls for local autonomy and decision-making making power, increased local control over regional resources, and a more bottom-up approach to regional economic planning (Polese, 1999; Markey et al. 2007a; Jackson et al. 2008; Markey et al. 2008b). Territorially-based governance structures - which may be built upon existing municipal, First Nations, and/or provincial governance frameworks, and may or may not involve legally-binding links, rights and responsibilities - are also a characteristic of new regionalism in resource-based areas (Markey et al. 2007a; Jackson et al. 2008). A particular strength of new regionalism and related governance frameworks is the focus on the connections between social and economic development. This is especially germane in remote and resource-dependent communities where inadequate investment in social and community services can undermine economic development and vice versa (Markey et al. 2007a; Markey et al. 2007b; Markey et al. 2008a). As a further

expression of these links, new regionalism takes a spatial approach, rather than a sectoral approach, to planning and development (Markey et al. 2008a), with regions being viewed as the most appropriate scale at which to plan and enact policies (Marsden et al. 2004).

Finally, one of the defining features of new regionalism is its focus on place and local context. In particular, new regionalism recognizes both the natural/resource capital inherent to an area, and its human and social capital, with the expectation that regions and communities can enhance and exploit the unique strengths of their area (Wheeler, 2002; Marsden et al. 2004; Jackson et al. 2008; Markey et al. 2008a). Hence, Jackson et al. (2008) and Markey et al. (2008a; 2008b) advocate a place-based approach to regional economic planning in Northern BC which recognizes that “combinations of assets, populations, histories, and circumstances mean that general processes are always modified by the matrix of place (Markey et al. 2008a: 410). In particular, Markey et al. (2008b) state that since local and regional economies are composed of both inherited endowments (such as location and natural resources) and human intervention (in terms of choices, policies, capacities, and leadership), local and regional context is of the utmost importance in understanding and suitably planning for a region. Markey et al. (2008b) note that regional spatial and temporal planning which is not grounded in place, does not address the specific challenges faced by regions nor plays up their particular strengths, and hence is far less effective than planning which is based upon local and regional contexts.

However, MacLeod (2001) also notes that “new regionalism lacks a deeper understanding of the complex processes out of which regions are historically constructed, culturally contested and politically charged” (MacLeod, 2001: 822-823). Morrison and

Lane (2006) also observe that a key assumption on which new regionalism operates is that it is possible to identify a region as a spatial entity of an appropriate scale for managing social, economic and environmental concerns. This assumes an area – whether an economic, social, or ecological unit or a combination of these three – with a common interest. This assumption, however, disregards the heterogeneity of a supposedly uniform region due to various inhabitant social identities the patchy, multi-scalar nature of ecological changes, and the pressures created for regions by national and international markets and policies. Finally, since environmental policy and planning remains separated from social and economic policy, this has resulted in a system of “regionalizations” by different agencies for different purposes (Morrison and Lane, 2006)

In the end, despite promising applications - and indeed the practice of new regionalism in areas such as the Northeast Superior region - there is currently little academic exploration of new regionalism as a concept for resource-dependent areas in a Canadian context, with Markey et al. (2007a; 2007b; 2008a; 2008b) and Jackson et al. (2008) being the few notable exceptions.

2.2 The ongoing shift from a productivist to a post-productivist view of the forest and landscape

The trend towards new regionalism in resource-dependent areas is set against the backdrop of shifting landscape values from productivism to post-productivism. Productivist forest-dependent landscapes were generally dominated by a single, intensive industry usually related to commodity production, and singular values that centered on the industrial forest. However, during approximately the last twenty years, academic literature has been exploring the shift in rural and resource-based land-uses to post-

productivism. In post-productivism, the focus on primary resource production is de-emphasized in favour of more diverse economic activities, services (including services for which an established market may not yet exist, such as ecological services), and the host of other economic, environmental, social, and cultural values that are part of the forest. In addition, post-productivism is also characterized by a more diverse power and management structure, with decision-making moving from the hands of a few industry and government players to multiple local and regional actors (Mather, 2001; Mather et al. 2006; Reed and Gill, 1997).

Post-productivism is often presented as dimensions rather than definitions, with characteristic dimensions including the nature and type of production (from commodity to non-commodity outputs), the multidimensionality of objectives associated with landscape and resources (such as environmental amenities and ecological services values), and the importance of governance (from limited top-down decision-makers to a greater array of actors and institutions) (Mather et al. 2006).

In general, the theory of post-productivism has focused on agricultural land uses in Europe, and to a lesser extent Australia and North America. This has led to debate in the literature about whether the shift from productivism to post-productivism is only a theoretical concept or is indeed rooted in reality and empirical evidence. For example, in an agricultural context, Lowe et al (1993) define the key aspect of productivism as being an intensive, industrially driven and expansionist agriculture, in which state support is dependent on output and increased productivity. In contrast, agricultural post-productivism is distinguished by reduced food output, reduced government subsidies, the production of food in an internationally competitive market, increased environmental

regulation and the existence of multiple social, economic, cultural, and environmental values in the landscape, with a diminished focus on the original intensive industry (Ilbery and Bowler, 1998; Mather et al. 2006). Based on these conceptions and the dimensions outlined above, the shift from productivism to post-productivism in agriculture is often placed in doubt (Wilson, 2004). Added to this are critiques about the theory's embracing of a productivist–post-productivist dualism, whether post-productivism is a relevant concept for agricultural regions, and concerns about it being overly vague (Evans et al. 2002; Mather et al. 2006).

Milbourne et al. (2008), citing Tsouvalis (2000), also critiques the notion of post-productivism in forestry, asserting that, rather than reflecting a societal shift towards post-materialism, post–productivism is more reminiscent of advanced capitalism in which accelerated rates of production and consumption are so rapidly accelerated that “consumption of the image becomes as important as the consumption of the product itself”. However, Mather (2001) and Mather et al. (2006) demonstrate that the shift to post-productivism is much clearer, though far less studied, in forestry than in agriculture. Mather et al. (2006) emphasize that the shift to post-productivism does not necessarily require the complete neutering of productivism nor an absolute change from material commodity to service output. Instead, they do note the post-productivist shift in *emphasis* to multiple values has occurred in our forests. This trend includes a change towards multiple-use forestry and resultant products and services, as well as alterations in who decides both the means and ends. Therefore, as a reflection of the post-productivist dimensions outlined above, such forestry is characterized by (a) the purpose of the forest, and (b) management/power over the forest. Changes in purpose of the forest are typified

by the move from timber primacy to the management of environmental, social, and cultural goals (such as recreation and biodiversity), as well as an emphasis on services (including, but not limited to ecological goods and services).

In a similar manner, forest management systems have begun to move from a top-down approach in which control rests in the hands of a small number of industrial and governmental decision-makers, to one in which a diverse variety of local actors, stakeholders, groups, and governments are part of the planning and decision-making context (Mather, 2001). However, Markey et al. (2008a) note that the emergence of bottom-up governance and planning in such regions is due as much to the withdrawal of governmental support, as it is to legitimate desires for improved public representation and control. As well, in their study of industrial forests in the UK, Milbourne et al. (2008) assert that, despite increased industrial and governmental consultation with local communities and stakeholders, such stakeholders continue to perceive the surrounding forests as industrial in nature and object to consultation methods which suit industry and government but not those being consulted.

Yet overall, the development of such governance is often linked to the expectation that it will support the recognition, maintenance, and enhancement of the multiple values which reside in the forest (Mather, 2001). It is notable that even in Milbourne et al.'s (2008) case study of UK industrial forests, that while stakeholders perceived that there was industrial-governmental-local dialogue, there was still the expectation that there *ought* to be meaningful consultation and incorporation of diverse values, even if it was not being achieved. This post-productivist recognition of multiple values which include, but are not limited to, commodity production, and the weight which is placed on

identifying, balancing, and negotiating these values and interests, directly informs how environmental planning is conducted and the resultant expectations in forest-dependent regions.

2.3 Current approaches to long-range and regional environmental management in forest-dependent regions of Ontario

Due to the multiple industries and values at play on the landscape, forest-dependent regions are frequently subject to a variety of environmental planning regimes. Each of these regimes is often subject to differing boundaries, processes, policies, and administering agencies, thus necessitating – and sometimes falling short in – a high degree of coordination and communication. This is demonstrated by the variety of planning frameworks at work in the Northeast Superior region. For example, in Ontario, forestry is governed by provincial agencies, with the entire harvested Area of Undertaking on Crown land falling under the Forest Management Class Environmental Assessment (OMNR, 1994a), and the resultant *Crown Forest Sustainability Act* (OMNR, 1994b) governing forest management plans for each Sustainable Forest License or Forest Resource License, and the Forest Management Planning Manual providing direction for all aspects of forest management planning in forest management plans (OMNR, 2004; 2009). Public input is sought through public consultations on forest management plans and through stakeholder involvement in Local Citizens Committees (OMNR, 2011a). However, while forest management planning is administered by the Ministry of Natural Resources (MNR), Ontario's tenure and licensing system which allocates and administers

Sustainable Forest Licenses and Forest Resource Licenses was governed by the Ministry of Northern Development, Mines, and Forestry (MNDFM) (OMNDM, 2010a)².

Mining projects are administered by the Ministry of Northern Development and Mines and fall under the *Mining Act* (OMNDM, 1990), with certain mining activities also being subject to the *Environmental Assessment Act* (OMOE, 1990; OMNDM, 2010b). The MNDFM is currently developing a Class Environmental Assessment (Class EA) for these activities – which include discretionary decisions related to surface rights, mining rights and chattels, and ministry-administered mine rehabilitation activities (OMNDM, 2010b) (See “2.3.3 Current approaches to project and class environmental assessment” for further discussion on the role of individual and Class EA in environmental planning for forest-dependent regions). Some environmental planning initiatives have attempted to integrate various industries and interests, such as the *Lands for Life* process in Ontario (OMNR, 2007a) and the *Crown Land Use Atlas Harmonization (CLUAH) Project* in the Northeast Superior region (See Chapter 5 for further description of CLUAH).

The region is also covered by broader development policies such as the Growth Plan for Northern Ontario which aims to guide robust and sustainable development for healthy and viable northern communities, to help integrate natural and municipal boundaries, and to facilitate long-term visions and goals for Northern Ontario among all levels of government (OMOE, 2009; OMNDM, 2011a). At the opposite spatial scale, municipalities cover a small percentage of the region but are highly influenced by larger policies and forces, as well as being responsible for their own municipal policies such as Sustainability Plans and Official Plans. Further, First Nations reserves and traditional

² As of 2011, the Ministry of Northern Development, Mines, and Forestry has reverted to its original title of Ministry of Northern Development and Mines and forestry matters have reverted completely to the MNR

lands can also cover considerable territories, such as the Chapleau Cree in the Northeast Superior Region, whose traditional lands cover the Chapleau Game Preserve.

The Northeast Superior region is crisscrossed by these various management regimes whose boundaries and associated administering agencies frequently overlap and may conflict with each other. In this way, the region is typical of many forest-dependent areas in Ontario and Canada and reflective of the state of these regions.

2.3 Current state of environmental planning in forest-dependent regions

2.3.1 Current approaches to long-range environmental planning: Adaptive management

Increasingly, it has become apparent that traditional environmental management processes which attempt to maintain ecosystems systems in an unvarying optimal state (Caddy, 1996), are ill-equipped to deal with large, complex systems which are composed of multiple, interacting, synergistic components, involve a variety of users and interests, and experience a high degree of uncertainty (Johnson, 1999). As a result, both nationally and internationally, adaptive management has become one of the major approaches to planning for and managing large, complex ecosystems. For example, in Ontario adaptive management is the cornerstone of forest management planning, particularly when it comes to managing associated uncertainty (E.g.: forest fires, pest infestations, market changes) (OMNR, 2011a).

Adaptive management began in the 1970s (Holling, 1978) and has been widely adopted over the past two decades. This approach acknowledges that environmental management actions must frequently proceed with incomplete information about

ecosystems and what the resultant impacts will be from such management decisions. Therefore, adaptive management is viewed not only as a process through which environmental management decisions are made, but also as a form of learning and information gathering through experience which in turn informs and improves subsequent decisions and policies (Walters and Holling, 1990; Johnson, 1999; Lee, 1999). Adaptive management is frequently informed by multiple stakeholders and participants (Johnson, 1999). In addition to involving scientists, managers, and other experts, it is intended that non-specialists or those with local knowledge also be involved in developing management objectives, goals, and monitoring, in order to access a variety of knowledge sources and disseminate information widely (Johnson, 1999; Benzie, 2005).

While the adaptive management process may vary slightly in the literature, there is a general agreement on the steps that this process takes. As outlined by Hebron (2003), adaptive management “consists of a series of linked, iterative steps” which are (1) problem identification, (2) collaborative brainstorming, (3) model development, (4) hypothesis testing, (5) design and planning, (6) experimentation, (7) monitoring, (8) evaluation, and (9) behavioral change. However, Lessard (1998) also explicitly identifies the importance of determining the Desired Future Condition of an ecosystem. According to Lessard (1998), the Desired Future Condition should not only describe the structure and composition of the ecosystem but, in recognition of the changing and dynamic nature of complex systems, should also lay out the ecological – and I would suggest social, economic, and cultural – processes acting on the system at various spatial and temporal scales.

2.3.2 Adaptive management: Limitations and questions

Due to its focus on social learning, its explicit inclusion of stakeholders to this end, and its apparent decision-making capacity in the face of uncertainty, adaptive management is often lauded as an important tool for environmental management. However, despite its movement from the fringes to the mainstream of environmental planning, many questions and critiques have emerged.

Critiques are frequently leveled at the rigour with which adaptive management is carried out. In particular, the degree and consistency of monitoring conducted is often subject to institutional or political will, and available and changing financial, technical, and human resources, with insufficient monitoring of decision impacts directly affecting future policy and management choices (Stankey et al. 2003; Allan and Curtis, 2005). This is exacerbated by limited opportunities for integrating results into new policies and decisions (Allan and Curtis, 2005).

Some question the current perception of adaptive management as a panacea for all environmental management issues and associated uncertainty. MacDonald (2000) suggests that adaptive management is most useful when the resource of concern is relatively responsive to management activities over short time scales, exhibits little temporal variability, and can be accurately monitored. Meanwhile, Baxter et al. (2001) state that while adaptive management is often used to respond to exaggerated, unseen, and/or accidental negative changes to the environment, a greater emphasis should be placed on prevention and that adaptive management should only be used when it is likely to be effective. For example, in their study of the cumulative impacts and interactions of climate change, harvesting, oil and gas, and fire in Alberta, Yamasaki et al. (2008) advocate against adaptive management in forestry due to (1) forest ecosystem

stochasticity, in which extremely large disturbances may occur far enough in the future so as to first allow decades of over-harvesting without an ecological or economic buffer, and (2) the costly forestry infrastructure already in place and the communities built and dependent upon the industry, which are affected if harvesting volumes change, thus leading to either reduced harvest volumes and unemployment or unchanged harvest volumes and severe ecological damage. Similarly, Spaling et al. (2000) urge caution in using adaptive management to manage cumulative effects in Alberta's Athabasca oil sands region, noting that a view of adaptive management as "trial and error" must be avoided since such errors may be compounded when multiple projects are undertaken in a short time frame. Instead, they also advocate precaution.

However, while Yamasaki et al. (2008) call for improved quantification of uncertainty to address forest management planning impacts, others note the social learning and human factors that affect how uncertainty is accounted for in adaptive management. For example, Lee (1999) states that since our lack of ecological knowledge is uneven, then management policies should be selected based on "the assumptions they test, so that the most important uncertainties are tested rigorously and early". However, this is a factor that Lee (1999) believes has been neglected. Furthermore, Lee (1999) points out that since adaptive management is "learning by doing" (Walters and Holling, 1990) in order to achieve improved policies and planning, the emphasis must be on the "learning", with the knowledge that this learning can sometimes result in "surprises" that contradict our assumptions. However, while Lee notes that the mark of a good scientist is an eagerness to embrace and investigate this "surprise", managers are instead rewarded for their "steadfast pursuit of objectives", thus conflicting with the one of the tenets and

strengths of adaptive management. This resistance to “surprises” – and the poorer policies that result from it – is influenced by other factors. Lee (1999) identifies the tendency towards “superstitious learning” – flawed connections between cause and effect, even if such connections may seem to be “common sense”. In addition, although adaptive management is meant to be “learning by doing”, Allan and Curtis (2005) found that stakeholders and participants in two watershed management projects in Southeastern Australia, tended to put a greater emphasis on the “doing” or management actions, and viewed the “learning” aspect of adaptive management as slowing down necessary decision-making. Finally, Allan and Curtis (2005) noted that participants were sometimes threatened by new or difficult ideas which might necessitate behaviour or conceptual alterations, and thus reframed these ideas into recognizable, non-threatening, but sometimes inaccurate concepts which neutralized the requirement that their perceptions and actions be stretched or altered.

2.3.3 Current approaches to project and class environmental assessment: Strengths and limitations

Environmental assessments (EAs) are one of the predominant forms of environmental planning for individual projects and industries in Ontario and Canada. Their major advantage lies in their legal strength. EAs are legally mandated either at federal level (See Government of Canada, 1992 for Federal EA triggers), the provincial level (See Graci, 2005 for Provincial EA triggers), or at both levels if a project triggers an EA in both jurisdictions (Environmental Commissioner of Ontario, 2010).

EA also takes place through various programs or levels which are dependent on the impact and magnitude of the project(s). For example, the Ontario EAA recognizes four

EA streams: (1) Individual Environmental Assessments, which are undertaken to assess the potential for significant environmental effects; (2) Declaration Orders which allows the Minister, with Lieutenant Governor in Council approval, to declare that the EAA, or part of the EAA, does not apply to the proponent or project; (3) Designation Regulations which are issued by the Lieutenant Governor in Council and changes a proponent's project status from being not subject to the EAA to being subject; and (4) Class Environmental Assessments which cover groups or classes of projects that are routinely undertaken and have predictable and mitigable environmental effects and thus do not require an Individual EA (E.g.: the Class EA for Timber Management on Crown Lands) (Graci, 2005: 309-322).

The Ontario Environmental Assessment Act (EAA) also offers a clear, legislated process for public involvement by providing for mandatory public consultation, early involvement of the public, and a systematic method of evaluating the net environmental effects of a project (Sadar and Stolte, 1996; Graci, 2005: 308-309, 322-324). For example, if an individual, group or agency has significant concerns with a Class EA, they may request that the Minister order that a project undergo Individual EA. Contentious issues in EA are dealt with through mediation or the Environmental Review Tribunal. In order to be more efficient and focused, only the controversial components of an EA are referred to the Tribunal, rather than the entire project (OMOE, 1990; Graci, 2005: 309-322).

However, despite these strengths, EA is subject to several notable critiques. While EA processes are legislated, in many cases (such as the Rafferty-Alameda and Oldman River dams, and the Red Chris Mine), the Federal government has been cited for evasion

of its EA commitments, with its forced compliance occurring due to the judicial system (Nikiforuk, 1997: 6, 19; Gibson and Hannah, 2005: 27; MiningWatch Canada, 2007; MiningWatch Canada, 2009; MiningWatch Canada, 2010).

Technical, administrative, and political barriers can impede meaningful public participation in the EA process (Sinclair and Diduck, 2005). Hindrances to public involvement include a lack of timely information, limited accessibility to information, overly technical materials and language issues (Sadar and Stolte, 1996; Petts, 1999: 171; Sinclair and Diduck, 2001; Diduck and Mitchell, 2003). Other barriers include public fatigue and disillusionment with project-focused EA processes, time and resource restrictions, and scoping boundaries that restrict consideration of alternatives and longer-term concerns (Mulvihill, 2003).

Finally, criticism has been levelled at the tendency for EA to focus on the effects of a single proposed project. While the assessment of cumulative impacts is now integrated into most EA processes, project-specific cumulative effects assessment (CEA) is criticized as reactive, too narrow in scope, and occurring too late in the planning process to influence significant changes (Baxter et al. 2001; Dube, 2003; Duinker and Greig, 2006; Noble, 2009), rather than taking a proactive, comprehensive role in determining the what type of projects are desired by a society or community and how our landscape should be planned and managed (Gibson, 2002; Noble, 2005:93-94). CEA done separately for each new project in a region can also result in excessive duplication and wasted resources (Spaling et al. 2000). Finally, the long-term uncertainty that accompanies the multiple pressures and factors involved in CEA can limit long-range assessment and planning to a decade or less, as asserted by Berube (2007) in his

examination of Hydro Quebec CEAs, and Therivel and Ross (2007) confirm that even given the opportunity for a longer time scale, many project CEAs still adopt shorter temporal boundaries. Smith (1993) also notes that while technical and economic factors which can be handled numerically are usually well accounted for, other factors which are less precise, such as the duration of impact, uncertainty, and public preferences, are often neglected in CEA. While Contant and Wiggins (1991) state that effective CEA is constrained by definitional, scientific and administrative limitation, Smith (1993: 13, 27-28) points out that issues such as cumulative effects are better dealt with within a wider land-use planning framework, suggesting that the issue is less methodological, and more oriented on a weak conception of EA process and theory.

2.3.4 Regional and futures-oriented approaches to environmental assessment

As a result, there is a current movement towards regional CEA which takes an effects-based approach and focuses on a wider range of impacts, stressors, and activities from multiple projects and/or sources that contribute to cumulative effects in a region or watershed. The purpose of regional CEA is to develop a broader understanding of the current state of the environment due to cumulative effects, to better understand cumulative change processes, and to consider priorities for future environmental management and land use planning at a broader, more meaningful, and strategic scale (Cocklin et al. 1992; Spaling et al. 2000; Dube, 2003; Dube et al. 2006). Most proponents of regional CEA view it as a first, early step in the EA process which identifies potential questions or problems, with subsequent individual projects undertaking a more focused CEA (Spaling et al. 2000; Baxter et al. 2001; Dube, 2003; Noble, 2009). However, some

suggest that project-based CEA is unproductive and should be replaced entirely by a more comprehensive and mandatory system of regional CEA (Duinker and Greig, 2006).

While regional CEA offers a more proactive, strategic, and broader alternative to solely project-based CEA, several other challenges remain. Foremost among them is that regional CEA initiatives are not bound regulatory EA processes and as such, there are little to no mechanisms to initiate it and sustain it as an integral and ongoing part of regional planning (Spaling et al. 2000; Dube, 2003; Noble, 2008). As well, regional CEA often depends heavily on a quantitative, science-focused approach which can lead to conflicts between rationalist and more participatory approaches to CEA, perceptions of CEA as a science-based process versus a political process, and tensions between scientific and local or traditional knowledge (Culp et al. 2000a; Culp et al. 2000b; Dube, 2003; Connelly and Richardson, 2005; Lawe et al. 2005; Dube et al. 2006). Some also critique regional CEA on the basis that it is too focused on describing the current state of the environment and modelling ecosystem responses to past or current land use changes and pressures, rather than projecting trends, desired futures and objectives, and determining how to attain them (Duinker and Greig, 2006; Noble, 2006:173; 2008).

As a solution, many now advocate strategic environmental assessment (SEA), which refers broadly to the environmental assessment of policies, plans, and programs (PPP) and their alternatives. SEA extends EA upstream, with the idea that environmental benefits will trickle down to smaller projects, and also tends to put more weight on the development and analysis of possible alternatives than project EA (Noble, 2002; Noble, 2006: 9-10, 177-180; Noble, 2009). It is generally intended that SEA is the initial of

several EAs ranging in scale from policy to project, with subsequent EA levels of analyses focusing on the strategy the SEA yields (Noble, 2002).

Three types of SEA emerge: policy or “indirect” SEA, sectoral SEA, and regional SEA. Policy-based or “indirect” SEA applies to policies and legislative proposals that have no explicit “on the ground” dimension, such as fiscal policies or national energy policies (Noble, 2008:181), although “indirect” SEA can also be used for broader issues such as a technology, or justice and enforcement, emphasizing the importance of defining, and perhaps expanding notions of what constitutes a policy, plan, or program (Barrow, 1997: 85; Noble, 2002). Policy SEA can be the most significant type of SEA, since the use of policy SEA is suggested for federal policies through a Cabinet Directive (Noble, 2002), and since large-scale government policies have more far-reaching effects than individual development plans, programs, and projects (Noble 2006: 181). Sectoral SEA applies to sector-based initiatives, plans, and programs, such as forestry plans or oil and gas programs., and includes “impacts associated with a particular strategy, policy, plan, or program for a specific sector; including the evaluation and comparison of impacts against those of alternative options and recommendation of measures to strengthen environmental management in the sector” (World Bank, 1999), with emphasis placed on the initiatives of, and alternatives to, particular sector-based plans or programs that may lead to environmental change (Barrow, 1997: 85; Noble, 2006: 181). Finally, regional SEA is a spatial SEA that includes regional plans and programs, such as land use planning, and which may include multiple sectors. The purpose of regional SEA is to assess the impacts of PPP initiatives within a particular region, in combination with other regional activities, in order to identify the preferred regional-based environmental

planning or development strategy or option (Barrow, 1997: 85; Noble, 2006: 184). Regional SEA is often defined by environmental or ecological boundaries, may include multiple sectors, and is typically driven by environmental planning or management initiatives, state-of-environment reports, or the initiatives of and stresses caused by multiple sectors (Noble, 2006: 184). SEA is often associated with CEA, and it is intended that the SEA process takes cumulative effects into account (Barrow, 1997:84-85; Noble, 2008).

However, while SEA is meant to be part of a tiered process, Noble (2009) notes that in practice there is limited tiering of strategic- and project-level assessment and decision outputs, and little to no clear connection between SEA and downstream EA input requirements. Similar to regional CEA in a Canadian context, one of the most significant problems with SEA in a Canadian context is also its lack of application. Although, SEA is strongly suggested for federal policies (Government of Canada, 1999; Government of Canada, 2004), Noble (2002) notes that a SEA is only necessary if “the implementation of the proposal (for the PPP) may result in important environmental effects” (Government of Canada, 1999; 2004). Noble also observes that SEAs are not required by law and are only mandated by matter of policy. As a result, the compliance rate is inconsistent (Noble, 2002). Furthermore, while policies may take the shape of formal documents, they also include anything that a government intends to do, including any instrument which gives rise to a policy, thus necessitating expanded and non-exclusive criteria for what constitutes a policy (Buckley, 2000; Noble, 2002). In addition, while Class EAs, such as the Crown Timber Class EA, could be viewed as a sectoral SEA, regional SEA is not legally mandated.

2.4 Identifying and negotiating interests, tensions, and power in environmental planning for post-productivist forest-dependent regions

One of the most complex, contentious, and vital aspects of environmental planning is the negotiating and balancing of various interests and power relations which are often at odds. The communicative approach is frequently utilized in this regard but does not sufficiently take power relations and discrepancies into account. Aspects of this debate to consider are: intra- and inter-regional power relations and discrepancies in planning; top-down versus bottom-up environmental planning (which includes structured versus flexible environmental planning structures, and depth of community and stakeholder involvement in decision-making); and trends towards community control of resources and forests.

2.4.1 Intra- and inter-regional power relations and discrepancies in planning

2.4.1.1 Intra-regional values, interests and power relations/discrepancies

In recognition of the multiple values and interests that must be heard, negotiated, and balanced, regional environmental planning is increasingly adopting a participatory, communicative approach. For example, EA is increasingly shifting from a rationalist, science- and expert-driven process which relies on technical solutions, to a communicative process which attempts to meaningfully integrate stakeholders and recognize EA as a political process which focuses on free speech and rational argument in an effort to overcome power discrepancies (Lawrence, 2000; Richardson, 2005).

However, this shift is still in its beginning phases. Furthermore, many state that the assumption that the communicative approach can sidestep the power relations and discrepancies implicit to planning and decision-making is flawed. For example, although Lawrence (2000) notes that planning and EA have taken turns towards a communicative approach, such frameworks are still grounded in a science- and expert-driven rational approach. Such an approach generally assumes a predictable and controlled environment, a unitary public interest, practitioners as independent experts, a separation of the EA/planning process and political process, and a pluralistic society where competing interests all have access to power. Critiques of such a rationalist perspective include its autocratic tendencies in which experts dominate the process, a peripheral role for the public, a failure to consider resource and cognitive limits, a bias towards technical approaches, and a failure to consider inequities and facilitate dialogue. A rationalist approach also ignores the power structure that such a dichotomy between technically-minded, “objective” experts and a “subjective” public sets. Latour (2004:10-18) details how scientists are portrayed as neutral and value-free interpreters of nature (or in the case of EA and environmental planning, of the environment and the physical insults it could potentially suffer from a project), with nature itself also being viewed as a neutral body. Thus, since both scientists and the source of their knowledge (I.e. nature/environment) are viewed as free of values or biases, their opinions on matters such as the biophysical effects of a project or development on an ecosystem are posed as more relevant and “truthful” than those of a biased, value-laden public and stakeholders who do not hold such neutral positions. As a result, quantitative, scientific knowledge is more valued than local and/or traditional knowledge (McLain and Lee, 1996; Dube, 2003; Dube et al.

2006). This bias towards certain types of knowledge in current planning and decision-making processes can interfere with a meaningful integration of scientific and traditional knowledge (Huntington, 2000). This is complicated by holders of traditional or local knowledge not necessarily being a nationally homogenous group, with not all members of a given community being holders of this type of knowledge (Paci et al. 2002).

As a path forward, several authors advocate the recognition that every step of environmental assessment and planning is value-laden and infused with power relations, and that both practitioners and stakeholders must recognize these multiple and conflicting values (Connelly and Richardson, 2005; Richardson, 2005). Since trade-offs will inevitably be required, Connelly and Richardson (2005) promote a clearer recognition of who will benefit and who will lose in order to give planning more specific goals and criteria regarding sustainable development. This is also intended to allow for a more explicit acknowledgement and discussion of the differing values and trade-offs made in the decision-making, with the eventual outcome being based on transparent value judgements and a more equitable planning process overall. Further, others advocate recognizing and planning for the forces that exclude certain groups from the planning process and result in an uneven distribution of negative and positive effect, something that Bina (2007) and Connelly and Richardson (2005) suggest can be achieved by better linking planning and assessment with environmental justice.

2.4.1.2 Inter-regional value and power discrepancies

Inter-regional disparities based on resources and political, economic, and social power are also evident in forest-dependent regions, and as such, affect how

environmental planning is carried out. Markey et al. (2008a) note how both provincial policy and northern residents often view forest-dependent regions as “resource banks” from which resource withdrawals are made by the province’s urban areas without reciprocal reinvestment in infrastructure or rural development needs. Similarly, Smith (1993: 107) notes that northern regions and resource-dependent communities are often the site of large “frontier” projects which are promoted based on larger, supraregional benefits and national or regional development goals, thus pre-empting debate on the need for the specific project. He also observes that benefits from such projects usually flow to distant urban and/or southern populations, while local, rural, and/or Indigenous populations bear the negative effects.

The importance of acknowledging the disproportionate cumulative impacts of projects on northern communities is highlighted by cases such as the Berger Inquiry (Mulvihill and Baker, 2001; Armitage, 2005; Gibson and Hanna, 2005), in the subsequent and more recent Joint Review Panel for assessing the environmental and socio-economic impacts of the proposed Mackenzie Pipeline Project (Joint Review Panel, 2010), and in major hydroelectric developments such as Quebec’s Great Whale project (Mulvihill and Baker, 2001). These assessments noted the unique effects that developments can have on sensitive ecosystems, and particularly on Indigenous communities struggling to retain their culture and whose livelihood depends on intact and healthy ecosystems. The increasing focus on explicitly identifying values in such dialogue (Lawrence, 2000; Richardson, 2005) can make such trade-offs and inequities clear when the supposedly “small-scale” concerns and considerations of local communities are posed against large-scale projects portrayed as benefiting the broader public good.

However, as evident through their shift towards post-productivism, northern forests have, at least partially, moved beyond being valued for a limited set of “frontier” industries towards a wider array of industries, interests, and power structures. Interestingly however, Mather (2001) suggests that this very shift towards post-productivism in forestry-dependent regions has been caused by and is dependent on changing values in urban areas, as well as shifts in the global economy, thus raising questions about how northern regions can achieve the autonomy to negotiate and shape their own futures.

2.4.2 Top-down versus bottom-up environmental planning

Tensions between top-down and bottom-up approaches to environmental planning are longstanding issues in the field. As mentioned above (2.4.1.2 Intra-regional values, interests and power relations/discrepancies), different types of knowledge can be valued differently in planning. However, these tensions also include the most appropriate and effective environmental governance structures for forest-dependent regions, and the extent to which stakeholders and communities should be involved in or direct planning.

2.4.2.1 Structured versus flexible environmental planning structures

There is ongoing debate about whether higher-level environmental planning and assessment (such as SEA or adaptive management on a regional scale) should be a structured, systematic, and generally standardized process or whether it should remain flexible and adaptive to the PPP decision-making process. While many agree that planning and assessment should be integrated to some extent with the PPP decision-

making process (Noble, 2009), supporters for a more structured framework state that the lack of such a framework is one of the major constraints for environmental planning and assessment in Canada, and that implementing a consistent structure will increase effectiveness, reduce confusion about core principles and a lack of consistent methodology, and provide the space within which different methods and techniques can be utilized (Noble, 2002; Noble, 2009). It is also suggested that a systematic framework is more beneficial for environmental interests and protection, and that such consistency will be less frustrating and more efficient for governments, industries, and the variety of disciplines which could utilize SEA or adaptive management as a tool (Fischer, 2003). Furthermore, current approaches to project EA and especially SEA allow significant governmental discretion as to when, how, and if they will be applied. A more structured SEA framework could mandate stronger triggers, thus removed some of the uncertainty and subjectivity associated with SEA application.

The other side of the debate notes that given varied planning and decision-making systems, it is unrealistic for environmental planning to be standardized into a structured and consistent format. Instead, these authors advocate a flexible framework that is tailored around place and context (Brown and Therivel, 2000; Partidario, 2000; Partidario, 2007). Regarding SEA, Partidario (2000) suggests that enough differences exist even between policies, plans and programs that a different framework for each might be useful. Advocates for a more flexible SEA framework also state that such a system could be integrated in diverse decision-making systems more easily than a structured system would be, making it more likely to be applied. They also note that since many planning and decision-making systems for PPP already utilize SEA-like principles

and approaches without explicitly acknowledging that it is SEA, and that an adaptive framework would better complement what is already being done without undoing any beneficial aspects of these existing systems (Brown and Therivel, 2000; Partidario, 2000; Partidario, 2007). Regarding adaptive management, several authors note that the adaptive management process cannot be indiscriminately transferred between various situations and that it must be tailored to its context of use. For example, Benvie (2005) notes from Gilmour et al. (1999) that “When it comes down to practical on-going application, adaptive management is...highly specific to site and social context, and requires continual tuning of methods and goals to reflect increases in knowledge about those causal relationships within and between the biological and social systems that are relevant to the resource issues of the site. Similarly, Habron’s (2003) examination of integrating adaptive management concepts into rural community-based watershed councils notes that the concerns of participants – in this case issues regarding private property rights and associated governmental distrust – must fit within the institutional constraints and opportunities offered by the watershed council in order to achieve the best social and ecological fit. Therefore, while the process of adaptive management has been laid out and agreed upon in the literature, it is vital to take into account the context of its application.

2.4.2.2 Depth of community and stakeholder involvement in decision-making

There is wide agreement in the literature that some measure of community and stakeholder involvement is required for successful planning, both for access to and dissemination of knowledge, and public buy-in to plans. However, the extent to which

this should occur is debated. Fischer (2003) argues that environmental interests and protection can be weakest at the local level, with communities frequently subsuming ecological interests to economic ones. Therefore, he suggests the implementation of support tools that allow representative governments to overcome local level “NIMBY-ism” for the collective public interest. Meanwhile, Duinker and Greig (2006) state that while stakeholder consultation may be appropriate for defining socio-economic thresholds and issues, it may be inappropriate for defining biological thresholds in CEA due to a lack of knowledge and a tendency for publicly determined thresholds to be located at the point at which effects become visible - a threshold which they argue is not sufficiently proactive. However, this perspective ignores that it is often through public participation that key values and issues are identified (Baxter et al. 2001), and public demands are sometimes the motivating factor behind proactive planning, assessment, and environmental protection in resource-dependent regions (Lawe et al. 2005). Further, Richardson (2005) observes that it is frequently broader economic interests, rather than local ones, which bring about ecological damage and impose environmental degradation on the public (which Richardson points out is also composed of many “local” communities).

Similarly, those who operate or manage systems on a day-to-day basis (i.e. loggers, farmers, ranchers, dam operators) frequently view themselves as resource stewards (Getz et al. 1999, Lee, 1999). It is often these individuals who know the most about the system, whose knowledge can be obtained at a reasonable cost, and who are most likely to be affected by related policies (Lee, 1999). At the same time, it is often these same “stewards” who are criticized when environmental degradation becomes

apparent, and they are often the focus of behaviour-changing efforts – efforts which typically impact how these resource users make a living. Lee (1999) notes that in these situations, the day-to-day resource users/stewards are often poorly represented in decision-making and that adaptive management efforts will likely be resisted or sabotaged as a result. Mather et al. (2006) note that in response to this greater need for bottom-up representation and control, post-productivist settings are characterized by stronger decision-making roles for local actors and institutions and more local control of resources (Mather, 2001; Jackson et al. 2008; Markey et al. 2008a).

2.4.3 Movement towards community control of resources and forests

Due to many of the driving forces described above, there have been consistent and increasingly vocal calls for greater community control of natural resources. This trend is evident both in the literature and in practice. However, while community control of resources is a growing force on the landscape with the potential to ameliorate conflict, build consensus and increase community agency, local resource control is not always the all-encompassing solution it is sometimes portrayed as.

As mentioned above (2.4.2.2 Depth of community and stakeholder involvement in decision-making), the involvement of communities and local stakeholders is now viewed as a vital component of resource management and development. This is demonstrated by mechanisms such as Local Citizens Committees in forestry (2.3 Current approaches to long-range and regional environmental management in forest-dependent regions of Ontario). These forms of public involvement have demonstrated several strengths, including multiple techniques for participant involvement, and rich information sharing

and communication (McGurk et al. 2006). However, limitations included a lack of accountability that participants were accurately representing the opinions of the organizations that they represented, a lack of time and resources for participants to synthesize all the information provided, the infrequency of meetings which hampered capacity and opportunity to participate, unclear decision-making processes, and inadequate representation of diverse publics, particularly First Nations. These resulted in participants having a perceived lack of influence on strategic decisions, and a lack of broader community involvement (McGurk et al. 2006; Robson and Hunt, 2010). Therefore, while the public is offered greater opportunities for participation in decision-making, many communities still find current mechanisms lacking. Furthermore, as mentioned by Jackson et al. (2008) and Markey et al. (2007a; 2008b), due to perceived and real withdrawal of government support, resource-dependent communities are finding themselves increasingly cut off from the resources which often birthed them in the first place. Hence, in order to increase resilience and control over their futures, many communities are exploring control of, and decision-making power over, resources for which they feel some measure of ownership (Duinker et al. 1991).

Community resource control offers several opportunities. In their study of the potential for community forestry in Northern Ontario, Duinker et al. (1991) suggest several strengths including (1) smaller scale, more environmentally benign forest management practices; (2) conduciveness to more intensive forest management; (3) a stronger connection between forest revenues and forest costs; (4) a higher degree of meaningful public involvement in resource decision-making and resultant higher public satisfaction; (5) increased public awareness and interest in forest management; and (6)

greater opportunities to maintain stability of local economies. Community forestry can also put a great weight on local and traditional forms of knowledge from First Nations, naturalists, loggers, recreationalist, hunters, anglers, and other resource users who possess first-hand knowledge of the landscape (Bullock and Hanna, 2007). Similarly, in their survey of community forest initiatives in Canada, Teitelbaum et al. (2006), found that while these forests were developed on and governed by a diversity of models and frameworks, they also shared common objectives including multiple use forestry (Ex: sustainable harvesting, recreation, and water protection), meaningful public participation, and the creation of local employment and economic benefits. As well, Robinson et al. (2001) note that local users may be more effective resource managers because they are more familiar with local conditions, and because of the benefits that local users may experience from wise resource management when future flows of benefits are taken into account. These visions of community resource control are naturally appealing. However, other authors have demonstrated that the reality is more complicated.

The “community” in “community forestry” can be misleading. The idea of a homogenous mill town is a myth. Instead each managing community is a heterogeneous entity composed of multiple, diverse “communities” which express differing and conflicting wants and desires. As a reflection of this, Agrawal and Gibson (1999) suggest instead that “community” instead be examined as the multiple interests and actors present, and how these actors influence decision-making processes and the institutions or organizations responsible for this decision-making. In their study of community forests in British Columbia, Bullock and Hanna (2007) also note that the complexity of conflicting community values, ranging from those who wish to ensure economic stability through

harvesting, to those who are attempting to limit logging through the establishment of a community forest.

These diverse goals can lead to conflict. Duinker et al. (1994) point out that a forest run by a community organization does not preclude the need for direct community involvement and consultation, nor that local citizens should not be directly involved in decision-making. They point out that without this citizen involvement, communities can be cleaved when “things go wrong”. Ironically, this alienation is exacerbated by the high connectivity that is often one of the strengths of such communities (Duinker et al. 1994). Bullock and Hanna (2007) note that the community forestry model can increase opportunities for contact among stakeholders, and facilitate information gathering and sharing, both of which can lead to mutual trust, understanding, and changed perceptions. At the same time, Bullock and Hanna (2007) found that where there is a wide range of interests in the forest, equitable representation of those values may be difficult, if not impossible, to achieve, and that misrepresentation can lead to conflict if management organizations don’t accurately reflect community composition and values. However, achieving consensus is also vital before actions are taken, or managers run the risk of dividing community vision, initiative, and resources (Bullock et al. 2009).

Finally, outside factors and governance systems can also chip away at community resource control ideals. Bullock et al. (2009) note that while many communities in British Columbia viewed their forestry initiative as a bottom-up, conservation-oriented approach to local economic development, higher levels of government perceived these initiatives as a simple economic development project to be administered as a conventional tenure. This disregard for the distinct priorities and goals of community forests, partially results in

what some view as a compromise of values as community forests attempt to fit into an industrial framework.

2.5 Conclusion

This chapter has laid out the current state of long-range environmental planning for Canadian forest- and dependent regions, with the shift to new regionalism and post-productivism reflecting the social, cultural, economic, political and environmental forces acting upon these regions. I also outline the communicative shift to identifying and negotiating various interests, tensions, and power relations in these regions, and how this increasingly results in bottom-up, locally autonomous approaches to planning, management, and governance. However, while the strengths and limitations of current modes of environmental planning have been outlined, there are still challenges to addressing the multiple, interacting factors that influence these regions and the associated uncertainties. Post-productivist forest-dependent regions such as the Northeast Superior region are particularly vulnerable to these uncertainties and driving forces. As a result, planning can be undermined by the perception that such regions are powerless to shape their own future and manage the uncertainties they face. However, scenarios can offer a means of managing and planning for such uncertainties.

Chapter Three

Scenario development as an approach for long-range planning and managing uncertainty

In their quest for sustainability, organizations, communities, and regions are seeking various means of directing their own future. In this quest, they are faced with a variety of challenges, driving forces, and uncertainties which may seem insurmountable and unmanageable. The field of future studies is playing an increasingly significant role in this regard. In particular, the development of scenarios is a key component of visioning, backcasting, and managing future uncertainty. In this chapter I will describe the history and evolution of scenario development and planning (including its use for visioning, backcasting, and uncertainty management), the strengths and opportunities that scenarios offer in long-range planning and managing associated uncertainty, and the challenges and limitations to the current use and knowledge of scenario development and planning. I will also outline the potential significance of scenarios for post-productivist forest-dependent regions undergoing social, economic, and environmental transitions and subject to high degrees of uncertainty.

3.1 History and evolution of scenario development and planning

As a form of strategic planning, modern scenarios first evolved in military applications during the post-WWII period, most notably from the Rand Corporation in the United States (Chermack et al. 2001; Bradfield et al. 2005). Subsequent to this

however, scenarios have been most frequently and famously used in business and industrial settings, notably with Royal Dutch Shell, as a risk management and long-range strategic planning tool (Godet, 2006; Schwartz, 1991; Lindgren & Banhold, 2009; Chermack et al, 2006; Bradfield et al, 2005).

However, while scenarios are still predominantly business-focused, beginning in the 1970's they also began to be applied to environmental, land use, and sustainability issues and initiatives, with much of these scenario exercises taking experimental, modified or hybrid forms (Rotmans et al. 2000; van Asselt et al, 2005; Kok et al, 2006).

In their study of scenario building in support of sustainability strategy (SBSS), Mulvihill and Kramkowski (2010) note two predominant streams of SBSS: one in which scenarios play a minor, supplementary role and which are often rather conventional and narrow in scope, and the other in which scenarios play a major role in more ambitious and explorative forms of regional environmental management and assessment. In this second stream, scenario use falls into two themes: the use of scenarios for visioning and/or backcasting, and the use of scenarios for managing uncertainty. Several authors propose that there are three basic types of scenarios in these contexts: predictive, normative, and explorative. Predictive scenarios are most closely aligned with forecasting (Predictive scenarios are not a focus of this work but are discussed in "3.3.5 Predictive tendencies" below), normative scenarios are associated with visioning and backcasting, and explorative scenarios are arguably most effective for managing uncertainty (Borjeson et al. 2006; Carlsson-Kanyama et al. 2008). Hybrids and modifications of normative and explorative scenarios are more often the rule rather than the exception, but frequently normative backcasting or visioning scenarios promote certain value-laden views of the

future, while explorative scenarios for uncertainty explore an array of plausible futures while suspending opinions of whether they are desirable or not. In this case, scenarios can be used to develop long-term narratives against which plans or strategies can be tested (Mulvihill and Kramkowski, 2010). Further distinctions and examples of scenarios for visioning and/or backcasting, and scenarios for uncertainty are elaborated below.

3.1.1 The use of scenarios for visioning and/or backcasting

Myers and Kitsuse (2000) decry the lack of vision and advocacy for the future within planning, and advocate plans which are visionary, practical, and develop a coherent image of a desired future while clearly setting out the path by which to achieve it. Furthermore, they urge planners to identify desired futures, rather than unquestioningly viewing quantitative projections as an accurate depiction of the future which the planner must then bring about.

Helling (1998) states that a visioning scenario represents “an ideal future state”. Such a vision can range in specificity from a general view of a desired future for broad regions to detailed, tangible goals in community planning (Helling, 1998). However, there are several common characteristics to visioning. Building a visioning scenario is an inherently proactive exercise – it should “reveal... and point...to something new and which sees beyond what is already being utilized to what is emerging and becoming invented” (Malaska and Hostius, 1999: 356). As such, it also empowers its participants to influence their own future or that of their community, region, or organization (Malaska and Hostius, 1999). However, achieving a vision of the future also requires significant collaboration and compromise between various stakeholders, necessitating significant

conflict management and consensus building (Bryson, 1995: 155; Helling, 1998). Finally, visioning is frequently linked to the concept of backcasting, in which a desired vision of the future is then used to inform and develop a path or series of decisions and actions which are necessary in order to achieve the desired future (Carlsson-Kanyama et al. 2008).

Case studies of visioning exercises vary in their goals, processes, and the success of their outcomes. VISION 2020 was a collaborative visioning project undertaken by the Atlanta Regional Commission – the planning agency responsible for the ten central counties of Atlanta – in order to identify the desired future state of the region and organize actions necessary to achieve that future state. However, while the project was lauded for promoting interaction and collaboration between diverse stakeholders and governments, it was also criticized for setting processes rather than outcomes, thus using significant financial and energy resources without producing immediate benefits or an action plan (Helling, 1998). Helling (1998) suggests that causes for this include requiring consensus without accommodating change or compromise, processes that were too wide-ranging and had too broad of a scope, and a downplaying of planning knowledge and expertise without an alternative planning standard, resulting in decreased credibility.

Similarly, in their examination of the participative backcasting exercise held in several European cities (Padova in Italy, Fredrikstad in Norway, Groningen in the Netherlands, Stockholm in Sweden, and Guildford in the UK.) entitled *The Involvement of Stakeholders to Develop and Implement Tools for Sustainable Households in the City of Tomorrow* (ToolSust), Carlsson-Kanyama et al. (2008) found that while the collaborative process was viewed as a major strength, the quality of outcomes was

viewed as weaker. Aspects that increased process quality included several possible visions of a desired future in order to account for differing stakeholder values and stakeholder perceptions that their ideas were “listened to”, reflecting the importance of meaningfully integrating participant opinions and interests into planning exercises. However, participants also felt that the links between participation and actual decision-making were weak.

Thus, while visioning and backcasting offer strong processes for increasing stakeholder collaboration and bridging, they are frequently criticized for a lack of outcomes or weak outcomes, a lack of solid action plans, and minimal linking of visioning exercises with governmental decision-making and action.

3.1.2 The use of scenarios for managing uncertainty

A major strength of scenario development and planning is its utility in identifying driving forces and uncertainties that may impact the future and associated plans, and in determining effective strategies for addressing these potential uncertainties. In this use of scenarios, rather than developing one common vision, multiple driving forces and uncertainties are identified from which several possible “stories” of how the future may play out are created. These stories of how the future may unfold are then used to support strategic decision-making that accounts for all possible futures, thus empowering planners, managers, and decision-makers to anticipate and respond more quickly to change (Schwartz, 1991; Wollenberg et al. 2000).

The techniques and characteristics of scenarios for managing uncertainty are diverse. To this extent, multiple typologies of scenario types and processes have been

offered on which there is frequently a lack of consensus (van Notten et al. 2005; Mulvihill and Kramkowski, 2010). However, there are also several common traits that many such scenarios feature. Similar to visioning scenarios, explorative scenarios require broad participation from stakeholders and the public. However, unlike visioning scenarios, the development of several “stories” allows for the presence of multiple, and sometimes conflicting, perspectives. Otherwise, scenarios must be plausible, though not necessarily probable and certainly not predictive (3.3.5 Predictive tendencies). Finally, the scenarios developed must also be compelling and enable participants and decision-makers to actively view themselves in each scenario and thus motivate action and planning (Frittaion et al. 2010; Mulvihill and Kramkowski, 2010)

While scenarios for uncertainty are often used for risk management in corporate and industrial contexts, they are also powerful tools when applied to broader geographical situations, sustainability issues, and diverse fields, including conservation management (Peterson et al. 2003) and regional planning (Enfors et al. 2008; Walsh 2005). Mulvihill (2003) offers scenario planning for use in both CEA and SEA cases where there is a high degree of uncertainty due to a lack of baseline ecological data, shifting or unpredictable social, economic, and/or ecological situations, or exceedingly complex systems. Similarly, Duinker and Greig (2007) suggest that scenario planning in CEA can aid in building adaptive capacity. Specifically, they can support understanding the scope of alternative futures, supporting the creation of robust management strategies, preparing managers to respond appropriately if their expectations prove false, and providing insight into events that could indicate which development path one is actually on. There are multiple examples of such cases (Intergovernmental Panel on Climate

Change, 2007; Noble, 2008; Partidario et al, 2009), with just a few briefly outlined below.

Great Transition is a notable globally-focused scenario exercise prepared by the Global Scenarios Group (Raskin et al. 2002) which tackles sustainability issues on a global scale, offering three scenarios of the world's future that emerge from equal part analysis and imagination (Mulvihill and Kramkowski, 2010). *Great Transition* is an example of a hybrid normative/explorative approach in that a variety of driving forces, uncertainties and discontinuities are explored, but with a normative, backcasting conclusion in which the authors advocate one desirable future and the steps required to attain it.

Scenario planning can be especially useful for assessing the potential cumulative impacts of projects typical to northern or rural regions and watersheds, and associated levels of uncertainty. Holroyd et al. (2007) and Cizek (2005) outline how scenario planning can help in understanding and planning for the different cumulative impacts that may result from different development scenarios for the Mackenzie Valley pipeline project, including potential levels of secondary development, as well as resultant social and ecological effects. Similarly, in their attempts to address cumulative effects from various pressures such as the gas and oil sands industries, the province of Alberta has initiated a series of regional strategic assessments (RSA) entitled the *Alberta Land-use Framework*, with the intent that an RSA will “support regional planning through assessment of cumulative effects associated with alternative development scenarios and identification of the suite of land-use strategies and management approaches that best achieve desired environmental, social and economic outcomes” (Johnson et al. 2011:

482). To this end, scenarios are intended to be utilized in both a visioning and uncertainty management capacity. Regarding the former, the *Land-use Framework* process involves a public visioning exercise which outlines external driver assumptions, desired outcomes, and the management and development strategies necessary to achieve them, all to promote a “culture of shared stewardship” (Johnson et al. 2011: 482). In order to manage uncertainty and plan for multiple possible futures, several (ex: three to five) possible future development scenarios which incorporate the external drivers identified in the public visioning process will be developed. These development scenarios will then be analyzed for possible cumulative impacts and to examine the efficacy of management strategies in managing impacts and maximizing benefits. This process is expected to provide direction for regional planning to adapt to possible future conditions, determine cumulative impacts from the development path chosen and how mitigation should take place, and incorporate public interests and desires into regional planning (Johnson et al. 2011).

Scenarios for uncertainty management have multiple strengths which include social collaboration, guidance for strategic decisions, and an examination of how multiple trends that interact and extend into the future (See “3.2 Strengths and opportunities in scenario planning” below for further detail). However, a major downfall of these exercises is that many of them are conducted in isolation with little to no connection to policy, legislation, or requisite commitments to action. Meanwhile, scenario exercises such as the Alberta *Land-use Framework* which are connected to provincial planning policy remain in their infancy and are currently untested regarding governmental will for implementation. Therefore, unless explicitly adopted by government or connected to

binding planning processes, at this time such scenario development often serves only as guidance.

3.2 Strengths and opportunities in scenario planning

Scenarios – as visioning or backcasting exercises, and as approaches for managing uncertainty - offer a variety of benefits, strengths and opportunities for long-range planning. These include collaborative opportunities for incorporating diverse stakeholders and perspectives; its explorative nature which stretches assumptions about the future; the ability to incorporate and plan for discontinuous events and weak signals; and its potential for developing strategic guidance to complex and uncertain present and future challenge.

3.2.1 Creates collaborative opportunities for diverse stakeholders and room for multiple perspectives

As exemplified by the case studies outlined above (3.1.1 The use of scenarios for visioning and/or backcasting, and 3.1.2 The use of scenarios for managing uncertainty), one of the major strengths of scenarios is their participative approach which frequently involves and links a wide and diverse range of collaborators and participants. While some processes have been criticized for not enlisting a sufficient range of stakeholders (Carlsson-Kanyama et al. 2008), both the processes of developing a common vision or of fleshing out driving forces and uncertainty, as well as the scenario building process itself, can facilitate discussion and build relationships between a variety of disparate actors (Helling, 1998; Frittaion et al. 2010; Svenfelt et al. 2010). Garb et al. (2008) also note how scenario development often brings together participants with differing backgrounds,

training, experience, and expertise, and that the emergent scenarios carry the strengths of this fusion, as well as providing a link between some of the gaps that continue to separate diverse participants. For example, in their development of four scenarios that explore possible futures of the forest sector in Canada for *the Forest Futures Project*, participants related that the use of scenarios facilitated the discussion of social concepts which were often missing in forest sector dialogue.

When managing conflicting interests, the development of multiple scenarios for uncertainty management also has the advantage over a single visioning scenario in that consensus on one coherent image of the future is not required. Instead, the development of several scenarios allows greater space for creativity and discord among participants, and can stretch their views and challenge entrenched assumptions, while still incorporating participant beliefs and validating their contributions (Myers and Kitsuse, 2000).

3.2.2 Explorative scenarios stretch assumptions about the future

The long-range future can be difficult to visualize, and Tonn et al. (2006) find that it tends to “go dark” for most people at about 10 years in the future. In particular, the uncertainty associated with the long-range future makes planning for it especially challenging. Furthermore, history provides many examples of surprise, unforeseen events. Therefore, to be effective, visioning and especially uncertainty management scenario processes must take an exploratory approach while finding approaches which make seemingly vague or unlikely futures more tangible. To achieve this, participants and facilitators must be willing and able to stretch their assumptions about what the

future holds and suspend their disbelief that certain seemingly unlikely futures may play out (Frittaion et al 2010; Mulvihill and Kramkowski, 2010). The counter-intuitiveness of this sort of preparedness is one of the strengths of scenarios and distinguishes it from more predictive forecasting methods. Indeed, Schwartz (1991) states that the purpose of scenarios is to prepare us for what we think will not happen.

This can be achieved in a variety of ways and produce a variety of benefits. In the *Forest Futures Project*, Frittaion et al. (2010) found that by imagining themselves as characters in these stories of the future, participants were able to further personalize the long-term future and better grasp the possibilities that the scenarios raised. The scenario narrative itself aided participants in envisioning a variety of long-range futures. For example, participants found that by writing the scenarios (which were set in the year 2050) in the present tense, it helped them dissociate from the present and make the long-term future more immediately tangible. They also found that scenarios were able to “humanize” complex social, economic and environmental drivers, thus increasing accessibility for non-scientific or non-expert participants (Frittaion et al. 2010). By stretching assumptions about what the future holds and which interests will be represented or not, the act of scenario development and subsequent decision-making can also inspire value shifts and behaviour changes. Hence, scenarios themselves and the act of creating them can influence the future (Myers and Kitsuse, 2002).

3.2.3 Provides room for incorporating and planning for discontinuous events and weak signals

One of the strengths of uncertainty management scenarios is their capacity for incorporating discontinuous, “game changing”, “wild card”, or “surprise” events. Van

Notten et al. (2005) assert that while there is little consensus in the literature about the definition of a discontinuous event, it is generally agreed that a discontinuous event is a major event, which is often unexpected, and which would exert significant social, economic, and/or environmental transformation. Lindgren and Banhold (2009) describe such “wild cards” as “unlikely future events that would have great impact if they occurred” while Van Notten et al. (2005) offer that discontinuities are, “A temporary or permanent, sometimes unexpected, break in a dominant condition in society.” Common examples of discontinuous events include occurrences such as the end of the Cold War, the emancipation of women, or in a resource management context, the infestation of the pine beetle in Western Canada. However, depending on the scale of planning, discontinuous events do not have to be global or national in scale. For example, if developing scenarios for a forest-dependent region, a discontinuous event could be a destructive forest fire which wipes out the majority of the region’s wood basket, or a governmental policy that protects the majority of the region’s forest from harvesting. While these events may not have a significant impact on a global or even a national scale, they would constitute an enormous “game changer” at the scale being planned for. Van Notten et al. (2005) also note that discontinuous events can be gradual (such as in the emancipation of women) or abrupt (such as the assassination of Archduke Francis Ferdinand in 1914, thus triggering World War I). However, van Notten et al. (2005) also note that many “abrupt” scenarios, such as the start of World War I, are frequently preceded by other driving forces which provide the true impetus for change but which are sometimes difficult to perceive as a driver until the change has already occurred.

Such “weak signals” are notoriously difficult to even perceive, let alone plan for, in long-range planning. Mulvihill and Kramkowski (2010) also find a dearth of common definitions of weak signals or scenarios in which weak signals are a key component. Frequently, when weak signals are incorporated into scenarios, these scenarios are often posed as outliers compared to more likely or status quo ones (See “3.3.5 Predictive Tendencies” for more discussion of the difficulties of identifying and incorporating weak signals into scenarios). Yet despite this, accounting for weak signals is an important aspect of long-range planning since, as Mulvihill and Kramkowski note, “it is usually easy to see that many problems, disasters and undesirable trends were foreshadowed by weak signals that went mostly unnoticed.... If we are somehow able to improve our ability to detect and analyze weak signals, we may enhance our ability to alter or avoid grim futures”. An example of such a weak signal could include the decline of domestic and wild pollinators (Science Daily, 2008) or localized extirpations and deterioration of amphibian populations (Becker et al. 2007), which are attributable to larger, unclear factors.

If the detection of weak signals can aid in managing driving forces and future uncertainty, then scenarios offer much potential. To better detect weak signals, Schwartz (1991) advocates examining peripheral “fringe” information to distinguish and filter out potentially important weak signals and related patterns, information that could be well incorporated into the storylines characteristic of scenarios. Mulvihill and Kramkowski (2010) also note that while weak signals may not be well accounted for in more predictive approaches to planning, the exploratory nature of scenarios make them a good fit for investigating and analyzing weak signals which may have major repercussions.

3.2.4 Provides strategic guidance to complex and uncertain present and future challenges

Myers and Kitsuse (2002) assert that an understanding of how multiple trends will extend forward and interact with one another to shape new possibilities and patterns of behaviour is often absent from planning. Therefore, a key contribution of scenario approaches, through collective research, analysis and insight, is the development of plausible long-term futures that may provide strategic guidance to present and future problems and challenges. Scenario approaches can be especially valuable in settings that experience high levels of uncertainty and complexity, multi-sectoral development activities, potential cumulative impacts at large regional scales, along with limited baseline data or knowledge. Not only can scenarios provide guidance for the development of a strategy, but existing strategies or policies can also be tested for robustness and efficacy against a range of possible future conditions (Mulvihill, 2003; Duinker and Greig, 2007; Mulvihill and Ali, 2007). Scenarios can also facilitate mental and emotional preparedness for uncertainties which may occur, and by working with a variety of stakeholders, encourage elements of flexibility and diversity to be incorporated into plans (Svenfelt et al. 2010).

For example, Noble (2008) examines a regional cumulative impact assessment done for the Great Sand Hills in Saskatchewan – an ecologically sensitive and culturally important prairie area under increasing livestock grazing and gas development pressures. This process studied the biophysical, socio-economic, and cultural values and boundaries, as well as the reach of existing policies, plans, programs, land-uses, and interests that could potentially affect the land-use scenarios developed for the region. Importantly, the

Great Sand Hills SEA not only focused on identifying historic trends in land use and resultant cumulative changes, but also aimed to develop, project, and assess alternative land-use scenarios in order to recommend a preferred conservation scenario and guidelines for implementation, mitigation, and monitoring. Through this process, the nature and underlying sources of cumulative changes were addressed and desirable futures, outcomes, and necessary paths were identified.

Similarly, while the scenarios in *Great Transition* (Raskin et al. 2002) are explorative, the process also retains a normative drive in that the authors clearly encourage the reader and decision-makers to embrace decisions which will move the world away from certain scenarios and towards “an alternative global vision”. Mulvihill and Kramkowski (2010) note that while the scenarios in *Great Transition* are not normative, they can serve a normative purpose in that the quality and rigour of good scenario development and associated storylines can provide added motivation for audiences to make – or change – plans in order to achieve a particular future.

3.3 Challenges and limitations in scenario planning

Despite the strengths outlined above, certain limitations and challenges exist in applying scenarios to long-range planning. These include an inconsistent methodology; difficulties in stakeholder involvement and the structure of the participating group; difficulties extending the lessons of one scenario exercise to others; essentialism and an inability to envision alternative and long-term futures; predictive tendencies which hinder exploration; institutional barriers to scenarios as a form of planning and long-range

planning in general; and emotional tensions and value conflicts which disrupt and undermine the scenario development and planning process.

3.3.1 Inconsistent methodology

Methodological flexibility can be one of the strengths of scenarios - predictive, normative, and explorative components can be incorporated depending on the context (Mulvihill and Kramkowski, 2011). However, this flexibility can also weaken both the perceived and real efficacy of scenarios, and scenarios are often criticized for the chaos that results from both methodological and procedural inconsistencies, as well as conceptual and definitional confusion over what even constitutes a scenario (Godet and Roubelat, 1996; Bradford et al. 2005; Lindgren and Banhold, 2009; Varum and Melo, 2010). The prevalence of different scenario typologies (See Myers and Kitsuse, 2000, and van Notten et al. 2005 as examples of different typology systems) and hybrids adds to the potential confusion. In addition to causing confusion and disagreement about what constitutes scenario planning and what the most effective means of conducting it is, this diversity of methodological choices and processes can also sway some practitioners away towards more straightforward, normative planning processes, such as visioning (Mulvihill and Kramkowski, 2010). In a critical review of an analysis of the VISIONS EUROPE project (an integrated assessment project aimed at a sustainable Europe) (van Asselt et al. 2005), van der Helm (2007) outlines the tension between corporate scenario practitioners who tend to focus on developing simpler scenarios, versus others which attempt to introduce deeper complexity in scenarios. He concludes that this tension

results in an “awkward research vocabulary” (van der Helm, 2007), thus contributing to methodological confusion.

3.3.2 Stakeholder involvement

Scenarios are intended as a deeply participatory approach to long-range planning and as such, require sufficient diversity in the opinions, values, and participants involved in the process. However, the involvement of various stakeholders, the nature of their interactions, and how scenario goals, processes and end results are communicated can also result in challenges. The process of identifying uncertainties, driving forces, potential futures, and appropriate responding strategies can be fraught with emotional and value conflicts (See “3.3.7 Emotional tensions and value conflicts” below for a full description). However, the very structure of the scenario building group is also a contributing factor to the strength or weakness of a scenario process.

In general, scenario organizers and builders attempt to incorporate a wide range of stakeholders into the process in order to maximize diversity of perspectives and knowledge. The collaborative opportunities that arise from this are viewed as a strengths of scenarios (3.2.1 Creates collaborative opportunities for diverse stakeholders and room for multiple perspectives). However, this participant diversity is not always sufficiently achieved and several processes have been criticized for this shortfall (Carlsson-Kanyama et al. 2008). For example, Rotmans et al. (2000) review *VISIONS for a Sustainable Europe* and found a marked difficulty in involving high-level participants. Interestingly, Rotmans et al. (2000) also found that the difficulty in recruiting and engaging stakeholders actually *increased* with the heterogeneity of the participant group, thus

pitting diversity of process against possible involvement of key stakeholders. It was also noted that participants had difficulty discussing certain broad, potentially vague, value-laden concepts such as “quality of life”, “cultural identity”, and “social cohesion” (Rotmans et al. 2000), thus marking another component of scenario building where the types of stakeholders involved can influence how certain key concepts are defined.

3.3.3 Difficulties extending the lessons of one scenario exercise to others

It can also be difficult to extend the lessons of one scenario exercise in a certain context to others, thus gaining minimal forward benefits from well-developed or particularly effective scenario development and planning processes. While this is partly due to the methodological inconsistencies noted above (3.3.1 Inconsistent methodologies), other contributing factors also exist.

While some authors state that scenario development is increasing in popularity (Reed et al. 2009; Varum and Melo, 2010), others note that, at least in business settings, scenarios are rarely used compared to forecasts or visions (Lindgren and Banhold, 2009). However, while it appears that scenarios are still not common, there is presently little literature that outlines the frequency of their use, making it difficult to determine how popular scenario development and planning may currently be (Mulvihill and Kramkowski, 2010). In particular, there is a dearth of comparative and evaluative analysis of scenario development experiences, practices, successes and failures (Chermack et al. 2006; Reed et al. 2009), further increasing the difficulty of extending scenario lessons outside of their unique contexts.

A lack of transparency – both in relevance and procedure – can also impact transferability. van der Helm (2007) notes that the authors of VISIONS EUROPE did not discuss the issues of relevance for non-expert participants and stakeholders. This is another reason that scenario development may not be readily embraced – if exercises that have already taken place were viewed as unconnected to many of the stakeholders involved and with little significance beyond the exercise itself, there is little impetus to transfer this process to other contexts. As well, even when a scenario exercise is viewed as relevant and effective, there can be a lack of transparency surrounding the internal choices that gave rise to the scenarios and subsequent management decisions. This can be a barrier to non-participants' understanding and appreciation of the methods, thought processes, and collective research of driving forces, trends, uncertainties, and opportunities that took place, thus nullifying potential valuable contributions to overall scenario knowledge and decreasing its transferability to other exercises (Rotmans et al. 2000; van der Helm, 2007; Mulvihill and Kramkowski, 2010)

In their examination of a scenario exercise to manage the ecological, socio-cultural and economic drivers that contribute to desertification in the Northern Mediterranean, Kok et al. (2006) note an instance in which scenarios from one region were successfully adapted to another region. However, they also contend that transferring these scenarios from context to context can act as a “straightjacket”, by reducing the creative, exploratory characteristics which are such a strength of scenarios. However, by too narrowly focusing on planning for place, we risk a series of one-off planning exercises in which no progression is made, and no lessons learned or transferred, thus limiting the quality of planning even if it is carefully geared to a particular unique context.

3.3.4 Essentialism and challenges to envisioning alternative and long-term futures

Humans have great difficulty envisioning the long-range future. In a survey of cognitive representations of the future, Tonn et al. (2006) found that the future “goes dark” for the average person at about ten years in the future. Even when participants are able to visualize a long-range future, assumptions about the nature of how the future could unfold can reduce scenario efficacy and how they are used. Despite warnings about not getting attached to a single scenario, participants often adhere to one “favourite” (Duinker and Greig, 2007; Lindgren and Banhold, 2009). Similarly, while incorporating unexpected game-changing “surprises” is viewed as one of the strengths of scenarios, van Notten et al. (2005) state that many exercises either do not develop scenarios for “extreme” or discontinuous events which may radically change the future, or if they do, such “wild cards” are often filtered out in the scenario process and treated separately. The authors note that excluding such views of how the future will unfold is in part due to assumptions that the future will not differ fundamentally from the past, that radical change is unlikely to occur, and in part due to tendencies to consider only attractive futures, with discontinuity considered threatening due to organizational resistance towards uncertainty and radical change. However, in order to be effective, scenarios must be plausible, not necessarily probable. Sacrificing exploration for probability and clinging to assumptions about how the future will develop, neuters scenarios from much of their potential for long-term, transformative planning and may preclude the potential insights that come from weak signals.

Therefore, an important part of an explorative scenario process is a non-essentialist perspective, which Mulvihill and Kramkowski (2010) define as “the belief that there is little, if anything, that is pre-determined about the longer-term future.” In contrast, many adhere to an essentialist perspective in which certain aspects of the long-term future are inescapable – phenomena such as war, inequality, greed, poverty, or the prioritization of economic over environmental or justice issues. According to Mulvihill and Kramkowski (2010) “From an essentialist perspective, certain pre-determined elements are part of every future, regardless of attempts to change values or behavior.” This attitude can pose a barrier to developing and fully utilizing scenarios.

For example, in a study of eight scenario exercises that explored futures for agricultural and rural regions in the UK, Reed et al. (2009) noted that when the public was consulted during the scenario evaluation phase, many gravitated towards the status quo scenario rather than more transformative ones, whether the status quo was viewed as negative or positive. Therefore, the “favourite” scenario that participants often tend to get attached to, can be doubly unhelpful if it is one of the more conventional ones, thus negating the value that other less probable scenarios may offer to planning strategies (Duinker and Greig, 2007). This is reminiscent of the strategic inertia described by Wright et al. (2008) in that a scenario process will be weak and ineffective if participants and the broader public are not amenable to the possibility of different futures. This can be influenced by the scale of planning – for example while humans are often pessimistic about humanity’s control over its future, they are frequently optimistic about the degree of control that individuals have over their own lives (Tonn et al. 2006).

3.3.5 Predictive tendencies

While predictive forecasting can serve certain purposes, it also has several limitations when applied to long-range planning of socio-ecological systems and the management of associated uncertainty. These include a reliance on past and present data which requires a closed system to extrapolate into accurate predictions, a conservative bias when extending past data to future conditions, and basing predictions of the future on assumptions that present choices are intractable in the face of changing conditions (Tansey et al. 2002). Therefore, as noted above (3.3.4 Essentialism and challenges to envisioning alternative and long-term futures), in order to achieve maximum benefits from an uncertainty management process, the scenarios developed should not all be probable, merely plausible, with much of the literature emphasizing this distinction (Schwartz, 1991; Shoemaker, 1991). However, there remains a strong tendency for participants and decision-makers to look toward scenarios as a form of predictive forecasting. Rotmans et al. (2000) notes that while social scientists are now contributing to scenario research and literature, historically scenario approaches were developed by quantitatively-oriented engineers, economists, and planners with more predictive goals.

As an extension of the essentialist perspective that can hamper scenario development and planning, Mulvihill and Kramkowski (2010) cite Miller (2007) who outlines that the “predictive tradition” in scenario processes can be traced in part to participants’ affinity for stories that support their unreflexive beliefs about what the future will hold. This contributes to the “prediction paradigm”, thus limiting the drivers, uncertainties and trends discussed, and making the resulting scenarios “not only too predictive, but also too predictable” (Lindgren and Banhold, 2009; Mulvihill and Kramkowski, 2010). Often weak signals are also limited in these discussions. By their

nature, weak signals are difficult to perceive, both in general and in their potential significance (Kuosa, 2010). As a result, it is often difficult to develop strategies based on weak signals which may or may not be significant, leading to an overall neglect of weak signals in both the literature and in practice. However, considering the importance of weak signals which do herald important, transformative trends, ignoring these signals can dramatically reduce the efficacy of scenarios and increase future risks (Mulvihill and Kramkowski, 2010).

Some authors support exploratory scenarios with predictive goals, as long as these forecasting objectives - and the limits inherent to this approach - are made explicit (Bryant and Lempert, 2010). However, if the biases and limitations of “predictive” scenarios are not clearly acknowledged, supposedly exploratory scenarios will more closely resemble forecasts and be overly narrow for effective management of uncertainty. Interestingly, Mulvihill and Kramkowski (2010) note cases where scenarios which have successfully supported planning strategies are actually believed to have been accurate forecasts, even though the majority of the scenario developers’ “predictions” did not play out. Although this suggests that even misinterpreted scenario processes can be useful, the authors assert that predictive tendencies serve more to limit scenario use and planning rather than enrich it. This observation is particularly relevant for larger-scale, complex regions, especially since the majority of the scenario literature still comes from the field of business, where the scale and complexity of planning is far more narrow.

3.3.6 Institutional barriers

While it might be assumed that planning academics and practitioners would be

interested in long-term futures and related techniques – such as scenarios – Myers and Kitsuse (2000) argue that this is not necessarily the case. Rather, they contend that academics face pressures to devalue research on the long-term future as a research subject due to a social science focus on historical trends rather than potential and desirable futures. According to this view, future studies are perceived as overly abstract and not a topic of true academic research, thus suggesting that futurists practice on the fringe of academia.

There can also be institutional pressures and barriers in governmental and private practice which limit the use of scenarios. Frequently, the most ambitious, imaginative scenario projects are led by think tanks, such as in the case of *Great Transition* (Raskin et al. 2002). However, these organizations and their undertakings are often unconnected to planning and policy processes, thus hindering their incorporation into governmental or legislated planning (Mulvihill and Kramkowski, 2010).

Multiple barriers to long-range planning and associated approaches also exist within the public sector. In a study of bioregional planning professionals in the southern Appalachians, Tonn et al. (2006) found a dearth of direct job responsibilities that involved the long-term future. Similarly, Myers and Kitsuse (2000) note that urban planning processes often concentrate more closely on shorter temporal periods and smaller spatial scales, a focus which may appear to preclude large-scale, transformative, long-range planning. In particular, the authors note that planners tend to utilize forecasting more frequently than explorative scenarios since such scenarios could be interpreted as “stories” or “science fiction”, thus posing a risk to their professional credibility and opening them up to criticisms.

3.3.7 Emotional tensions and value conflicts

While a range of scenarios allows room for multiple perspectives, the questioning of deeply held beliefs, presence of diverging interests, conflicting perspectives, and/or hidden agendas, combined with the political and psychological content of scenarios and potential stakeholder agitation over undesirable scenarios, can lead to a perceived politicization of the scenario development process, emotional repercussions, and an erosion of the credibility of the exercise (Duinker and Greig, 2007; Volkery et al. 2008). Conflicts can also occur between professionals or “experts” and members of the public due to differing ideas about what information, developments, or scale of inquiry may be relevant (Volkery et al. 2008).

As a solution, Myers and Kitsuse (2000) encourage an open, communicative approach to scenario development. However, while an open, communicative approach is an important component of scenario building and while scenarios can incorporate diverse and differing views, such an approach disregards the power relations which are often inherent to public processes, particularly in rural communities in which there may be a high degree of familiarity and connectivity.

These emotional and value conflicts can result in drawbacks beyond interpersonal discord – the quality of the scenarios produced can also be compromised. For example, Allan and Curtis (2005) noted that participants were sometimes threatened by new or difficult ideas which might necessitate behaviour or conceptual alterations, and thus reframed these ideas into recognizable, non-threatening, but sometimes inaccurate

concepts which neutralized the requirement that their perceptions and actions be stretched or altered.

There can also be value conflicts about what interests are included in scenarios and how they are presented. The scenarios chosen are important since human behaviour can be reflexively influenced by current scenario development and planning (Tansey et al. 2002; Myers and Kitsuse, 2000). However, determining what type of futures scenarios should include, what future is desirable, and whose desirable future it is, requires choices of values, and ethical tensions can exist over alleged activist shaping of the future and manipulation of forecasts to support desired plans (Myers and Kitsuse, 2000). Furthermore, while the tendency to ignore discontinuous events and present “favourable” scenarios in comparison to status quo ones is noted above (3.3.4 Essentialism and challenges to envisioning alternative and long-term futures) (van Notten et al. 2005), it is not always specified to whom these scenarios are favourable. Thus, by discounting supposedly negative scenarios, stakeholders or voices not represented in the process may lose out on benefits, or be subject to risks, not apparent to participants.

An important element in resolving – or at least effectively negotiating - value conflicts is the presence of trust. This involves both trust between participating stakeholders, and between participants and administrators of the scenario process. However, Mulvihill and Kramkowski (2010) citing Selin (2006) note that trust can be difficult to achieve and maintain in scenario exercises due to the group process which must eventually serve certain “political, economic, or ideological ends” over others. As an extension of this, scenario participants and administrators act as “agents of trust” who may earn it or, conversely, lose it. Notably, Selin (2006) also observes that trust in a

scenario process can be highly context-dependent in that what participants may trust in one context, they would be suspicious of in another, again hindering transferability of the results and lessons of one scenario exercise to another.

3.4 Conclusion

Scenarios provide an intriguing, engaging, charismatic, and effective means of visioning futures, understanding uncertainties and driving forces, and developing appropriate strategies to move forward. However, some of their strengths – such as flexibility, a diversity of stakeholders, perspectives, and values, a means of challenging assumptions about the future, and context-specific processes – can also become drawbacks when applied to long-range planning. Some negative views of scenarios also result from a misunderstanding of their roles and limitations. Undoubtedly story-based planning which involves people, their values, visions, and associated shortcomings will be a value-laden exercise. This is not necessarily a weakness however, as long as these very human aspects of the process are acknowledged for what they are, what they are not, and what they contribute. The result has the potential to be applied to a variety of sustainability-related challenges and provide useful strategic direction.

The promise and drawbacks of scenarios holds implications for post-productivist forest-dependent regions such as the Northeast Superior region and its associated communities. The majority of explorative scenario work has been done in business settings which lack the complexity and scale of a region. When regional scenario exercises have been undertaken, more often than not, they are conducted in urbanized (Helling, 1998) or mixed rural-urban regions (Carlsson-Kanyama et al. 2008). While

some scenario exercises have been utilized for similar resource-dependent regions or industries in Canada, they have either resulted in a limited number of scenarios that lacked a rich narrative and discounted discontinuous events (See the Great Sand Hills scenario exercise in Noble, 2008) or focused more broadly on a single national industry such as forestry (Frittaion et al. 2010), thus missing the intricacies of a forest- and resource-dependent rural region that holds multiple conflicting interests yet experiences high connectivity between residents, organizations, governments, industries, and other stakeholders and actors.

Chapter Four

Research Design and Methodologies

This chapter describes my research design including the dominant paradigm from which I approach my research questions, the use of a case study, and methodology for data collection and analysis. While quantitative research is frequently associated with the positivist paradigm, and qualitative research is linked with the constructivist paradigm, I situate my own research within the school of pragmatism and associated mixed methods. This approach is well suited to a case study research design which provides a typical case for study, from which results can then be extended to other broader settings. A case study is also ideal for accommodating mixed methods. In my case study of the Northeast Superior region, I utilized the data collection methods of document analysis, site visits and direct observation, semi-structured interviews, and focus groups. I also outline my approach to analysis of this data and coding for themes, outliers, and linkages.

4.1 Research Approach

4.1.1 The quantitative positivist paradigm versus the qualitative constructivist paradigm

For the past several decades, there have tensions between, and attempts at bridging, the paradigms of quantitative and qualitative analysis (Filstead, 1979). Frequently, quantitative analysis has been associated with the natural science positivist model. This model reflects the belief that science can indicate reality in an accurate and

unbiased way through its reliance on carefully selected samples to infer properties to the bodies from which samples were selected (Filstead, 1979; Lindlof and Taylor, 2002; Forsyth, 2003). In this regard, science is portrayed as accurately reflecting the true functioning of Nature, its structures and processes, and the “real” world (Forsyth, 2003). This view is evident in certain fields, such as in Jonasses’ (1995) exploration of American forestry near the turn of the twentieth century, in which the objective “forester’s eye” was viewed as being more adept at seeing the forest as it “really” was, compared to a subjective casual bystander. Thus, scientists are sometimes viewed as being closer to Nature, or at least possessing the skills to objectively interpret its signs and messages, and to travel between the realms of Nature and Culture (Latour, 2004, p. 11-12). This paradigm requires the acceptance that natural science and quantitative analysis is the major bottleneck through which ecological knowledge can pass, that the researcher and object of research are separate and independent, that there is a true and real Nature (and associated “reality”) to be identified, that science can identify what is or is not Nature, and that what is accepted as Nature can offer objective and value-free principles (Gliner and Morgan, 2000: 18-19; Latour, 2004, p. 11-12).

However, such binary oppositions between the objective scientist and the subjective or emotional layperson can break down in environmental disputes, with the reality being far more complicated (Richardson et al. 1993). A positivist view is also problematic considering the deep, interactive, and sometimes unclear, causal links between human behaviour and ecosystem integrity or disturbance. Instead, a qualitative paradigm asserts that actors and individuals can be viewed as “active agents in constructing and making sense of the realities they encounter” (Filstead, 1979: 36). In

this case, qualitative research attempts a “holistic” understanding of a larger, often complex situation, its actors, and their perceptions (through which multiple realities are constructed) by “suspending...preconceptions about the topics under discussion” (Miles and Huberman, 1994: 6). Furthermore, the role of the researcher and the impact that their presence has on their results is also explicitly acknowledged in qualitative work. As Lindlof and Taylor (2002: 11) state, “Knowledge of social realities emerges from the interdependence of researcher and researched. The researcher does not use methodological instruments. The researcher is the instrument”. Similarly, qualitative researchers – and increasingly quantitative researchers – recognize that research is not objective nor value-neutral (Hammersley, 1995: 100).

Frequently, a positivist quantitative paradigm and a constructivist qualitative paradigm are portrayed at odds, and their respective merits debated (Filstead, 1979; Miles and Huberman, 1994; Hammersley, 1995). However, interdisciplinary research and mixed methods acknowledge and seize upon the strengths of both ways of knowing in order to understand complex situations, phenomena, and the world at large (Miles and Huberman, 1994; Green, 2007).

4.1.2 Interdisciplinary and pragmatic approaches to research

An interdisciplinary approach is especially vital in environmental planning, which necessarily involves both the biophysical and the politico-socio-economic. Undoubtedly, quantitative forms of natural science research that inform fields such as biology and ecology serve an important purpose in environmental planning and management. Certain questions or units of evaluation are best served by quantitative methods, though this does

not preclude other forms of knowledge about further aspects of the question nor does it mean that researcher bias is eliminated in these forms of investigation. At the same time, qualitative research also serves an equally critical role since human behaviour, preferences, priorities, and values are strong determinants of how environmental planning and management take place, and which environmental, social, cultural, or economic values will be prioritized. This is reflected in the common saying among environmental managers that “environmental management means managing people” more so than the environment (Montgomery, 1990). Indeed, while all communities – whether rural or urban – are intimately linked to their environment and supporting ecosystems, this reliance is far more pronounced and visible in forest-dependent regions which immediately rely on their surrounding landscape for economic, social, and often cultural and spiritual, activities. Therefore, maintaining the constructed divisions between the Human and Natural worlds (Latour, 2004) is counterproductive in environmental planning.

This view and the associated approach of using mixed methods in research is reflected in pragmatism, a stance which acknowledges and utilizes quantitative positivist and qualitative constructivist paradigms. Characteristics of pragmatism relevant to this research include: (1) Recognition of both the natural/physical world, and the social/psychological world which involves language, culture, and subjectivity; (2) Recognition of the reality and influence of the inner world of human experience; (3) Viewing truth, meaning, and knowledge as provisional truths which change over time; (4) Valuing action over philosophizing; (5) Viewing knowledge as being both constructed and based on the reality of the world we experience and live in; (6) Endorsing eclecticism

and pluralism (I.e.: different, even conflicting, theories and perspectives can be useful); (7) Rejecting traditional dualisms (ex: rationalism vs. empiricism, realism vs. antirealism, facts vs. values, subjectivism vs. objectivism) and generally preferring more moderate and commonsense versions of philosophical dualisms based on how well they work in solving problems; (9) Generally rejecting reductionism (Green 2007: 83-84, citing Johnson and Onwuegbuzie, 2004: 18).

As a reflection of these frameworks and debates, my research takes an interdisciplinary, pragmatic perspective. While my work utilizes a strong qualitative approach and adopts the view that the realities that actors create for themselves can influence how planning takes place, it also embraces the role that the biophysical and associated research approaches play in environmental planning and the forms of knowledge and modes of knowing that accompany both these perspectives. As is evident from the literature review in Chapters Two and Three, it also takes an interdisciplinary approach as evident from the multiple fields and topics that this research encompasses. While most of these fields fall under the social sciences, many – such as environmental assessment - are also informed by natural sciences such as ecology. Therefore, to best approach my research questions from a pragmatic perspective, I have utilized a mixed methods approach.

4.2 Research Process

4.2.1 Single Case study research design

Case studies are a common and useful research strategy in the examination of complex social phenomenon. Yin (2003) defines a research case study as relating to two

connected points. Specifically, he describes a case study as “(a) an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when (b) the boundaries between phenomenon and context are not clearly evident” (Yin, 2003: 13). Since the choice of using a case study influences the research design, methods used, data collection, and analysis, and since multiple data collection methods can be utilized in the study of the case in question, Yin (2003: 14) notes that choosing to utilize a case study is more akin to a “comprehensive research strategy”, rather than simply being a data collection method.

My research revolved around a case study approach for several reasons. First, a case study provided a venue in which to study long-range regional environmental planning and the accompanying human and ecological complexities. Secondly, the questions I was exploring were inextricable from their context. The individuals, organizations, governments, industries, stakeholders and actors involved in long-range planning - or who affected it in some manner - and the various physical and social components of the region itself all posed influences that were inseparable from the topic at hand. In addition, a case study offers a rich mine of longitudinal data which can be followed to better place current decisions and phenomenon in context. Third, a case study provides an overarching framework for the multiple sub-cases (i.e. organizations, agencies, various jurisdictional boundaries), that frequently make up a region (Stake, 2003). Finally, more than one method is frequently required to study a complex phenomenon, and a case study also offers a framework into which mixed methods can be productively incorporated.

4.2.1.1 Choice of the Northeast Superior region as a case study

There were several key reasons that I selected the Northeast Superior region for my doctoral research. My interest in the Northeast Superior region was originally sparked by the activities of the Northeast Superior Forest Community (NSFC), a subsection of the federal Forest Communities Program. The innovative activities of the NSFC in the Northeast Superior region – a forest- and resource-dependent area which has been depressed by the downturn in the forestry industry and is currently undergoing significant social, economic, and environmental transitions – appeared to offer an interesting prospective case study for my area of inquiry. As I became more familiar with the region and its various forms of governance, my research extended beyond the NSFC in order to adopt a regional approach (as opposed to focusing on a single multi-governmental organization) (See Chapter 5 for a detailed description of the Northeast Superior region, including the NSFC).

Yin (2003: 39-45) outlines several rationales for utilizing a case study. Of these, the Northeast Superior region fulfilled two main rationales, namely that it is (a) a *representative or typical* case; and (b) that it is an *embedded* case.

First, based on my literature review and initial scoping conversations with key informants, it appeared that the Northeast Superior region could be considered *typical* of resource-dependent regions undergoing social, economic, and environmental transitions and dealing with associated uncertainties. Therefore, I view the Northeast Superior region as an instrumental case study. While I hope that my work and conclusions will be useful

for the communities and people of the Northeast Superior region, this case study was selected in that many of its characteristics can be extrapolated to provide insights for similar regions and achieve an understanding and model of long-range planning that might offer broader application (Stake, 2003: 136-137). This is in contrast to an intrinsic case study in which the research goal is understanding a particular case, rather than a broader purpose (Stake, 2003: 136-137).

Regarding the second rationale, the Northeast Superior region can also be considered an *embedded* case study in that it contains more than one unit of analysis. For example, while I examine long-range environmental planning in the Northeast Superior region as a whole, such planning takes place, in whole or partially, through a variety of agencies, processes, and planning units (E.g. Forest management units, watersheds, Ministry of Natural Resources (MNR) districts, the Northeast Superior Forest Community, environmental assessments). Yin (2003: 45) warns that while embedded case studies provide flexibility, it is vital that researchers ultimately return to their initial unit of analysis, and do not become entangled in the embedded subunits. However, a strength of an embedded case study is that multiple units of analysis (versus just one), as well as various mixed methods, can be used to mine the case study for rich and varied data which can then be utilized to substantiate and triangulate results (Yin, 2003; Miles and Huberman, 1994).

4.2.1.2 Determining case study boundaries: Spatial, temporal, and sampling

As discussed by Gliner and Morgan (2000: 25), while qualitative researchers begin with a focus of inquiry, they do not always know in advance what path their

research will take, nor the length of time required to complete it. Therefore, during the research process I attempted to be flexible in drawing the spatial and organizational boundaries of my fieldwork. My interest in the NSFC helped me draw spatial boundaries around member municipalities and First Nations. While these communities are sometimes separated by different jurisdictional boundaries (ex: MNR boundaries, electoral boundaries), the choice of these communities to self-identify as a region and a Forest Community in economic, social, and environmental planning spurred my own choice to identify the member communities of the NSFC as my regional case study, even if the NSFC is not my primary focus.

However, while certain members of the Northeast Superior region (in this case the Northeast Superior Forest Community, and the associated Mayors Group and Northeast Superior Regional Chiefs Forum) work together as a whole on certain issues, they are each involved in - and occasionally separated by - planning at various scales. Therefore, as mentioned above, while I examine the Northeast Superior region as a whole, planning subunits of interest to this research include watersheds and associated hydro-electric planning and standing advisory committees, forest management units and Local Citizens Committees, Ministry of Natural Resources, and Ministry of Northern Development and Mines districts and associated programs, projects, and planning (such as Crown Land Use Atlas Harmonization project (Wawa District) and Quality Fishing Zones (Chapleau District)), planning initiatives by the Northeast Superior Forest Community and associated members and organizations, and other events, initiatives, and/or organizations, such as the conflict over the development of a traprock quarry on Michipicoten Bay. These subunits reflect the different modes of planning in the Northeast Superior region,

related value conflicts, uncertainties, the diversity of desired long-range futures, and the difficulties of envisioning those futures for the region.

Similarly, I focused the temporal boundaries of which planning processes to study by (1) examining the planning processes currently utilized, or being considered or developed for the region, and (2) examining earlier planning processes (E.g.: Lands for Life) that may have influenced how primarily environmental, and secondarily social and economic, planning takes place in the region. The major temporal boundaries of the case study were determined based on these criteria. However, due to the effects of earlier developments and patterns (such as boom-bust cycles which have been ongoing since industrial forestry and mining began in the region) on both the region and its planning and development processes, I have found it necessary to occasionally stretch temporal boundaries of the case study beyond current planning and its predecessors.

4.2.2 Collecting and analyzing the data

As indicated by Yin (2003: 97), one of the strengths of using a case study is the opportunity to obtain and utilize multiple sources of evidence, thus “allowing an investigator to address a broad range of historical, attitudinal, and behavioural issues” and most importantly, developing “converging lines of inquiry” to more convincingly corroborate certain facts, opinions, or conclusions. Thus, while no observations or interpretations are without error, by triangulating multiple sets of data and data sources, a researcher can elucidate facts, clarify meanings of how a process or phenomenon is perceived, verify observations or interpretations, and achieve greater confidence in their work and its conclusions (Stake, 2003: 147-148).

My fieldwork began in April 2010 and ended in March 2011 and lasted a total of 16 weeks over the course of this time. My main methods of data collection were (1) Document analysis; (2) Site visits and direct observation; (3) Semi-structured interviews; and (4) Focus groups. Certain components of data collection informed other subsequent components. For example, document analysis informed the structure and content of the interview questions, issues that were mentioned in earlier interviews with key informants shaped some questions that were asked of later participants, and document analysis and interviews informed the focus groups which occurred last in the data collection process. However, this process was also iterative in that multiple forms of data collection were often simultaneously ongoing.

4.2.2.1 Site visits and direct observation

Direct observation of the region, associated communities, environmental and socio-economic planning processes, and governance structures and processes was achieved through several site visits. This involved both formal observation of specific meetings and organizations associated with environmental planning, as well as more informal observation of the region and communities as a whole.

Formal site visits and observation took place at several meetings related to environmental and socio-economic planning. The meetings I attended in this capacity were a meeting of the Northeast Superior Forest Community (This took place at the beginning of my fieldwork in April 2010, during which I also presented my proposed research to the NSFC Board members), a meeting of the Michipicoten River Standing Advisory Committee in July 2010, and a meeting of the Wawa Area Local Citizens

Committee in September 2010. In all cases, my role of PhD student, researcher, and observer was made known to all attending. Notes were taken of these meetings and associated documents and minutes were also collected and utilized.

More informal observations of the communities, regions, landscape, and associated industries and interests took place in a variety of ways. I conducted visits to certain sites of environmental, social, or ecological importance or conflict (E.g.: Dubreuil Forest Products, Michipicoten Bay, Lake Superior Provincial Park, the Algoma Ore “fumekill”), which were documented in field notes and through photographs. Other modes of informal observation included travel through the area (car, bus, foot, boat, snow machine, etc.) in both a research and non-research capacity, informal interactions with residents and visitors, and other means of interacting with the communities both as a researcher and in other capacities (E.g.: as an acquaintance, friend, dance teacher, etc.). It should be noted that since I was predominantly based in the town of Wawa and traveled to other communities for research or visits, many of these informal interactions occurred in this part of the region. Such informal observation provides important insights into the case study context (Yin, 2003: 93). As a researcher born and raised in a southern urban area, this was vital component of my research and helped me to better situate both my work, and my own personal and research biases.

4.2.2.2 Document analysis

Documents provide an essential aspect of a case study analysis. While Yin (2003: 87) cautions that documents are not necessarily accurate nor unbiased, he also notes their

use in corroborating or complementing other data sources, as well as raising questions or inferences which should be explored further with participants.

Documents came from three main sources. First, newspaper, magazine and non-academic journal articles were found using online searches. I accessed approximately 75 articles from a variety of local newspapers and news websites such as *Wawa-news.com*, *The Algoma News* (Wawa), *The Chapleau Express*, and *The Echo* (Manitouwadge), regional papers such as *The Sault Star*, national newspapers such as *The Globe and Mail* and the *Toronto Star*, and industry-specific newspapers such as *The Working Forest*, *The Northern Miner*, and *Canadian Mining Journal*.

Second, other documents were obtained using internet searches. These documents were mostly related to environmental or socio-economic planning for the communities, region, province, or for regions similar to the case study. These documents included municipal, provincial or federal policies which might impact the region, or comments on these policies. The documents frequently came from government websites and included municipal documents such as Official Plans, Strategic Plans, or Sustainability Plans, provincial documents such as the Growth Plan for Northern Ontario or the proposed Crown Land Use Atlas Harmonization project (Wawa MNR District), documents from multi-government organizations such as the Northeast Superior Forest Community, industry-specific documents such as Forest Management Plans, and documents from eNGO's such as the Boreal Forest Agreement.

Third, documents were also obtained directly from participants. Some of these documents were available online whereas others, such as the minutes for the Michipicoten River Standing Advisory Committee meetings, were not readily accessible

except upon request. Some documents also included the participants' own work or drafts of documents, such as the *Draft Northeast Superior Regional Chief's Forum Vision Statement* and *Master Action Plan*.

This diversity of document sources is vital, both for accessing as much relevant information as possible, as well as accounting for potential biases in the documents reviewed as warned about by Yin (2003). For example, while the "truce" organized in the Boreal Forest Agreement between several major Canadian forestry companies and environmental organizations was portrayed as mutually beneficial in national newspapers (Mittelstaedt, 2010), forest industry newspapers posed it as a capitulation and loss of needed woodlands in exchange for nothing of value (The Working Forest Staff, 2010).

4.2.2.3 Semi-structured interviews

4.2.2.3.1 Sampling and participant selection

Miles and Huberman (1994: 27) note that qualitative researchers often study smaller purposive samples of people "nestled in their context and studied in-depth", versus quantitative researchers who study random, large samples for statistical significance. Based on the diverse values represented in my case study, my goal was an equally diverse, but focused (i.e. non-random) selection of participants who could provide rich data and perspectives based on their unique experiences and expertise. Participants were selected and interviewed based on their professional expertise and experience, whether in their current or past career and/or other endeavours (ex: involvement in a Local Citizens Committee or environmental organization). In pursuit of this I utilized a mixed sampling strategy which consisted of the following sampling

techniques: (1) *Maximum variation sampling*, which looks for diverse outliers in order to document variations and identify common patterns; (2) *Snowball or chain sampling*, which identifies participants of interest or with particular sets of knowledge through other participants; (3) *Opportunistic sampling*, which utilizes new or unexpected leads and opportunities; and (4) *Intensity sampling*, which seeks “information-rich cases (or participants) that manifest the phenomenon intensely, but not extremely (Miles and Huberman, 1994: 28).

Overall, my initial sampling goal was to interview participants from various levels of government (Municipal, Provincial, Federal, First Nations) including relevant agencies (Ministry of Natural Resources, Ministry of Northern Development, Mines, and Forestry³) and other organizations (NSFC staff), industry (forestry, mining, tourism (road-based, remote, silent sports/non-motorized tourism), hydroelectric, non-timber forest products), environmental non-governmental organizations with various focuses (conservation, forest access), and academics who have worked in the region or researched relevant issues. As I began to fulfill my initial sampling goals and preliminary patterns or themes began to emerge, I then specifically searched out participants from underrepresented groups or participants with divergent perspectives. Table 4.1 documents the sampling spread of participants in each of these different sampling categories. Due to the small and connected nature of the communities involved in my research, certain categories have not been broken down into further subcategories to protect participant confidentiality. As well, my proposed research, including a Human Participants Review,

³ Note that at the time of fieldwork, the Ministry of Northern Development and Mines had added the commercial aspects of forestry in the province to their mandate, thus changing their name to Ministry of Northern Development, Mines and Forestry. This Ministry reverted back to its original name after my fieldwork concluded.

risk assessment, interview questions, focus group questions (See 4.2.2.4 Focus groups), other research activities, and proposed participant sampling categories were approved by the York University Office of Research Ethics.

Table 4.1 Sampling Categories for Interviews (Identification codes used in results chapters)	
Category	n
Government^{1*}	
Municipal (MUNICIPAL)	11
Provincial (PROVINCIAL)	
- Ministry of Natural Resources	8
- Ministry of Northern Development, Mines, and Forestry	4
Federal (FEDERAL)	1
First Nations (FIRST NATIONS)	2
Other Governmental (OTHERGOVT)	3
Industry	
Forestry ^{2**} (FORESTRY)	9
Mining ** (MINING)	1
Tourism ** (TOURISM)	5
Trapping ** (TRAPPING)	5
Hydro electric ** (HYDRO)	1
Non Timber Forest Products * (NTFP)	2
Environmental NGOs ** (NGO)	7
Academics (ACADEMIC)	2
TOTAL PARTICIPANTS	51
¹ The category "Government" and all sub-categories includes both elected officials and other staff ² LCC members have been listed under "Forestry" * It should be emphasized that many participants who are government staff specified that the opinions they expressed were their own and not necessarily representative of the government they worked for. ** Several participants fall under more multiple categories. Categories which contain overlapping participants have been marked. However, total number of participants (rather than the sum of all categories) is noted under "TOTAL". When participants which cover more than one category are cited in this dissertation, all their identified categories are listed (Ex: A participant who is involved in both forestry and trapping would be identified as FORESTRY/TRAPPING)	

Initial and later interview participants were found both through internet searches and through referrals by other participants or contacts. Participants were initially contacted by telephone, email, or in person. Several of the first interviewees were considered “key informants” through my reliance on their knowledge of the region, associated planning, certain insights, and their ability to suggest other potential participants (Yin, 2003: 90). Many subsequent participants were found through this snowball method and such key informants were vital both for the relevant participants they suggested, as well as acting as a referral for my own work, thus playing an enormous role in making subsequent interviewees more amenable to participating in my research. While key informants can be a critical aspect of a case study, as cautioned by Yin (2003: 90), care was taken to avoid excessive or overly-biased reliance on the perspectives provided by these participants. In this regard, I attempted to continue to independently seek out participants through internet or document searches, separate from the participants recommended by key informants and subsequent interviewees. Interviewees were also solicited from the meetings I attended (4.2.2.1 Site visits and direct observation).

Several points and caveats should be noted in sampling. First, many participants cover more than one category. For example, some participants work in related industries (hydro electric, forestry) or government agencies (MNR) and are also members of Local Citizens Committees or environmental organizations. Second, despite efforts, I consider the perspective of First Nations government to be somewhat underrepresented in this research. Although some representatives and staff of the First Nations communities in the region were interviewed, I was unable to speak to any Chiefs. Therefore, this is a gap in my work that should be explored further.

Third, it should be noted that all interview participants were recruited on a voluntary basis, and had multiple time and energy commitments around which they were good enough to schedule my interview request. Therefore, since we frequently had to work around participant time constraints, not all questions were directly posed by myself and directly answered by all participants. Conversely, the semi-structured nature of the interviews also meant that some participants brought up topics which, after careful consideration during analysis, were deemed unrelated to the research topics and were not included in coding and analysis. However, many notable points and valuable perspectives which I had not initially thought to discuss, were also touched upon in this manner. Therefore, as a researcher I frequently had to strike a balance between redirecting the discussion back to the interview questions and allowing a participant to verbally explore topics which could offer rich, previously unconsidered insights. While some may see this aspect of semi-structured interviews as a weakness when it comes to efficiency, from my own perspective I found that the strengths of this research method (notably the data obtained and the reworking of my own researcher perspective) outweighed these drawbacks.

4.2.2.3.2 Conducting the interviews: Interview styles and questions

When possible, interviews took place in person. Face-to-face interviews took place in public or semi-public areas and were scheduled and located to maximize convenience for participants. Interviews were usually conducted in workplaces in offices or meeting rooms, in public venues such as restaurants or coffee shops, or in participant homes. If a face-to-face meeting was not possible, interviews were conducted over the

phone. All interviews were recorded and later transcribed, unless requested otherwise by participants in which case careful notes were taken during the interview and no direct quotes were used. Participants whose interviews were taped, provided recorded verbal consent to being recorded, and all participants read and signed informed consent forms approved by the York University Office of Research Ethics. Participants were also provided with a copy of the form (See Appendix A).

I utilized semi-structured or open ended interviews, an interviewing method viewed as a good fit for case study work in which both facts and opinions are being solicited (Yin, 2003: 89-90). A series of interview questions were generally followed which delved into participant beliefs about the driving forces, uncertainties, opportunities, and threats facing the region, how long-range environmental, social, and/or economic planning does and could take place, how inhabitants are connected to the landscape, how the region is connected to other regions, and future visions for different time scales (See Appendix B for full list of interview questions). Depending on their expertise and background, some participants were asked about specific projects, organizations, or undertakings that they were involved in, making these interviews a cross between an open-ended and focused interview (Yin, 2003: 90).

4.2.2.4 Focus groups

Focus groups can be an important aid in explorative components of research. In particular, the interactions between various group members and the ideas and experiences that they express, can stimulate participants' thinking, draw out ideas about a specific topic, and inspire insights that may not have arose without this group interaction (Gliner

and Morgan, 2000: 341; Lindlof and Taylor, 2002: 182). Therefore, while long-range planning, uncertainty, and scenarios were discussed during semi-structured interviews, focus groups were utilized to more fully explore issues and opportunities surrounding the use of scenarios in forest- and resource-dependent regions, and their potential for application.

Lindlof and Taylor (2002) describe two kinds of group effects in focus groups: (1) *Complementary interactions*, in which participants broadly agree on a concept, issue, or view and contribute their own thoughts and interpretations; and (2) *Argumentative interactions*, in which certain topics or participant combinations result in diverging and conflicting views which “enable insights into how people theorize their own point of view...in relation to other perspectives and how they put their own ideas to ‘work’” (Litzinger, 1994: 113 cited in Lindlof and Taylor, 2002: 182). When setting up focus groups and recruiting members, I was unsure as to which interaction would predominate or whether both would occur. The focus groups were arranged so that it would be more likely that complementary interactions would predominate, although this was done with the intention of participant confidentiality and comfort, rather than to encourage certain types of interactions (See below).

Normally focus groups are created by recruiting random individuals, or at least individuals who may have certain criteria in common but are unknown to each other. However, in my case study, the likelihood of engaging participants who were known to each other was high due to the small population and high connectivity of the communities I worked with. Gliner and Morgan (2000: 351) note that confidentiality may be an issue in focus groups, even when the participants are strangers to each other, let alone in

contexts where there is a high likelihood that “random” participants will be familiar with each other and possibly be tied through a variety of social, economic, or political links and power relations unknown to the researcher. Therefore, I adopted a modified focus group approach in which I contacted pre-established groups (ex: a local eNGO or other organization) in which members were local residents and were already familiar with each other. I normally contacted the head or chair of an organization with a summary of my research, a copy of the letter of consent form, and the expectations (time commitment, topics, etc.) of the focus group and allowed them to disseminate the information to their members. In this way, participants were (a) aware of the focus group topic, and (b) somewhat aware of who the other focus group participants might be and could decide whether they wished to participate with these members. This provided added comfort for participants, thus increasing the likelihood that participants would be more open to sharing their perspectives and that no/fewer unforeseen repercussions would occur for participants. Some focus group members had previously participated in one-on-one interviews for my research, and their familiarity with myself and my work provided additional reassurance for other focus group members.

Three exploratory focus group were held between January and March 2011. The approach described above was utilized for recruitment in two focus groups. The third focus group consisted of provincial government staff, and tourism and forestry workers who were known to each other, had similar interests, and were aware of each other’s presence at the focus group. It should be noted that while this third group may seem more diverse, both the organizations from which the first and second focus groups were drawn are composed of members with extremely varied backgrounds, both professionally and

otherwise. Supplementary training in organizing and conducting focus groups was sought through a workshop at York University's Institute for Social Research.

Focus groups ranged in length from one and a half to three hours, and the number of participants in each group ranged from three to seven. While a semi-structured approach to questions was employed to best facilitate exploratory discussion, all questions were posed to all three focus groups. Discussion focused on two main subjects in relation to the region: (a) long-range planning in general; and (b) scenario development and planning. First, participants' were asked about their perceptions about long-range planning in the region, including challenges in long-range planning, uncertainties facing the region, the base conditions necessary for successful long-range planning, and how to balance multiple interests. I then described the process of scenario development and planning and the use of scenarios in managing uncertainty. Participants were then asked what they felt the strengths and weaknesses would be for the use of scenarios in the region and similar regions, how different values could be represented, the benefits and drawbacks of stretching participants beliefs in future scenarios and of incorporating discontinuous events, and what would be required for scenarios to play an effective role in long-range planning for the region (See Appendix C for list of focus group questions). All focus groups were recorded and discussions were transcribed.

Several thoughts and caveats must also be kept in mind regarding the focus groups. First, as mentioned above, group members were known to each other and efforts were made to achieve maximum participant comfort and safety. Although this familiarity and possible coincidence of priorities and values may have resulted in a smaller divergence of opinions among participants, this approach was necessary to protect

participant confidentiality. At the same time it could also be argued that participants' professional and life experiences varied considerably within each focus group and that this familiarity might prompt some participants to be more comfortable expressing dissenting opinions. Therefore, while focus group organization may have appeared to encourage – and indeed, did promote - complementary interactions, argumentative interactions were also evident, thus providing a wealth of both common and diverging patterns and thoughts. Second, it should be noted that the focus groups were small, and not all fell within the optimal range of six to twelve participants advocated by Lindlof and Taylor (2002: 182). While every effort was made to select convenient times, days, and locations for the focus groups, group size was still constrained by participant availability. At the same time, smaller group sizes ensured that all questions were covered and that participants had greater space to make their voices heard.

It should be noted prior to the results chapters (Chapters Five, Six, and Seven) that although several of my core research questions center around scenario development and planning, and while scenarios were discussed extensively in the focus groups, I did not conduct a scenario development and planning exercise in the Northeast Superior region. Although it would have undoubtedly been an interesting and useful component of my research, a scenario exercise would have been beyond the scope of this work in several regards. In particular, conducting a scenario exercise was hindered by time constraints (it would have required an additional several months to a year to properly conduct a scenario exercise), financial constraints (I lacked funding for compensating participants, providing food/refreshments and/or childcare, renting spaces, providing travel reimbursements, and accessing professional expertise as required), and ethical

constraints in involving participants in a scenario process which was not linked to governmental action or commitment (See Chapter 7 and “8.4 Strengths, limitations, and considerations of this research and the case study” in Chapter 8 for a detailed discussion of this)

4.2.2.5 Analysis

As mentioned by Miles and Huberman (1994: 7) regarding qualitative research, while “many interpretations of this material are possible...some are more compelling for theoretical reasons or on grounds of internal consistency”. Such interpretation is highly subject to the perspectives of the researcher collecting and analyzing the data, and certain themes or even key questions may not emerge until analysis is well underway (Lindloff and Taylor, 2002: 209-210). Therefore, identifying and analyzing themes in qualitative research always involves personal interpretation and subjectivity. It is very possible that other researchers undertaking the same project would perceive different themes and results. At the same time, by utilizing multiple mixed methods as outlined above, a researcher is able to triangulate their data, thus corroborating facts, elucidating meanings, and verifying observations and conclusions (Miles and Huberman, 1994; Stake, 2003; Yin, 2003). In my own research, this triangulation was achieved using both *multiple sources* (interview and focus group participants, a variety of documents and articles, direct observation), and *multiple methods*, the combination of which lend further support to analysis and conclusions (Lindlof and Taylor: 2002, 240-241).

As an extension of this inherent subjectivity, grounded theory was applied to my analysis. Lindlof and Taylor (2002: 218) outline two major features of grounded theory,

namely that “(1) Theory is grounded in the relationships between data and the categories into which they are coded; and (2) Codes and categories are mutable until late in the project, because the researcher is still in the field and data from new experiences continue to alter the scope and terms of his or her analytic framework”. Therefore, grounded theory advocates the interaction of researchers with their data - rather than imposing preconceived, fixed codes on data, the emergent codes arise from the data itself providing new perspectives and allowing results to move in unanticipated directions (Miles and Huberman, 1994: 58; Charmaz, 2003:258). To this end, I utilized an inductive coding approach to identify themes, patterns, and outliers in my research, and generated categories from my own experiences, perceptions, and thoughts in the field and based on issues and themes that emerged from previous literature reviews (See Chapter Two and Chapter Three). All transcripts, articles, and documents were transcribed into word processing software or were saved electronically, and manual coding was performed using the word processing software.

I began the analysis process by conducting an initial broader, unrestricted *open coding* of the transcripts and documents upon my first re-reading of them (Lindloff and Taylor, 2002: 218-220; Charmaz, 2003). In this way, I identified pieces of text that suggested general themes and was able to begin the process of comparing codes, data sources, and participant perspectives. Notes were taken concurrently. A code book listing coding categories, subcategories, and criteria for inclusion or exclusion from these categories was compiled as analysis proceeded, and subsequent versions were developed as the coding process grew more sophisticated. Subsequent readings of the research material allowed for a more detailed coding scheme to be developed and codes to be

compared. I then began the process of *integration* using *axial coding*, by which I developed codes that make connections between existing categories in order to create overarching categories or collapse several related categories into one, thus making analysis more manageable and emerging codes more cohesive (Lindloff and Taylor, 2002: 219-220; Charmaz, 2003: 260). Thus by working back and forth between my coding scheme and my dataset, I was able to expand, and then refine and compare, the emergent codes, patterns, and themes of my results.

Throughout the results and analysis chapters (Chapters Five, Six and Seven) selected interviewee and focus group quotes were chosen to illustrate various findings and themes which emerged through my analysis. Two main criteria should be noted when reading the subsequent results and analysis chapters and the quotes which they contain. First, the case study of the Northeast Superior region demonstrates how planning initiatives can often rise and fall on both local and regional players and factors, as well as higher level governance decisions. Therefore, many quotes are taken from local and regionally-based participants to illustrate how such themes play out on the ground and impact environmental planning in such regions. Second, while many participants are drawn from the Northeast Superior region, it should not be assumed that their knowledge of planning is limited to the region. Many participants have been educated and worked in other regions, both rural and urban, and are familiar with broader planning issues, practices, and theory. Furthermore, even participants which have long been based in the region often possess a deep familiarity with planning processes and alternatives from many years of involvement in various initiatives. Finally, I have attempted to select

quotes from players at a variety of governance levels in order to broadly illustrate the various perspectives on emergent themes from this research.

4.3 Conclusion

This chapter outlines my research design, the methodology applied to this my research, and the rationale behind my choices. My core research questions tackle large, complex problems that span social, cultural, political, economic, and ecological spheres. Therefore, I chose to apply an interdisciplinary, mixed methods approach that is positioned in pragmatism and utilizes grounded theory in analysis. To triangulate my results, I utilized both multiple methods and multiple sources in my research including document analysis, site visits and direct observation, semi-structured interviews, and focus groups. Utilizing multiple methods, sources, approaches, and perspectives is especially vital considering both the complexity of the Northeast Superior region, the problems and uncertainties that it is attempting to manage and plan for, and the various spatial and temporal scales in which associated driving forces act.

Chapter Five

Overview of the Northeast Superior Region: Characteristics, founding and emerging industries, and approaches to planning

This chapter presents an overview of the Northeast Superior region of Ontario, its history, its industries, and several of its approaches to regional environmental planning. This overview is supported by multiple sources including an analysis of government policy, various documents including newspaper articles and municipal documents, and participant interviews. This description of my case study is vital to understanding the context in which environmental planning takes place in post-productivist forest-dependent regions, several of the historical, political, and industrial factors that have shaped – and continue to shape – the region, and how environmental planning responds – or fails to respond – to these factors.

The overview of the Northeast Superior region is offered, beginning with a geographical description of the region's location, its communities, parks and jurisdictional boundaries. This is followed by a description of the region's ecological and biophysical boundaries and characteristics, including forest types and drainage basins. The settlement history for First Nations, settler communities, and company towns is then outlined. A brief outline is then provided on the demographical history of the region and how populations have shifted over the past 15 years. A history of the major forest- and resource-based industries of the region is then laid out. This includes conventional forestry and emerging forest-based products, mining, various forms of tourism, trapping,

and energy production and related industries. Finally, several approaches to regional environmental planning in the Northeast Superior region are described along with participant perceptions of these approaches.

5.1 Geographical description of Northeast Superior region

At first glance, the Northeast Superior region may appear to be relatively homogenous in population, history, and landscape. However, in reality the region is criss-crossed by a variety of jurisdictional, industrial, and ecological borders, and contains a diversity of biophysical characteristics, cultures, political entities and agencies, industries, inhabitants, and hence, interests.

5.1.1 Location, communities, parks, and jurisdictional boundaries

The Northeast Superior region covers an area of approximately 60,000 km² and is located on the northeastern shore of Lake Superior in Northern Ontario (See Figure 5.1 for location and boundaries of case study region). The region encompasses six municipalities - Wawa, Chapleau, White River, Dubreuilville, Hornepayne, and Manitouwadge. The case study region also includes eight First Nations communities - the Chapleau Cree, Brunswick House, Michipicoten, Missanabie Cree, Pic Moberg, Hornepayne First Nations, the Pic River First Nations, and Chapleau Ojibway (Figure 5.2).

The region is known for its outdoor recreational opportunities and contains several provincial and national parks. Provincial parks include Lake Superior, the Shoals,

Obatanga, Wakami Lake, Missinaibi, Potholes, Ivanhoe Lake, Michipicoten Island, and White Lake. Pukaskwa Park is the region's national park (Figure 5.2). The region also



Figure 5.1: Case study boundaries and location of the Northeast Superior region

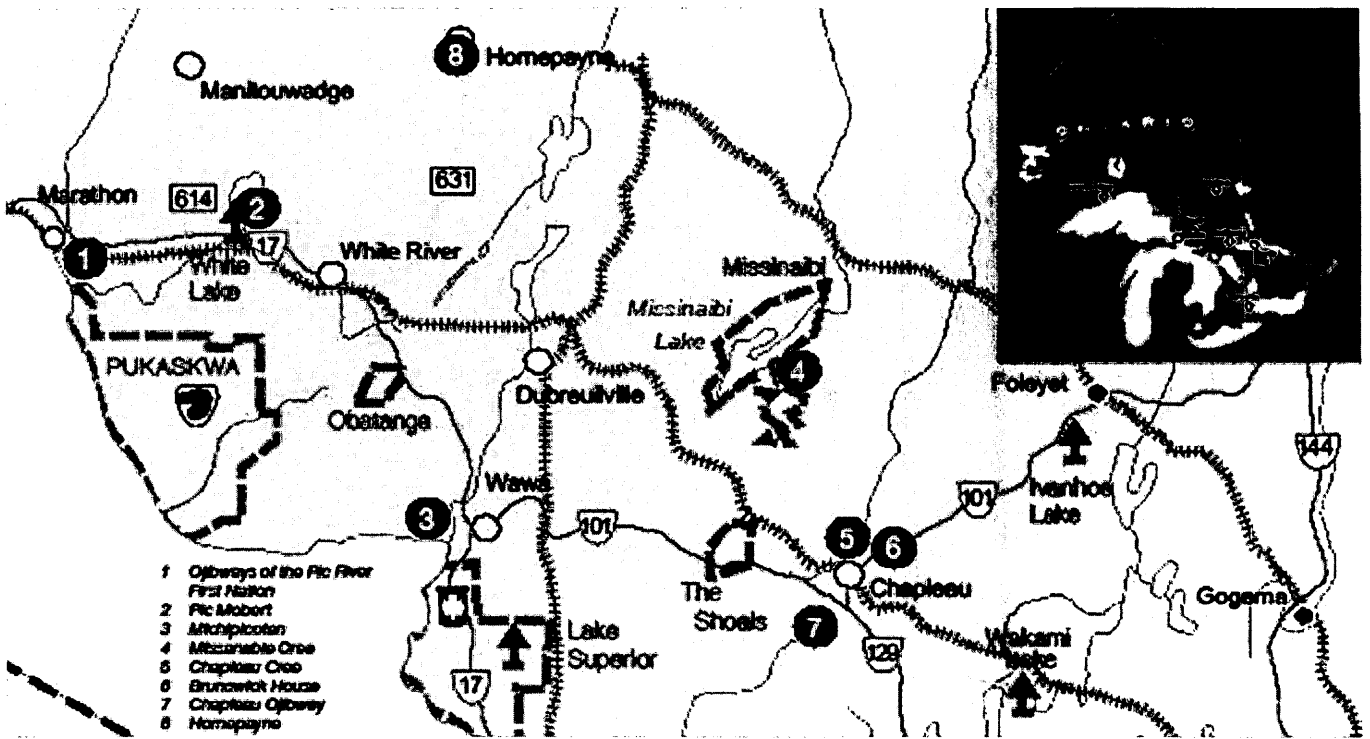


Figure 5.2: Map of communities, First Nations, and provincial and national parks in the Northeast Superior Region (Figure taken from Northeast Superior Regional Chiefs Forum, 2012)

houses the Chapleau Crown Game Preserve, the largest Crown game preserve in the world at 700,000 hectares (Chapleau Community Portal, 2012).

It should be noted that while the Northeast Superior region is not a formal jurisdiction, it is crossed by multiple political jurisdictions. In addition to the municipalities and First Nations territories mentioned above, the majority of the region (approximately 95%) is Crown land under the jurisdiction of the Province of Ontario. There are three Ontario Ministry of Natural Resources (OMNR) Districts – Wawa District, Chapleau District, and Sault Ste. Marie District – covering the region. The area is also divided between the MNR's Northeast Region, with its head office in Timmins, and the Northwest Region, with its head office in Thunder Bay.

The region lies within the Algoma-Manitoulin provincial electoral district and within the federal electoral district of Algoma-Manitoulin Kapuskasing. The area covered by these electoral districts is significant. For example, the federal electoral district of Algoma-Manitoulin-Kapuskasing is 96,385 km² with a total population of 74,828 (Statistics Canada, 2012a). Regarding service delivery, the region overlaps the provincial districts of Algoma, Sudbury, and Thunder Bay. The national parks and First Nations reserves are under the jurisdiction of the federal Canadian government. The region is also covered by two First Nations treaties - the Robinson Superior Treaty signed in 1850 and Treaty 9 signed in 1905 (Atlas of Canada, 2003).

In addition, the Northeast Superior region is overlain by industrial boundaries, notably several forest management units. Specifically the forest management units that overlap the Northeast Superior region are the Algoma Forest, the White River Forest, Magpie Forest, J.E. Martel Forest, Nagagami Forest, Black River Forest, Pic River

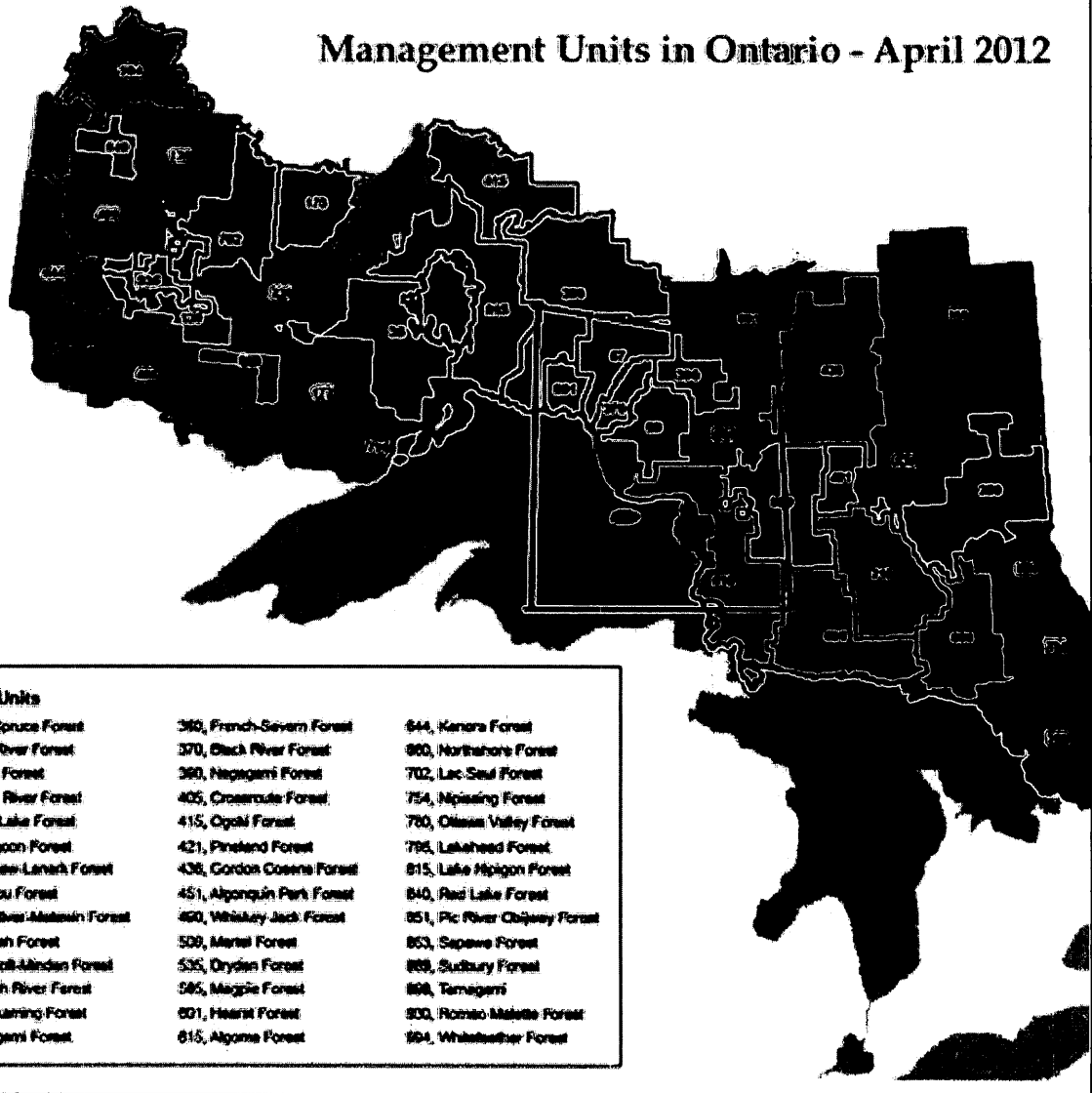


Figure 5.3: Forest Management Units of the Northeast Superior region include the Algoma Forest (615), the White River Forest (60). The Magpie Forest (565), the Martel Forest (509), the Nagagami Forest (390), the Black River Forest (370), the Pic River Ojibway Forest (351), and the Big Pic Forest (67) (Image taken from OMNR, 2011b).

Ojibway Forest, Pineland Forest, and Big Pic Forest (Figure 5.3) (OMNR, 2011b), each of which is managed through its own forest management plan and guided by its own LCC.

5.1.2 Ecological and biophysical boundaries and characteristics of the Northeast Superior region

The Northeast Superior region is physically a land of transitions and bridges several ecological divides. The region is located in the Central Ontario Shield Ecozone, which is underlain by Precambrian Shield, and the region spans the Lake Abitibi and Lake Temagami ecoregions (OMNR, 2012a). Most significantly, the Northeast Superior region also straddles the Great Lakes St. Lawrence forest region and the Boreal forest region. In the southern section of the region, the Great Lakes-St. Lawrence ecosystem includes some coniferous species such as white and black spruce, jack pine, eastern white pine, red pine, eastern hemlock and white cedar, mixed with deciduous trees, such as yellow birch, sugar and red maples, aspen, red oak, and birch. Such forests tend to be uneven aged, with a mix of young- and old-growth being found within the same stand. The northern section of the region is boreal forest, consisting mainly of coniferous species like jack pine, black and white spruce, balsam fir, tamarack, and eastern white cedar, and deciduous species like poplar and white birch. Since the boreal forest is predominantly shaped by natural disturbances such as fire, pests, and windthrow, this boreal portion of the Northeast Superior region is characterized by even-aged, single species stands which comprise a landscape of varying-sized, relatively homogenous patches (OMNR, 2012b).

Typical wildlife for the area includes Moose, Black Bear, Gray Wolf, Red Squirrel, Pileated Woodpecker, and Boreal Owl. Common fish species include Northern Pike, Walleye, and Lake Trout (OMNR, 2007b). While Woodland Caribou are generally located farther north and are not widespread in the region, some small pockets of the species are present in the Northeast Superior region (Environment Canada, 2008).

The region also straddles the divide between two major drainage basins, with water either flowing south and west to the Great Lakes and the Atlantic Ocean, or north to James Bay and the Arctic Ocean (Natural Resources Canada, 2007). There are several river watersheds in the region, with the major ones including the Magpie River, the Missinaibi River, the Michipicoten River, the Mattagami River, the White River, and the Kenogami River (Natural Resources Canada, 2010).

5.2 History and settlement of Northeast Superior region

5.2.1 First Nations history in Northeast Superior region

The Northeast Superior area has been occupied by Cree and Ojibway First Nations for the last 7,000 years (Michipicoten First Nation, 2012). During the 17th century, the region's First Nations entered into trading relationships with the Europeans who settled in Northern Ontario and with associated trading posts. Beginning in the 1800's, the First Nations of the region began to enter the treaty and reserve system.

The experience has been inconsistent among various First Nations communities. For example, while Michipicoten First Nations and Brunswick House received reserve lands after signing the Robinson-Superior Treaty and Treaty 9 respectively, other First Nations in the region, such as Chapleau Ojibway, Pic River Ojibway, Hornepayne First

Nation, and Missanabie Cree, did not sign treaties and either did not receive reserve land for several decades or are currently in the process of being allocated land (Bullock, 2010; Northeast Superior Regional Chiefs Forum, 2012). For example, although the historic presence of Hornepayne First Nations, a member of the Nishnawbe aski Nation, is recognized both locally and provincially, the band is not recognized by Indian and Northern Affairs Canada. Hornepayne First Nations is currently dispersed throughout Canada and is in the process of documenting their historical heritage in order to be recognized as an independent First Nation (Bullock, 2010; Northeast Superior Regional Chiefs Forum, 2012).

Settlement experiences have also been mixed for First Nations that signed treaties. For example, although the Chapleau Cree had a reserve 1 mile east of Chapleau adjacent to the Chapleau and Nebskwash rivers, the band chose not to stay on this land when the Township of Chapleau built a sewage reservoir 1000 feet from the reserve boundary. Instead the band negotiated with the federal and provincial governments for a new reserve on 2560 acres of land which they received in 1989 (Northeast Superior Regional Chiefs Forum, 2012). Similarly, while the Michipicoten First Nation signed the Robinson Superior Treaty, the community has been forced to move several times due to improper surveying of the original reserve site, the sale of this reserve land by the provincial government during the Wawa gold rush in 1899 and 1900 thus cutting the community off from their traditional camping grounds and moving them off-reserve, and a further off-reserve move in the 1970's after the current land was found to be unsafe for a sanitation system. While many families moved away from the area during these transitions, Michipicoten First Nation were eventually returned their originally allocated reserve

lands and, in addition to reserve lands that they already owned in Missinabie and Chapleau, the community settled their boundary claim in 2008 in which they were allocated financial compensation from the federal government. They also received approximately 3,000 acres of provincial Crown land which included coastline along the shores of Lake Superior, amounting to the second largest specific land claim settlement in Ontario to date (Michipicoten First Nation, 2012).

5.2.2 Settler communities and company towns: Municipal history in Northeast Superior region

The municipalities and settler communities of the Northeast Superior region typify the quintessential resource-based “company town”. These communities were frequently located in a remote area close to the necessary resource and were founded for or by a certain industry and/or associated company, with housing, educational and health services, and municipal infrastructure being funded, supported, or directly provided by the founding industry. In addition to economic benefits, the industry also provided a social identity, both within the town and region, and to the “outside” (frequently urbanized) world (Lucas, 1971). While some towns of the Northeast Superior region began as fur-trading posts which conducted business with the region’s First Nations, the towns were all eventually focused on the mining, forestry, or rail industry, with these economic focuses shifting over time based on the rise and fall of markets.

Wawa has one of the oldest histories of European settlement in the Northeast Superior region. Europeans, lead by Étienne Brûlé, first reached the shores of Lake Superior in the early 1600’s and made contact with an Ojibway tribe living on the Michipicoten River. A fur trading post was built on the Michipicoten River in 1725 and

was the headquarters for the Hudson Bay Company between 1827 and 1887 (Municipality of Wawa, 2012). Gold was discovered at Wawa Lake in 1897, which prompted the “Wawa Gold Rush”, and the official registration of Michipicoten City and Wawa City in 1898. While gold mining was an important impetus in the establishment of Wawa and remains an active industry to date (5.4.1 Mining), iron ore mining was a key industry which built the town, beginning with the establishment of Algoma Steel’s Helen Mine in 1899. The Helen Mine was the largest supplier of iron ore in Canada between 1900 and 1918 (Municipality of Wawa, 2012), and produced on and off until it shut down in 1998. Forestry then filled the place of iron ore mining for Wawa with the opening of the Weyerhaeuser oriented strandboard mill, which then closed in 2007. Despite its currently well-known status as a stop on the Trans Canada highway, Wawa was unconnected to the road system until 1960, before which it was only reachable by train or boat.

Similarly to Wawa, Chapleau’s European roots also extend to the fur trade, with settlers moving to the area in 1777 to work for the Hudson’s Bay Company which had a trading post on Big Missinaibi Lake, approximately eighty kilometres north of Chapleau. The fur trade was further supported by the establishment of the Canadian Pacific Railway through Chapleau in 1885. Chapleau then became known for its game preserve which was established in 1925 in response to heightened trapping which diminished the populations of fur-bearing wildlife. Existing sawmills in the area were expanded in the 1940’s following a series of large forest fires which necessitated salvage logging. (Township of Chapleau, 2012). However, while three major sawmills existed in Chapleau, only one operated by Tembec now remains.

The other towns of the Northeast Superior region were specifically founded around a major industry. Both Hornepayne and White River were established as rail towns for the Canadian Pacific Railway, and served transcontinental passenger and freight trains. Hornepayne was established in 1918 and remained unconnected to the road system until 1958. Its forestry operations remain limited to a family operated business, the Haavaldsrud mill, which was established in 1953 and remains in operation (Township of Hornepayne, 2012). White River – originally named “Snowbank” – was built as a stopover between central Canada and the Prairie provinces in 1884, and soon became a significant rail town with associated infrastructure and accommodations. The completion of the Trans Canada highway in 1961 brought further industry to White River (Township of White River, 2012). This included a sawmill purchased by Domtar in 1984 and closed in 2007 (ForestTalk, 2007).

Manitouwadge and Dubreuilville were both founded more recently but are most notably tied to a single founding industrial company. Manitouwadge was established by Noranda in 1954 specifically to service its Geco copper mine, followed by the Golden Giant Mine in the 1980’s. As part of this process, Noranda built and offered housing to employees and their families (Township of Manitouwadge, 2012). However, Manitouwadge’s population decreased considerably with the closing of the Geco Mine in 1995 and the Golden Giant Mine in 2006. Forestry remains a secondary industry for Manitouwadge.

On the other hand, Dubreuilville is known as “the most forest-dependent town in Ontario” and was built exclusively around Dubreuil Forest Products (Clutchey, 2012; Township of Dubreuilville, 2012). Dubreuilville was established by the four Dubreuil

brothers who moved from Quebec to Ontario searching for lumber and sawmill opportunities. The brothers originally established a sawmill and small community named Magpie, but after a fire at the sawmill, the company and community of 200 people was moved to the site of Dubreuilville in 1961. Dubreuilville is a predominantly French-speaking community known for being insular – until 1977 it was a gated community, with no outside visitors admitted without permission (Township of Dubreuilville, 2012). Dubreuil Forest Products was the economic and social hub of the community and despite its high production, the company closed in 2008 (Clutchey, 2012).

5.3 Demographical history and shifting populations

The Northeast Superior region has a total population of approximately 15,000 residents, with a larger population during the summer months when seasonal workers and vacationers come to the area (Northeast Superior Forest Community, 2012). Statistics for the region indicate an overall declining population (Table 5.1). Much of this population decline coincides with the downturn of the forestry industry in general, as well as with specific mine or mill closures (5.4 History and description of dominant and emerging forest-based industries). While this population decline is typical to Northern Ontario as a whole during this time period, resource-dependent towns, such as those in the Northeast Superior region, appear to be most hard hit. While urban centers in Northern Ontario, such as Sault Ste. Marie and Thunder Bay, have not necessarily expanded, their population has remained relatively stable or declined only slightly. For example, between 1996 and 2011, the populations of Sault Ste. Marie and Thunder Bay declined by 6% and

Table 5.1: Population changes in the Northeast Superior region between 1996 and 2011 (Table compiled from Statistics Canada, 2002a; 2002b; 2007a; 2007b; 2012b)

Population (% population change from previous time period) in each census year					
	1996	2001	2006	2011	Population change from 1996-2011 (or from data available)(%)
Municipalities					
Chapleau	2,934	2,832 (-3.5)	2,354 (-16.9)	2,116 (-10.1)	-27.8%
Dubreuilville	990	967 (-2.3)	773 (-20.1)	635 (-17.9)	-35.6%
Hornepayne	1,480	1,362 (-8)	1,209 (-11.2)	1,050 (-13.2)	-29%
Manitouwadge	3,395	2,949 (-13.1)	2,300 (-22)	2,105 (-8.5)	-38%
Wawa	4,145	3,668 (-11.5)	3,204 (-12.6)	2,975 (-7.1)	-28.2%
White River	1,022	993 (-2.8)	841 (-15.3)	607 (-27.8)	-40.1%
Total Municipality population	13,966	12,771	10,681	9,488	-32.1%
First Nations¹					
Brunswick House	*	107	82 (-23.4)	*	-23.4 %*
Chapleau Cree	60	93 (55)	92 (-1.1)	79 (-14.1)	31.7%
Chapleau Ojibway	24	33 (37.5)	20 (-39.4)	31 (55)	29.2%
Hornepayne	**	**	**	**	**
Michipicoten	*	61	54 (-11.5)	*	-11.5%*
Missanabie Cree	**	**	**	**	**
Pic Mobert	265	307 (15.8)	241 (-21.5)	289 (19.9)	9.1%
Pic River	*	346	383 (10.7)	395 (3.1)	14.2%*

¹Due to incomplete census information for some First Nations communities, no total First Nations population per year, nor total population change has been included in this table

*Either due to community choice or other constraints, not all census information was available for all First Nations communities for each year. Therefore, while population changes for each community have been noted, population changes marked with * should not be taken as complete or comprehensive

**Hornepayne First Nation and the Missanabie Cree currently do not have reserve lands

4% respectively. However, it should be noted that the majority of this decline occurred between 1996 and 2001 with a -6.9% decline for Sault Ste. Marie and a -4.1% decline for Thunder Bay. From 2001 on, the cities remained relatively stable in population, with changes ranging from -0.7% to 0.5% for both (Statistics Canada, 2002a; 2007a; 2012b).

POPULATION OF COMMUNITIES

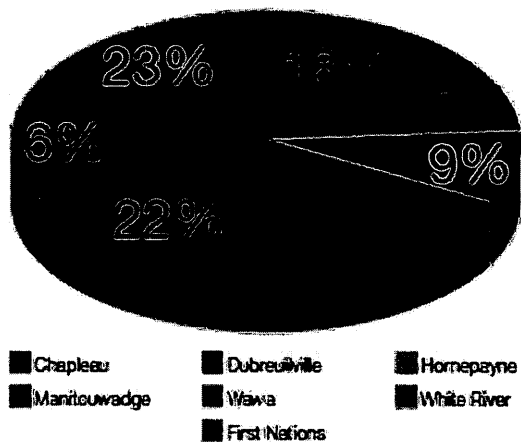


Figure 5.4: Municipalities and First Nations of Northeast Superior region, as a proportion of the region's population (Northeast Superior Forest Community, 2012).

In comparison, the communities of the Northeast Superior region experienced their greatest population declines between 2001 and 2011 (Table 5.1)

While the First Nations communities of the Northeast Superior region have experienced population decline overall, they also include some of the few communities in the region to experience population growth (Table

5.1). While the net number of individuals added to these First Nations communities may not appear large, growth percentages are sometimes significant (Table 5.1). Furthermore, although individual First Nations communities may be small, the combination of on- and

off-reserve First Nations populations is particularly considerable when taken as a proportion of the region's population (Figure 5.4).

The Northeast Superior region also exhibits an array of diversities. In addition to the First Nations population, the region also hosts a considerable French-Canadian population, with approximately 36% of the region's residents speaking French (Northeast Superior Forest Community, 2012). This percentage rises in some communities such as Chapleau with 50% of residents speaking French (5% total being French-speakers exclusively) (Township of Chapleau, 2012), and Dubreuilville with 90% of residents speaking French (38% total being exclusive French-speakers) (Township of Dubreuilville, 2012).

Furthermore, while the Northeast Superior region and its communities demonstrate a clear dependence on the landscape for economic growth, development, and prosperity, the nature of these industries, their history, current state, and trajectory, vary considerably.

5.4 History and description of dominant and emerging forest-based industries

The Northeast Superior region and its communities has been shaped by the resource-based industries which first brought settler society to Northern Ontario. In this way, many of the region's communities are typical of single-industry towns both in their birth, development, their vulnerability to boom-bust cycles, and their continued dependence on the landscape for the economic, social, cultural, spiritual, and ecological benefits it provides.

5.4.1 Mining

Several municipalities grew around mining operations, such as Wawa's boom following the discovery of gold and subsequent development of the Algoma iron ore mine, and Manitowadge's growth around copper mining. However, while the closure of these original mines had significant economic impacts on the communities and region, gold mining has re-emerged in prominence, with several gold mines operating in the region by companies such as Wesdome and Hemlo, as well as others expected to open in the next two years. While diamond mining in the Wawa area has been offered up as a potential opportunity (Davis, 2003; Stanley, 2005), to date, limited development has taken place. The development of the Ring of Fire in Ontario's Far North has also been posed as a potential opportunity for the region. The Ring of Fire encompasses globally significant deposits of chromite which is used to make stainless steel, as well as deposits of nickel, copper, platinum, palladium, zinc, gold, and diamonds. In addition to the remote mining jobs which could be available to residents of Northern Ontario, the region – in particular, the town of Wawa – has proposed itself as a potential site for processing facilities (The Sault Star, 2011). However, Cliffs Natural Resources - one of the major mining companies with interests in the Ring of Fire - announced in May 2012 that its processing facility would be located near Sudbury (Cliffs Natural Resources, 2012; Ontario Chamber of Commerce, 2012; Wawa-news.com, 2012a), with other mining companies in the area such as Noront Resources, also considering a similar move (Ring of Fire News, 2012).

5.4.2 Conventional and emerging forest products

Like mining, forestry is viewed as a fundamental component of the region's – and Northern Ontario's – economy and identity. In the past, multiple major mills operated in the area. For example, Wawa was home to the Weyerhaeuser oriented strand board mill, Dubreuilville – also known as the “most forest-dependent town in Ontario” (Clutchey, 2012) – was built upon the Dubreuil Forest Products mill, and Chapleau was known for hosting three mills, of which only the Tembec mill remains.

The downturn in the Canadian forest industry had enormous repercussions for the Northeast Superior region, as demonstrated by the demographic changes described above (5.3 Demographical history and shifting populations). However, despite the downturn, its impacts, and the ready admission of participants that they don't expect forestry to return to its previous state, both industrial news sources (Nicks B, in *The Working Forest*, 2012a) and participants continue to express optimism about the future of forestry in Northern Ontario. Part of this optimism is indeed based on promising local initiatives.

Termed, “the bioeconomy” by the provincial government (OMNR, 2012c), the Northeast Superior region is increasingly turning to the development of forest products that go beyond conventional pulp, paper, and timber, with potential bioeconomy products including biofuels, bioenergy, biomaterials, and biochemicals. Frequently, the development of regional bioeconomies is carried out with the intent of local resource control. For example, after the Domtar mill closed down in White River, the municipality of White River formed a partnership with nearby Pic Mobert First Nation in order to gain control of the abandoned mill and the associated Sustainable Forest Licence with the intent of operating a dual-community controlled mill and woodlands with the aid of an outside investor (MUNICIPAL1). This partnership then developed with the involvement

of an industrial partner, Rentech Inc., a California-based alternative energy technology company, which applied for, and received, 1.1 million cubic meters of Crown wood annually to produce a low-carbon jet biofuel (ForestTalk, 2011a; Northern Ontario Business, 2011), as well as naphtha, a chemical feedstock. The final partnership includes White River, Pic Mobert, Rentech, and an additional First Nation partner, Pic River First Nation, with the plant expected to be completed and in operation for 2015. Meanwhile Chapleau has developed the concept of an industrial “biocluster” in which multiple forest-based companies share resources, infrastructure, transportation networks, biomass-produced energy, and mutually compatible components of their forest management unit (MUNICIPAL2). For example, while the Tembec mill primarily utilizes conifer species such as jack pine, other companies such as Northern Renewable Energy will harvest unmerchantable biomass, while Niska North produces wood products using eastern white cedar, poplar, birch, and other species (Maure, 2011).

The Northeast Superior region is also developing non-timber forest products (NTFP) as a potential industry. NTFP are “the plant and fungal resources and associated services of forests and under-utilized lands other than timber, pulpwood, shakes, or other conventional wood products or agricultural products” and include “foods such as wild mushrooms and berries, medicinal herbs, essential oils and other personal care products, decorative greenery, crafts and art, and a wide range of other products harvested from managed and unmanaged forests, under-utilized agricultural lands, and agroforestry systems” (Brigham et al. 2010: 2). At present, the Northeast Superior region has focused on wild blueberries and Canada yew. Several areas of the Northeast Superior region are ideal for the growth of wild blueberries. A company - Level Plains - has purchased 605

acres near Wawa which is being developed as a wild blueberry plantation with the intent of providing seasonal wild blueberries to the fresh food market in southern and urban areas (Northern Ontario Business, 2010). Canada yew is a component of the cancer-treatment drug paclitaxel and the Northeast Superior Forest Community is investigating the potential of merging with the pharmaceutical industry to supply their demand for this product (5.5.3.3 Northeast Superior Forest Community) (Northeast Superior Forest Community, 2012). However, Canada yew is also sacred to the local First Nations necessitating care and consultation in its harvesting (OTHER GOVT2, OTHER GOVT3).

5.4.3 Tourism

The Northeast Superior region has been a destination for tourists seeking a remote wilderness experience since the early 1900's. Since the region was unconnected to Southern Ontario by road until the construction of the Highway 17 section of the Trans Canada Highway in 1960 (TransCanadaHighway, 2012), tourists (mainly hunters and anglers) would journey to the area by boat or by train (ACADEMIC1). Lake Superior Provincial Park was established in 1944 (Lake Superior Provincial Park, 2012), but tourism began to play a more prominent force in the region upon the completion of the Trans Canada Highway in 1960. Car traffic brought increased numbers of travellers still seeking hunting, fishing, and recreational activities, including hiking, kayaking, and canoeing. However, while some tourists now sought motor vehicle-accessible recreation, others continued to desire remote experiences either provided by fly-in fishing and hunting lodges or by non-motorized "silent sports" backcountry travel. These varying interests have conflicted over issues of forest and lake access, the renaturalization of

forestry roads, and the place of motorized vehicles in the bush (Hunt et al. 2009), thus necessitating planning exercises to balance and negotiate these clashes (5.5.4.2 The Crown Land Use Atlas Harmonization (CLUAH) Project).

5.4.4 Trapping

Trapping was the first settler industry in the Northeast Superior region. Originally, independent traders operated in the area during the late 1600's, until a Hudson Bay Company post was established on the Michipicoten River in 1717. A competing Northwest Company post was established soon after, also on the Michipicoten River. With the development of the Canadian Pacific rail system further inland in the early 1900's, the fur industry was no longer dependent upon water transportation and rail-connected towns like Chapleau became popular trading centers (ACADEMIC1). However, trapping severely reduced the population of fur-bearing mammals in the region, leading to the establishment of the Chapleau Crown Game Preserve in 1925 to provide an area for species recovery (Chapleau Community Portal, 2012).

While trapping is no longer a viable primary industry, it remains an important subsistence activity and tie to the land for many residents of the region. For example, although no interviewees were primarily solicited for their role as a trapper, five of the fifty-one interviewees identified themselves as trappers (See Table 4.1 in Chapter 4).

5.4.5 Energy

At this time, the main form of energy generated on an industrial scale in the Northeast Superior region is hydroelectric power. Generating units are located on two

major river systems in the region - the Magpie River and the Michipicoten River – all of which are owned and operated by Brookfield Renewable Power (Brookfield Renewable Power, 2012). However, other forms of renewable energy are also being explored in the region.

Due to the large amount of forest and sawmill residues left over as a by-product of forestry operations, the Tembec mill in Chapleau has an associated co-generation plant which produces 7MW using 100,000 tones of fiber annually (Stuthey Holler Associates, 2010). The Haavaldsrud mill in Hornepayne also expects to begin operating the adjacent Becker biomass-fueled co-generation plant in September 2013. While a portion of the electricity produced will be utilized to provide steam to the mill for lumber drying and heating purposes, 8 MW of the 15 MW produced will be directed to the Ontario Power Authority grid (Stuthey Holler Associates, 2010; Ontario Power Authority, 2012). As mentioned above (5.4.2 Conventional and emerging forest products), forestry operation by-products and unmerchantable timber will also be utilized to produce biofuels.

The region is also researching potential sites for wind and solar power generation. While applications for wind power projects have been made in nearby regions, there are no wind power projects in operation or currently proposed in the Northeast Superior region. However, according to the Ontario Ministry of Natural Resources Renewable Energy Atlas, the potential for wind power in certain areas of the region ranges from “excellent” and “very good” southwest of Wawa, to “acceptable” in other parts of the region that mostly border on the Lake Superior shoreline (Stuthey Holler Associates, 2010; OMNR, 2011c). Both solar energy and geothermal energy are also being explored for potential energy generation to be utilized both locally and sold to outside markets

(Stuthey Holler Associates, 2010).

In addition to energy production, the Northeast Superior region is examining the industry of storing energy by-products. Wawa, Hornepayne, Manitouwadge, and White River have all expressed interest in the Nuclear Waste Management Organization (NWMO) process for becoming a potential candidate for a nuclear waste repository (The Algoma News, 2011a; The Sault Star, 2011; NWMO, 2012). The communities are currently in the second step of the process in which they are learning more about the potential repository and which will include a community visioning exercise for the identification of community goals, challenges, and objectives, and the development or augmentation of a long-term vision for community sustainability or strategic plan (NWMO, 2012). If the communities choose to remain in the competition, the selection process could take seven to ten years, with operations not beginning until at least 2035 (The Sault Star, 2011).

5.5 Approaches to long-range regional planning in the Northeast Superior region

Long-range regional planning is conducted through a variety of venues and for several industries in the Northeast Superior region. This includes forest management planning using Local Citizens Committees (LCCs) for Forest Management Units, water resources management related specifically to hydro electric projects on the region's river systems, collaborative socio-economic regional planning such as that undertaken by the Mayors Group, the Northeast Superior Regional Chiefs Forum, and their joint partnership, the Northeast Superior Forest Community, and other land use planning by the Ministry of Natural Resources (MNR).

5.5.1 Forest management planning

As mentioned in Chapter 2 (2.3 Current approaches to long-range and regional environmental management in forest-dependent regions of Ontario), forestry in Ontario falls under several policies that govern Crown Land in the Area of Undertaking. This includes the Forest Management Class Environmental Assessment (OMNR, 1994a), and the resultant *Crown Forest Sustainability Act* (OMNR, 1994b) which governs forest management plans for each Sustainable Forest License or Forest Resource License. Direction for all aspects of forest management planning is provided by the MNR's Forest Management Planning Manual (OMNR, 2004; 2009). Meanwhile, public input is sought through formal public notices and public consultations on forest management plans, and through stakeholder involvement in LCCs which work with the planning team and MNR, and whose existence are mandated by *the Crown Forest Sustainability Act* (OMNR, 1994b) (OMNR, 2011a).

By its nature, forest management planning must address and plan for the long-range future. It also must respond to multiple uncertainties including natural disturbances such as fire, pest outbreaks, or windthrow, changing markets, and new policies. To achieve effective forest management, a combination of strategic planning and adaptive management is utilized (See "2.3.1 Current approaches to long-range environmental planning: Adaptive management" and "2.3.2 Adaptive management: Limitations and questions" for a detailed outline of adaptive management, associated processes, and limitations). In consultation with the LCC, the planning team form a strategic plan by identifying desired benefits from the forest (including both timber and non-timber values)

and the goals and strategies that are required to achieve them. Long-term model projections of different harvest and renewal levels are examined to predict short, medium, and long-term economic, social, and environmental benefits. These predictions are utilized to assess the sustainability of the proposed forest management plan (OMNR, 2012c).

The desired timber and non-timber benefits, and forecasts are then used to prepare forest management plans for a ten-year period for each forest management unit. The forest management plan is prepared by a registered forester in consultation with a multi-disciplinary planning team, the LCC, and with participation by stakeholders, members of the public, and Aboriginal communities. The ten-year forest management plan is developed in two phases. Phase I includes “the long-term management direction that provides for the sustainability of the forest with regard for plant and animal life, water, soil, air and social and economic values, including recreational values” (OMNR, 2012c) and is in effect for the ten-year period. Detailed operations planning is also carried out for the first five-year term of the plan. Phase II entails detailed planning of the second five-year term of the ten-year plan (i.e. years six to ten), with forest management plans being renewed every ten years. The Available Harvest Area (which is the maximum area that can be harvested during the ten-year period of the FMP) is determined locally as part of the forest management plan development process (OMNR 2012c).

In addition to long-range forecasts, adaptive management is the main tool utilized to manage uncertainty in forest management planning. Monitoring is conducted by the MNR and forest industry to assess forest operations, ensure that the forest management plan is being followed, that updates on forest management activities are being produced,

and that stated objectives and forest sustainability is being achieved. Monitoring results are used to make any necessary adjustments to the long-term management direction and the planning of operations in the next plan or phase. The two phases of developing a detailed forest management plan (Phase I and II) allow forest management planning teams to respond to driving forces that may impact the latter half of the forest management plan period (OMNR, 2012c).

In addition to the role of LCC members in shaping the forest management plan, the public may review and comment on the plan and the proposed long-term direction during several phases of the forest management plan development process prior to endorsement by the MNR regional director and the commencement of operations planning. If public concerns cannot be addressed through the available meetings and discussions, a formal process is available in which concerned groups or individuals must identify the issue and potential solutions to the plan author. If a mutually satisfactory resolution is not reached, the issue can be taken to subsequently higher levels of authority including the MNR District Manager, followed by the MNR Regional Director, and ending with an appeal of the MNR Regional Director's decision by requesting an individual environmental assessment of specific proposed forest management activities from the Director of the Environmental Assessment and Approvals Branch, Ministry of Environment (OMNR, 2012c).

As mentioned above (5.1.1 Location, communities, parks, and jurisdictional boundaries), the Northeast Superior region contains nine forest management units, each of which is associated with its own LCC (Such as the Martell Forest) or a shared LCC (Such as the Pic River Ojibway Forest and the Black River Forest). Other interests in the

region which interact with forestry operation and forest management planning include remote tourism outfitters, road-based tourism (including tourism, hunting, and fishing based on forestry roads), silent sports, mining, First Nations, and municipalities.

5.5.1.1 Adaptive management, participation, and accountability: Perceptions of forest management planning in the Northeast Superior region

Certain themes emerged regarding the capacity of forest management planning in the Northeast Superior region to manage uncertainty, balance multiple values, and provide clear and accessible modes of public participation and consultation. Many LCC members were positive about the influence they had on forest management plans and their interactions with the forestry company and the MNR (FORESTRY1/TRAP1, FORESTRY2/TRAP2/NGO1). Part of this positive relationship was attributed to opportunities for LCC members to engage with issues that were meaningful to them (E.g.: canoe routes, access to hunting and fishing opportunities on Crown land through forestry roads). Several participants also noted that the MNR frequently provided learning opportunities for LCC members and was responsive to member requests for information (FORESTRY2/TRAP2/NGO1, NGO2/FORESTRY3, NGO3/FORESTRY4). However, participants also pointed out that recent cuts to MNR resources has resulted in a limitation of the topics and prospects for learning available to LCC members:

My background is recreation and working with people, and if I want them to accomplish one thing I need to “bait” them and have something that interests them to get them back to the table so they can talk about trees 180 years out. It’s

pretty hard to fathom some of that stuff. That (other projects that interested different members) was what kept the group together for so long. So now we just talk about trees 180 years out. None of us will be around then. That's put a bit of an anchor on the effectiveness of LCCs because you're not getting everything you can out of the people involved. Now it's difficult to get people out to meetings. It would be a big loss for the MNR because that's a lot of bodies that you have out there that you're getting for nothing (i.e. volunteers) (FORESTRY2/TRAP2/NGO1)

This is exacerbated by logistical difficulties in assembling LCC members – it was pointed out that while government and forest industry staff discuss forestry issues on a daily basis, LCC members return to their frequently non-forestry jobs and will not discuss these issues for another month, making it difficult for them to engage effectively with the forest management plan process (FORESTRY2/TRAP2/NGO1).

Some participants also questioned the ability of the forest management planning process to accurately plan for societal values and manage uncertainty in the long-term. Doubts were raised about the reliability of forecasts built upon aerial photographs whose accuracy can vary, as well as challenges integrating climate change and related alterations in species composition into forecasts (PROVINCIAL2)(Holopainen and Wang, 1998). The Northeast Superior region was also noted as having a high concentration of forestry roads which are frequently utilized by hunters and anglers to access Crown land, thus resulting in impacts on heavily harvested fish and mammal species such as pickerel and moose (PROVINCIAL2, PROVINCIAL3). While the

theoretical merits of adaptive management were acknowledged, this planning approach was frequently criticized as a reactionary and arbitrary form of long-range planning (PROVINCIAL2, PROVINCIAL3, PROVINCIAL4). Furthermore, five-year cycles of planning was perceived to result in inconsistencies by some:

It (forest management planning) changes direction every 5 years. (It) changes direction, we change the stand and site guide, we change how we describe the landscape (PROVINCIAL2).

Some criticized the forest management and strategic planning process as adjusting to suit the needs of the mill and the Minister's commitment to allocate a certain number of cubic meters from the forest management unit, versus ecological, societal, and economic non-timber objectives shaping the Available Harvest Area (PROVINCIAL2, PROVINCIAL3). Forestry was also critiqued for a heavy-handed approach when dealing with tourism outfitters located on Crown Land in the forest management unit. Several participants noted difficulties obtaining information on harvesting plans from forestry companies. There was also the perception that tourism operators who would be affected by forestry operations were "informed" rather than consulted, and that there was an insufficient dialogue between these two parties (PROVINCIAL2, PROVINCIAL3, TOURISM1, TOURISM2).

At the same time, the forest management planning process was praised by many for its transparency, and the clear, meaningful public consultation and appeal process (FORESTRY5, PROVINCIAL5/NGO4). Although both forestry and non-forestry

participants noted a lack of representation on LCCs of Aboriginal people, women, and environmental and resource-based tourism stakeholders (ACADEMIC2, FORESTRY2/TRAP2/NGO1) (Robson and Hunt, 2010), the strong relationship between the LCC, industry, and MNR was viewed as a highly positive aspect of the forest management planning process. The legal obligations of forestry companies to consult with Aboriginal communities was also noted, as was the clear and rigorous public consultation process (FORESTRY5, PROVINCIAL5/NGO4). However, some stated that there is still potential for individual municipalities which are associated with a forest management unit to have a greater say in planning and operations (FORESTRY5).

It was also observed that in addition to these requirements, many forestry companies had obtained third party certification from organizations such as the Forest Stewardship Council or the Sustainable Forestry Initiative (FORESTRY5). In particular, the forest management planning process was praised for its appeal process in which an informed individual or group could carry their appeals of a forest management plan to a high level provincially without requiring a prohibitive outlay of finances to hire professional witnesses, as is frequently required by certain development appeal processes such as the Ontario Municipal Board (PROVINCIAL5/NGO4).

5.5.2 Water resources planning and management

Planning for hydro electric projects in the Northeast Superior region is based on river systems and watersheds. As mentioned above (5.4.5 Energy) Brookfield Renewable Power owns and operates several generating units located on the Magpie and the Michipicoten Rivers (Brookfield Renewable Power, 2012).

Similar to the LCCs utilized in forest management planning, water resources planning is coordinated between the hydro company and MNR, and is shaped by a Standing Advisory Committee (SAC) composed of citizen and First Nations representatives, and includes a range of interests along the river course such as tourism operators, trappers, anglers, conservation groups, and residents. The SAC is intended as a mechanism for First Nations and members of the public to contribute and respond to the Water Management Plan developed by Brookfield, follow the progress of the Plan's implementation, and be made aware of any issues or changes to the plan. This includes SAC members reviewing or raising any issues (particularly related to water level and flow), reviewing data collected in monitoring, reviewing requests for amendments, documenting water level and flow issues raised by the public and First Nations, and facilitating participation and consultation processes (Standing Advisory Committee – Michipicoten River System, 2010).

5.5.2.1 Perceptions of water resource management and planning in the Northeast Superior region

Water resources management in the region was noted by participants both for a strong collaborative approach to planning, as well as its interactions with political influences. During my observation a Michipicoten River SAC meeting in July 2010, the spirit of collaboration and co-operation was especially tangible given that the Michipicoten River was experiencing extremely low water levels and low flow due to abnormally low snowmelt in Spring 2010, in addition to reduced rainfall up to that date. SAC members consisted mainly of tourism and fishing lodge owners. Also present were

municipal representatives, MNR representatives including biologists, and Brookfield representatives.

Indeed, the effects of this strikingly low flow – some participants noted that it was the lowest it had been in the past 100 years – were extremely serious to many of the SAC members. It was observed that while the SAC was normally intended to meet two or three times a year, they had met four times in three months because of the crisis and several lodge owners stated that high numbers of guests had cancelled reservations or long-term guests had chosen not to rebook. While it was suggested that the present drought conditions had stepped up public involvement in water resources management (HYDRO1/FORESTRY7), the SAC meeting was notable for the high degree of compromise that lodge owners were willing to make for the benefit of the whole. Several members said that since their season had effectively collapsed due to low water levels which damaged fish populations and interfered with boating and lake aesthetics, they were willing to allow lower water levels on their own lakes in order to benefit downstream lodges which might still be able to save their season. This exceptional cooperation was viewed as one of the strongest traits of the SAC and hydro planning in the region:

I think it's a great public process. I feel we are able to make some great decisions together. As a SAC member, I realize the hydro company needs to make a profit. However, sometimes I feel that not everyone realizes that a profit must be made. There are times when certain lake water levels can be adjusted. This is when we

can work through this process as we have done in the past to benefit all parties involved (TOURISM1)

However, it was also noted that despite the concessions made by stakeholders, industry, and government, the ultimate decision for water resources management occurs at higher governmental levels outside the region:

As mentioned, what's happening this year (low flow) will probably happen once every 100 years. There have been fish kills and the lodge business has really been affected. One of the lodge owners...said that none of the bookings he had during the first two weeks of the season rebooked because they were so disappointed with conditions. But even then, there were all kinds of local people who came and they sat around and came to a solution that they thought would meet everyone's needs. But in the end they still had to get approval for the solution from somebody else outside of the area who may not have even visited the area or knows the camps or knows issues with pickerel (MUNICIPAL3)

Some participants pointed out that this strong industry-stakeholder communication was not always present in the region (TOURISM2). Therefore, there has been a marked evolution in the Northeast Superior region when it comes to meaningful stakeholder involvement in water resources planning and how the hydro industry balances multiple interests, all of which is indicative of a post-productivist landscape.

At the same time, several participants suggested that ecological and social values frequently take second place to economic interests in regional water resources management. Government has often been viewed as complicit in this preference of economics over environment (PROVINCIAL4, PROVINCIAL6):

To me it's preposterous that we have beautiful rivers flowing into Lake Superior with no minimum flow. That's disgusting for someone who's interested in fish and river systems. I was involved in that stuff a few years ago and thought we were making progress, and I'm one of these people who can see that things don't move from no regulation to ecosystem management in one fall swoop, but think we can move a little ways. Then when you get the final result of your planning back and it hasn't moved virtually at all, it's very discouraging. Because we do know how rivers and lakes work and their ecology, and we haven't been able to apply it to hydro management in same way as in forestry management (PROVINCIAL4)

Some participants suggested that political forces from higher levels of the provincial government are pushing for "every last kilowatt of electricity to replace coal-burning plants" (PROVINCIAL4), thus prompting local provincial government and industry to meet these demands. It was also mentioned that an insufficient balancing of social and ecological values against economic values may be due in part to governmental inexperience in water resources management and insufficiently clear planning processes, compared to industries such as forestry (PROVINCIAL4, PROVINCIAL5/NGO4):

And that can happen to any resource but in...forest management planning, (which is) such an open process with so many documents, policy binders and stuff, I think...there's less chance for abuse, whereas in water, it's a very new thing. I think the same thing's happening in the alternate sources of energy. I've heard that there are government employees under a lot of pressure from politicians to "Let's move things along here. Let's get these things approved". Wind power and stuff like that. So sometimes in the need to move quickly, there are some decisions being made that aren't best for the resource (PROVINCIAL5/NGO4)

I may be more pessimistic than most and I think it's because I try to think about the things I'm doing and I can always see how they can be done better and I always have regrets about fights I've lost and things I haven't accomplished. Then you have to take a step back and say 'Well, our forest management unit is a lot better than it was 30 years ago in terms of planning for these various things'. Our hydro management has a long way to come. We're probably at the same stage in hydro management that we were in forest management 30 years ago (PROVINCIAL4)

At the same time, some participants who had experience as a stakeholder in both hydro and forest management planning felt that multiple values – or at least non-hydro social and economic values - were accounted for in a much more collaborative fashion in water resources management (TOURISM1, TOURISM2).

As far as logging operations go, I don't feel that our input has as much influence as the Michipicoten SAC Committee. I feel there should be more say and more commitment to making it work for social and economic reasons (TOURISM1)

It was also noted that while existing hydro projects are static and difficult to alter, policies such as the Species at Risk Act (OMNR, 2007c) will require the implementation of more strict protective and mitigative measures for future hydro development – such as for species like lake sturgeon which inhabit local waterways - which will need to demonstrate an overall benefit to the species (PROVINCIAL7).

5.5.3 The Mayors Group, the Northeast Superior Regional Chiefs forum, and the Northeast Superior Forest Community

5.5.3.1 The Mayors Group

The Mayors Group is a coalition formed among the Mayors of the municipalities of the Northeast Superior community – Wawa, Chapleau, Hornepayne, Dubreuilville, White River, and Manitouwadge. The Mayors Group was formed approximately 10 to 15 years ago when the communities of the region decided that they could support each other in their endeavours in order to present a stronger common voice to industry, and provincial and federal government. This co-operation was strengthened by the downturn in the forestry industry which forced the Mayors to become increasingly entrepreneurial in their search for economic opportunities (MUNICIPAL1, MUNICIPAL4). Many of the early Mayors Group initiatives had a focus on regional infrastructure and benefits, such as lobbying for more extensive and reliable cellular phone coverage on remote sections of

the TransCanada Highway, or sharing municipal equipment among several communities to reduce costs.

5.5.3.2 Northeast Superior Regional Chiefs Forum

Similarly to the municipal Mayors of the Northeast Superior region, First Nations chief governed their own communities in relative isolation. However, the value of a more collaborative form of governance was also evident to the First Nations communities of the region. The original impetus of the Northeast Superior Regional Chiefs Forum is unclear – while some suggest that it was the Mayors Group that originally tabled the suggestion to the region’s First Nations to form a collaborative group (MUNICIPAL1), others state that the Northeast Superior Regional Chiefs Forum was instigated by the Chapleau Cree (FIRST NATIONS1). Either way, in early 2007, the Northeast Superior Regional Chiefs Forum was formed and included the six First Nations with an interest in the Chapleau Crown Game Preserve – the Chapleau Cree, Brunswick House, Michipicoten, Missinabie Cree, Pic Mobert, and Hornepayne First Nations (Northeast Superior Regional Chiefs Forum, 2012) (FIRST NATIONS1).

(The Northeast Superior Regional Chiefs Forum started with the concept of Community empowerment from an Aboriginal perspective. And there’s a part of the model that recognizes that from a traditional perspective, First Nations need to learn to work better together because they have a collective interest in the land. And the first community that really started to, that got past the initial concept of

where all of the work needs to get done to move the community forward, was Chapleau Cree First Nation (FIRST NATIONS1)

The formation of the Northeast Superior Regional Chiefs Forum was an exercise in collaboration, reconciliation, and pragmatism. While it was viewed as vital to have past injustices and conflicts acknowledged in order to cooperate effectively with municipalities (5.5.3.3 Northeast Superior Forest Community), moving forward and strengthening the First Nations of the region economically, socially, and culturally, was seen as a priority:

Year Two, we went knocking on the doors of all the First Nations in the area that may be interested in working together on a reconciliation approach to land issues. In other words, no legal, political, no fighting. We don't have time for fighting anymore. Mother Earth is in horrible shape. We have the moral obligation and the spiritual obligation to look at the land. So park your anger and your historical trauma and get on with the job of leading your communities into a new way based on the teachings and the old ways (FIRST NATIONS1).

The Northeast Superior Regional Chiefs Forum was also formed in response to the desire of the Mayors Group to submit an application to the Federal Forest Communities Program.

5.5.3.3 Northeast Superior Forest Community

As noted above (5.2.1 First Nations history in Northeast Superior region), the relationship between First Nation and settler communities has sometimes been contentious in the Northeast Superior region. However, both the Mayors Group and the Northeast Superior Regional Chiefs Forum saw benefits to collaboration between the two organizations. Good working relationships and common economic goals between the two bodies provided greater certainty for resource-based industries in the area - such as the remaining forestry companies - and some companies such as Tembec, now have a Memorandum of Understanding with the Northeast Superior Regional Chiefs Forum (FIRST NATIONS1, FORESTRY5).

If there is anything good that comes from a downturn in the economy, it forces people to really come together and say, “Guess what? It’s not affecting one group of us uniquely anymore” which may have been a perception when times are good that someone may have been left out. But when times are not so good, people do look at each other and say, “I’m not doing so well”. And once everyone realizes we have more in common together than we thought, then it’s a lot easier for people to say “Hey, our overall success as a region or a community, really relies on all of us being able to succeed in that together (FORESTRY5).

The collaboration also opened up potential funding opportunities for both First Nations and Municipalities, such as the federal Forest Communities Program. The Forest Communities Program assists members by seeking to: “(1) develop new forest-based economic opportunities; (2) facilitate capacity building and engagement of communities;

(3) promote and share integrated, multi-sectoral approaches to forest management; and (4) share best practices and information with forest communities across Canada and around the world” (Natural Resources Canada, 2012). In 2007 the Mayors Group, in collaboration with municipal partners such as the Superior East Community Futures Development Corporation and the Wawa Economic Development Corporation, and industrial partners such as Tembec, applied to the Forest Communities Program. Out of 22 applicant regions, the collaboration won one of 11 spots (MUNICIPAL4, MUNICIPAL5, OTHER GOVT1). The strength and collaborative spirit of the Mayors Group was viewed as a major strength in the application (MUNICIPAL4). However, the involvement of regional First Nations in the NSFC was not yet apparent and so efforts were made by both the Mayors Group/NSFC and the Northeast Superior Regional Chiefs Forum to establish more formal links between the two groups. The process of co-operation required extensive cross-cultural training of the Mayors Group and non-Aboriginal NSFC members, with training including First Nations culture, history, treaty rights, and relationships with the land (FIRST NATIONS1, MUNICIPAL 1, MUNICIPAL4). This process required considerable commitment from both municipal and First Nations representatives in the education and learning process:

Previously, we had a relationship but it was an “us versus them”, tension relationship. So we invested extensively in cross-cultural dialogue and once the mayors started to understand the history of what really happened to the Aboriginal people in the territory, they went from arrogant and discriminatory to sympathetic and reconciliatory. And that’s when we bonded the relationship and became one

in the Northeast Superior Forest Community...So it went from baby steps to where we are now in four years, but it was ongoing, continual, dedicated commitment to implementing the spirit and intent of our model without wavering...So it was a tremendous, disciplined effort (FIRST NATIONS1).

While the Northeast Superior Regional Chiefs Forum and the Mayors Group remain two distinct entities, they both participate in the NSFC and their work in this regard is often held up as model of Municipal-First Nations relationship development and collaboration.

Now we share a common goal. We work as two independent bodies but we've come together on several issues. We have to leave it like that – we can't be one body. We need to have one that represents First Nations and one that represents municipalities because we have so many different sources of funding. But there is a partnership there (MUNICIPAL1).

While the NSFC researches and supports the development of non-conventional and non-timber forest product industries in the area (such as the wild blueberry plantation being developed near Wawa, or the potential for Canada Yew harvesting), NSFC members continue to look towards traditional forestry, in addition to exploring opportunities for potential growth (FORESTRY5). A major endeavour has been the development of a partnership between Pic Mobert First Nation and White River in buying the defunct Domtar mill in White River, acquiring the Sustainable Forest License for the associated forest management unit and reopening the mill as a community-operated business. The

process of creating this collaboration was viewed as an enormous success. Both communities were highly dependent on the White River mill and associated woodlands for employment, and both opposed Domtar's plan to shut down the mill and continue harvesting timber, with the plan to ship the resource out of the region for processing (MUNICIPAL1). Therefore, the necessity for employment and the opportunity for greater local agency prompted enormous collaborative strides, both between White River and Pic Mobert, as well as with the steelworkers union which represented former Domtar employees. Together, these local actors were able to reach concessions, such as a no-strike guarantee from the union, which made the endeavour more desirable and stable to investors (MUNICIPAL1, FORESTRY8). A second First Nation (Ojibway of the Pic River) and an outside business (Rentech Inc.) have since become involved in the process (5.4.2 Conventional and emerging forest products).

5.5.4 Provincial approaches to land use planning in the Northeast Superior region

Due to the large proportion of Crown land in Northern Ontario, regional land use planning usually falls under the jurisdiction of the MNR. As mentioned above (5.1.1 Location, communities, parks, and jurisdictional boundaries), the Northeast Superior region is divided among several district level MNR offices (Chapleau, Wawa, Sault Ste. Marie), as well as falling under both MNR's Northeast (head office in Timmins) and Northwest (head office in Thunder Bay) Regions. In addition to district-specific land use planning, the Northeast Superior region is also subject to larger-scale provincial planning approaches which encompass significant portions of the province or of Northern Ontario. Two major provincial land use planning exercises for the region include the Lands for

Life planning process and the associated Living Legacy Land Use Strategy (OMNR, 1999), and the Crown Land Use Atlas Harmonization (CLUAH) Project.

5.5.4.1 Lands for Life Consultation Process and Ontario's Living Legacy Land Use Strategy

Lands for Life planning was an extensive planning and public consultation process that was undertaken between February 1997 and May 1999 with the intention of delineating strategic direction for the management of 39 million hectares of Crown land and water in Ontario. Lands for Life focused on four objectives which were determined at the beginning of the process: “(1) Completing Ontario's system of parks and protected areas; (2) Recognizing the land use needs of the resource-based tourism industry; (3) Providing forest, mining, and other resource industries with greater land and resource use certainty; and (4) enhancing angling, hunting and other Crown land recreation opportunities” (OMNR, 2007a).

Lands for Life was notable for its comprehensive approach to strategic planning and its far-reaching public consultation process. In particular, it was recognized for its reliance on citizen Round Tables which were held from June 1997 to July 1998. The Round Tables were established in three planning regions (Boreal West, Boreal East, and Great Lakes-St. Lawrence), with each composed of 12 to 14 citizens with diverse backgrounds, interests, and experience. Public consultation was achieved through a variety of means. In addition to questionnaires, written submissions, and emails, the Round Tables travelled to multiple communities to hold public meetings and community workshops, with the Round Tables hearing from over 15,000 people during the process (OMNR, 2007a). The level of response and participation in the Northeast Superior region

was significant. For example, one participant noted that even in a town as small as White River (Population 1,022 in 1996 – See Table 5.1), a second night of meetings was added, in addition to the originally scheduled meeting night, due to high turnout (PROVINCIAL5/NGO4). Discussions were also undertaken with representatives from various industrial sectors, such as mining and forestry, to identify which lands would be available for harvest in the future and determine how other industrial needs could be met (OFIA, 2011a; OMNR, 2007a). Once the Round Tables' recommendations were submitted in July 1998, the province also held discussions with representatives of different industries and sectors, in addition to environmental organizations (OMNR, 2007).

As a result of the Lands for Life planning process, Ontario's Living Legacy Land Use Strategy was released in March 1999. The Strategy made several contributions to its objectives listed above including: (1) Adding 378 new parks and protected areas totalling 2.4 million hectares, thus increasing the amount of land protected in the province by a third; (2) Defining a new land use category – Enhanced Management Areas – which contribute to the protection of tourism values; (3) Reviewing and updating the Timber Management Guidelines for the Protection of Tourism Values to better protect tourism values; (4) A new Resource Stewardship Agreement process to formalize the relationship between the resource-based tourism and resource industries, and to encourage the sharing of information and mutual problem solving; (5) Supporting forestry by creating a new land use designation - Enhanced Management Area-Intensive Forestry - for areas that have the potential to increase the quantity and quality of Crown timber grown there, as well as a compensation program for areas removed from forest licenses due to new

protected statuses; and (6) Improving angling, hunting, and recreational opportunities on Crown land by permitting angling in all land use designations and enhanced management areas, permitting hunting in all new land use areas in the planning area excluding new nature reserves, increased fish production in provincial hatcheries, and a new land use category - Enhanced Management Areas for Fish and Wildlife – for the management of fish and wildlife resources in areas where there are important habitats or populations and for areas managed to intensify fish and wildlife production and/or diversify and optimize angling and hunting opportunities (OMNR, 1999; OMNR, 2007a).

5.5.4.2 The Crown Land Use Atlas Harmonization (CLUAH) Project

Areas of Crown land that were not designated as part of the Parks and Protected Areas System or as an Enhanced Management Area, are referred to as General Use Areas. The MNR Wawa District contained over 20 general use areas without specific designation. Furthermore, Wawa District also doubled in size after an MNR reorganization in 1992 which saw the District acquire sections of Terrace Bay, Hearst, and Chapleau districts, along with their own specific rules and designations (OMNR, 2006). Forest access via logging roads and independently-created trails utilizing motorized vehicles such as ATVs, also poses a major issue for both Wawa District MNR and Chapleau District MNR. The Northeast Superior region is criss-crossed by logging roads which are utilized by residents for recreational forest access, such as hunting, fishing, or berry picking. However, MNR also seeks to protect other interests such as sensitive wildlife habitat and remote tourism lakes on which tourism operators are situated. Decommissioning of logging roads is often thwarted by forest users who

continue to reopen trails and roads (PROVINCIAL3), necessitating enormous expense and effort to permanently decommission logging roads by blocking them with berms, slash, and other forestry debris, and to monitor the results:

We didn't want to cut these down but at the end of the day, it is a cost effective strategy to achieving a resource management objective (inhibit unauthorized access). We know that there's a very distinct possibility that people will come back in here and cut these trails out but this is why we've installed monitoring devices, and this is a huge component of all resource management planning...monitoring is key...So in this case, I'd say the bulk of this initiative is the monitoring – we're going to be pushing that real heavy. So we're using physical devices to monitor vehicular traffic and we're also using regular staff field visits. And essentially it becomes a cat and mouse game. It's a battle of attrition and we've got to be willing to be the last man standing, because if we're not, then really our regulatory control over Crown land becomes compromised severely...In another year's time we'll be able to evaluate how effective it's been, and really, what we're looking at as an agency right now is its cost-effectiveness. Because sure, we could go in here and we could decommission illegal trails, using heavy equipment, using slash, boulders, berms, rock piles. I mean there's a number of tools we could use but these tools, for the most part, become very, very costly to use to the taxpayer, right? (PROVINCIAL3)

Signs restricting motorized traffic, as well as physical barriers such as gates are also utilized by MNR. Crossing these barriers with a motorized vehicle can result in fines, sometimes in excess of several thousand dollars. However, these strategies also result in contentious relations between forest users and the MNR. For example, in their study of roads and forest access issues in the Wawa area, Mihell and Hunt (2010) found that while forest users view natural abandonment most positively as a means of decommissioning roads (although, natural abandonment cannot renaturalize a forest road if users continue to travel on it), the majority of physical decommissioning tools, such as signs, road impediments, and culvert removal were viewed as “Very undesirable”, with gates being the least preferred means of access control. Certain communities in the Northeast Superior region, such as Dubreuilville and Hornepayne, have had particularly difficult relationships with the MNR over forest access issues. This includes perceptions that MNR is disproportionately favouring non-northern remote tourism operators over local residents (Hunt, Lemelin, and Saunders, 2009) (FORESTRY1/TRAP1, FORESTRY6) and involving continued destruction and vandalism of forest access control tools such as signs (The Algoma News, 2012).

CLUAH therefore, had multiple purposes: (1) To harmonize Wawa District’s land use plans with those inherited from other MNR; (2) To solicit input from stakeholders to create a land use system to resolve long-standing forest access issues; (3) To engage the District’s First Nations communities in the land use planning process; and (4) To meet MNR goals of economic, social, and environmental sustainability (OMNR, 2006) (PROVINCIAL5/NGO4). Input from MNR, the public, other levels of government, industries, and stakeholders were solicited and incorporated in a variety of ways. Drafts

of the CLUAH plan were posted on the online Environmental Bill of Rights Registry, in local newspapers, and community workshops and meetings were conducted at each stage of the project. As well, several groups consisting of different actors were formed (PROVINCIAL8). These included a Steering Committee, a Chiefs Forum, a Working Group, and a Project Team (See Table 5.2 for the responsibilities and members of each group). Any decisions made by the Steering Committee are then subject to approval by the MNR Wawa District Manager, and further by the MNR Northeast Region Regional Director (OMNR, 2006). MNR policies and projects – such as CLUAH – must also conform to strategic level directives such as *Our Sustainable Future: Strategic Directions* (OMNR, 2005) which lays out current priorities and long-term strategic directions for the MNR, and which is used to guide MNR activities and organizational transformation.

The CLUAH land use plan proposed three different land use designations: (1) Remote Access Enhanced Management Areas which maintain and promote remote wilderness character and backcountry recreational values, require that resource management activities are compatible with remote recreational values, and limits motorized vehicle access to these areas; (2) Recreation Access Enhanced Management Areas which promote and enhance opportunities for diverse recreational activities, community connectivity, and improved resource use in the area; and (3) Multiple Resource Management Areas, which promote and encourage multiple uses, including both commercial and recreational activities (PROVINCIAL8, PROVINCIAL9).

Table 5.2: Roles and composition of the various CLUAH committees (Adapted from OMNR, 2006)

Committee	Role	Membership
Steering Committee	<ul style="list-style-type: none"> - Provide core direction - Provide input to planning components - Responsible for making key decisions and endorsement of the project's management options and/or plan 	<ul style="list-style-type: none"> - MNR Wawa District Manager - Township of Dubreuilville - Nature and Outdoor Tourism in Ontario (NOTO) - Ontario Federation of Anglers and Hunters
Chiefs Forum	<ul style="list-style-type: none"> - Provide representation for local Aboriginal/ First Nations communities - Ensure economic, social, environmental and spiritual values within the district boundary are represented - Encourage community involvement 	<ul style="list-style-type: none"> - Five local First Nation Chiefs - MNR Wawa District Manager
Working Group	<ul style="list-style-type: none"> - Review, analyze, and develop options for land use direction 	<p>Wawa District stakeholders and First Nations, including:</p> <ul style="list-style-type: none"> - LCC representatives - Hunting and angling groups - Trappers - Remote-based, road-based, and train-based resource-based tourism - Silent sports representatives - Bear Management Area operators - Forestry industry - Superior East Community Futures Development Corporation - Mayors Group - First Nations representatives
Project Team	<ul style="list-style-type: none"> - Guide land use planning process - Provide support to the Working Group - Work with the Working Group to review, analyze, and develop land use direction 	<ul style="list-style-type: none"> - MNR staff

5.5.4.3 Crown land or public land? Conflicts of power, values, and interests in CLUAH

It would be an understatement to say that the CLUAH process of bringing together stakeholders and actors, identifying and negotiating different interests and positions, and eventually reaching an outcome has been contentious. Battle lines were drawn early between those who perceived that their right to access public forests and lakes was being eroded by provincial government agencies who supported remote tourism operators. This phenomenon has already been observed by Hunt, Lemelin, and Saunders (2009). Similar to Hunt, Lemelin, and Saunders's (2009) findings in Dubreuilville, participants questioned the economic value of remote tourism. Many believed that limiting road-based tourism – particularly hunting, fishing, and photography that requires motorized vehicle access to forestry roads – was not in the economic best-interests of local communities, with some participants perceiving remote tourism operators as bringing little economic revenue to nearby towns (FORESTRY1/TRAP1, FORESTRY6). However, Hunt, Lemelin, and Saunders (2009) note that due to their remote location and low community visibility, many residents do not see the financial benefits that remote tourism operations bring to stores, gas stations, hotels, and other community businesses.

Some also questioned the fairness of lake access between different municipalities. For example, it was noted that some lakes which could be legally accessed through Manitouwadge by motorized vehicle, couldn't be accessed from Hornepayne (FORESTRY2/TRAP2/NGO1). Several also perceived Dubreuilville as being "shut out" of many of their lakes when compared to other communities (FORESTRY1/TRAP1, NGO2/FORESTRY3, NGO3/FORESTRY4). It should be noted that while citizens are still legally allowed to enter and use Remote Access lakes, they can only do so through

“traditional” means – normally by foot or snowshoe. Some doubted the assumption that all lakes are “accessible” to residents, some of whom may be elderly or disabled, if they have to reach them by non-motorized means. They also questioned whether a year-round remote access designation was necessary, especially when recreation for many residents is highly tied to the landscape:

So, like I say, there’s only about maybe 20 or 30 of them lakes that really are used and they’re only used for the three months a year. I should be able to go there the other nine months in theory...This is why we live up here. This is what we do. That’s our recreation. We don’t go to the theatres or the opera houses. We don’t have them. I got skidoos and four wheelers and... I sit at home because the forest is all shut down (FORESTRY1/TRAP1).

As an extension of this, several opponents to CLUAH viewed the MNR as supporting remote tourism operators and their clients – many of whom are perceived to be wealthy non-Northerners and/or Americans – over more local interests (FORESTRY1/TRAP 1, FORESTRY6). This view is also demonstrated in many letters to the editor in local newspapers which paint the MNR as being in league with remote tourism interests (The Algoma News, 2011b; Wawa-news.com, 2011). Others questioned whether the Remote Access designation was artificially preserving the remoteness that certain tourism operations depend on:

Remote tourism, we're not against remote tourism by any stretch of the imagination. But the word "remote" has a meaning, and they've changed that meaning so badly - "Well, if it's not remote, we'll create a remoteness around it that's no longer remote". (Remoteness is) an artificial. There are lots of different ideas that could work for remote tourism, but they seem to have locked into this situation and "This works for us. We're hammering it. And we got the political clout to do it". But things like, you got a camp on this lake, this lake is now easily accessible if you don't take the bridges out of the roads that you've built on public land. So we'll give you X amount of dollars for your camp. Now you set up with that money a new camp on a truly remote lake and go with it. And if that eventually becomes not remote anymore (then you move on again). We didn't protect the guys who made buggy whips when they were no longer needed. If you run out of true remoteness, then you better find another business, because that's what all businesses do. But this isn't operated like a business - it's operated like a political entity. And that is the problem and that is why the public is so against it and has caused all this ruckus, is because the politics are creating a viability for business that is not viable in its present state. So until those things change you're going to have attitudes that aren't conducive to going forward up here (NGO3/FORESTRY4)

A major argument against CLUAH follows the belief that citizens of Ontario have the right to access Crown land as they see fit. This is reflected by frequent statements that Crown land is "our" land and is evident in the opinions of both participants

(FORESTRY1/TRAP1, FORESTRY6, NGO2/FORESTRY3, NGO3/FORESTRY4), and in articles and letters published in local newspapers (The Algoma News, 2011b; Wawa-news.com, 2011). However, others also observed that Crown land does not necessarily equal unrestricted public land – one participant pointed out that although the lawn of Queens Park is Crown land, if someone set up a tent there they would quickly find their encampment dismantled by authorities (HYDRO1/FORESTRY7). Some also equate the sense of ownership over Crown land as equivalent to stewardship. For example, participants that support greater forest access often take a “free market” approach to conservation and argue opening up lakes to vehicle access will not result in overfishing since (1) locals possess local knowledge about the lakes, will not overfish them, and will know when they are being overfished (at which point they will presumably will stop fishing that lake), and (2) the large number of lakes in the region and the small population ensures that lakes will not be fished out (FORESTRY1/TRAP1, FORESTRY6).

Another component of the CLUAH process that caused controversy was the perceived neutrality – or lack thereof – of process. Several participants felt the MNR already knew what land use plan they wanted approved and that public consultation was simply a “rubber-stamp”. For example, some noted that the MNR already had already prepared preliminary maps with potential projections on them, giving participants the impression that the desired end had already been determined among MNR staff (FORESTRY2/TRAP2/NGO1). Other specific incidents also led to suspicions of bias. For example, the original facilitator of the Working Group was an MNR employee, which many participants railed against. Eventually a neutral third party facilitator was brought in, but several felt that originally having an MNR facilitator soured the process

(FORESTRY2/TRAP2/NGO1, FORESTRY6, PROVINCIAL5/NGO4). Several participants who already rankled at other Crown land restrictions such as decreased moose tags for hunting, felt that the CLUAH process was a continuation of MNR's controlling approach (FORESTRY1/TRAP1, FORESTRY6). This bias against MNR initiatives is especially evident given that in the process of the White River-Pic Mobert negotiations for taking over the Domtar mill and associated Sustainable Forest License (5.5.3.3 Northeast Superior Forest Community), White River successfully undertook discussions with both remote tourism and road-based forest users, with little of the animosity demonstrated in the CLUAH process (MUNICIPAL1)

Finally, interpersonal clashes and personality conflicts also led to difficulties in the Working Group coming to a consensus, as well as causing procedural flaws such as a lack of silent sports representation:

I think it's been seriously flawed and that's probably more personnel than anything...There's a group of us that got involved earlier this year, which is another reason why I'm burnt out, because the non-motorized recreation was not legitimately recognized in the process...Initially there was a person (representing silent sports) on the CLUAH project but was intimidated by the rancour that goes on. And some of us are used to that – we just call their bluff, the anglers and hunters who want to use all roads...The person who was on the committee wasn't used to that sort of stuff and thought "Holy smokes, I don't need this sort of crap in my life". And the MNR didn't replace him and I had offered to be on the committee. So there's been a gap in the whole process, and it may not be a critical

gap, but one person is considered to be a critical gap...The intent was good, it just wasn't pulled off properly (PROVINCIAL5/NGO4).

Although many participants expressed positive views of the CLUAH process, especially when it comes to the relationship-building between disparate interests that did take place (HYDRO1, PROVINCIAL8, PROVINCIAL9), CLUAH is also notable for the rancour that surrounds the project. Many participants appeared to take a more "free market" approach to land use planning on Crown land in that if remote tourism is not able to independently fend off the forces that may erode its land base and interests, it should not be sustained by political mechanisms. A major component of this debate also centers upon the idea of Crown land, the associated sense of resident ownership, stewardship, and/or entitlement, and to what extent the citizens of Ontario – particularly the citizens of Northern Ontario – should have access to "their" land (See Chapter 6 for a detailed discussion on these phenomena and their impact on environmental planning in post-productivist forest-dependent regions).

5.6 Conclusion

Although the Northeast Superior region offers a potential case study for exploring post-productivist resource-dependent regions in economic, social, and ecological transition, the region is also notable for its political, cultural, jurisdictional, industrial, and ecological diversity. There is a strong sense of history of primary resource industries as being the "mother" of this region – at least when it comes to its municipalities. While different and emerging industries are being actively explored, most remain tied to the

region's landscape, forests, and waters. This is not necessarily a weakness – in fact, many participants identify these assets as strengths to be exploited in an effort to diversify northern economies and provide greater agency and stability to resource-dependent communities and regions (See Chapter 6 for an outline of driving forces and potential opportunities identified by participants). However, this approach also indicates a continued reliance on natural resources as the “saviour” of the region.

While the region continues to rely on natural resources, its approaches to planning exhibit many of the hallmarks of post-productivism. All forms of environmental planning in the Northeast Superior region acknowledge the multiple, sometimes conflicting, interests that exist on the landscape and provides some sort of mechanism to identify and mediate them. There is also an increased emphasis on the involvement and participation of varying stakeholders, as well as other levels of government such as First Nations and occasionally municipalities. However, past top-down approaches to planning – whether perceived or real – still colour current planning exercises. In particular, the province and its agencies, such as MNR, are viewed as controlling entities which divide citizens from their “rights” to Crown land. Even though the MNR is well situated to undertake regional planning, many forest users bristle at MNR-initiated processes, even if they embrace similar processes initiated by other political entities. At the same time, even the most vociferous MNR opponents acknowledge the good and committed work done by many of its employees, as well as the learning and relationship-building opportunities provided by MNR processes. Furthermore, perceptions continue that despite an increased emphasis on economic, social, and ecological sustainability, that government, industry, and

occasionally other stakeholders, subtly but continually emphasize economic benefits, sometimes to the detriment of other values.

Chapter Six

Post-productivist dynamics at work:

The impacts of driving forces, uncertainties, and relationships on environmental planning in the Northeast Superior region

The Northeast Superior region is undergoing a variety of social, economic, and environmental transitions, the ultimate outcomes of which are not necessarily clear. These outcomes may also be affected by driving forces and uncertainties facing the region. Further, resident perceptions of their relationship with the surrounding landscape, and related sense of place and identities also impact how environmental planning takes place and the resultant success or failure of planning efforts.

This chapter examines participant perceptions of economic, social, environmental, and political driving forces and uncertainties which will or may impact the future of the Northeast Superior region. Unsurprisingly, many of these driving forces and uncertainty categories intersect, overlap, or influence each other. Occasionally, participants focused more strongly on the factors impacting their own community. However, in many cases, these community-scale factors also play out regionally. Subsequently, I examine participant answers to the question “How do you feel that residents are connected to the natural landscape, forests, and waters of the region?”. The emergent themes indicate that participant relationships with the landscape extend far beyond economic activities and even lifestyle, and play a significant role in shaping participant identity and the identity of the region. Finally, I outline themes that emerged during interviews in which

participants discussed how resource-dependence influences sense of place and identity, both individually, as a community, and as a region. Frequently this identity of simultaneous resource-dependence – and hence dependence on industry and governmental policy – is counterposed against perceptions of individuality, independence, and a sense of Northern exceptionalism, especially in comparison to Southern urban populations.

The emergent themes regarding driving forces, uncertainties, and relationships with the landscape and with resource-dependence are then examined in the context of the environmental planning approaches outlined in Chapter 5 and participant perceptions of these approaches. Although the concepts of post-productivism and new regionalism are still actively debated, I demonstrate how the Northeast Superior region exemplifies many of the key characteristics of these two models, and assesses how this case study further adds to the theories of new regionalism and post-productivism. To conclude, I then discuss how these factors impact the regional environmental planning initiatives outlined in Chapter 5, how the diverse values and power relations inherent to a post-productivist forest-dependent landscape can shape these planning processes and outcomes, and based on this, how such regional environmental planning processes can more effectively address the multi-scale temporal and spatial changes inherent to forest-dependent regions experiencing social, economic, and environmental transitions.

6.1 Driving forces, uncertainties, dynamics, and relationships of the Northeast Superior region

The acceptance, rigour, and ultimate success of environmental planning initiatives is heavily dependent upon the meaningful participation of residents, stakeholders,

industries, governments, and NGOs. However, this participation – as well as whether the planning is perceived as relevant for those it will impact – is influenced by participants' desires or fears for future, and their views of the driving forces and uncertainties that their community or region may face, and how they believe they are linked to their region, landscape, and supporting industries and structures.

6.1.1 Driving forces impacting the present and future of the Northeast Superior region

Participants were asked about the driving forces that are, will, or may shape the future of the Northeast Superior region, regardless of whether they expect positive, negative, or uncertain impacts from them. The driving forces that were mentioned fell broadly into four categories: economic, ecological, social, and political. It is notable, however, that many of these driving forces overlap multiple categories. Further, even those driving forces which may appear to be firmly in a single category are often triggered by other driving forces which may exhibit a very divergent origin. Therefore, while these driving forces have been presented in four separate categories for ease of understanding, they are all intimately tied together and influenced by each other.

6.1.1.1 Economic driving forces

Participants frequently viewed economic driving forces as being the most significant factor affecting the future of the region (Table 6.1). Many participants focused on aspects of the resource industry or driving forces which impact the sector. The link between the region's wellbeing and global economics was well-recognized, particularly the forestry industry's dependency on the American housing market and the impacts its

downturn has had on the region. At the same time, changing and emerging markets in other parts of the world were also viewed as important drivers, both due to demand, or declining demand, for mining products and as potential markets for forestry products. Overall, many participants – whether they viewed this as a positive or a negative – felt that the Northeast Superior region would always be based on natural resources, and hence subject to continued boom-bust cycles. Almost every participant did not expect the forestry industry to return to its previous state of prosperity. However, many participants went on to discuss the future of forestry *as if* it would return as a major employer and wealth generator in the region (See “6.1.4 North and South” for a more detailed exploration of the attitudinal factors which impact planning in resource-dependent regions). There was also an acknowledgment of the movement towards processing wood at “supermills” which are extremely large facilities frequently located in northern urban centers such as Thunder Bay or Sault Ste Marie. The potential of emerging forest-based products such as biofuels, biochemicals, and non-timber forest products was also mentioned. Meanwhile, while previous mining bust cycles have desolated towns in the region, the current strength of the mining industry – particularly gold mining - was viewed as an extremely strong economic driving force in the region. The Ring of Fire was also seen as a possible driving force depending on where processing takes place.

Table 6.1: Economic driving forces in the Northeast Superior region as identified by participants

<p>Global economics</p> <ul style="list-style-type: none"> - American housing market - Changing markets in other parts of the world
<p>Resource industry in general</p> <ul style="list-style-type: none"> - Area will always be based on natural resources - Area will always be subject to boom-bust vulnerabilities - Opportunities for new resources according to market demands
<p>Forestry</p> <ul style="list-style-type: none"> - Whether it will go up or down - People acknowledge will not come back like before but are still acting like it will - Movement towards more community control - Greater shift to centralization in “supermills” - The need to explore emerging forest-based products
<p>Mining</p> <ul style="list-style-type: none"> - Mining will always be a force in the region - Ring of Fire is a major player - Mining currently propping up the region
<p>Tourism</p> <ul style="list-style-type: none"> - Tourism will always be a mainstay but never looked at as a big money-maker (the “poor cousin” to mining and forestry) - Potential for increased tourism with baby boomers - Potential for increasing remote tourism
<p>Emerging industries</p> <ul style="list-style-type: none"> - Energy – windfarms, biofuel, solar energy, nuclear repository - Forest products – biofuel, jet fuel, mushrooms, Canada Yew, blueberries - North as a retirement community - Potential for telecommuting – possible center for Creative Class types - Ecosystem services – carbon credits
<p>Transportation</p> <ul style="list-style-type: none"> - Possible reopening of Wawa port - Highway and rail access - Highway 17 often closed due to poor weather conditions
<p>Oil prices</p> <ul style="list-style-type: none"> - Region affected by high oil prices and dependency on oil for heating
<p>Hydro electric power</p>

<ul style="list-style-type: none"> - Looking at the rivers in the area for further hydro power - Potential change in river levels and flow due to climate change
<p>Tendency to centralization/amalgamation of industries</p> <ul style="list-style-type: none"> - Tendency to process resources in other, more urban areas - Shift to super mills - Need to process resources locally to keep profits in community
<p>Research and Development</p> <ul style="list-style-type: none"> - Canada has small R&D budget

Tourism was frequently mentioned as a driving force but was sometimes viewed as a secondary, lesser industry, especially by participants involved in forestry and/or mining but also by participants with other associations. The potential for accessing prosperous, travel-loving baby boomers was seen as a potential driving force, as were the remote tourism opportunities afforded by the region versus more well-traveled tourist areas such as Algonquin Park. The emergence of new industries – many of which are forest- or landscape based, though not exclusively – were also mentioned. Other driving forces included strengths and weaknesses in the region’s transportation network, the high cost of oil and gasoline in the region and impacts on travel and heating, the potential for further hydro electric development and economic impacts on the industry due to changes in water levels and flow, the tendency towards a centralization of resource-based industries, and a lack of research and development.

6.1.1.2 Ecological driving forces

However, while many participants from all backgrounds viewed economic driving forces as being the most critical factor impacting the region, not all participants felt that way:

A couple years ago I would have said the driver would be economics – wood supply, industrial use. I don't think it's there anymore. I don't think it will ever disappear but it won't have the prominence it had before. Instead the social, recreational issues and environmental concerns will have more weight (FORESTRY2/TRAP2/NGO1).

While fewer ecological driving forces were discussed by participants, many viewed them as having the potential to exert significant impacts on the region (Table 6.2). Interestingly, for a cold region subject to long winters and large snowfall, the impacts of climate change were viewed as both positive and negative. Less severe winters were seen as being increasingly comfortable for residents and possibly affording opportunities such as easier transportation and travel, as well as the potential for agriculture. However, climate change could also have unequivocally negative impacts on other industries such as hydro electric power generation, tourism, and fishing, as demonstrated by the low water conditions in Summer 2010, which participants attributed to a changing climate and associated weather conditions (5.5.2 Water resources planning and management).

Other ecological driving forces centered around the natural resource industry. While decreased forestry will allow many cutblocks to regenerate, increased mining activity carries different environmental impacts, such as effluent which can travel for hundreds or thousands of kilometers. The region's freshwater supply was also viewed as a major resource that would shape the future of the region as world water supplies decreased. This concept was also reflected by participants' perception of the overall

natural resources present in the region which they felt was of national, if not global, significance. Finally, the existence of, and development of new, governmental conservation programs was also viewed as a driving force, as was increased environmental education for both young people and adults and increased emphasis on environmental values in society overall.

Table 6.2: Ecological driving forces in the Northeast Superior region as identified by participants

<p>Climate change</p> <ul style="list-style-type: none"> - Seen as a positive and negative - Less severe winters - Easier transportation. Lake and port open longer - Potential for other industries, such as agriculture - Impacts on fisheries, forestry, other industries like blueberries. Changes seasons for harvesting, health of ecosystems - Impact on river and lake levels – will affect hydro, fishing, tourism - Difficult to plan for the uncertainties
<p>Environmental effects of resource development</p> <ul style="list-style-type: none"> - Increased mining due to increased prices. Mining has smaller footprint than forestry but produces effluent that travels thousands of miles and requires care in perpetuity
<p>Water resources</p> <ul style="list-style-type: none"> - Water is a major resource for the region. Will be significant as world supply decreases
<p>Richness of natural resources in region overall</p> <ul style="list-style-type: none"> - Have globally significant water, fish, forestry resources
<p>Conservation and environmental protection</p> <ul style="list-style-type: none"> - Existence of governmental programs for conservation like Lands for Life, CLUAH, and Protected Areas Program. - There is increased environmental education and increased emphasis on environmental values society-wide

6.1.1.3 Social driving forces

Many social driving forces were frequently tied to, or influenced by, economic and political factors (Table 6.3). The relationship between First Nations and industry, municipalities, and other components of settler society was viewed by many participants

(both First Nations and non-First Nations) as an emerging driving force that would exhibit increased influence over time. First Nations now have the power to affect development and industrial activities, powers which offer both benefits and drawbacks to nearby resource-dependent communities. There was a strong sense of collaboration with the First Nations of the area, particularly between municipalities and First Nations. However, as demonstrated in Chapter 5 (5.5.3 The Mayors Group, the Northeast Superior Regional Chiefs Forum, and the Northeast Superior Forest Community), this required a concerted effort from all parties involved.

The attitudes of individuals and the communities of the Northeast Superior region, as well as their relationships with each other, were also viewed as an important driving force, especially in regards to the community spirit and cohesion it encouraged. In particular, participants mentioned the committed individuals and groups who worked to make their communities and region a better, more stable place, with many participants lauding the close-knit nature of their town. Indeed, the town of Manitowadge welcomes visitors with a large sign that proudly exclaims “Manitouwadge – Home to a lot of really great people” (Figure 6.1).

Table 6.3: Social driving forces affecting the Northeast Superior region as identified by participants

<p>First Nations</p> <ul style="list-style-type: none"> - First Nations now have power to affect development and industry - Relationship with First Nations and how they are affected by treaty process - Sense of collaboration with the First Nations of the area - Are in increasingly powerful legal and social positions
<p>Community and individual attitudes</p> <ul style="list-style-type: none"> - Committed groups of communities in the region. - Strong commitment to forestry industry - Lack of entrepreneurial spirit and lack of willingness to look beyond primary industries
<p>Community/Regional links</p> <ul style="list-style-type: none"> - Cooperation and love of the area by the people who live there - Municipalities are making concessions and collaborating with each other
<p>Shifting populations and demographics</p> <ul style="list-style-type: none"> - Retirees/Seniors <ul style="list-style-type: none"> ▪ Aging population – smaller tax base and population. Different needs, especially health care ▪ Aging population elsewhere can be an opportunity - Develop retirement communities like Elliot Lake or Manitowadge, baby boomer tourism - Tendency for residents to stay based in the area even if they work elsewhere - Outmigration of population, especially youth - Need for immigration, especially from Southern Ontario but also from elsewhere
<p>Access to Crown Land versus retaining remoteness</p>
<p>Shifting values regarding environment</p> <ul style="list-style-type: none"> - Social, recreational, and ecological issues are becoming more powerful - sometimes more powerful than economic issues - Society (both in the region and elsewhere) is more aware of and educated on environmental issues - Environmental values are more important to society – sometimes very influenced by urban, Southern areas
<p>Education</p> <ul style="list-style-type: none"> - Increased opportunities for education remotely - Many people/youth still have to leave the region to receive post-secondary education or special training
<p>Lifestyle</p>

- A major attraction for the area is the relaxed lifestyle, low cost housing, and proximity to natural beauty and recreation

Technology

- Potential for telecommuting. However, has not been as popular as originally predicted

Similarly, municipalities are increasingly collaborating with each other and making concessions and compromises in order to support each other (5.5.3 The Mayors Group, the Northeast Superior Regional Chiefs Forum, and the Northeast Superior Forest

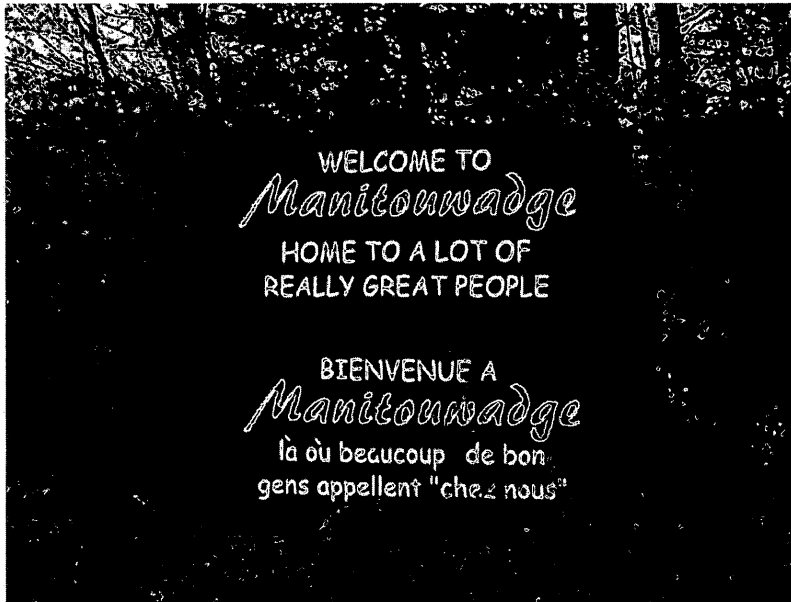


Figure 6.1: Sign welcoming visitors to Manitouwadge, Ontario/

Community). At the same time, the continued commitment to forestry expressed above (6.1.1.1 Economic driving forces) is viewed by some as resulting in a lack of

entrepreneurial spirit and an unwillingness to consider non-primary industry alternatives.

The economic downturn experienced by the forestry industry and past declines in mining have also resulted in powerful social driving forces regarding demographics. In particular, the Northeast Superior region is experiencing an aging population as seniors increase while youth and skilled workers migrate away looking for educational and work opportunities. This results in economic impacts including a smaller tax base and shifting

community needs, such as the increased and specialized health care needs of seniors. However, it was also noted that rather than relocating entire families, many workers who leave the region for a job retain their home and keep their family in the Northeast Superior region, instead making the long-distance commute back and forth. This was interpreted by many as a sign of commitment to their home community, though it was also pointed out that due to low housing prices, many are currently unable to sell their homes and obtain the equity they have put into it or satisfy their mortgage debts.

Other social driving forces were influenced by ecological limits and attitudes. The debate over access to Crown land versus retaining remote regions was seen as a major historical and current driving force in the region (See “5.5.4.2 The Crown Land Use Atlas Harmonization (CLUAH) Project” and “5.5.4.3 Crown land or public land?” in Chapter 5). There was also the assumption that this factor will cause further tension in the future as increasing resource development may take place. Shifting social values regarding the environment were also noted. As mentioned above (6.1.1.2 Ecological driving forces) changing societal values have partially resulted from increased environmental education. It was also noted that societal values which emphasize conservation and environmental protection are sometimes heavily influenced by the residents of urban and/or Southern regions. Other predominantly social driving forces for the Northeast Superior region include new opportunities for and a lack of education prospects, lifestyle (See “6.1.3 Links between residents and the landscape” and “6.1.4 North and South”), and technological advances which can promote remote work opportunities.

6.1.1.4 Political driving forces

The strongest political driving forces that are affecting, or may affect, the Northeast Superior region were mostly viewed as stemming from provincial or federal levels of government and originating in Southern, urban areas (Table 6.4). Participants espoused this view relating to several different driving forces but most strongly regarding policies

Table 6.4: Political driving forces affecting the Northeast Superior region as identified by participants
Influence of Southern and/or urban regions on policies affecting the North
Opinions/perspectives/political forces from Southern Ontario regarding forestry, mining and resource development <ul style="list-style-type: none"> - Media and Southern opinions on environmental values has enormous influence on resource development and management in the North. South perceived as being ignorant about the realities of forestry - Feeling that the government has given up on large timber companies in the North
Policies <ul style="list-style-type: none"> - Green Energy Act (increased opportunities for alternative forms of energy in the region, increased prices) - Species at Risk Act (impact of caribou protection plans on forestry) - Tenure reform and wood competition (uncertainty how individual communities will be impacted) - Growth Plan for Northern Ontario (seen as a positive framework for developing the North, but also as being too broad and vague) - Climate change policies and regulations (Western Climate Initiative)
Crown Land access and related conflicts (E.g.: CLUAH)
Tendency to centralization <ul style="list-style-type: none"> - Centralization of decision-making power away from communities and towards urban centers - Loss of services in small towns
First Nations sovereignty and power <ul style="list-style-type: none"> - First Nations are increasingly represented politically and are exercising their legal powers
Short-term/ day-to-day focus on municipalities versus long-term planning
Tangled political-socio-economic links in small communities increase difficulty in planning and decision-making

affecting the resource industry and environmental conservation and planning. In particular, while various forms of media and opinions from Southern residents were viewed as exerting enormous influences on resource development and management policies in the North, these Southern sources of influence were also perceived as being ignorant about the impacts and processes of primary industries such as mining and forestry:

It's hard for someone who's worked within and educated within an industry to really understand the biases that are out there. I'm sure there's a significant portion of Ontario that believes that clear cutting means the Fern Gully where all the little fairies are getting driven out of the forest...I bet you that movie had more influence over a significant portion of Ontario's perspective on forestry than any of our policy...Nobody cries when they drive past a cornfield at the end of the season and sees the corn cut down. It's funny how the emotional response to agricultural (is different). But maybe where the cornfield was, was a forest 80 years ago...that never grew back. There seems to be this big emotional response to forestry (PROVINCIAL10).

Southern environmental values and political processes also shape other conservation- and development-related policies in the North, such as the Green Energy Act, the Species at Risk Act, the recent forestry tenure reform and wood supply competition, the Growth Plan for Northern Ontario, and climate change policies and regulations.

There was also a general perception that in addition to a centralization of industrial processes such as a shift from mills in smaller communities to “super mills” in larger Northern urban centers (6.1.1.1 Economic driving forces), governmental processes are also being centralized to larger urban centers. This has resulted in a loss of decision-making power for small Northern communities for everything from education to health care, as well as a resultant loss of services. This sense of governmental abandonment is echoed by Markey et al.’s (2007a) study of new regionalism in Northern British Columbia and which notes the sense of governmental abandonment felt by many resource-dependent regions composed of small communities. Such abandonment is exacerbated by governmental policies which impact the economics of local communities. For example, in 2000 the provincial government removed Wawa’s municipal powers to tax the hydroelectric dams in its municipality, thus removing 48% of its assessment base from property taxation. While these taxes were replaced by an annual provincial grant, the province’s payment schedule of the grant has been variable and is viewed instead as a “handout”, the amount of which has also increased residential property taxes (Wawa-news.com, 2012b).

The political position and power of First Nations is also seen as a powerful driving force in the Northeast Superior region. While First Nations legal powers allow them to influence development activities in the region, (6.1.1.3 Social driving forces), First Nations consultation and participation is also required in political processes and policy development which involves or may impact traditional territories and First Nations interests.

However, while most political driving forces are seen as originating at the provincial, federal, and First Nations levels, aspects of municipal governance also act as important driving forces in the region. While many municipalities have lost decision-making powers due to governmental centralization, they still must provide various day-to-day municipal services, often with reduced property, business, and industrial tax revenue. This municipal struggle to stay afloat in the short-term often undermines long-range planning priorities.

Municipal politics in small, remote communities also involve a web of political, social, and economic interests and relationships which can result in challenges for planning and decision-making. For example, a Lake Superior waterfront site on Michipicoten Bay adjacent to the currently defunct port of Wawa was purchased by an American company and proposed as a site for a traprock quarry. This proposal included reopening the port of Wawa in order to ship out the traprock. Proponents of the quarry – including the Municipality of Wawa - cited the jobs and economic benefits that the project would offer, as well as the opportunities posed by reopening the port. Opponents noted environmental, aesthetic, and noise concerns for Michipicoten Bay, including the threat of invasive species from ballast water that would be released through increased shipping, impacts on tourism, and decreased values for waterfront homes. The assessment and planning process mainly took place at the municipal level and was then extended to the provincial level when opponents of the quarry (predominantly represented by the citizens' group Citizens Concerned for Michipicoten Bay) requested an environmental assessment of the proposed project from the Ministry of the Environment. Although the environmental assessment was not granted, the Aggregate Resources Act was extended to

an area including the proposed project site. Quarry opponents who were concerned that the Aggregate Resources Act did not provide adequate protection, requested an amendment to the Wawa Official Plan which was rejected by Council. An appeal of this Official Plan amendment rejection was taken to the Ontario Municipal Board by the Citizens Concerned for Michipicoten Bay, with the OMB deciding in favour of the Municipality (CCMB, 2012). Overall, participants involved in the conflict over the traprock quarry (particularly the project's opponents) criticized the municipal planning process for the perceived personal links between members of municipal government and quarry managers, as well as personal attacks between supporters and opponents of the quarry. These conflicts in municipal planning have a greater impact in small, resource-dependent communities than in larger centers due to the interconnected nature of such towns (6.1.4 North and South and Table 6.7).

6.1.2 Uncertainties facing the Northeast Superior region

Participants also identified many uncertainties that face the Northeast Superior region and that may shape its future (Table 6.5). Several of these uncertainties overlap with the economic, ecological, social, and political driving forces identified by participants above and, similarly, some uncertainties offer potential benefits and drawbacks.

Many uncertainties identified by participants fall under the economic uncertainties inherent to resource-dependent regions and resultant boom-bust cycles. There was great uncertainty about how both domestic and international economies and markets would impact forestry and mining, as well as how the region could compete with

Table 6.5: Uncertainties facing the Northeast Superior region	
Economics	<ul style="list-style-type: none"> - Uncertain economies and markets, especially for forestry - Long-term stability versus boom-bust cycles - Competition with domestic and international wood and mineral suppliers which have lower costs
Forestry	<ul style="list-style-type: none"> - When, how, and if the forestry industry will return - The future uses of wood: traditional sawmills, pellets, biomass, conservation, value-added products? - Whether forestry will be able to establish itself outside of traditional staple industries - Land use stability and fibre availability - How tenure reform and wood competition will play out. What it will mean for smaller producers
Mining	<ul style="list-style-type: none"> - Market prices - Whether there will be a new, big find in the region (E.g.: gold, diamonds) - Where Ring of Fire processing will occur
Reliance on boom-bust cycle	<ul style="list-style-type: none"> - Associated financial uncertainty - The future of resource-dependent communities once the resource has closed
Uncertainty about emerging forest-based industries and the biosector	<ul style="list-style-type: none"> - What regulations will be in place in the future - Whether it will be profitable - Changing technologies and in which technology to currently invest - How competing jurisdictions will adapt to transition in forestry - How and if carbon markets will play out
Resource availability and use	<ul style="list-style-type: none"> - Long-term resource availability – whether there will be a shortage of good quality, accessible wood - Whether wood is utilized for the best interests of the citizens of Ontario - Whether sufficient land and natural resources will be allocated to conservation purposes (versus economic interests)
Social	<ul style="list-style-type: none"> - Outmigration <ul style="list-style-type: none"> o Whether workers will come back to the region when/if forestry re-emerges

<ul style="list-style-type: none"> ○ How to maintain a community, social networks, and effective governance if towns are slowly being choked off. ○ How can the North grow with no youth left? - How population and age cycles will affect the region <ul style="list-style-type: none"> ○ How an aging population will impact the region. ○ What healthcare demands and gaps will be in the region (Ex: shortages of doctors, special services, long-term care beds)
<p>Social conflicts</p> <ul style="list-style-type: none"> - Whether/how land use planning and land access will result in increased conflict as resources become more scarce.
<p>First Nations</p> <ul style="list-style-type: none"> - Instability of First Nations communities due to ongoing negotiations and short election cycles - More stability needed for other industries and governments working with First Nations
<p>Politics</p> <ul style="list-style-type: none"> - Uncertainty about how committed provincial government is to reviving Northern Ontario - How policies that affect the North will play out - Uncertainty about whether new governments will change previous policies - Lack of clear direction from above for local MNR staff regarding the rules and policies they have to carry out - Uncertainty about when/if the cap-and-trade system will be adopted in Ontario regarding climate change
<p>Influences from other regions/the South</p> <ul style="list-style-type: none"> - How values from Southern and/or urban areas influence policy that impacts the North
<p>Ecological uncertainties</p> <ul style="list-style-type: none"> - Climate change and how will impact the region <ul style="list-style-type: none"> ○ What the changes in temperature, precipitation, and weather will be ○ How climate change will impact the region's forests (Ex: growth, precipitation, forest fires) ○ How climate change will affect boreal forest species and resultant impacts (Ex: If forestry is restricted to protect woodland caribou but that conservation work is undone by negative effects on populations due to climate change) ○ How climate change will impact water levels and resultant impacts on hydro industries, tourism, and aquatic species - Potential for pest outbreaks and invasive species

the resource products from other Canadian regions and foreign countries which may have lower costs of production. Specific to forestry, there were uncertainties about when, how, and even if the forestry industry would return to the region, what the most effective and profitable uses of wood would be in the future, whether the region's forestry industry would be able to produce non-conventional wood products, and how future fibre availability (or shortages), tenure reform, and the recent wood competition would affect the industry. While mining is currently seen as a more robust industry than forestry, there were also uncertainties about how changing markets might affect prices and developments, whether there would be a major mineral find in the region, and how or whether the region might benefit from the Ring of Fire development. Uncertainties regarding the boom-bust cycle so inherent to such regions focused on the associated financial uncertainty for governments and individuals, whether communities would continue to exist once the resource was depleted or removed, and if so, in what state.

In addition to traditional resource development, the emergence of the biosector and other new forest-based industries also pose an uncertainty. This includes what regulations will be in place in the future, when and whether these industries will be profitable, which technologies to invest in when surrounded by changing technologies and diverse opportunities, how and whether competing jurisdictions will transition to new forms of forestry, and how carbon markets will play out. There were also uncertainties about the availability of forest resources, potential shortages, whether forests are utilized for their best and highest use, and whether sufficient land and natural resources will be allocated to conservation purposes when there are increasing economic demands on them.

The transitions being experienced by the Northeast Superior region also leads to social uncertainties. These include the outmigration of skilled workers and youth, whether these residents will return to the region if industry is re-established, and how to maintain and grow a community and the North itself - as well as associated social networks and governance processes – if population, incomes, and tax bases continue to decline. Participants also identified uncertainties surround the aging population, how it will impact the region, and what healthcare demands and gaps will develop as a result. The links between land availability/access and social conflict were also identified, particularly whether conflicts over land will resolve themselves or whether they will increase as resources become more scarce.

Political uncertainties are also evident. While the political and legal power of First Nations is seen as an increasingly important driving force in the region, these communities also experience great insecurity due to ongoing treaty and land negotiations. For example, since Hornepayne First Nation and Missanabie Cree did not sign treaties and were not allocated reserve lands, they are currently in negotiations to establish a home reserve (5.2.1 First Nations history in Northeast Superior region). Band elections also take place on a two-year cycle (as opposed to a four-year cycle for municipalities), thus eroding political stability experienced by the communities. Further, some participants identified the need for a more stable and clear process for industry and government to work with First Nations governments.

Other political uncertainties centered on the relationship between the Northeast Superior region and the provincial and federal governments. There was doubt about whether the provincial government is committed to revitalizing Northern Ontario, its

industries and communities, and how policies that impact the North (such as those identified in 6.1.1.4 Political driving forces) will affect the region. Many participants also noted that a change in government frequently results in an alteration of policies, thus leading to doubts about whether current policies will remain in effect after an election. Specific to the MNR, it was also noted that while local MNR staff are tasked with carrying out policies and regulations, there can be a lack of clear direction from higher levels about how to effect this. Finally, doubt was expressed about when and if a cap-and-trade system will be adopted in Ontario and its ramifications for the forestry industry and emitting industries. The role of other regions – particularly Southern and/or urban regions – and how their environmental, social, and economic values will shape Northern policy was also seen as an uncertainty.

The majority of ecological uncertainty revolved around climate change. This included how climate change might impact temperature, precipitation, wind, and weather patterns, how these patterns will affect the region's forests (through factors such as low rain or snow fall, forest fire, high temperature, blowdowns, and erratic weather), and how impacts on forests might affect animal species. There were also uncertainties about how climate change might impact water levels and associated industries and aquatic species. The threat of pest outbreaks and invasive species – whether due to climate change or other factors such as increased shipping (6.1.1.4 Political driving forces) was also cited as an uncertainty.

6.1.3 Links between residents and the landscape

One of the most predominant themes that emerged in this research, particularly in regard to environmental planning, is the unique, special, and occasionally exclusive relationship that residents perceive themselves as having with the surrounding landscape. This reflects one of the defining aspects of new regionalism which is a focus on place, local context, and the natural and/or resource capital inherent to a region (Jackson et al. 2008; Markey et al. 2008a; Marsden et al. 2004; Wheeler, 2002).

Participants brought up clear linkages between the landscape and economic activities such as forestry, mining, tourism, and other industries (Table 6.6). They also saw linkages between the landscape and the ecological health of animal, fish, bird, and plant populations. Beyond these themes however, participants exhibited a strong sense of place when it came to their interactions and relationship with the landscape. The concept “sense of place” can be defined in many ways but according to Williams and Stewart (1998:19) and matching with the views of participants in this research, “sense of place” can include the following dimensions: “(a) the emotional bonds that people form with place (at various geographic scales) over time and with familiarity of those places; (b) the strongly felt values, meanings, and symbols that are hard to identify, know, or quantify, especially if one is an “outsider” or unfamiliar with the place; (c) the valued qualities of a place that even an “insider” may not be consciously aware of until they are threatened or lost; (d) the set of place meanings that are actively and continuously constructed and reconstructed within individual minds, shared cultures, and social practices; and (e) the awareness of the cultural, historical, and spatial context within which meanings, values, and social interactions are formed”. Further, it is acknowledged

Table 6.6: Perceived links between residents of the Northeast Superior region and the landscape

Economic

- Natural resources
- Tourism
- Emerging forest-based industries/non-timber forest products
- Cottaging

Ecological

- Importance of ecological health of landscape and animal/plant populations

Lifestyle and culture

- Lifestyle
 - o Desire to spend time on the land, have easy access to hunting, fishing, hiking, and recreation
 - o Lifestyle and livelihood sometimes tied to the same place
 - o The landscape and their activities on it can be a major defining aspect of residents' identity
- Cultural links to landscape
 - o First Nations have cultural links to landscape
 - o Non-Native cultural relationships with the landscape.
 - Inspires art (E.g.: Group of Seven Algoma paintings)
 - Inspires music
 - Photography
- Learning from the land
 - o Family connections to the land – elders teach their children and grandchildren about the land, accessing it, fishing, etc.

Sense of ownership, entitlement, identity

- Sense of ownership/stewardship
 - o Partly due to the large amount of Crown/public land, and partly due to residents' regular use of it
 - o Related to a love of the landscape and a desire to maintain the activities residents carry out on it.
- Feeling of entitlement to the land
 - o A feeling of belonging in the landscape, but also of entitlement to and ownership over the landscape and its resources.
 - o People get possessive about certain aspects of the land (Ex: "My" lake)
 - o Enjoying the landscape as a resource-taker. The recreational and spiritual connection residents have to the land is largely utilitarian
- Connection to the land as a reflection of self-sufficiency
 - o Resource-taker mentality in the North (vs. the South). Perception that all residents learn to hunt, fish, and support themselves using the land and water
 - o Lifestyle and sometimes livelihood is tied to the land.

- Landscape as a defining aspect of Northerners' identity
 - o Difference between how people who grew up in the region identify with the land and how those who come to visit identify with the land.
 - o Links to landscape for recreation and whole lifestyle. Perception that this kind of lifestyle is more true, genuine, and "real"

Affection for, and belonging to, the landscape

- Love – Affection for the landscape, forests, waters, creatures
 - o Frequent comments by participants that "Secretly, I'm a tree hugger"
 - o A sense that this connection to the landscape (both utilitarian and spiritual, including obtaining/killing your own food) is a more genuine experience of life
 - o Links between space, nature and spirituality
 - o Resource-taker activities like hunting, often seen as an excuse to get onto the land
- Closer to/more in tune with natural processes
 - o Utilizing natural resources - including animals – is viewed as a more humane way of life than getting meat from slaughterhouses where you are disconnected from natural processes
 - o A feeling of belonging in the landscape, but also of entitlement to the landscape and its resources
 - o Links to landscape for recreation and whole lifestyle. Perception that this kind of lifestyle is more true, genuine, and "real"
- Feeling of belonging/of "finding your place"
 - o Links to landscape for recreation and whole lifestyle. Perception that this kind of lifestyle is more true, genuine, and "real"
 - o Space, nature, and spirituality seen as linked

First Nations links to the landscape

- First Nations have link to landscape that is distinct from Settler communities
- Planning in regions that involve First Nations interests and territories also involves a spiritual relationship to the landscape and to history that goes beyond the scale of most Settler society landscape relations and historical ties to the land

The physical landscape

- Physical landscape as limitation (of growth, development, travel, etc.)
 - o Growth of towns (like Wawa) limited by the physical landscape around it
 - o Influenced by a landscape-driven transportation network
- Viewing the landscape as full of limitless resources
 - o No sense of resource or landscape limits
 - o Water is especially viewed as limitless
- Remoteness and space
 - o Appreciation of space, remoteness, and ability to use the landscape with no other people present
 - o Connection between nature, space, lack of disturbance, and spiritual practice

- Water/Big water
 - o Connection with Lake Superior is an integral aspect of some communities' identities (E.g.: Wawa)
 - o Water, its importance, and significance as part of the region's identity
 - o Recreational opportunities (fishing, kayaking)
- Natural heritage
 - o Water, its importance, and significance as part of the region's identity
 - o Beauty of the natural landscape and its role in the psyche of the region – Highway 17 from Sault Ste Marie to Wawa is “claimed” as belonging to Wawa

Spiritual connection to the land

- Space, remoteness, nature, and spirituality seen as linked
- Utilitarian connections to the land are also partly spiritual
- Planning in regions that involve First Nations interests and territories also involves a spiritual relationship to the landscape and to history that goes beyond the scale of most settler society landscape relations and historical ties to the land

that views of a landscape user's “self” can grow out of and interact with their perceptions of, and their relationship with, their environment (Cantrill and Senecah, 2001)

In the Northeast Superior region, participants viewed their relationship with the regional landscape as a major defining aspect of their identity as individuals, as a community, and as a Northern region. This identity is shaped by the desire to spend time on the land, the convenient opportunities that residents have for accessing the land, and the perception that residents are living off the land by hunting and fishing (whether those activities are undertaken recreationally or more intensively). This is combined with cultural ties to the land which include First Nations cultural links and non-Native cultural links such as art, music, and photography. Together, these aspects shape the identity of many participants as “Northerners”. However, this relationship is not seen as being extended equally to all residents – many participants saw differences between those born in the North versus those who moved to the region as adults:

I think that folks who live in the region, the Northeast region - Timmins and Wawa and those places - I think there's a majority of them that are long term residents that were born here or grew up here or were born in a similar place and move to a similar place. People that very much choose to be here. Some of them choose to remain here. Others don't have the flexibility to move. But I think the people who are long-term residents...I think the landscape and the area and the landscape and the wetlands, it's part of what defines them. The people. Inherent, like inside themselves - "I *am* from here. And I very much associate all different facets of my life with this setting". That's opposed to the dichotomy of people from Toronto where there's 18 lanes of pavement and crazy things happening and what are often vastly different world views. (Then) There's the 30% of people like me, where we're like "I'm kind of from here". I think I appreciate a whole ton of things about the area. And there's a whole ton of things I don't really appreciate. And I try out a whole different bunch of stuff and I move around and so, maybe I'll be pretty happy to have a big movie theatre and lots of pizza places and little summer soccer clubs for my daughters to play in, but I'll be driven crazy by other facets of urban (life)...So I think there's some chunk of people who live here that aren't long-term residents and aren't planning to be and they probably have a different relationship with the setting. (PROVINCIAL7)

Therefore, the concept of "Northernness" is an important defining feature of regions such as the Northeast Superior region. In this case study, "Northernness" appears to be defined by a tightly linked, ownership/stewardship relationship with the landscape which results

in greater self-sufficiency than could be achieved in a Southern or urban region, while conversely experiencing greater dependence on resource-based industries than other regions. What constitutes “the North” however, remains extremely subjective. Mulvihill et al. (2001: 613) point out that “the Canadian North is arguably a psychological” and “a self-defined place”, with residents as far south as North Bay considering themselves Northerners (something that many residents of the Northeast Superior region would likely dispute, based on the inter-regionally connected and urban nature of North Bay). However, this tendency highlights not only the draw to self-identify as a Northerner, but also raise it as a flag of Northern exceptionalism, especially when compared to Southern regions (Mulvihill et al. 2001). Remote, northern, resource-dependent regions undoubtedly possess distinct needs and characteristics based on their geographical traits and location, remoteness, the nature of their communities and livelihoods, and their links to the landscape. However, it should also be noted that the sense of Northern exceptionalism which has been forwarded by these regions also serves a certain self-interest by putting forward such regions and their peoples as being a “special” place with special needs that must be fulfilled by government, industry, and society.

Participants also saw the landscape as providing an intergenerational continuity and a canvas on which interpersonal relations can play out:

There’s a desire for people my age to take their grandchildren out. My granddaughter is the big hunter and fisher. So we’ll spend lots of time out there, learning and doing (FORESTRY2/TRAP2/NGO1).

This sense of identity is also influenced by the predominant *type* of landscape in the region – namely Crown land – which many participants saw belonging not simply to the citizens of Ontario, but primarily to the residents of the region. This is supplemented by the important lifestyle and cultural benefits discussed above that the landscape provides. This is notable among participants who are involved in resource industries, with the literature describing how those who operate or manage systems on a day-to-day basis (E.g.: loggers, dam operators) frequently view themselves as resource stewards (Getz et al. 1999, Lee, 1999). However, the sense of stewardship that many participants felt for the region’s landscape can easily slip into a sense of entitlement. This is augmented by type of landscape use and whether the user is viewed as “resource-taker” or a “resource-protector”. In particular, those who adopted a more utilitarian view of the landscape as a site for resource extraction (i.e. forestry, mining, hunting, fishing) espoused a greater sense of entitlement to the landscape than those who advocated a more conservationist approach:

We probably have more sense of ownership over the land - in that it being ours - to us than people who are surrounded by private land. Whether or not people actually understand what their rights and responsibilities are is more uncertain. Nobody would drive to the Lafarge site and take gravel because it’s theft but people would take gravel from a pit here (on Crown land) and not think of themselves as a criminal. So do we have too much of a sense of entitlement to our resources? Probably. Similar to people are ok with poaching or push the limit when it comes to utilizing the landscape. We’re one of the few places where you

can get a firewood permit for Crown land. That impacts our relationship with the resource (PROVINCIAL10)

I think there's some degree of spiritual connectedness with some special areas in the region but it's very utilitarian – you go to get your wood or shoot your grouse, not going for a walk in the woods. There's a user element of it. There are people who love to ski or walk but for a lot of people you always have to get something back for the time you put in (PROVINCIAL2).

Some of my friends say “We'll be happy when the mine closes and there will be less people in the bush”. People get really possessive. There's lots of “My Lakes” around. There's actually one on the map that's called “My Lake”. People don't like to share their landscape with people from Toronto but you have to if you're going to survive. (FORESTRY2/TRAP2/NGO1)

At the same time, this connection to the landscape is also viewed as a mark of self-sufficiency, something that is vital in more remote communities:

We have no choice. If the power goes out in Toronto for 5 hours, everyone's fine. If the power goes out for 5 hours on James Bay coast, all the pipes blow out. So you have to be prepared and worry about those things. It's a more frontier mentality (PROVINCIAL2)

Therefore, this intimate and frequently utilitarian relationship with the land, forests, and water of the region is viewed as a defining feature of the identity of Northern residents, especially when compared with the perceived links that Southern residents have with their landscape and associated natural processes:

...That's why I moved North, is that it hit me one day sitting in class in university - "Our forefathers would roll in their graves if they'd seen what we've become for the most part". We're become this very pampered, dependent society. You know, you just look at major cities down south - if you lost hydro in a large population center for a two week stretch - let's say a cold stretch - you've got a massive, massive problem, right? You've got people who just don't know how to live, people who don't know how to survive because that's the way it's structured. We're very dependent on systems that are beyond our control, like electricity supply, water supply, septic and sewage...it would be mass chaos.... Whereas you look in the North here, we were without power for quite an extensive period this year. It's like nothing ever happened. And there's a few people lining up for gasoline for generators and stuff - it's not a big deal. Sure, if it happened (in Winter) it might be a little different, a little bit more of a worry, but people here are much more in tune with their natural environment in terms of people burn wood, they go out and they cut that wood themselves, they realize the value of that tree, it keeps them warm, it cooks their food, it heats their water, it washes their clothes...If we lost some of those critical support systems, most people in this town could survive quite easily. Where you take masses of people like that

and put them on support systems that they don't control, that they're dependent on, to me it's a recipe for disaster (PROVINCIAL3)

Deeply coupled with this sense of identity, lifestyle, and ownership, is a sense of affection for, and belonging to, the landscape. Many participants – both explicitly and indirectly – expressed their love for the region's forests, waters, and creatures. This was apparent even among participants who would normally be deemed "resource-takers". For example, one participant who was an avid hunter, angler, proponent of public access to Crown land, and opponent to MNR initiatives such as CLUAH admitted that "Secretly, I'm a tree hugger", then spent a great deal of time showing me skilled wildlife photography that he had taken, stating "This is what I love about Northern Ontario" and specifying that he didn't need to kill animals to enjoy them in the wild (FORESTRY6). Similarly, in opposition to the perspective above that the "resource-taker" mentality of the region requires that landscape users take something from the environment, another participant noted that:

I can go somewhere and it's just a nice place to go, without taking any resource out. Just looking or driving around. I don't know people see it as that, but that's what it is. There's a lot less hunting for the goal of getting a moose than it is for getting out. That's a big change in the last 10 or 15 years....That resource consumption has changed and I think that spirituality and spiritual connection to a place is bigger than we ever thought it would be (FORESTRY2/TRAP2/NGO1).

This affection for landscape also conveys a deep sense of belonging and sense of place to participants, as well as the feeling that they are more aware of, and in tune with, the natural processes that sustain human life. This includes the perception that residents in the region experience a more “true” and genuine lifestyle and relationship to their surroundings than those in Southern and urban areas:

Certainly our citizens are intimately tied to their surroundings which I think is a fundamental deviation from how folks in the South in urban areas live, going back to that Nature Deficit piece. You ask most children (in the North) where the garbage goes when they put it on the street and I’ll guarantee you they know. You ask them where the water comes from when the tap gets turned on and I guarantee you they know. So I would say...the people that live here are a lot more in tune with their natural environment that surrounds them... We are *intimately* tied to our landscape in terms of our jobs, in terms of our recreation and our leisure time, in terms of our children, in terms of everything we do. And I think with that, comes a huge degree of respect (PROVINCIAL3).

(People from other, non-Northern areas) have to go in with their eyes and minds open, and have to want to learn and explore. Barriers against people because they’re a hunter are unhelpful. Same with Northerners – can’t say “You’re a treehugger or naturalist” and write them off. Every word you use for those people are wrong because we’re the treehuggers, we’re the naturalists. Environmentalists have to come in with their eyes open and learn. Hunting and slaughterhouses are

not always a pretty sight and they shouldn't be, but they serve their purposes...I know my spot in the world and my spot on the food chain (FORESTRY6).

The First Nation relationship to the landscape was also seen as one comprising culture, spirituality, utility, identity, and belonging, but was viewed by all participants as distinct from the relationship experienced by Settler society. In particular, the First Nations-landscape relationship was seen as having both a historical and legal basis which was not held by other residents of the regions.

Participants also noted that the physical landscape itself provided both limitations and benefits to the society and economy of Northern regions. For example, some participants noted that the physical landscape itself dictated the location and extent of transportation networks such as highways or constrained the development of certain towns. A common theme was also the view – whether expressed or critiqued by participants – of the landscape as possessing limitless resources, most notably forests and water:

Water is not something that's appreciated. It's hard to. This town (Chapleau) used to get rid of its garbage by just pushing it on the ice every winter and waiting for it to melt. This area only got settled about 100 years ago so they always felt that this area was limitless in resources. That's just the mentality that people live with. If you don't want a battery you huck it in the lake. You're dealing with the legacy of natural abuses. It's like Wawa – no one objects to the fume-kill zone because of the blueberries there (PROVINCIAL2).

This perception of limitless resources is partly engendered by the sense of space and remoteness that participants felt was an asset to the region. In particular, while the Northeast Superior region is several hours drive to any urban amenities, participants expressed appreciation for the space, isolation, remoteness, and proximity to underused natural resources such as hiking, swimming, fishing, and hunting opportunities. The ability to leave a residential area and access outdoor recreation with little chance of being disturbed was seen as an important feature of the region:

Lots of spiritual connection between the people and what's out there. We can be sitting on a lake, my buddy and I, and he'll say "Did you hear that?" And I'll say 'What?' And he'll say "Nothing. It's just quiet." (FORESTRY2/TRAP2/NGO1).

At the same time, the distances between communities and sites in the region influences residents' sense of space and place, giving them a greater regional identity than might be found in Southern areas in which a region is composed of multiple towns, cities, and natural features:

I would drive to Katherine's Cove to go swimming and there are other people who if they drove 45 minutes, they would leave their country in other parts of the world. Our spatial relationship is totally different. We don't live on top of each other and we're used to being by ourselves in nature (PROVINCIAL10).

Similarly, the vastness and importance of the region's waterways also plays an important role in residents' identity. This is particularly so in the case of Lake Superior which is often spoken of as an inland sea and possesses a spectacular, rocky coastline. Though natural heritage was not always explicitly spoken of by participants, it also emerged as a major theme in the region's link with its surrounding landscape :

On a regional basis we identify ourselves – and this may be more a social thing – but our whole history, from 1150 BC, was based only because of our waterways. We were here as a First Nations community and then in time as a very important port for the Hudson's Bay trading post and all that because of the water. So we identify ourselves that we are *on* Lake Superior, we are *on* the North Shore of Lake Superior. All the rivers that flow here come from either Hudson's Bay or the other Great Lakes so we have a bit of a psyche about our water, right?...And that drive from Sault Ste Marie to Wawa we (Wawa) try to claim as our own...We feel proud of that...Just that scenery, the beauty of the scenery itself is very important, I think probably to the region as a whole. And just one example would be how hard many fought against the traprock project moving forward to maintain that beauty along Lake Superior...You know we value – although we're not overt about it – we value our natural heritage and culture and history. We really do, although I think from an economic development perspective we haven't taken advantage of it like many, many communities have. But people value their heritage (MUNICIPAL5).

Finally, as indicated above, participants noted a strong spiritual connection to the landscape. This was based on the meditative opportunities offered by being alone on the water or in the forest, the utilitarian connections that participants felt brought them closer to the natural processes that sustain them, and the unique historical spiritual links that First Nations experience with the use of and relationship to the landscape and its various organisms.

6.1.4 North and South: Perceptions of Northern Ontario and resource dependence versus Southern, urban regions

Themes also emerged about the Northeast Superior region as being representative of other Northern regions – particularly Northern Ontario a whole – and distinctive from Southern Ontario and urbanized regions (Table 6.7). While participants felt that there was a need to be more proactive about starting new initiatives and projects in the region –

Table 6.7: Perceptions of residents of the Northeast Superior region about Northern Ontario and resource dependence
<p>Needing to be proactive about new initiatives</p> <ul style="list-style-type: none"> - Tendency for Northern regions to respond to crises as they happen versus plan for uncertainty (or certain downturns) - Self-sufficiency of Northern regions viewed as an asset in entrepreneurship - Tendency for resource-dependent communities to look for the next “saving” industry - Significant opportunities for growth in the future. Need to value current assets
<p>Northern identity versus Southern identity</p> <ul style="list-style-type: none"> - Acknowledgement of dependence on natural resources and processes - Perception of “resource-taker” mentality in the North, versus “resource-protector” mentality in the South

<ul style="list-style-type: none"> - Lack of understanding from the South about the North's needs, priorities, industries, and values - Perceptions of environmental groups <ul style="list-style-type: none"> o Mistaken view of the South that environmental groups represent the North o Perception that Southern environmentalists want to see Northern Ontario as "one big park" - Policy and direction from Southern Ontario not appropriate for Northern regions. Importance of context specific planning and decision-making - Perception of Southerners in the North – either never understand the region or are won over quickly.
<p>Perceptions of being a Company Town</p> <ul style="list-style-type: none"> - Misperceptions of resource industry by outsiders - Tendency for the region and its communities to always look for the next saving primary industry. Difficulty picturing other futures
<p>Perceptions about resource dependence</p> <ul style="list-style-type: none"> - Continual expectation that industries like forestry will return (even by those who claim they know forestry will never return to its previous state of prosperity) - The battle between tourism and/or conservation versus resource extraction - Boom-bust cycles associated with resource-dependence and resultant uncertainties about the future of the region and its communities. - Resource-dependent communities are not homogenous – there are distinctions among forestry, mining, and rail towns. - Questioning how much effort should go into saving resource-dependent communities
<p>Urban North versus rural North</p> <ul style="list-style-type: none"> - Difference in attitude, resources, and lifestyle between urban and rural North

as well as there being ample opportunities for new endeavours – a major theme revolved around what constituted a Northern identity and how a history of resource dependence has impacted, and continues to impact, the region.

In particular, participants – both those originally from the region and those that moved to the region – saw themselves as possessing a distinct Northern identity, especially when compared with Southern and urban regions (with most participants agreeing that Sudbury or the French River delineated the boundary between North and South). As mentioned above (6.1.3 Links between residents and the landscape), part of

this identity revolves around what is perceived to be a more significant, more genuine link to the landscape and supporting natural processes. This identity is also reflected in the view of Northerners as “resource-takers” and Southerners as “resource-protectors”, leading to perceived conflicts of interest. However, as demonstrated above (6.1.3 Links between residents and the landscape), these distinctions are not necessarily clear-cut nor accurate. Further, despite participant acknowledgements that there is the potential for some degree of understanding between Northern and Southern people, participants also felt strongly that there was an ignorance of the values, priorities, industries, and needs of the North from the South and its decision-making agencies and governments. This included a lack of knowledge about the geographical limitations of the region, such as the large distances between towns or to specialized healthcare. Similarly, despite some participants’ exhortations above that Northerners not write off environmental groups simply as “tree huggers”, there were concerns that environmental groups which are frequently based in the South, were mistakenly seen by urban inhabitants as representing the interests of the North:

Environmental groups seem to, in the public’s eye, represent the North. They’re the saviour of the North. They’re almost in direct opposition to anything the North really wants. But in the major public’s view, when Suzuki gets up and speaks...he’s *representing* the North as a saviour. (NGO3/FORESTRY4)

Participants also expressed the perception that environmental organizations do not have an accurate perception of how society functions in Northern regions, Ontario’s

dependence on the natural resources produced in the North, and the associated importance of – and threats to – viable communities in the region:

Many environmentalists in Toronto would like to see Northern Ontario as a big park that's set aside for people from Southern Ontario. They don't see it as being an area where people should really live. However, there are many natural resources up here that really need to be taken advantage of and you can't do that if you don't have communities up here. I know that it's very expensive for the province to help maintain the infrastructures up here. It's certainly not cheap. But really, if you're going to have mining, if you're going to have forestry and natural resources, then you need to (MUNICIPAL6).

Participants saw the result of this Southern misunderstanding as being inappropriate, insensitive policies and decisions which are unsympathetic to Northern contexts. Further, many participants resented that these policies were developed by decision-makers who may have never been physically present in the North:

We always get that complaint that it's a made-in-Southern Ontario solution and it doesn't work in the North. We are different. When we go out and see how other communities do things, we see that how we plan and how we do things are certainly different from the South... You need people that are knowledgeable and compassionate when they deal with Northern Ontario issues. Sometimes when it's just a small group of people, it seems insignificant in the big scheme of

things...You're dealing with an environment that has it's own characteristics.
And you don't fight them. You understand them and you work with them
(MUNICIPAL3)

However, this North-South divide is also partially constructed by residents of the region themselves, particularly when it comes to Northern-born residents versus those who came to the region as adults. Again, this divide also mirrors the conflict between perceived "resource-takers" and "resource-protectors", as was demonstrated by the clash over the development of a traprock quarry on the Lake Superior shoreline near Wawa:

In our quarry project there, people can divide and draw a line...the people who are concerned about the big issue about environmental impacts and stuff, weren't born and raised here in Wawa. We're all from somewhere else and most of us have professional backgrounds, whether you're a dentist or a forester or whatever. Just come in with a different attitude. Cause we're being told by the mayors - the first two mayors, one who was a senior manager in the iron ore mine when it was operating here, the second mayor who worked briefly for the quarry company but grew up here - we basically were told "Wawa's a mining town, so butt out". And the type of thing where there's no way Toronto's going to tell them what to do up here. So you get that sort of attitude...Environmental-type people are not very prominent in this town... So the opinion about the forest tends to be biased toward the traditional fisherman and the hunter and people who work in the industry, and it's not really balanced off by the people concerned with the bigger

environmental issues. And that's where it tends to be the Toronto-type groups or maybe Northern Ontario in general, and they tend to be...well, they're not from here. Their opinion doesn't count (PROVINCIAL5/NGO4)

At the same time, some participants noted that while many Southerners do not exhibit an interest in understanding the North, many links are built with visitors or transient workers who choose to build more permanent roots:

...there are many, many people who have been here 15, 20, 25, 30 years, and they'll all tell you "Well, I came for 2 years"...People have come with the full intention that they're going to leave in a year or two and all of a sudden, something has happened to change that. And I can honestly say for most of them it's not economic – "Oh I can't go anywhere else". That's not the case, because of the people had opportunities all over the place. They chose – and you'll find it in other communities in the North – they chose to remain and it's a lifestyle thing (NGO2/FORESTRY3)

Another prominent theme surrounded the mentality of being a "company town" and perceptions of how a history of resource dependence has shaped the region. In particular, since the municipalities of the Northeast Superior region were all based on a single resource-related industry and have gone through multiple boom-bust cycles, participants noted that the region has a tendency to look towards the next major primary industry to "save" it economically. This mentality is also evident by the many participants who

expected the forestry industry to return – whether they explicitly stated it or not (See 6.1.1.1 Economic driving forces):

I see a big challenge with changing the way people think...We've been so dependent in history in this community (Wawa) on an industry. We had Algoma Ore, which you know in its heyday employed roughly 1200 people back in the sixties. They were on the decline, but they were well-paying jobs and about 250 people lost those jobs in 1997. And people here...are used to, or were used to working for a large corporation, a large employer. We didn't develop entrepreneurial skills. Some did, but I think overall speaking, we have a lot of training, education, and transitioning, in terms of making the community understand...(MUNICIPAL5).

This mentality has direct impacts on the quality of, and commitment to, long-range planning that occurs in the region:

The layout of the communities and the thought processes in the communities have to change, so we know where we want to go in the future...But the threat always is that you'll go downtown and see a diamond drill truck and you'll wonder who's drilling. Because once you have the miner's mentality, you're always thinking in terms of a Hemlo...or a Red Lake...It's changing now because a lot of mining people have left and the senior people aren't miners anymore. But with mining people, if we had a plan in Manitouwadge right now – and I know that we don't –

to bring us out 20 years, and tomorrow Xstrata said “We discovered a big, deep ore body”, I tell you all those plans would get thrown out the door so fast because the mining thing would take preference because it would bring high-paying jobs and money. And if the mine closed two years later because there was no market for it, somebody would say “Where’s that plan we had before?” (FORESTRY2/TRAP2/NGO1).

However, while the region’s capacity for planning has been influenced by its experience with boom-bust cycles, resource-dependence does not result in a homogenous region or communities. In addition to the conflicts and complexities between “resource-takers” and “resource-protectors” noted above and distinctive of a post-productivist landscape (Mather, 2011; Mather et al. 2006), some participants noted differences in culture among forestry, mining, and rail towns. For example one participant (FORESTRY2/TRAP2/NGO1) noted that when the industry is in operation, mining communities (such as Manitouwadge) tend to be younger with more transient populations versus rail towns (such as White River) or mill towns (such as Chapleau or Dubreuilville). As well, despite hopes for a new major industry, another theme surrounded the possible death of resource-dependent communities and the extent to which governments should work to save them (See Chapter Seven for a more detailed discussion).

Just as different resource towns are not homogenous, neither is Northern Ontario as whole. In particular, participants cited the distinction between the urban North (which includes cities such as Thunder Bay, Sault Ste Marie, and Sudbury) and the rural North

(which includes the communities of the Northeast Superior region). Participants portrayed a strong difference in attitudes, lifestyle, connection to the landscape, and economic and social resources available to the two settings:

If you go to Thunder Bay or Sudbury, they have an attitude towards Toronto that is “Why don’t they listen to us? It’s the big city...They do what they want and we get nothing”. If you’re in Manitowadge or Chapleau, your attitude is “Well, Thunder Bay and Soo are behaving exactly the same way that Toronto behaves to Thunder Bay and Soo”... So the fact that the North is quite divided in terms of its population centers is mitigating against that kind of cooperation. The cooperation is improving. I think people in the North understand that if we don’t, we’re never going to be heard. But you have little old Dubreuilville that probably doesn’t think that the Soo is helping them out a whole lot. (NGO2/FORESTRY3).

6.2 The Northeast Superior region as a case study for furthering the theories and framework of new regionalism and post-productivism

According to the literature described below and in Chapter 2, the Northeast Superior region provides an interesting case study to examine both new regionalism and post-productivism at work in a Canadian forest- and resource-dependent context. This is also demonstrated by the driving forces, uncertainties, and relationships to the landscape and to resource-dependence described by participants above. At the same time, this case study does not solely serve as a much-needed addition to explore these frameworks in a Canadian and Ontario context – it also highlights and fills some of the gaps in these

theories to make them more effective, meaningful, and accurate when applied to resource-dependent regions.

6.2.1 New regionalism in the Northeast Superior region: Building on theory

The Northeast Superior region is clearly a solid case study for new regionalism and exhibits all the hallmarks of this planning framework including a decline of government support, increased calls for local autonomy and decision-making power, increased local control over regional resources, a more bottom-up approach to regional economic planning, and a focus on the links between economic and social planning and development (Polese, 1999; Markey et al. 2007a; Markey et al. 2007b; Jackson et al. 2008; Markey et al. 2008b). As well, both participants' sense of place and their unique identity as "Northerners" echo the focus on place and local context which is so characteristic of new regionalism (Jackson et al. 2008; Markey et al. 2008a; Marsden et al. 2004; Wheeler, 2002).

However, a new regionalist approach also poses some contradictions for the region. As noted, participants and other local documents and movements have elicited calls for greater local autonomy and decision-making power for the region, greater control over natural resources, and a more bottom-up approach to regional economic planning as observed by multiple authors studying new regionalism (Jackson et al. 2008; Markey et al. 2007a; 2008b; Polese, 1999). These calls for greater autonomy have increased since the decline of the forestry industry but pre-date it - many participants mentioned (while not all agreed with this perspective) earlier advocacy for Northern Ontario to "secede" from Southern Ontario (OTHER GOVT1; FORESTRY6; MUNICIPAL5). Yet as noted

by Markey et al. (2007a), regions such as the Northeast Superior region also experience a true letdown and “hurt” by what they perceive as provincial abandonment when they are at their most vulnerable. Therefore, while their relationship to the South is often verbally described as “us versus them”, there are also implied expectations and links between the two regions that are not explicitly acknowledged by the new regionalist literature.

Further one of the characteristics of new regionalism is described as an increasingly spatial approach - rather than a sectoral approach - to planning and development (Markey et al. 2008a). However, despite attempts at defining itself as a region, the Northeast Superior region continues to be subject to a sectoral approach to planning. This is not necessarily the choice of local residents or local government. Instead it is a relic of provincial and federal agency- and ministry-based approaches to planning which continue to dominate resource-dependent regions.

One criticism of new regionalism is that it “lacks a deeper understanding of the complex processes out of which regions are historically constructed, culturally contested and politically charged” (MacLeod, 2001: 822-823). Further, as mentioned by several authors (Macleod, 2001; Morrison and Lane, 2006), current approaches to new regionalism also result in an over-simplification of resource-dependent regions and thus, planning approaches built upon these assumptions will miss important nuances and characteristics upon which planning can succeed or fail. For example, new regionalism acknowledges the increasing role of First Nations, their interests, and their political rights and powers in a more bottom-up approach to planning and governance for resource-dependent regions (Jackson et al. 2008; Markey et al. 2007a), with this sentiment also reflected by participants (See “6.1.1 Driving forces impacting the present and future of

the Northeast Superior region” and “6.1.2 Uncertainties facing the Northeast Superior region”). However, there is little discussion in the new regionalism literature of the historical, political, and social factors that have impacted Aboriginal populations in these regions to such an extent that they are only now beginning to come into their own economically, politically, and socially, as well as the division between Aboriginal and Settler communities which continue in resource-dependent regions (See “5.2.1 First Nations history in the Northeast Superior region” in Chapter 5 for an outline of how these factors impacted First Nations in the Northeast Superior region).

The supposed homogeneity of regions is another oversimplification in new regionalism. Undoubtedly, there are deep similarities in circumstances and context among the communities of the Northeast Superior region. In fact, some participants noted a pan-Northern culture which they felt linked them more closely to other residents of Northern Ontario and even to residents in the northern parts of other provinces, compared to residents of Southern Ontario (MINING1; MUNICIPAL1). Furthermore, the major divide which Markey et al. (2007a; 2008a) document in their studies of new regionalism in Northern British Columbia - that is, of the divide between “North” and “South”, or urban and rural - is certainly at work in the Northeast Superior region as well (See 6.1.1 Driving forces impacting the present and future of the Northeast Superior region, 6.1.2 Uncertainties facing the Northeast Superior region, and 6.1.4 North and South). At the same time, the region contains a heterogeneity which must be taken into account in planning. An example includes the conflict between so-called “resource-takers” and “resource-protectors” outlined above. While this diversity of values alone is a good example of the heterogeneity that can be found in a supposedly cohesive region, there are

further facets to it. For example, while it is true that many participants who were identified - either by themselves or by others - as “environmentalists” or “conservationists” were originally not from the region (and were predominantly from Southern and/or urban areas), the majority of these participants have been long-term residents of the region and have committed themselves to their community, to the region, and to the “North”. Further, it was demonstrated (See 6.1.3 Links between residents and the landscape) that many “resource-takers” proudly identify themselves as “tree-huggers”, a term that they simultaneously use as a disparagement to “environmentalists”. There is also little acknowledgement of the distinctive history and context of Aboriginal and settler communities within a region. In addition, while the communities of such a region likely developed around a natural resource, the *type* of resource, its potential for renewal (such as forestry compared to mining), and hence the type of community that gathers around the resource, can result in subtle but important differences within a region. Finally, participants also saw a very clear distinction between the rural North and the urban North (See 6.1.4 North and South: Perceptions of Northern Ontario and resource dependence versus Southern, urban regions).

While current discussions of new regionalism recognize the importance of natural resources and natural capital, as well as the links between economic and social driving forces, there is also an insufficient recognition of ecological driving forces and their impact upon the economic and social components of a region. While Wheeler (2002) contends that new regionalism features equity and environmental concerns alongside social and economic ones, this gap is evident in much of new regionalist literature (MacLeod, 2001; Markey et al. 2008a; 2008b; Marsden et al. 2004; Norris, 2002). This

relegation of ecological driving forces to the bottom of the list is also an oversimplification of resource-dependent regions and their inhabitants. Indeed, while participants often viewed economic driving forces as being the most powerful factors impacting their region and communities, with many social driving forces stemming from them, ecological driving forces and uncertainties were viewed as intricately linked with the economic, social, and political aspects of the region (See 6.1.1 Driving forces impacting the present and future of the Northeast Superior region, 6.1.2 Uncertainties facing the Northeast Superior region, and 6.1.3 Links between residents and the landscape).

In fact, while new regionalism does explore the links between economic and social development within a particular political context, there is insufficient exploration of the relationship between the social, economic, ecological, and political. These separations are also evident when it comes to different industries and regional forms of planning and governance. Indeed, it must be remembered that while the Northeast Superior region is delineated by the membership of the Northeast Superior Forest Community, the Northeast Superior Regional Chiefs Forum, and the Mayors Group, the region is not regarded as a jurisdiction and is far more notable for the multiple boundaries that bisect it and the multiple forms of planning that take place within or overlapping with it (See 5.1 Geographical Description of Northeast Superior region and 5.5 Approaches to long-range regional planning in the Northeast Superior region in Chapter 5). At the same time, many participants were well aware of the relationships involving the ecological, social, economic, and political. This awareness goes beyond links between lifestyle (such as easy access to high-quality and remote hunting, fishing, and hiking), and includes a keen

awareness of the dependencies between ecological health and economic prosperity based on resources such as forestry or hydro electric generation. For example, this awareness was emphasized by the Michipicoten River Standing Advisory Committee's reaction to the low water level and flow conditions of Summer 2010 (See 5.5.2 Water resources planning and management in Chapter 5). This is not to romanticize local people as the true and appropriate "custodians" of nature – some participants had inaccurate perceptions of regional natural resource limits. However, if the Northeast Superior region provides a typical case study of new regionalism at work in a resource-dependent area – as I have established it to be - it does demonstrate that ecological driving forces must be *explicitly* incorporated into new regionalism with the same priority that is allocated to social and economic driving forces, *especially* when discussing new regionalism in the context of resource-dependence.

6.2.1 Post-productivism in the Northeast Superior region

The Northeast Superior region also offers an excellent case study for demonstrating the shift from productivism to post-productivism. The municipalities of the region were all developed around a primary industry (whether forestry, mining, and/or rail), leading to a long-standing dependency and emphasis on a productivist forest and landscape. This productivist reliance on primary industry has not necessarily been completely transformed – indeed, many participants identified the mining industry and hopes for a forestry industry recovery as important driving forces for the region (See 6.1.1.1 Economic driving forces). However, when it comes to policy, planning, resource management, and governance decisions, there has clearly been a shift in *emphasis* to the

multiple values which are characteristic of post-productivism (Mather et al. 2006). Furthermore, while some have questioned whether the shift to post-productivism in agriculture is real or not (Wilson, 2004), it has been demonstrated that this transition is clearer in forestry (Mather, 2001; Mather et al. 2006), an assertion that the case study of the Northeast Superior region supports. This movement is even more apparent in forestry in Ontario due to the predominance of Crown land whose planning necessitates meaningful public consultation and the balancing of multiple values.

According to the definitions and dimensions characteristic of post-productivism in the literature (Reed and Gill, 1997; Mather, 2001; Mather et al. 2006), the Northeast Superior region appears to fit these criteria on many fronts. There has been a definite shift in emphasis from a single, dominant resource industry to multiple, diverse economic, social, cultural, and ecological values in the forest. This shift is evident at various levels of governance. For example, while the Northeast Superior Forest Community and the leaders of its member communities support major resource developments such as mines and mills, they have also moved greater focus to encouraging and growing non-conventional non-timber forest product industries such as wild blueberry plantations and Canada yew. As well, they have also supported and developed larger emerging forest product projects such as the Rentech Inc. project in collaboration with White River, Pic Mobert First Nation, and Pic River First Nation for manufacturing jet fuel from biomass (See 5.4.2 Conventional and emerging forest products).

This shift to multiple values is also evident at higher governance levels. For example, Ontario's *Forest Tenure Modernization Act, 2011* (OMNDMF, 2011) involves the development of Enhanced Shareholder Sustainable Forest Licences (SFLs) which can

include a group of mills and/or harvesters that collectively form a new company to manage Crown forests under the Sustainable Forest Licence that is issued to them (ForestTalk, 2011). This reform is meant to encourage multiple uses of the same forest and can include both conventional forest products such as sawboards or oriented strandboards, as well as non-timber forest products. It also supports the involvement of smaller producers and businesses, as well as local and Aboriginal people in the same SFL as larger forestry companies (Policy Monitor, 2011). This has resulted in the formation of Local Forest Management Corporations, with the first one in Ontario being established in the Northeast Superior region. The purpose of the Nawiinginokiima Forest Management Corporation – which includes the Nagagami Forest, White River Forest, Big Pic Forest, Black River Forest, and the Pic River Ojibway Forest – is not only to better respond to timber demands and prevent “hoarding” of timber by companies which were not utilizing the fibre, but also to ensure that local community leaders get a say in how forestry is conducted (TBNewsWatch in The Working Forest, 2012; The Working Forest, 2012).

Other forums for public participation in environmental planning - such as Local Citizens Committees for forestry and the Michipicoten Standing Advisory Committee for hydroelectric generation – also ensure that various social, cultural, ecological, and economic interests and values are represented during the planning process. While it can be argued that the ultimate output of these processes remains a commodity (E.g. sawboards or electricity), the output is now not deemed a success in society’s eyes unless non-commodity outputs (such as quality recreational experiences, ecological integrity, the maintenance of Aboriginal connections to the landscape, the continuation of small tourism operations, etc.) are also attained.

Planning in the Northeast Superior region exhibits a more diverse power and decision-making structure which involves multiple local and regional actors, as opposed to a small number of high-level industry and government decision-makers, a shift which is also a characteristic of post-productivism (Reed and Gill, 1997; Mather, 2001; Mather et al. 2006). The movement to a diverse, multi-player power structure is evident in structures such as the emergence of organizations like the Nawiingnokiima Forest Management Corporation described above, and the various formats for public participation and input evident in environmental planning in the region. This includes the legislated formation of Local Citizens Committees in forestry which reviews forest management plans and must represent a variety of interests, including those of Aboriginal communities, tourism operators, trappers, outdoor recreationalists, and others. This participatory, multi-interest approach is also evident in other forms of environmental planning such as the Michipicoten River Standing Advisory Committee which includes a variety of local interests that represent social, cultural, economic, and ecological uses of the river system. Other provincial land use planning initiatives such as the Lands for Life consultation process and CLUAH emphasized meaningful public input and the incorporation of multiple perspectives, as could be found in the CLUAH Working Group (See Table 5.2 in Chapter 5). A movement towards bottom-up and local control of resources can also be seen in the regional support for the White River-Pic Mobert initiative to gain control of the old Domtar mill and associated woodlands. Therefore, just as non-commodity outputs must be achieved alongside the production of commodities, power and decision-making structures in the Northeast Superior region, even if they

originate at higher levels of government or industry, must now involve multiple interests and local actors if they are to be seen as legitimate.

It should be noted however, that the evolution of post-productivism in the Northeast Superior region and other similar areas has occurred due to a convergence of several factors. Undoubtedly, one impetus for its emergence in forest-dependent region is shifting societal values and expectations about our forests, natural landscape, and what constitutes proper management. An example of this transition is evident through both language and policy by the replacement of Ontario's *Crown Timber Act* with the *Crown Forest Sustainability Act* (1994) which states one of its goals as the conservation of "large, healthy, diverse and productive Crown forests and their associated ecological processes and biological diversity" (s. 2(3)1). However, Mather (2001) suggests that the shifting values which have propagated post-productivism are not representative of society as a whole – they are the social and environmental values of urban regions. This view is also reflected strongly by participants who see the urban South as influencing the policies, decisions, and markets upon which the Northeast Superior region depends (See "6.1.3 Links between residents and the landscape" and "6.1.4 North and South"). Therefore, while post-productivism is often viewed as supporting regional equity, for residents of resource- and forest-dependent areas and communities, this trend is actually viewed as increasing inter-regional disparities of power and influence. Therefore, if post-productivism in forestry-dependent regions has been caused by and is dependent on changing values in urban areas (which frequently command markets for resources and control political and voting powers), this raises doubts about whether resource-dependent, northern regions can achieve the autonomy to negotiate and shape their own futures.

Another factor contributing to the rise of post-productivism is the boom-bust cycle itself. For example, the downturn of Ontario's forestry industry has motivated communities to examine the value of previously disregarded or undervalued industries such as tourism and non-timber forest products. Now in competition with many foreign timber suppliers, the Ontario forestry industry has also found it useful to market their products as more "sustainable", both in the benefits that accrue to local communities and workers, as well as in relation to the ecological integrity and protection allocated to forest species through environmental policies and legislation and through the adoption of best practices (OFIA, 2011b). This reflects Milbourne et al.'s (2008, citing Tsouvalis (2000)), critique of the notion of post-productivism in forestry, which asserts that, rather than reflecting a societal shift towards post-materialism and an increased emphasis on recreation, post-productivism is more reminiscent of advanced capitalism in which accelerated rates of production and consumption are so rapidly increased that "consumption of the image becomes as important as the consumption of the product itself". Of course, the fact that the "image" of accounting for multiple social, ecological, cultural, economic, and local values in resources management is important to consumers, could also be marked as a clear example of post-productivism. At the same time, it is ironic that forestry-dependent regions now market their products based on urban-initiated post-productivist policies in order to remain competitive to their mostly urban market, thus demonstrating a further level of inter-regional inequity and lack of agency.

Further, while the shift to greater public and stakeholder involvement in decision-making can be viewed as a reflection of societal expectations for planning and governance, Markey et al. (2008a) note that the emergence of bottom-up governance and

planning in such regions is due as much to the withdrawal of governmental support, as it is to legitimate desires for improved public representation and control. This trend of governmental “abandonment” can also be seen in the Northeast Superior region, particularly in participants’ perceptions of the withdrawal of government support (6.1.1 Driving forces impacting the present and future of the Northeast Superior region, and 6.1.2 Uncertainties facing the Northeast Superior region).

Public participation processes in the region also cannot be held up as achieving a post-productivist ideal – contentious public participation processes such as in CLUAH, were viewed by some participants as simply “rubber-stamping” land-use decisions already made by the MNR (5.5.4.3 Crown land or public land?), while even fora such as Local Citizens Committees and the Michipicoten River Standing Advisory Committee that were lauded for their transparency and for the participation opportunities afforded to stakeholders, were also criticized by some for adopting a top-down approach (5.5.1.1 Adaptive management, participation, and accountability, and 5.5.2.1 Perceptions of water resource management and planning in the Northeast Superior region). As a result, similar to Milbourne et al.’s (2008) study of industrial forests in the UK, participants viewed natural resources as continuing to be industrial in nature and remaining controlled in a top-down manner, whether by the provincial government or by industry. This view is exacerbated by perceptions that these top-down directions frequently come from distant urban areas that have little knowledge of the regional landscape, its people, or their needs and desires. At the same time, the region has undoubtedly moved from a productivist “company town” mentality in which high-powered industrial and governmental decision-makers were undisputedly given control of the landscape – like the participants in

Milbourne et al.'s (2008) study, the people of the Northeast Superior region *expect* more equitable control of the landscape, whether they feel that they have achieved it or not.

6.3 Regional environmental planning in the Northeast Superior region: Moving beyond “stakeholders” to embracing the political and a sense of place

While the shift to post-productivism and new regionalism has influenced how environmental planning takes place, the driving forces, uncertainties, relationships, dynamics, and tensions highlighted above understandably impact the effectiveness of planning processes in forest- and resource-dependent regions. Further, when questioned about the challenges facing regional environmental planning in the Northeast Superior region, the familiar refrain that “environmental management means managing people”, rather than the environment, was consistently repeated. It is also people who carry with them the diverse yet interconnected values, interests, and power relations that shape regional environmental planning and the resultant outcomes, thus giving life to another oft-cited phrase that “planning is political”. This is not necessarily a negative. Hammersley (1995: 103) states that we have to move beyond the perspective which views politics as a necessary (but possibly only temporarily necessary) evil, and instead towards one which “treats engagement in democratic politics (and processes) as the essential human activity”.

At the same time, participants cited certain instances where neutrality – both real and perceived – is necessary for effective planning and public consultation to take place, thus highlighting the need to achieve a balance between objectivity and embracing the political. Further, if post-productivist planning processes are dependent on meaningful

public participation, planners may be required to “give something back” to participants, necessitating an exploration of what entices a participant into the planning process and encourages them to commit to it. Finally, I examine how one of the things that can make planning so divisive in the region – namely a fierce sense of ownership over the landscape, and the associated identity and sense of place that emerges from it – can be utilized as an enormous strength in environmental planning.

6.3.1 Planning is political but neutrality counts: Finding fairness among knots of power

Accordingly to Hammersley (1995: 103), politics in research involves two components: (a) the exercise of power and (b) the making of value judgment and action on the basis of them. Understandably then, anything involving a variety of seemingly conflicting interests held within a governmental framework will become a political process, and planning is no exception. However, this conflict is heightened in small communities and sparsely populated regions in which power relations permeate not only the planning process, but possibly the rest of participants’ lives. This can lead to a twisted knot of relationships, power discrepancies, and interests that must be accounted for, even if it cannot be unraveled. At the same time, certain aspects of planning require neutrality, with some examples of environmental planning in the Northeast Superior region demonstrating how the process can degrade when these criteria have not been met. Therefore, while the politics of planning may never cease, a measure of *fairness* is expected by participants.

Cohen (1985) defines a fair process as one that ensures that all individuals equally control the process, have their information taken into account, and have a third-party

decision maker that is impartial. In their study of road-based, semi-remote, and remote tourism operators in Northern Ontario and their involvement in planning processes, Hunt and Haider (2001) examine the impact on participant satisfaction of “the fair process effect”, which suggests that by using fairer processes to make decisions, the positive evaluations of outcomes will increase (Van den Bos et al. 1998).

However, while this effect has been recognized in social psychology (Hunt and Haider, 2001), the political nature of planning complicates this principle. For example, it was found that many participants became involved with forest management planning, not because they felt it was a fair process, but because they felt that it would negatively impact their tourism operations (Hunt and Haider, 2001). Therefore, Hunt and Haider (2001, citing Shindler et al. 1999), suggest that participation might be ineffective for some groups, such as tourism operators, who enter a planning process focused only on decisions that affect their livelihoods. However, my results from the Northeast Superior region suggest otherwise. For example, in the Michipicoten River SAC, I witnessed many tourism operators who were undoubtedly involved in the committee to protect their interests, still find room to compromise and sometimes give up certain interests that would have translated into significant economic value, in order to reach solutions that benefited the largest number of members (5.5.2.1 Perceptions of water resource management and planning in the Northeast Superior region). Therefore, even participants who enter a planning process focused on their own needs are able to, over time, examine and make decisions for the situation as a whole. However, achieving this requires several criteria including (a) Looking beyond conventional top-down and bottom-up power relations; (b) Acknowledging the diversity of government; (c) Better acknowledging how

histories, relationships, and personalities shape planning processes in sparsely populated resource-dependent regions; and (d) Utilizing the traits of these regions to build transparency and trust.

6.3.1.1 Planning and life: Political, interconnected, and reconcilable

People, their interests and values, their history, power relations, and how they regard each other is part of what makes planning so political, and this is exemplified in remote resource-dependent regions which are diverse, complex, and interconnected. In this context, classifying planning as either “top-down” or “bottom-up” is overly simplistic. As well, personalities and history are extremely important factors in the success or failure of planning initiatives. However, real and perceived neutrality of process was also highlighted also critical by participants of planning exercises.

6.3.1.1.1 Looking beyond top-down and bottom-up

When looking at power relations in environmental planning, a process is frequently described as either being “top-down” (in which direction, decisions, and power is coming from a higher level of government and/or industry and “stakeholders” must ultimately bow to those decisions) or “bottom-up” (in which a process is led and shaped by “stakeholders”, local government, Aboriginal communities, and/or other non-traditional power holders).

However, in forest-dependent regions composed of small communities, power relations in the planning process extend beyond these simplistic terms. While the notion of bottom-up and top-down power relations are still relevant, in such regions these are shifting targets - there also “horizontal” power relations. For example, while some could view a community-controlled mill and Sustainable Forest Licence as being a “bottom-up” approach to development, the traprock quarry experience on Michipicoten Bay demonstrates that local government and local political/economic powers can exert a top-down effect on public debate. In their case study of land use planning in British Columbia, Booth and Halseth (2011: 905) found that frequently “ordinary citizens were asked to sit at the table with high ranking government officials and senior management from industry, sometimes the very industry by which they were employed”. These power discrepancies went unacknowledged in the planning process and likely resulted in the considerable stress and tension in participants that the authors observed years after the planning process itself was completed. These tensions are particularly relevant for planning in communities and regions with a high degree of connectivity and where power relations may be a subtle – but very real - knot of relationships and dependencies. Therefore, in such communities, the idea of top-down versus bottom-up planning is an oversimplification

6.3.1.1.2 *The politics of government: The many MNRs of the North*

In Ontario and throughout Canada, it is frequently the provincial or territorial government whose mandate includes environmental and land use planning. This is especially the case regarding the Crown land that makes up the majority of Ontario.

Therefore, in Ontario, the MNR is viewed as the de facto authority on regional land use planning and is seen by many as one arm of a physically and emotionally distant urban- and South-based government. However, this is not necessarily the reality.

Latour (2004:10-18) notes that scientists are portrayed as “objective” and value-free “experts” in contrast to a “subjective” public, thus leading to a greater valuation of quantitative, scientific knowledge over local and/or traditional knowledge (McLain and Lee, 1996; Dube, 2003; Dube et al. 2006). However, this narrative is shunned by many non-scientist participants who (a) view scientists as representing a government which they also perceive as having very explicit interests in managing the forest a certain way, and (b) who have their own local knowledge about the landscape which – whether it is accurate or inaccurate – they see as potentially conflicting with the conclusions of scientists. The positive aspect of participatory planning venues such as Local Citizens Committees and Standing Advisory Committees is that they provide an official forum for stakeholders and actors to challenge conclusions made by governmental (or industrial) scientists. However, some participants who also took part in planning initiatives viewed the MNR as a single body that aims to rule the forest like an “organized crime organization” (FORESTRY6). Not addressing this view not only degrades the participatory planning process, but also perpetuates an inaccurate reflection of the truer nature of provincial land use planning in the North.

Indeed, it is too simplistic to group all of “provincial government” into a single category in top-down planning. Local government (such as local MNR) does not necessarily receive the human and financial resources or support it requests from higher levels. Plus, many local MNR staff can also be viewed as having “local” knowledge.

Finally, participants – governmental and non-governmental – often perceived that there existed and operated *two* provincial governments – a local, familiar provincial government and a removed, higher level provincial government. These “two” MNRs play an important role in environmental planning and associated public participation (See 6.3.1.1.4 Transparency and trust – Part I)

6.3.1.1.3 The politics in the personal: Relationships, personalities, and history in planning

In the case of regions such as the Northeast Superior region, the politics of planning can permeate all aspects of participants’ lives, not just the time they devote to the planning process. Similarly, the personal factors that participants bring to planning initiatives also influence the process. Therefore, it is critical to note the role that relationships, personalities, place, and history play in effective or ineffective environmental planning.

Relationships have important implications for planning. In his study of the social characteristics of Canadian resource-dependent communities, Lucas (1971:391) notes, “A great majority of these small communities are characterized by primary, personal relationships rather than the impersonal, secondary relationships which account for so much urban interaction. The inhabitants have special benefits and obligations arising out of interpersonal skills and relationships”.

Relationships among participants and between MNR/government and participants are especially important and planning processes rise or fall on them (compare CLUAH and the Michipicoten Standing Advisory Committee). The time that local MNR staff spend building relationships with stakeholders and other governments over many years

brings a value, trust, and consistency to the planning process that many participants find compelling and reassuring. Some MNR staff who were new to the region (i.e. had been there for a year or two) mentioned that their opinion was less valued by stakeholders than other staff who had worked in the region for several decades and who had put in enormous amounts of time building relationships and trust (PROVINCIAL7). It is these relationships that can draw – and keep – participants at the planning table. This is not to say that “newer” MNR staff with less established community relationships are not skilled nor that they should not be involved in planning and participatory processes. It does mean however, that (a) both newer and longer-term planning staff should be encouraged to build these relationships; (b) that longer-term MNR staff who have established these relationships should be valued for these skills; and (c) that these longer-term staff with established relationships should always be a part of the planning process *if only* for the trust they bring to the table (let alone their other considerable skills and knowledge) in order to supplement and support newer staff.

Personalities are also important. The combination of certain personality types can facilitate – or derail – planning processes. This was also found by Booth and Halseth (2011), who also note that this issue is not well discussed in the public participation literature. Again, this effect is magnified in small, resource-dependent regions where (a) what happens in a planning exercise can impact participants in unrelated aspects of their lives and (b) emotions are especially heightened due to perceptions that participants may be denied their “rights” to the landscape and especially that participants are facing the possible extinction of their business, lifestyle, and communities. Suggestions for the first

issue are explored below in 6.3.1.1.4 Transparency and trust – Part I. Chapter Seven will discuss this second issue in greater detail.

It is not solely people who are political – places are political too, particularly when one place has multiple meanings or uses for more than one group (Williams and Stewart, 1998). One group's sense of place cannot necessarily be prioritized over another (See 6.3.3.2 Utilizing a sense of place to unite politics, power, and place for a greater discussion of sense of place in planning), unless it involves sites of spiritual or cultural importance on First Nations territories in which specific legal and ethical obligations are then invoked. Therefore, in the spirit of acknowledging that planning is political, these conflicts must be fleshed out and acknowledged.

Finally, history is important. “Bad blood” between certain stakeholders and the MNR – whether based on past inappropriate actions by MNR or not – can sour MNR-initiated planning processes from the beginning. For example, in their efforts to secure a community-controlled mill and Sustainable Forest Licence, White River and Pic Mobert brought together many of the same interests that were brought together for the CLUAH process (E.g. road-based and remote tourism operations, forestry, hunters and anglers). However, unlike the contention that characterized CLUAH, the White River-Pic Mobert consultation process was described as having gone smoothly and resulting in compromises that were satisfactory to all parties. When asked about the reason for this difference, one orchestrator of the White River-Pic Mobert project noted that many residents' negative history with the MNR, and the perception that they will continue to adopt a top-down approach, soured the process from the beginning:

There's a lot of tainted blood between the tourism operators, forestry and MNR and First Nations. The province continuously goes back to the archives and drags out the same policies. CLUAH should be about making new policies and recognizing new opportunities for the operators, forestry and province itself and finding a balance...(There's a) lack of flexibility and use of a top-down approach by MNR that doesn't work. MNR hasn't demonstrated any change or flexibility themselves. If you're going to implement this project, you need to implement flexibility yourself (MUNICIPAL1).

This is not to suggest that the provincial government should not engage in planning initiatives – in fact, they are the most well-suited body to undertake regional environmental planning. However, they cannot sidestep the politics of planning – there must be a high sensitivity to these stakeholder perceptions and this history must be accounted for at every step of the process.

6.3.1.1.4 Transparency and trust – Part I: Building relationships and ensuring transparency in politics

As mentioned above, trust is an important component of environmental planning (6.3.1.2.2 The politics in the personal). A linked concept is the idea of transparency of process. For example, many participants viewed Local Citizens Committees and the Michipicoten Standing Advisory Committee as good examples of transparent environmental planning processes and organizations. Even though participants readily admitted that these processes are far from perfect, participants who were members of these organizations appeared more satisfied with the experience and the planning that

resulted than participants who took part in other planning processes such as CLUAH or the debate over the Michipicoten Bay traprock quarry, which were viewed as less transparent. It should be noted that even *perceived* transparency was important. For example, while MNR staff put enormous work into CLUAH and attempted to make the process fair and transparent, participants *felt* that the preferred option was already decided upon due to the first maps they were shown, thus putting them on the defensive.

At the same time, while planning is political, there are certain aspects of the planning process that appear to require some measure of neutrality. For example, the CLUAH Working Group began with an MNR facilitator, something that many participants viewed as a direct conflict of interest and an over-representation of provincial government power in the planning process. Although a neutral, third-party facilitator was eventually brought in, many participants viewed the initial selection of an MNR facilitator as irrevocably compromising the perceived neutrality of process. At the same time, some participants expressed resentment of “Southern” consultants being recruited to direct planning in the North. Therefore, while a neutral facilitator is vital for environmental planning initiatives, participants must also feel that they can trust facilitators to be knowledgeable of, and sympathetic to, Northern issues.

As demonstrated repeatedly, while trust is important, it is often lacking between stakeholders and the provincial government. This theme is not exclusive to the Northeast Superior region and has been observed in other studies (Cantrill and Senecah, 2001; Markey et al. 2008a), including Booth and Halseth’s (2011) examination of land use planning processes in British Columbia in which participants felt that the provincial government did not care about local concerns. At the same time, it must be remembered

that participants often perceived *two* provincial governments – a local provincial government and a removed, higher level provincial government. This perceived division was acknowledged by many participants:

We feel we have a great relationship with our local MNR but I don't feel that (the main office in) Peterborough really understands the local issues and challenges that we as outfitters face. I understand they try to manage it as a Province wide issue but sometimes there are local issues that need to be dealt with that are not Province wide. (TOURISM1)

Of course, just because an MNR staff person may be “local” it doesn't automatically generate trust. In fact, for local staff, stakeholder trust can be lost not only during planning meetings or due to displeasure with planning outcomes, but through casual remarks made in private company that may be overheard and passed on to others. At the same time, there was an appreciation from participants that local MNR decisions were subject to approval from higher-level government – approval which is not always granted – and that local MNR efforts can be constrained by a lack of allocated resources. Further, participants indicated that the trust relationships that have been established with local MNR staff over the years have been one of the greatest sources of collaboration for the provincial government in the region.

Therefore, successful regional environmental planning must strike an appropriate balance between transparency and neutrality of process, and an acknowledgement and embracing of the political nature and power relations inherent to planning. The need for

this balance is particularly heightened in planning that involves small communities which experience high levels of interconnectedness.

As a path forward, several authors advocate the recognition that every step of environmental planning is value-laden and infused with power relations, and that both practitioners and stakeholders must recognize these multiple and conflicting values (Connelly and Richardson, 2005; Richardson, 2005). Since trade-offs will inevitably be required, Connelly and Richardson (2005) promote a clearer recognition of who will benefit and who will lose in order to give planning more specific goals and criteria regarding sustainable development, and allow for a more explicit acknowledgement and discussion of the differing values and trade-offs made in the decision-making, with the eventual outcome being based on transparent value judgments and a more equitable planning process overall. Further, others advocate recognizing and planning for the forces that exclude certain groups from the planning process and result in an uneven distribution of negative and positive effects (Connelly and Richardson, 2005; Bina, 2007).

This recognition of the explicit and implicit power relations is vital to ensure participant comfort, commitment to the process, and ability to work within the planning framework. However, if initiatives such as CLUAH did attempt to identify environmental and social values through the Working Group which was composed of multiple stakeholders (See Table 5.2), why did so many participants see the process and its outcome in a negative light? In particular, why is this initiative often held up as a poor planning experience by participants when other planning initiatives succeed, such as White River and Pic Mobert's efforts to mediate remote- and road-based tourism and forestry interests in their attempt to develop community-owned forestry. The answer

appears to reside in the initiators of the process. Distrust of the provincial government is well documented in resource-dependent regions in Canada (Cantrill and Senecah, 2001; Markey et al. 2008a; Booth and Halseth, 2011). However, as demonstrated above, there is a second, local provincial “government”. Therefore, rather than attempt to show a united front and represent all MNR staff as a single entity based in Queens Park or Peterborough, it might be more useful to embrace the complexity of a dual local and remote MNR, particularly in planning initiatives which include multiple interests which may appear to be in conflict, but may also hold common ground. This is not to say that local MNR staff will be embraced by stakeholders as “one of us” during the planning process – whether they plan to remain for life or not, many local staff are not long-term residents, and even provincial staff born and raised in the region may still be perceived as having interests which are at odds with some participants. At the same time, acknowledging the simultaneously “local” and “provincial” interests that regional staff represent can make the process seem more transparent and the interests of the provincial staff involved appear both more accurately represented and more relatable to other participants. The key is that higher levels of provincial government must have the confidence and courage to allow their local representatives to hold a more complex role that better reflects their multi-faceted identity in the region.

6.3.1.1.5 Transparency and trust – Part II: Questioning the use of “stakeholders”

The existence of two provincial “governments” highlights another issue in environmental planning – the use of stakeholders who are assigned the task of representing and defending certain roles and associated values. It has been demonstrated

throughout my research that participants could not be easily classified based on their occupation (which varied and often included multiple resource- and non-resource based roles – See Table 4.1) nor their views on conservation or environmental management (with many participants who would be identified as “resource takers” or “hook-and-bullet” people, self-identifying as a “tree-hugger” – while simultaneously disparaging other types of “tree-huggers”).

Booth and Halseth (2011) also noted that the stakeholders in their study sometimes suffered a difficult transition in identity from previously being a “community member” in all its facets, to suddenly being viewed as the face and representation of a particular sector or interest in the forest. While this crisis of identity was not explicitly identified by participants in my research, the stakeholder system of planning can be a divisive and overly simplistic way of attempting to represent the interests that are “required” to be present for planning to be viewed as legitimate. Further, it is also an inaccurate means of representing these interests and values – no one I spoke to could legitimately be seen as a true, single-interest “stakeholder”. This includes provincial staff.

While Booth and Halseth (2011) suggest that the use of the stakeholder representation system in planning has limits which must be acknowledged, I suggest a re-visioning of the roles that participants play in environmental planning. Klenk et al. (2009) believe that all actors involved in forest management planning should explicitly identify and defend the values that they are bringing to the table in a societal dialogue, with an emphasis on scientists who may “fall back” on the authority of an objective science to bolster their positions. While this would facilitate greater equity in the planning process, caution must also be taken that the provincial government is not relegated to being a

“stakeholder”, just as Aboriginal governments should also not be regarded as such. Further, it is acknowledged that there are certain organizations, such as Rod and Gun clubs, which are viewed by many within and outside of the region as the appropriate representative of certain interests (although these organizations do not necessarily represent that *entire* spectrum of values in the region. For example, some anglers and hunters may not feel that Rod and Gun clubs characterize their views accurately and choose not to be a part of them).

Yet overall, the slotting of participants into the stakeholder roles of “hunter”, “fisher”, “canoeist”, and even “MNR” and “First Nations” is simplistic, divisive, inaccurate, and unavoidable. Environmental planning, especially in resource-dependent regions, must make room for participants to espouse and advocate for the full range of their experience with the landscape. This includes allowing local governmental staff the freedom to bring their multiple links to the landscape to the table as well, while simultaneously acknowledging that their role as scientists, planners, and resource managers. Similarly, while members of certain organizations can be solicited as representatives, those organizations must allow their representative to take part in planning knowing that the individual’s participation in the process will span the range of their relationship with the landscape and region.

6.3.2 Making planning more enticing to participants: Incorporating innovation and participant interests

Emphasizing transparency while embracing the political nature of planning can make such processes more equitable and hopefully, more effective. However, getting participants interested in planning - and keep them interested – requires more than this.

It was mentioned above that Hut and Haider (2001) found that many tourism operators became involved with forest management planning processes in order to protect their businesses from negative impacts. However, some participants (FORESTRY2/TRAP2/NGO1; TOURISM1; TOURISM2) also noted that less fear-driven motivations can encourage various actors to take part in planning. In particular, innovative planning initiatives and incorporating participant interests can act as effective “carrots” to entice and keep participants in the planning process.

Interestingly, many participants – whether they were planners or not – were well aware of when a planning exercise was new, creative, and innovative or when it was a recycling of old planning concepts and activities. This is not to say that all planning must utilize new, revolutionary methods – there are currently some effective approaches to planning which can be improved but merit continued use (See Chapter Seven for an exploration of this). However, when current approaches to environmental planning are not effective, then residents, stakeholders, and participants expect to be presented with a more ambitious vision. For example, another reason that some participants critiqued CLUAH is that they viewed it as trotting out the same planning frameworks and structures:

I think that’s why CLUAH had a problem – everybody knew that land use policy and planning had to change but it was based on what’s happening today, not what’s happening tomorrow, except for Dr. Len Hunt at Lakehead who did some presentations. Those were shots in the dark though. It’s like if you’re always dark red and then someone brings in white (FORESTRY2/TRAP2/NGO1).

A concerted effort to utilize new, creative planning approaches not only helps entice participants who may see themselves as being more effective within a new planning framework. Revolutionizing land use policy can also demonstrate the value of the provincial government to participants and could help break ties with old histories and bad blood.

Having the flexibility to incorporate participant interests into planning can be also an enormous motivator for residents and stakeholders to take part in, and remain a part of, environmental planning. Therefore, to make planning relevant to participants as well as utilize the wealth of knowledge that is likely sitting at the table, it is important to incorporate the interests of stakeholders into planning exercises:

(Regarding Local Citizens Committees) My background is recreation and working with people and if I want them to accomplish one thing I need to “bait” them and have something that interests them to get them back to the table so they can talk about trees 180 years out. It’s pretty hard to fathom some of that stuff. That (other projects that interested different members) was what kept the group together for so long. So now we just talk about trees 180 years out. None of us will be around then. That’s put a bit of an anchor on the effectiveness of LCCs because you’re not getting everything you can out of the people involved. Now it’s difficult to get people out to meetings. It would be a big loss for the MNR because that’s a lot of bodies that you have out there that you’re getting for nothing (i.e. volunteers) (FORESTRY2/TRAP2/NGO1).

This is confirmed by Habron's (2003) examination of integrating adaptive management concepts into rural community-based watershed councils. The author notes that the concerns of participants – in this case issues regarding private property rights and associated governmental distrust – must fit within the institutional constraints and opportunities offered by the watershed council in order to achieve the best social and ecological fit.

Obviously some broad boundaries must be established early on to sufficiently focus efforts, though it could be productive to involve participants in developing these boundaries. However, it has been demonstrated by participants that, from the perspective of the participant/stakeholders, some of the most productive environmental planning occurs when their own interests and knowledge are incorporated and utilized in the process. This includes the utilization of participatory planning process knowledge – many participants have taken part in multiple planning initiatives and have experience that can contribute to the efficacy of subsequent ones, a finding also confirmed by Booth and Halseth's (2011) study of land use planning in resource-dependent regions in British Columbia. This leads to improved stakeholder participation and commitment to the planning process, as well as building positive relations with MNR. This requires a certain level of flexibility on the part of organizers. However, the barrier to this flexibility is not necessarily the willingness of planners or MNR, but rather a lack of resources, time, and humanpower.

This leads to an important role for higher level provincial government, namely providing the direction, training, resources, and support for local staff to incorporate

greater flexibility into planning within a larger, directed framework. It has been noted above that the operators or managers of systems on a day-to-day basis (such as loggers, tourism operators that manage lakes, dam operators, or hunters and anglers that harvest and influence animal populations) frequently view themselves as resource stewards (See “6.1.3 Links between residents and the landscape”. Also see Getz et al. 1999, Lee, 1999). It is often these individuals who know the most about the system, whose knowledge can be obtained at a reasonable cost, and who are most likely to be affected by related policies (Lee, 1999). At the same time, it is often these same “stewards” who are criticized when environmental degradation becomes apparent, and they are often the focus of behaviour-changing efforts – efforts which typically impact how these resource users make a living and/or their lifestyle. In these situations, particularly if the resource users/stewards are poorly represented in decision-making, environmental planning efforts will likely be resisted or sabotaged as a result (Lee, 1999). Therefore, though it may seem counterintuitive, incorporating greater flexibility to account for participant interests and knowledge could actually make planning more efficient.

6.3.3 Planning for place

A resounding chorus that continually echoed through this research is that the Northeast Superior region, and the North in general, is a unique place with unique links to its people, and that any effective planning must keep this concept at the forefront. Planning for place is vital in this context. Much of these suggestions will be relevant to both higher and lower levels of provincial government – while local government already knows the importance of regional context and relationships with the landscape, there are

theoretical tools which can help facilitate this. Doing this requires two main efforts. First, the unique needs of Northern regions and communities must be acknowledged, without homogenizing “the North” and thus missing the complexities that must be accounted for in planning. Second, the sense of place that residents and actors in the region feel for their surrounding ecological and social landscape can provide a good platform on which to develop place-specific environmental planning.

6.3.3.1 Politics and identities of North and South: Strength in unity versus dangers of homogenizing “the North”

Planning in the Northeast Superior region, and Northern Ontario overall, are shaped by Southern Ontario in two ways: through policies developed by Southern provincial government (i.e. Queens Park) and federal government, and by the environmental values of Southern residents and Southern-based environmental groups which often reciprocally influence each other. These attitudes also influence the mostly-urban markets upon which resource-dependent regions often rely economically. In addition, these factors hold sway over Northern regions due to the increased political and voting power that the larger populations of Southern, urban areas have over more sparsely populated Northern regions. Further, these socio-politico-economic driving forces are viewed by most participants as being unsympathetic to, or ignorant of, Northern issues, concerns, needs, desires, and values. However, this ignorance can sometimes enhance urban dwellers’ mystique of “the North” which can subsequently bolster the utility of the Northern exceptionalism described in “6.1.3 Links between residents and the landscape”. This mystique can then be harnessed and utilized for positive or negative means, depending on one’s perspective:

For Southern Ontario there's a combination... the mystique of the North. (And) there's probably an ignorance, a misunderstanding about what the North's all about. For our quarry project (the Michipicoten Bay traprock quarry), we were trying to get an environmental assessment done for it, a federal environmental assessment. We had a person initially on our group who was a real go-getter. And I spent my time outside Mountain Equipment Co-op getting people to sign a petition and I'm sure 95% of them couldn't show you where Lake Superior was on a map. But they signed the petition (laughter). And I know when I worked for the government, a lot of these petitions I gave the value of one signature, because the rest of the people that signed it, there was no guarantee that they understood the issues. But it was enough to...we had 6000 signatures in support of an environmental assessment. We didn't get it but in a compromise...they got this area designated under the Agg(regate) Resources Act so at least there were some controls for the quarry... (PROVINCIAL5/NGO4).

At the same time, while there was a great focus on the differences between Southern and Northern Ontario and while some participants thought that the two regions shared no similarities, other participants noted relationships between North and South due to travel for education, familial links, similarities with Southern agricultural regions, and tourism. Further, many participants noted that regardless of origin, individually, "people are people" and share common concerns and interests, with one participant noting, "Our

values are the same and the way we solve problems are a little different” (MUNICIPAL3).

The Northeast Superior region has undoubtedly worked diligently at collaborating to achieve a more powerful political voice. As mentioned in Chapter 5, the communities of the region have formed the Mayors Group, the Northeast Superior Regional Chiefs Forum, and the Northeast Superior Forest Community in an effort to offer a more united, resounding voice to distant, Southern-based government. Many of the communities are also part of other organizations and bodies, such as the Federation of Northern Ontario Municipalities (FONOM) which includes the Districts of Algoma, Cochrane, Manitoulin, Nipissing, Parry Sound, Sudbury, and Timiskaming, and the Northwestern Ontario Municipal Association (NOMA) which includes the Kenora District Municipal Association, the Rainy River District Municipal Association, the Thunder Bay District Municipal League and the City of Thunder Bay, and stretches from Kenora in the west, to Wawa in the east. Together, FONOM and NOMA provide a united political voice for all Northern Ontario municipalities on any relevant issues ranging from healthcare, to caribou habitat regulations, to mining, to Northern decision-making (FONOM, 2012; NOMA, 2012a). Further, many municipal and local provincial government staff also made efforts to partner with universities and other educational institutions in both Northern and Southern Ontario for research and collaboration purposes, as well as to access highly-trained, cost effective personnel and equipment.

However, these efforts at collaboration do not negate the fact that decisions and policies regarding the North continue to be made by what is perceived to be a distant government with little knowledge of, or experience in, the region. Participants feel that

the results are unresponsive, potentially damaging policies, and thus dissatisfaction. At the same time, few participants took calls for Northern Ontario to “secede” seriously – they clearly feel that working within the Ontario government as a whole is a better option. Therefore, a Northern governance and policy framework within the existing provincial government is required.

This framework has been partially achieved through the current development of the Northern Policy Institute. The Northern Policy Institute was implemented through the Growth Plan for Northern Ontario (OMNDMF, 2011a; Mulligan in *The Sudbury Star*, 2011) to identify, analyze, and develop appropriate and responsive policies for Northern Ontario. However, while there have been positive responses to the initiation of this Institute (Dunick in *tbnewswatch.com*, 2011), FONOM and NOMA jointly warn that to be truly effective, the Northern Policy Institute must “conduct independent forward-looking research on business, economic and social issues, and (generate) policy advice that will improve Northern Ontario’s standard of living through sound economic and social policies”. They also state that the work of the Institute should be “(a) Credible, balanced, independent research and well-considered concepts; (b) Northern Ontario based; (c) Proactive and forward looking; (d) Able to bring attention to this large geographic area with a small population; and (e) able to monitor and regularly report on the implementation of the Northern Ontario Growth Plan (NOMA, 2011). Since the Northern Policy Institute remains in a development phase, how successfully it fulfills these criteria remains to be seen.

Finally, along the lines of NOMA’s other suggestions, some participants have also advocated for the creation of a Northern Ontario Secretariat or a Northern Committee of

the Legislative Assembly which would “be empowered to consider and report to the House its observations, opinions and recommendations on all policies and legislation of the province that directly impact Northern Ontario, and to which any bills whose principal focus and impact affect Northern Ontario may be referred” (NOMA, 2012b). Together, these legislative and policy bodies would confer greater decision-making power to Northern regions and a more significant ability and agency to shape their own policies and future, thus balancing out the urban interests that continuously influence Northern regions (Mather, 2011; Markey et al. 2008a).

At the same time, the communities and regions of the North, let alone Northern Ontario as a whole, cannot be homogenized. Mulrennan et al. (2012) note that “community-based” approaches to planning often assume an oversimplified, homogenized notion of what a community is, particularly for small communities in rural or remote regions. This lead to a failure “to account for multiple interests and actors, the uneven access of these actors, and the possibility of alliances with external actors”, leading to unrealistic expectations for the conservation and planning initiatives that arise from these processes (Agrawal and Gibson, 1999; Mulrennan et al. 2012). Similarly, as noted in this research, there are complexities to the region that go beyond “resource-taker/hook-and-bullet” and “resource-protector/tree hugger”. Further, planning for Crown land draws out different dynamics than other forms of land use planning and involves feelings of ownership, stewardship, and entitlement that have to be accounted for. Therefore, planning must take regional contexts into account. This can be achieved by exploring the “sense of place” concept.

6.3.3.2 Utilizing a sense of place to unite politics, power, and place

It is clear that participants felt an extremely strong sense of place for their communities, region, and landscape (6.3.1 Links between residents and the landscape, Table 6.6, and 6.1.4 North and South). As mentioned above, this sense of place is a strength for planning - working with it can lead to more responsive planning which better recognizes participants' relationships with the landscape and their priorities in the planning process.

Participants (both those born in the region and those who came to the region as adults) suggested a difference in the quality of “belonging” and meaning that life-long residents feel towards the landscape, compared to newer residents. However, Williams and Stewart (1998) advocate that a sense of place is not necessarily limited to residents, but can also include tourists and regular visitors. Therefore, “it is not the possessors or meanings that are local, but the meanings themselves” (Williams and Stewart, 1998: 19). At the same time, Cantrill (1998) suggest that a person's sense of place can depend on how long they have lived in an area with social forces (such as interpersonal relationships) becoming more important than environmental relationships the longer the period of residence is.

Yet while longer-term and shorter-term residents may experience a differing sense of place, it is frequently those making the ultimate decisions about a landscape – namely planners, resource managers, and policy-makers – that are “outside” the social groups that construct these meanings and hence, do not assign this sense of place sufficient importance (Williams and Stewart, 1998). Among participants in the Northeast Superior region, this is less often the case among local managers and planners who may also utilize the landscape in the same way that “stakeholders” do. However, at higher levels of

planning and governance, decision-makers may be unfamiliar with both the physical characteristics of the region and the importance of related social-ecological links. Again, it is important to observe that in the case of the Northeast Superior region (and likely many other similar areas) there are two provincial “governments” responsible for planning: (a) a relatively removed provincial government located in an urban center and whose own lifestyle and landscape are unaffected by these decisions; and (b) a local provincial government which must mediate between local and higher level needs and which also work through the filter of their own relationship with the landscape. The attachment to the landscape and the sense of place that local provincial staff experience is just as intense as that of other participants:

Here’s an anecdote for you: so when we did the Magpie River (hydroelectric) development in ’88 – mid 80’s we started - we were able to actually get some minimum flow on stretches of the river that were important for trout and we ended up having to write off other stretches that were short but that also had trout, and it was this economic pressure versus the ecological values. So at Magpie High Falls...so we’ve got a flow over those falls for the daytime period but not at night and not over the Winter. Well, there’s a little chunk of the river there that’s dewatered between the falls and the power house and...the rest of that stretch of river has got water in it but it’s not going to be flowing for parts of the day whenever they decide to shut the turbines off and produce power at peak periods. So, the other biologist who was working at the time with me, he has not been back to High Falls since that was dammed. Couldn’t face it. So that’s how we’re

attached to the system, eh? I proposed to my wife there and I hate going back there now. I've been back but it's just not the same place (PROVINCIAL4).

While some participants spoke of a pan-Northern culture, it is specific regional characteristics and relationships that participants were most attached to. In regards to economic planning, Jackson et al. (2008) and Markey et al. (2008a; 2008b) advocate a place-based approach to regional economic planning in Northern BC which recognizes that “combinations of assets, populations, histories, and circumstances mean that general processes are always modified by the matrix of place (Markey et al. 2008a: 410). The utility of place-based planning is even more pressing in environmental planning which immediately impacts, and is impacted by, residents' sense of place.

Therefore, if we are to question the use of representative stakeholders as advocated in “6.3.1.1.5 Transparency and trust – Part II”, the roles previously played by such “stakeholders” can be replaced by conversations about participants' relationships to the landscape. Undoubtedly these conversations do currently take place in environmental planning that utilizes the stakeholder system. However, if participants' sense of place (as defined above) is utilized as the main focus of dialogue – or at least a starting point – many participants who initially enter the planning exercise in perceived conflict with each other, may find more quickly that they share common ground.

Incorporating the concept of “sense of place” into regional environmental planning can address other issues and difficulties that have been highlighted in this case study. Williams and Stewart (1998:23) suggest that recognizing the processes and meanings that contribute to a sense of place adds a “significant human role in making and

using a landscape without reducing humans to one species among many”, thus making it useful in planning conversations where some participants claim that governmental planners care more about caribou than people. At the same time, discussions centered on sense of place that incorporate both natural and social history can break down divisions that slot participants into “utilitarian, environmentalist, or romantic preservationist positions” (Williams and Stewart, 1998:23), positions which are obviously oversimplistic and inaccurate in the Northeast Superior region.

Williams and Stewart (1998:18) also suggest that utilizing the sense of place concept “offers (resource) managers a way to anticipate, identify, and respond to the bonds people form with places” and that the managers “can build a working relationship with citizens that reflects the complex web of lifestyles, meanings, and social relations endemic to a place or resource”. In addition, the authors observe that sense of place can be a “shared language” that better facilitates discussion about difficult issues and that “affirms the principles underlying ecosystem management”. As well, it is noted that since landscape users’ sense of themselves can emerge from their interactions with their environment and the associated sense of place, this sense of place can impact the degree to which they accept environmental planning initiatives (Cantrill and Senecah, 2001).

6.4 Conclusion

The Northeast Superior region provides a useful example of a post-productivist forest-dependent region undergoing new regionalism and facing social, economic, and ecological transitions. This is highlighted by the economic, environmental, social, and political driving forces and uncertainties identified by participants. Furthermore, the

separation that Northern, resource-based regions feel from urban, Southern regions and which is a key characteristic of new regionalism, is evident in this case study. At the same time, participants exhibited a fierce, rich, and complicated relationship with the landscape and each other. These factors combined to result in a unique sense of place and identity which is impacted by, and strongly impacts, environmental planning initiatives in the region.

This chapter has attempted to tease out how these social, ecological, and political complexities and the seemingly conflicting values, interests, and power relations of the region shape regional environmental planning. As well, since “managing people” rather than managing resources of the environment has consistently emerged as the primary challenge in regional environmental planning for the Northeast Superior region, the suggestions in this chapter also aim to address how regional environmental planning processes can more effectively tackle the cumulative and multi-scale challenges inherent to these regions. Achieving this ultimately requires (a) a simultaneous acknowledgment of the political nature of planning while prioritizing transparency; (b) an embracing of the multiple roles that *all* participants hold in the planning process; and (c) a concurrent recognition of the unique nature and *value* of Northern regions, and an appreciation for the complex and specific nuances of individual communities, regions, landscapes, and residents’ associated sense of place.

However, even if this criteria is achieved, resource-dependent regions and their associated environmental planning and assessment processes will continue to experience great uncertainty, thus hindering attempts at long-range planning. Approaches such as scenario building and planning can strengthen these planning processes, but to be truly

effective, this integration must also work with the concept of place and with associated participant values and relationships.

Chapter Seven

Surviving or Thriving?

Utilizing scenarios to strengthen long-range environmental planning and the management of uncertainty

Forest- and resource-dependent regions undergoing social, economic, and ecological transitions experience high levels of short-, medium- and long-term uncertainty. This uncertainty can pose a major barrier to effective long-range environmental planning and encompasses multiple facets, including residents' vision of the future at various time scales, attitudinal factors, difficulties envisioning the long-range future or alternative futures, a history of resource-dependence, and others. The development and use of scenarios – or narratives about how the future may play out – have been offered by practitioners and academics alike as a means of incorporating multiple voices into an approach that seeks to identify, plan for, and thus mitigate, uncertainty. However, while it has been utilized in the business and financial world, at present, scenario development and planning exists as a little-used fringe method in environmental planning and its potential remains untapped.

This chapter examines the perceptions that participants hold about the long-range future and associated planning in the Northeast Superior region. I explore barriers to and complexities of long-range planning specific to post-productivist resource-dependent regions as identified through participant interviews and focus groups. I then examine themes that emerged in focus groups specific to the development and use of scenarios in

planning. In particular, I explore the potential for scenarios as a means of uncertainty management in the region, how my research fills gaps in the scenario literature, and possible drawbacks to the use of scenarios that require attention. Furthermore, I explore how the diverse values and power relations inherent to post-productivist resource-dependent landscapes which were examined in Chapter 5 and 6, can shape long-range planning in such regions. Through this research I also examine and comment on how scenario development can be utilized in planning long-term futures and associated uncertainty in resource-dependent regions in transition. I conclude by suggesting how scenarios can be incorporated into existing forms of environmental planning, management, and assessment to strengthen current approaches and plan for alternate futures and accompanying uncertainty. This includes more effectively integrating scenarios into mainstream environmental planning and assessment.

7.1 Long-range planning in the Northeast Superior region: Visions, challenges, uncertainties, and potential

Interview participants and focus group participants were asked specifically about long-range planning in the Northeast Superior region, including challenges to successfully carrying it out, how uncertainties are currently managed, how multiple values and interests are taken into account, and how they could be. The planning approaches participants spoke of included individual community endeavours which often focused on socio-economic planning, forest management planning, water resources planning related to hydro projects, socio-economic-ecological planning related to specific projects (such as the proposed traprock quarry on Michipicoten Bay near Wawa), and regional environmental planning initiatives such as the land use planning projects

undertaken by the Ministry of Natural Resources (MNR) and including, but not limited to, the Crown Land Use Atlas Harmonization (CLUAH) project. Several themes emerged from these discussions (See Table 7.1). In particular, the dynamics relating to power relations, human-landscape interactions and relationships, and links to resource-dependence which were outlined in Chapter 6, reappeared as major factors that influence long-range planning in the Northeast Superior region.

Table 7.1: Participant perceptions of the long-range planning in the Northeast Superior region
<p>Balancing short-term needs over long-term goals</p> <ul style="list-style-type: none"> - Perceptions of limitless growth potential and resources - Difficult to convince residents to plan for a future they may not see the benefits of - Difficulty envisioning the long-range future - Tendency to look towards next resource industry as a “saviour”
<p>Moving from reactive to proactive long-range planning</p> <ul style="list-style-type: none"> - Current approaches to long-range environmental planning tend to be reactionary - People (including planners) are rarely asked to look 50 years in the future. Participants need to be trained to think along those temporal scales - Requires the right combination of participants - Long-range planning often a result of processes being “forced” upon a region or community from higher levels of government - Importance of feeling ownership over the planning process, resultant plans, and region/community being planned for. - Difficult to convince residents to plan for a future they may not see the benefits of
<p>How resource-dependence and boom-bust cycles impact long-range planning</p> <ul style="list-style-type: none"> - Residents look to the next big resource as a “saviour”. The next “boom” cancels out the development of long-range plans. - As a result, communities have not developed entrepreneurial skills. - Difficult to plan for the future without a strong/diversified economic base to rely on - Transient residents and planning staff - The myth of self-sufficiency versus a reactive dependence on outside economic forces, industries, and companies, and resultant lack of agency - Distance in region is a challenge to recruiting sufficient participants - Long-range planning remains wedded to forest management planning - Need to reconcile views of the North as a “big park”, with the major opportunity that its landscape-related resources provide

Imagining the future: Encouraging, and barriers to, exploratory long-range planning

- Barriers associated with resource-dependence (see above).
- Transient workers and residents have little incentive to imagine and shape the future of the region
- Difficult for planning professionals and MNR staff to imagine and determine what future driving forces will be and to plan for them
- Professionals are not having conversations about society's desires for the next 50 or 100 years.
- Difficulty in envisioning the long-range future, especially regarding which values people want to see on the landscape, and when it extends beyond personal interests. "Long-range" is often 5 years.
- There is a simultaneous fear and curiosity of long-range planning
- Effective and exploratory long-range planning requires right combination of participants, expertise, and experience.
- Need a top-down approach to initially get people to think about the long-range future
- Planning processes are successful if collaboration and new relationships are built, even if other results aren't always apparent

Structural, procedural, societal, and governmental changes required for effective long-range planning

- Effective and exploratory long-range planning requires right combination of participants, expertise, and experience.
- Requires a population that feels a strong, and long-term connection to the area
- Importance of sense of ownership over planning process, resultant plans, and the region.
- Need to account for long distances between participants
- Importance of having a clear definition of sustainability in order to provide a framework for long-range planning.
- Importance of specifics with measurable goals and actions
- A proactive approach to long-range planning avoids having plans forced upon a region or community. Better able to shape own future
- Transparency of process
- Requires support and commitment from higher levels of government
- Importance of a "champion" - an individual can make a big difference in planning in certain contexts (I.e. smaller communities). Must also explore opposite side of the spectrum from top-down, governmental led transformations.
- Must convince residents that they need to preserve and conserve for future generations when they themselves may not see the benefits. Requires meaningful and innovative conversations among professionals and other actors and stakeholders about what societal values should be planned for.

7.1.1 Balancing long-term goals over short-term needs

Participants noted a challenge in identifying and balancing long-term goals over short-term needs. While this barrier can be evident in almost any human community, it was highlighted as particularly relevant in a region suffering from declining populations, vulnerable industries, and high economic, social, and ecological uncertainty. As mentioned in Chapter 6 (See “6.1.3 Links between residents and the landscape” and Table 6.6), many residents expressed the perception that the region is filled with limitless and perpetual natural resources which cannot be meaningfully altered by development, hence precluding the need for long-range planning. It can also be difficult to convince residents to plan – and possibly sacrifice - for a long-range future that they may not necessarily see the benefits of, either immediately or ever:

I guess generically I would say that we don't really do good long-range planning. We're not generally looking at 50, 60, 70 years from now, that's for sure. In a forestry realm, you could probably argue that they are looking that long-term in terms of forest succession and species composition and these types of things, but as far as everything else collectively, I don't know that we're necessarily doing strategic planning for that type of term. Could we do it? I'm sure we could. Should we do it? I'm sure we should. How you do that, I'm not exactly sure because that really takes allocating to future generations specifically for that model to work. And unfortunately we're in a drive-through world where people want their satisfaction and returns and they want it now. And allocating and preserving and conserving for future generations tends to be a difficult sell (PROVINCIAL3).

A tendency to pursue short-term, immediate needs can be especially pressing when some communities are struggling to survive. In such cases, planning for the long-term future may appear as an extraneous luxury when it is unclear whether there will be sufficient population and resources to maintain the capacity to meet the basic needs of the region for the next 5 years:

One of the problems that happens in the North is that a lot of the towns were designed around the mining industry that was there with a life-term and it's really hard to think of being sustainable and thinking 50 years when your time's up. Thinking that the town was designed for this length of time. Now you've got to look at infrastructure and a lot of costs to maintain the town. It's hard to tell what's going to happen. So trying to say 50 years from now, a lot of people are still going "Are we going to be here next year?" let alone 50 years from now. (FOCUS GROUP1 MEMBER).

Envisioning the long-range future – and hence planning for it – is also a challenge. For example, when participants were asked about their visions of the region 10, 20, and 50 years into the future, while the majority could outline a vision (whether positive, negative, or uncertain) for 10 years in the future, many had difficulty envisioning the region 20 years into the future, and even less could envision the region 50 years in the future, with approximately a quarter of participants being unable to articulate a 50-year view. This phenomenon directly echoes the findings of Tonn et al. (2006), who also

noted that the future “goes dark” for individuals at about ten years into the future. Frequently, when asked about their vision for the region 50 years in the future, many participants simply responded, “I’ll be dead”. While this may be true in many cases, this notion – that the “future” ends when a person’s life does – tends to absolve one of the obligation to look at, and hence plan for, certain temporal scales.

As noted in Chapter 6 (See “6.1.4 North and South” and Table 6.7) and to be discussed further below (7.1.3 How resource-dependence and boom-bust cycles impact long-range planning) a history of boom-bust cycles and resource dependence has conditioned such regions to continually look towards and expect a new “saviour” project or mill to appear and begin a new boom.

7.1.2 Moving from reactive to proactive long-range planning

Another major barrier to effective long-range planning is a tendency towards short-term and/or reactive forms of planning, rather than a focus on the proactive. In the Northeast Superior region, this appears to be partly due to a perceived lack of agency in residents’ ability to shape the future of their communities and regions:

Everything – the markets, the demand, the weather, the climate – is changing. And throw into it our lack of control or power over what’s happening in the North and it makes it even more difficult. If you did have the power to make decisions to eliminate one problem, it wouldn’t eliminate them all. I still think one of the biggest issues is the area that’s being affected by this does not have the power to

make the decisions. Decisions are being made elsewhere that are impacting the area being affected (FOCUS GROUP1 MEMBER)

This is exacerbated by the continued expectation that a new industry will “save” the region and the transient populations associated with resource-dependence (See “7.1.3 How resource-dependence and boom-bust cycles impact long-range planning” for a more detailed discussion of these phenomena).

The reactive approach associated with planning in the region is evident at different levels of governance. In particular, planners and other professionals are often not asked to look at and imagine the long-range future, with this attitude extending up to higher levels of government, thus providing no professional incentives to plan for the long term (Myers and Kitsuse, 2000; Tonn et al. 2006). This limitation is clearly at work in the Northeast Superior region. However, at least at a provincial level, current reactive planning is sometimes mitigated by the fact that guidelines implemented in the past were forward-thinking:

Planning is reactionary. (Regarding water power) it's not like the province said to us “You have 5 great rivers in the area for water power. What do you foresee in 50 years as being a reasonable power generation, power transmission network?” Instead they just see how much flow there is and think that someone can make a lot of money on it. Got into a situation where landscape decisions were made without a lot of input and we were not a part of that at all. These policies were all done without us knowing and that's not long-term planning at all...We're more

reactionary and are working with rules built in the 80's, but some of those rules are really good (PROVINCIAL2).

It is not only environmental planning and management professionals who must be encouraged to think of the long-term; other participants in the planning process must also be trained to expand the temporal scales along which they plan, as well as be provided with the planning concepts and tools that can make planning more effective:

(What long-range planning requires) Just a long-term strategy and some idea of where we want to go. What does Chapleau want to be? And if it wants to be, what is the road map and milestones that are needed to hit it? Sometimes all a community needs to become something is a vision. You don't necessarily need \$1 million but you need to know who to talk to. There are some people with real vision in this area and they just lack the means to get it done because they don't know what planning is all about. If you say you want to be the tourism center of Northern Ontario, how are you going to do that? And until we are able to plan, we won't be able to achieve those goals...Some people need to sit down and have a conversation about what they want (PROVINCIAL2).

When long-range planning does occur in resource-dependent regions, it is often a result of governmental policy, legislation, and/or guidelines for either resource industries (such as the Forest Management Plans required of forestry companies), or provincial or municipal governments. Otherwise, long-range planning emerges as a necessity due to

urgent economic forces which must be responded to. Therefore, such planning is often “forced” upon these bodies, with the example of municipal planning being raised by participants:

PARTICIPANT1: It’s hard when everything is down, except for examples like Elliot Lake and Manitowadge (both of which reinvented themselves as active-living retirement communities). How much effort should people expect from the government to keep small resource-dependent towns going?

PARTICIPANT2: Elliot Lake and Manitowadge have done quite well (as retirement communities) and have sold quite a few houses

PARTICIPANT3: But with respect to planning, until they’re forced into it – with the Official Plan as an example – they hadn’t looked at their Official Plan for 25 years. If it wasn’t for the challenges, they probably wouldn’t have done it. There’s so much to do in a small group, regardless of whether it’s a focus group or municipality. There’s so much to be done. The small municipality has to do all the same things as Toronto but on a smaller scale. So there’s not enough people to do all the jobs so some jobs have to be left aside. So maybe the Official Plan was something that wasn’t a priority and they didn’t address it until they had to (FOCUS GROUP2 MEMBERS).

While having a long-range plan is undoubtedly beneficial, when an organization or agency is “forced” into developing one, they often lose some agency in how to structure the planning process and the resultant plan and outcomes. This can also result in a

decreased sense of ownership over the process. The concept of participant and/or local ownership over a plan (as opposed to having one imposed from higher levels of government) is critical, especially in a region that already experiences a lack of agency due to removed decision-making powers which are controlled by Southern and/or urban regions (See “6.1.1.4 Political driving forces” and “6.1.4 North and South”). However, while planning participants may feel ownership over the process and its resultant plan, the political will and commitment to initiate, sustain, and follow-through with the plan is often stymied by four year election cycles at the municipal, provincial, and federal levels, and two or three year cycles for First Nations council elections:

I think it would be really, really difficult and it's because of our political nature. Our council's terms end every four years. How do you make a councillor of a plan developed today, responsible to implement it five years from now when they had nothing to do with it? A plan only works if you feel ownership (MUNICIPAL5).

A community will go to McGuinty or whatever politician is in power and say, “What are you going to do for us?” But they shouldn't say, “What are you going to do for us?” but “How are you going to help us do this?” when they already have a plan (FOCUS GROUP3 MEMBER)

Finally, as mentioned above (7.1.1 Balancing long-term goals over short-term needs) when residents and local governments are continuously “putting out fires” and attempting to keep communities and regions operating with spare financial resources, investing the

time and resources necessary for long-range planning may appear to be desirable but unrealistic.

7.1.3 How resource-dependence and boom-bust cycles impact long-range planning

Chapter 6 discussed how resource-dependence impacts environmental planning in the Northeast Superior region and other resource-dependent regions (See “6.1.3 Links between residents and the landscape” and “6.1.4 North and South”). Many of these themes also extend to long-range planning and how it is influenced by resource-dependence and a history of boom-bust cycles. In particular, there remains the tendency to eschew meaningful long-range planning in favour of the expectation that a “saving” resource industry project will develop, with any plans that are formed being abandoned when a new development – or the promise of one - does occur:

This (Wawa) has always been a company town since the 1600’s when the Hudson’s Bay Company was here and that’s the mentality – that we’re only going to survive if someone is going to come in and save us. And they’re always looking for the big industry to save us (FOCUS GROUP2 MEMBER).

(When asked how people in the region can better imagine the long-term future in order to plan for it) I don’t see it happening here, due to the things going on in forestry but also mining. You walk around a corner and you hit a huge gold mine and everything changes. Everything changes. So trying to think that far ahead in

the North, I don't see how it's even remotely possible. (FOCUS GROUP1 MEMBER).

As a result of this real and perceived dependence, the region, its communities, and its individuals have not necessarily developed the creative and entrepreneurial skills required to look beyond reliance on a single industry or even a single company. Furthermore, this dependence on primary industries has also resulted in indifference to other industries which are viewed not only as secondary, but also undesirable:

It's the mindset that one industry is going to take care of all of us. When Weyerhaeuser came in everyone thought that all the jobs at Weyerhaeuser would take care of all of us. But they actively failed to recognize that tourism is a very important component of our community, and even today they'll say, "Oh, you can't rely on the tourists". So I think that's an important component (FOCUS GROUP2 MEMBER)

As mentioned in Chapter 6 (6.1.4 North and South), resource-dependence can also result in a large transient population that comes to a region expecting to work on a temporary basis. It was mentioned by some participants that many of these transient residents choose to settle permanently in the region. However, whether, and until they do, a population that views itself as temporary will have even less motivation to participate in, and support, long-range planning than residents who view their connection with the region as permanent:

90% of the people that have moved to this community, I would guess, do so on a temporary basis. They expect to come in here, they expect the primary industry to vary, and they expect to go somewhere else when it does. And until we can draw people who come here expecting a permanent job, expecting to spend their life here, you're going to get that transient idea within the population and that doesn't help long term planning or anything else. It would be counterproductive (NGO3/FORESTRY4)

Furthermore, since the Northeast Superior region, like many resource- and forest-dependent regions, is composed of several small communities spread over great distances and often separated by severe weather and minimal transportation networks, such logistical distance issues can also pose a challenge to recruiting and retaining participants in planning. For example, as one participant mentioned, "For long-range planning for a region...I think our biggest challenge is the number of people per square kilometers. It's so low it's hard to get that critical mass of people together to talk about it" (PROVINCIAL5/NGO4).

Many participants lauded the self-sufficiency that they experienced from living in the region due to their links and relationships to the landscape, their identity as Northerners, and the resultant sense of place (See Chapter 6). As a result, many participants expressed a preference for bottom-up, local control of resources, and greater governmental self-sufficiency to reflect the self-sufficiency of their daily living. This self-sufficiency is augmented by distinctive sense of scale – a "region" in the North is

vastly different in terms of population density, scale of landscape, and transportation distances than a “region” in the South. However, the irony of this “myth of self-sufficiency” is that while day-to-day life is indeed rather self-sufficient (especially when compared to life for many urban residents), not only is the whole region and its communities deeply dependent on outside economic powers (i.e. primary industries) gracing them with their presence, but the region and communities are actively seeking out these same resource industries. Thus, even if they do woo a “saviour” industry, in their “success”, the region perpetuates their lack of agency.

Interestingly, the majority of consistent long-range planning occurs within one of the industries which often poses a barrier to other long-range planning in the region – forestry. Although it exhibits several weaknesses (5.5.1 Forest management planning), forest management planning in Ontario was noted by participants for its transparency, its focus on the long-term, its legislated structure which requires public participation and input through public reviews and Local Citizens Committees (LCCs), and a format which necessarily takes economic, ecological, social, and political driving forces and uncertainties into account when planning.

Despite some conversation about social and ecological uncertainties, many participants continually stressed the economic aspects of the future and how current economic challenges and crises will or may impact the region. Furthermore, even political uncertainties were set in the context of their economic impacts. Therefore, regardless of their acknowledged dependence on the landscape and the diverse, interacting forces that may impact the region, frequently the emphasis on long-range planning initiatives in the region turns strictly back to the economic.

Finally, despite the resource-reliance and boom-bust cycles that have disempowered this and similar regions, undoubtedly the landscape and its various natural resources is a major – if not the major – asset of the Northeast Superior region. This is not to say that there is one landscape-based industry which will or should sustain the region, whether forestry, tourism, non-timber forest products, or other. Such landscape dependence is complicated by concerns about higher level policies and governmental initiatives which participants have worried will turn Northern Ontario into “a big park that’s set aside for people from Southern Ontario” (MUNICIPAL6) (6.1.4 North and South). At the same time, there needs to be a reconciling and assessment of the many landscape-based initiatives and associated forms of planning, whether they are industrial, tourism, or other.

Hornepayne is waiting for their mill to reopen. White River is trying to get theirs going. Wawa is waiting for Weyerhaeuser to open again or traprock to start. It’s the same story and they’re not planning for something different. For good long-term planning they need to do an assessment of what they have and understand what they have, and there’s more value in a tree than just a board foot. In BC, they promote their tourism and they promote small ecoregions. They promote the Kootenays and people know it around the world. And we don’t have the Rockies here but what it is, is pretty special in Ontario. It’s some of the best coastline in Ontario, in Canada. People aren’t planning or assessing for what we really have beyond trees and rocks. We need to look at the other qualities we have, whatever that may be (FOCUS GROUP3 MEMBER)

7.1.4 Imagining the future: Encouraging, and barriers to, exploratory long-range planning

Planning for the driving forces, uncertainties, and future trends outlined in Chapter 6 and which may or may not come to pass, presents a major difficulty in long-range planning. The challenges of keeping vulnerable and struggling communities afloat in the short-term, often rules out explorative planning for a long-term future that seems distant and less urgent than the present crisis. Exploratory planning is also hindered by tendencies to look to the return of the primary industries and transient workers' lack of incentive to imagine and shape the future of their temporary home (7.1.3 How resource-dependence and boom-bust cycles impact long-range planning).

As well planning professionals are not necessarily trained to think of the long-term future and political systems are not geared towards planning that extends past an election cycle (7.1.2 Moving from reactive to proactive long-range planning). However, beyond this, it can also be difficult to access and encourage the exploration and imagination that is required for long-range planning that considers the uncertainties, driving forces, and trends which may impact the future. Many participants involved in forestry, and local or regional governmental planning initiatives also a noted barriers to planning professionals having conversations about anticipated societal values, wants, desires, and visions for the long-range future. This form of future studies can be especially tricky – but particularly important – when attempting to assess how multiple factors will interact and extend into the future:

MNR doesn't have the staff there who can come and talk about what's going to happen in 15 years regarding recreation and the land base. Fifteen years ago I had friends who said that hockey and curling were going to go down the drain and kids would want to play soccer or bowling, and now minor league hockey is struggling in small towns. You have to talk to people who can tell you about what future trends will be so you can move yourself in that direction. I don't know if MNR has that capability (FORESTRY2/TRAP2/NGO1).

I read an article that there's sections of Lake Superior that are 10 degrees warmer than usual. Last year there was less ice cover so heat goes deeper. We used to have problems with snow squalls in December and then it would be colder. As an example of climate change, if Lake Superior gets warmer, the snow squalls will have effects on transportation. There might be a benefit for the Port of Wawa. If you want to do long-term planning, how do you plan for things that might be affecting the North so quickly? (MUNICIPAL3)

Even forest management planning, which is held up as one of the foremost forms of long-range planning in the region, falls short when it comes to explorative discussions of the future, potential driving forces, uncertainties, and most notably, how societal desires, wants, and needs may play out on the landscape:

I don't think those (driving forces, uncertainties, desires for the future) are being talked about at all. When we talk about trees 100 years out, it's a strictly technical

conversation. The only ones that aren't as technical – but still are a bit technical – is if you're providing enough habitat for black-backed woodpeckers and those types of things. If that's not technical – and I think it is – I don't know of any conversations we have that talk about the future and people and communities' desires. We don't talk about global warming because nobody wants to go there. Somebody will say, "We're planting all these black spruce. What kind of trees do we think will be growing here in 50 or 75 years?" and that question will never be answered at the table or addressed. And that's a technical type of question. When you start talking about people or society's desires for the next 50 or 100 years, I don't think they have those types of discussions amongst themselves as professionals (FORESTRY2/TRAP2/NGO1)

As mentioned above (7.1.1 Balancing long-term goals over short-term needs), it is difficult for participants to envision the long-range future when it extends beyond the expected time scale of one's life. At the same time, some older participants who realistically did not expect to be alive in 50 years also noted that now that they have grandchildren, it has prompted them to again think about the long-range future that their descendents will experience and this has renewed their interest in the topic of planning. Yet despite this, individuals express some discomfort about long-range planning. For example, as mentioned above, many participants were unable to answer the interview question about their vision for the region 50 years in the future and indicated unease at being asked to visualize such a seemingly intangible temporal scale. While some of this discomfort might including concerns that the participant would potentially get the

question “wrong” (despite assurances of no wrong answers), this unease with the long-term future is reflected by other participants’ experiences. At the same time, co-existing with this discomfort is also a curiosity of long-range planning approaches:

Only planning for the long-term future would be because the FMP (Forest Management Planning) manual requires it. It’s not that they (LCC members) wouldn’t want to be (long-range planning); it’s just not part of the way they think. That’s a tough discussion to have with people. When you enter into those discussions, people look at you sideways. I went to a presentation with Dr. (David) Foot (Author of “Boom, Bust, Echo” and Professor Emeritus at University of Toronto) at Thunder Bay and there were 1200 people there to listen to a guy talk about the future, which really surprised me to have so many people come listen to a guy talk about the future (FORESTRY2/TRAP2/NGO1).

Therefore, while there often exists an unease with envisioning the long-range future, the uncertainties that accompany it, and the seemingly insurmountable difficulties that appear to be involved in planning for it, individuals also exhibit a curiosity of the future and a desire to see long-range planning done well, even if they may not immediately recognize what such planning looks like.

The involvement of local residents and actors is necessary, and societal and governmental discussions must be conducted to flesh out the wants, needs, visions, and requirements for long-range planning (7.1.2 Moving from reactive to proactive long-range planning). However, a variety of different participants with diverse experience and

expertise - some of which may be from outside the region - must also be involved.

Therefore, attaining the right mix of participants is key:

For long-range planning for a region...it would have to be a combination of people from outside the area as well as inside the area, because people from outside the area have a better understanding of how the world is going. Because...I was the MNR rep on the...(LCC) that works for the forest management plan, in between plans. Anyway, I'd look around the table at the quality of knowledge and insight about what's going on in the world and there's not a lot there. They have some basic practical information but in terms of visioning what the future can be (it's not there)...And then I look at just how scattered the communities are, and this is a challenge we're having with the Wawa MNR...with these citizen groups working with the forest management plan (PROVINCIAL5/NGO4).

However, achieving the appropriate mix of individuals introduces a tension – namely that “local” interests and values might be displaced by “outside” participants or experts. This concern could be magnified in regions where “outsiders” (i.e. Southern and urban centers of government and industry) are viewed as already having a disproportionate influence on governance (See Chapter 6). At the same time, many participants expressed interest in learning from the experiences of other communities, regions, and organizations that successfully carried out long-range planning.

Similarly, although having planning processes “forced” upon a government or organization removes their agency to shape the process itself (7.1.2 Moving from reactive to proactive long-range planning), some participants saw the value in a more top-down approach, with the argument that long-range planning would not occur otherwise:

I’m using an Official Plan as the example. I’m sure Wawa would not do an Official Plan, nor would many communities do an Official Plan - which is basically a long-term plan for land-use - if it wasn’t in the Municipal Act and the province said “You must”. That the province made it a “shall”, a law...So without the province saying it would be a law for the Superior East region to do a twenty year plan, I don’t know that the leaders of the community today would think about that. And it’s not that that they don’t think about it. Again, I’m sure they think about it. Others think about it. It’s just we’re so wrapped into the day-to-day – you can’t think about next year, let alone twenty years from now. I use the term “forced”. The only way I think it would happen would be some kind of provincial legislation requiring it to happen (MUNICIPAL5).

At the same time, others view conversations about the long-term future and what societal desires and values we want to see enacted, as a critical prerequisite for long-range planning, even an approach that is “forced” down from the top:

So we’ve got some real work to do to set the example, I think. So we have to start with our own culture and our own society and our own world views before MNR

gets into doing long-range, or the government gets into doing really, really long-range planning. We as a society need to ask ourselves that question: “Where do we want to end up in 50 to 100 years from now, and what do we need to do to make that happen?” (PROVINCIAL3)

Finally, some participants suggested that long-range planning processes can achieve some measure of success if meaningful collaboration and relationships are developed during the process, even if other clear outcomes are not necessarily apparent. This argument has also been made by other participants in regards to environmental planning initiatives such as CLUAH, in which actors who may not have normally worked together did build some new relationships. Yet overall, most participants cited the need for clear measurements and outcomes for long-range planning, thus implying that without an endpoint that includes a defined plan, resultant actions, and governmental and/or industrial commitment to the process and follow-through, long-range planning would not be viewed as successful or effective.

7.1.5 Structural, procedural, societal, and governmental changes required for effective long-range planning

Participants also identified a variety of structural, procedural, societal, and governmental changes and transformations required. As mentioned above (See “7.1.2 Moving from reactive to proactive long-range planning” and “7.1.4 Imagining the future”), the right mix of local and outside expertise, experience, and background is required to attain a balance of knowledge bases and interests. As well, effective consideration of the long-range future requires a population and participants that feel a

strong and long-term connection to the area. While there is a substantial transient population of workers in the Northeast Superior region, it was also demonstrated in Chapter 6 that many residents and other stakeholders in the region also experience a keen sense of connection to the landscape, a sense of place, and a unique identity, making these qualities a further opportunity for enhancing long-range planning in the region. Associated with this sense of ownership, stewardship, and/or entitlement to the landscape and region, long-range planning also requires a sense of ownership by all participants and planners over the process itself and the resultant plan and/or outcome.

Certain logistical considerations were also highlighted. For example, the long distances and sometimes difficult travel conditions separating participants can be a major hindrance and must be accounted for in scheduling and setting up other participatory options (such as utilizing telecommunications technology). It was also pointed out that clarity of definitions, goals, and methods of measuring success are also important. Particularly in environmental planning (but also relevant to socio-economic planning), a clear definition of sustainability – a concept whose meaning can vary widely depending on the user – is necessary to provide a planning framework, as is the development of specific measurable goals and actions.

The shift to a more proactive approach to long-range planning is also necessary. As mentioned above, this is a key barrier in vulnerable and transitioning forest- and resource-dependent regions (See “7.1.1 Balancing long-term goals over short-term needs” and “7.1.3 How resource-dependence and boom-bust cycles impact long-range planning”). However, for a region that is heavily influenced by policy and economic driving forces which originate in the South and which participants often claim have no

understanding of the North, their region, or their communities, taking a more proactive approach to long-range planning will allow the region to develop a planning process that is responsive to local needs and which avoids having an outside process forced upon it. As well, transparency of process is vital, especially in small communities and sparsely populated areas where planning initiatives are often influenced and shaped by interwoven interpersonal connections and subtle power relations (See Chapter 6).

However, in addition to action and initiative by local government, this also requires commitment and support from higher levels of government and the recognition that long-range planning which fulfills certain agreed-upon criteria can originate from different centers (as opposed to Southern urban ones solely). Considering the socio-political relations that exist between North and South, this commitment to process – and flexibility when dealing with resource-dependent regions – would contribute to greater stability in long-range planning processes, improved relations with higher levels of government, and increased local agency to shape their own future:

I think with politics, we're not masters of our own destiny. The South decides what's going to happen and they have no idea what's going on up here. The political situation changes like throwing a switch. You never know what you're going to get. 50 years – you're not sure what you're going to get in the next 5 years (FOCUS GROUP1 MEMBER)

This governmental commitment should not only include a commitment to process and to following through with commitments to actions and outcomes, but also include a

commitment to making decisions with a long-term temporal scale in mind and encouraging an exploratory approach:

PARTICIPANT1: (When asked what a requirement is for long-range planning) Imagination. It seems that politicians lose their imaginations when they get into political office. One of the pitfalls that politicians fall into as identified by Bill Collier in “The Bottom Billion” (a book) is that they can’t see beyond the next election and so they’re not willing to devote time and money to those issues because it might not help them get elected. They lack imagination and forward-thinking and that’s partly because of electoral process.

PARTICIPANT2: I would argue the opposite. The governor of New Jersey ran on the platform that he wasn’t interested in getting re-elected so he was willing to make the difficult decisions.

PARTICIPANT1: Still basically the same – if you’re concerned with getting re-elected you’ll not make decisions for down the line.

PARTICIPANT3: It’s frustrating that policies change every 3-4 years. An example is the Great Lakes Heritage Coast. There was a policy and the Conservative government had a long-term vision for the Lake Superior Coast, and it was about to be approved but then there was an election and the Liberals came it and it was off the table completely (FOCUS GROUP3 MEMBERS)

At the opposite end of the spectrum, there is also an important role for both the individual and civil society. In particular, participants often cited the need for a “champion” to lead initiatives by example and help motivate and inspire others in planning for the region:

Now, another component to that would be...education...(Unless you have) education and got people onboard and committed to that, it (long-range planning) won't happen. So what I'm saying is, you need a leader. You need a champion. So if I took on championing to the region that this should be done and I'm successful, I'll do it, if they understand the value. But nobody's doing that (MUNCIPAL5).

In order to achieve this, residents, and local stakeholders and actors must see the value in long-range planning, even if they themselves may not see the benefits of that planning, or may only see certain components of it. This requires the engagement of planning professionals who are comfortable discussing and exploring the long-range future, associated driving forces and uncertainties, and can initiate and sustain innovative dialogue with stakeholders about the societal values that need to be incorporated into long-range planning. Therefore, there is an important role for civil society – including individuals, businesses, and organizations such as NGOs - in instigating conversations about long-range planning in the face of uncertainty, soliciting and engaging in participatory processes, and maintaining planning momentum. Frequently such civil society efforts are more pronounced in Southern and/or urban regions than in the North. However, the withdrawal of some governmental services and support which has

motivated such civil efforts in urban areas is also evident – if not more so – in Northern, resource-dependent regions (Markey et al. 2007a; Markey et al. 2008a).

Finally, a framework that allows for diverse interests to participate in long-range planning is vital. Participant suggestions for achieving this included a space or forum where different voices can be heard, improved funding for different interest groups that bring different values and perspectives to the table, and a certain separation between government and industry.

7.2 Utilizing scenarios to manage uncertainty in post-productivist resource-dependent regions: Benefits, drawbacks, and other considerations

Three focus groups were held with participants from the Northeast Superior region (See “4.2.2.4 Focus groups” in Chapter 4 for a description of methodology and focus group composition). In addition to discussing the limitations, opportunities, and the current state of long-range planning in the region, focus groups also examined the potential of scenario development and planning as a means of managing the uncertainty inherent to long-range environmental planning. The process of scenario development and planning was explained to participants to inform those who may not be familiar with the approach and to ensure that those who were familiar with scenarios had a common understanding with other focus group members (See “3.1.2 The use of scenarios for managing uncertainty” in Chapter 3 for a description of scenario development and planning which informed my explanation of scenarios to focus group members). Participants were then asked about possible benefits or drawbacks of utilizing scenarios to manage uncertainty in the region, how scenarios may challenge deeply held beliefs or

assumptions about the future and what the impacts may be, how and whether to incorporate discontinuous events, the possible roles that participants saw for scenarios in planning for the region (if any), and what conditions would be required for focus group members to participate in a scenario approach to planning.

It is important to remind ourselves that scenarios can be utilized both for determining desirable future directions and the paths to achieving them (3.1.1 The use of scenarios for visioning and/or backcasting), and for identifying and managing uncertainty (3.1.2 The use of scenarios for managing uncertainty). Many of the themes and recommendations identified in this chapter and in Chapter Eight can be applied to the development and use of scenarios for developing and forwarding desirable visions of the future. This is undoubtedly a productive use of scenarios and has been undertaken in various contexts (Helling 1998 for *VISION 2020*; Carlsson-Kanyama et al. 2008 for *ToolSust*). Even scenario exercises which have been undertaken with the goal of managing uncertainty can be used for a normative end by identifying desirable futures and exploring how to respond to driving forces in order to achieve regional or societal goals (Raskin et al. 2002 for *Great Transition*; Cizek 2005 and Holyord et al. 2007 for the Mackenzie Valley Pipeline). However, scenarios are less frequently utilized for the management of uncertainty and when they are, several challenges emerge (For a review of these, see 3.3 Challenges and limitations in scenario planning). Such barriers often result in a limited use of scenarios for planning for uncertainty. This is unfortunate, considering the potential that they hold in settings that are experiencing a highly uncertain present and future, such as resource-dependent regions in a state of flux. Therefore, while the utility of scenarios for determining desirable future directions is both

acknowledged and celebrated, it is upon the management of uncertainty that the second half of this chapter will focus.

7.2.1 Benefits, drawbacks, and considerations for scenarios in the Northeast Superior region

7.2.1.1 Benefits of scenarios

Focus group participants identified a number of potential benefits for the use of scenarios in planning for the region. Foremost, they suggested that many diverse ideas would be generated. Certain ideas may consistently emerge, demonstrating a common theme, and multiple narratives offer enough space for more unusual ideas and visions to be produced and considered. The process would also encourage participants and decision-makers to imagine different and divergent visions of the future which many believed was an important component of planning. However, while participants felt that scenarios could be an effective method to generate ideas, some believed they would not necessarily be an adequate forum for resolving them.

The involvement of varied participants in planning was also viewed as a strength. Scenarios were seen as a good opportunity to include multiple residents and individuals from all aspects of life and notably, of varying ages. In particular, younger individuals were seen as missing from the planning process and it was suggested that different age groups have different priorities and viewpoints which are important to incorporate into planning. As well, some younger participants may expect to live to see – and benefit from – the long-term future and so would be more heavily invested in long-range planning, especially if they are committed to the region. At the same time, the existence of community groups which often have healthy memberships and are concerned about, and

committed to, the region were also viewed as useful participants to access. It was suggested that guest speakers who could talk to specific issues or trends, such as climate change, would be helpful supplements to the scenario building process in order to explore driving forces.

Scenarios themselves were deemed as having the potential to benefit long-range planning. Some participants saw the utility in examining how an established or developing plan might function under various future scenarios, thus allowing planners and participants to go back and modify the plan to increase its flexibility. While there were doubts about the robustness and longevity of a plan developed utilizing the actual scenarios themselves (See “7.2.1.2 Drawbacks to scenarios” and “7.2.1.3 Considerations for utilizing scenarios” for further discussion), participants also felt that scenarios could be used as a system against which plans can be measured, as well as a series of narratives which planners and decision-makers can use as an “early warning” system in order to know what signs and driving forces to look out for:

I think if you use scenarios as an information system versus as a plan for “This is what will have to happen if this happens”. So if you use it to gain information on what might happen and not as a direct guide, but as a helpful “Oh, I didn’t think of this”. So you can use it to help plan for the situation but not as the total resolve of the situation. So then the people dealing with the situation have the scenarios to look at, as well as whatever other information they have at the time, and they can say “Yes, we’re going to come up with a plan and we’re going to use their scenario planning”, not as the end-all and be-all, but so ideas from that other group can be

discussed and used in some ways that maybe they wouldn't have come up with. So the more people involved in that scenario in the end when it does get used, the better (FOCUS GROUP3 MEMBER).

The number of scenarios produced was also viewed as a strength which allows greater flexibility in opinion, reduces the need for achieving consensus, and allows planning for a wider array of potential futures:

The strength I see in having four or five scenarios is you'll likely end up with one extreme, no matter what you do as a group of people. And the one extreme will be a disagreement of one half of the group and the other extreme will be a disagreement of the other half. There's always two extremes in every planning exercise, with some better quality positions in the middle. Having more options than 4 or 5 could have some strengths – you could build some better scenarios near the middle but they could also get watered down and nobody's getting what they truly want (FOCUS GROUP3 MEMBER)

Finally, if a scenario process is done properly and locally (i.e. the group is selected from a broad spectrum of the region, there is ample time for the group to mature and learn together, the scenarios produced are utilized to test a plan or are incorporated into it, and the plan is implemented) some participants saw great potential for a process which would achieve greater local buy-in and ownership, and which could provide a template for similar regions.

7.2.1.2 Drawbacks to scenarios

Several potential drawbacks to the development and use of scenarios were also highlighted by participants. As mentioned above (7.2.1.1 Benefits of scenarios), participants saw the potential of scenarios which are developed in collaboration with a diversity of individuals. However, there were concerns that any planning exercise would be dominated by an older generation which currently holds positions of political power and were viewed by some focus group members as being resistant to change, complacent with the current state of the region, and unrepresentative of the concerns and needs of younger residents. Participants also mentioned other drawbacks regarding participation, notably the difficulty of getting a sufficient number of individuals to participate in planning in Northern regions, let alone developing a plan and then testing it against possible scenarios. There were further concerns that the process might be dominated by individuals with little understanding of larger-scale driving forces or the scenario process itself, thus necessitating careful selection of the group and good technical assistance.

Another major drawback that was highlighted by all three focus groups was a history of participant involvement in planning exercises which failed to achieve any tangible outcomes due to uncommitted or changing governments. Therefore, without the scenario process being backed by political commitment and the power to enact plans, a scenario planning process was viewed as an exercise in frustration, thus reinforcing a lack of agency, rather than building it. Attached to this was a mistrust of decision-makers, including both local and higher levels of government. In particular, while scenarios could

be useful at the municipal level, participants felt that the process would have to be sponsored or initiated by higher levels of government, such as provincial or federal. Focus group members highlighted that many of the participants had already been involved in previous planning initiatives which failed to produce results and felt embittered by this history:

As people get older, they also get more cynical because they've been part of processes where by the time they get to a focus group, the decision has been made and they're not going to be taken seriously (FOCUS GROUP1 MEMBER)

If you want to open up ideas that are community-changing and North-changing, it's going to have to be strongly politically backed (FOCUS GROUP1 MEMBER).

Finally, although it was not explicitly raised by the focus groups, it should be noted that understanding the very *concept* of scenario planning for managing uncertainty - versus visioning to develop a goal or desired endpoint - often posed a challenge for some focus group members. This is reasonable; while common in business and financial settings, the use of multiple scenarios for managing uncertainty in environmental planning is currently a fringe method. As well, visioning exercises are far more common in all types of planning and many of the communities in the region have already been involved in these visioning exercises over the past several years. However, it is notable that as discussion about scenarios progressed, many participants continually fell back into the mindset that

the ultimate goal of a scenario exercise is to eventually determine a “best” scenario. This bias towards developing a “plan” is even evident in the drawbacks mentioned above by participants. Therefore, a lack of understanding of the role of scenarios remains a major challenge. This continued tendency towards visioning also suggests that there is something unsatisfying or uncomfortable to participants about simply embracing the continued existence of uncertainty that scenarios attempt to manage rather than eliminate (Mulvihill and Kramkowski, 2010).

7.2.1.3 Considerations for utilizing scenarios

In addition to managing the drawbacks highlighted above, focus group members also raised certain issues and factors that must be considered to effectively develop and utilize scenarios in planning for the Northeast Superior region. This includes drawing appropriate boundaries, creating a strong foundation of planning knowledge, establishing responsibilities over processes and outcomes, and the need for an appropriate scenario template.

Similar to the heterogeneity noted within the Northeast Superior region in Chapter 6, focus group members also cited the differences in interests and visions between various communities and areas of the region. Therefore a careful consideration of where to draw the spatial boundaries of the planning area was seen as important. Regarding the concern mentioned above that individuals with little knowledge of planning or broader driving forces might skew a scenario exercise, some participants also mentioned the value of developing a strong foundation of planning knowledge regarding relevant concepts among participants to ensure that all worked from a common level of understanding.

There was debate about where the responsibility lay for overseeing the execution of any long-range plans that emerged from the scenario process and how involved the scenario development group would be in implementing any outcomes of the scenario initiative. There was also discussion about whether future decision-makers would feel committed to or bound by earlier plans made for the long-term. This also reflects a continued emphasis on visioning a path forward, versus developing multiple stories or narratives:

PARTICIPANT1: Over the course of 100 years, how do you execute it and does the group that executes it believe in the plan, because they weren't the ones that came up with it?

PARTICIPANT2: Generational differences between the people who came up with the plan and the generation that actually implements it.

PARTICIPANT1: If you have to execute it and you weren't there for any of the conversation why, how do you execute something when you didn't know why it was developed? There needs to be a rationale built into the plan so the people who are executing it in the future also believe in it, not just the people who are making the plan but also the ones who are going to have to use it eventually (FOCUS GROUP3 MEMBERS).

Finally, several participants raised the idea of a template for developing and utilizing scenarios in planning. They specified that it would be beneficial to learn from previous scenario exercises rather than re-learn the process themselves, thus saving time and

energy. Further, the lessons learned from their own scenario exercises could inform subsequent ones. At the same time, it was specified that a scenario template had to be appropriate for the context of small communities in forest- and resource-dependent regions.

7.2.2 Challenging beliefs and assumptions about the future: Advantages and repercussions

Stretching assumptions and beliefs about what the future holds is regarded as one of the primary strengths of scenarios (Schwartz, 1991; Frittaion et al. 2010; Mulvihill and Kramkowski, 2010). At the same time, challenging such beliefs can also cause emotional stress and conflict among participants. In the context of the Northeast Superior region, focus group members saw potential advantages and repercussions to stretching assumptions about the future. Benefits included encouraging innovative thinking, sensitizing oneself and others to their biases, the potential to create new relationships, and for participants to generate greater self-awareness. Potential drawbacks included compounding the emotional distress created by a declining forestry industry, creating interpersonal rifts, souring participants on the scenario process, and the potential for political control of the process.

7.2.2.1 Advantages of challenging beliefs about the future

Similar to the scenario literature mentioned above, several participants saw a benefit to expanding local visions of how the future may play out. In particular, they felt it would facilitate much-needed imaginative and “out of the box” thinking regarding the future of the region. Some also suggested that such thinking would help participants

realize their own biases and develop enhanced self-awareness, to the benefit of themselves and others in the group:

There's a great benefit if a person is receptive to it, to realize that they have a narrow, knee-jerk reaction. This sensitizes people to the idea that there's a series of potentials out there and people are expanding their brain so they're not so rigid
(FOCUS GROUP2 MEMBER)

It was also mentioned that developing multiple scenarios which do not necessarily require consensus could also offer an opportunity for participants to form new relationships. At the same time, all participants noted the potential for conflict that could arise from stretching entrenched beliefs about the future.

7.2.2.2 Repercussions of challenging beliefs about the future

As can be expected, challenging one's beliefs about how the future might unfold can be an emotional experience. However, this stress takes on a new dimension in forest- and resource-dependent regions which are in a state of vulnerability and flux, and are struggling to survive:

I think it's totally negative because you're not going to get people by their emotions right now. Their emotions will take over and they don't want to hear stories. They want solutions (FOCUS GROUP1 MEMBER).

Furthermore, there were doubts that all participants in a scenario exercise would have and utilize sufficient imagination and creativity, and concerns that these participants might not be open to having their beliefs challenged. On the other hand, it was also mentioned that a system could be design to accommodate how different people think (i.e. those with strengths other than imagination). Overall though, there was trepidation that challenging assumptions, hopes, and visions of the future may cause interpersonal rifts, thus unearthing and exacerbating polarizations in the group and possibly souring participants on the scenario process.

Focus group members also raised the concern of political interference in the scenario process, particularly if certain participant beliefs (Such as regarding climate change) did not align with the beliefs or priorities of government, or if certain political parties attempted to control the output of the planning process.

7.2.3 The future ain't what it used to be: Incorporating discontinuous, game-changing events

A discontinuous event is a major event which is often unexpected, would have great impact if it occurred, and which would exert significant social, economic, and/or environmental transformation (Notten et al. 2005; Lindgren and Banhold, 2009). A strength of scenario planning (as opposed to visioning) is that multiple narratives of the future allows the freedom to incorporate some of these discontinuous, “game-changing”, or “wild card” events into planning to expand the flexibility of scenarios and increase preparedness for a wider range of futures. However, whether and the extent to which discontinuous events should be incorporated into scenarios was one of the most debated aspects of scenario planning among the focus groups.

There was agreement on certain aspects of the issue. For example, it was acknowledged that discontinuous events occur at different scales, and a game-changer at one scale of planning could be a non-event at another. Therefore, the scale of potential discontinuous events must be taken into account:

Depends on whose game-changing event it is. If a forest fire came through and scorched half the town, it would be a big game-changing event for us, Thunder Bay would put it on their headlines for a day, and Toronto would not even notice it. But for us, that's a game-changing event (FOCUS GROUP1 MEMBER).

However, whether and how discontinuous events should be seriously incorporated into scenarios was a source of deliberation. The discussion particularly focused on how extreme a scenario should be to balance plausibility with preparedness for potential "wild card" events. Some felt that discontinuous events, while appropriate in a more theoretical planning exercise, would be uninteresting and distracting to participants who are seeking to come up with tangible plans and "answers" (FOCUS GROUP1 MEMBER). Other participants believed that governments and the broader public would be uninterested in exploring and preparing for possible discontinuous events when conditions are good, as has been demonstrated by the region's history:

PARTICIPANT1: It's as hard to tell people that there are bad times coming as you can predict that there are good times coming. When things are booming, it's hard to get people to prepare for the bad times. The mine closed and people were

still expecting it to reopen – “Oh it will be open in 3 months”. No, it’s really closed.

PARTICIPANT2: There was over 9 years of warning. It was announced nine years before it happened publicly and all the way through. But the people in positions of authority have to act on it. It comes down to political will and having the power to do these things (FOCUS GROUP1 MEMBERS).

Other participants saw great value in incorporating discontinuous events, and felt that having multiple scenarios allowed participants’ disparate visions of the future to be utilized. However, there was debate over how “extreme” a scenario should or could be before it was no longer useful for managing uncertainty:

PARTICIPANT1: An event that is so extreme that it is inconsistent would be not useful, such as saying that the whole wood basket of all of Northern Ontario burns up. The really wild ones wouldn’t be helpful.

PARTICIPANT2: But we could get a scenario like that with climate change

PARTICIPANT3: Look at B.C. (and the Mountain pine beetle infestation which wiped out an enormous swath of the province’s forests)

PARTICIPANT1: My point is that you could have an internally consistent scenario that is so wide of the mark that it becomes not useful to the process

PARTICIPANT3: I would argue that you start to stretch your thinking. Maybe you stretch it to its limits, but if something of less impact happened, then you

could accommodate it because it's not as bad as what we planned for (FOCUS GROUP2 MEMBERS).

Therefore, although there was concern that discontinuous events in scenarios (whether positive or negative) could lose public interest, erode the credibility of the scenario exercise, or could raise public expectations which might then fall short, many felt that some of the original strengths of scenarios – the ability to generate ideas, stretch assumptions about the future, and encourage imagination and creativity – were strengths that could also be served through the utilization of discontinuous events.

7.2.4 The potential of scenarios in the Northeast Superior region

Finally, given the information they received about scenario development and planning during the discussion, participants were asked whether they saw a potential for the use of scenarios in the Northeast Superior region and what would be required for participants to actively engage in a scenario-based approach to planning.

Many focus group members saw high potential for the use of scenarios in the Northeast Superior region. However, other participants viewed scenarios as suitable solely for an academic exercise and did not feel it offered relevance to residents who are searching for immediate answers and solutions. This highlights one of the barriers to engaging community members, stakeholders, and actors in long-range planning that focuses on managing uncertainties – namely that the long-range appears intangible and planning for uncertainty does not offer the same perceived satisfaction as visioning to develop a goal. This reference to scenarios as an “academic exercise” also links to

another major theme that group members raised, namely the need that a planning initiative is backed by governmental will and commitment to following through on the process and the scenario planning outcomes, and that scenario development is part of a larger process that continues on:

PARTICIPANT1: It would be useful for me if I knew we could do something about what we recommend, or that someone would do something about it. I think you would find it a common thread in these small communities. The academic exercise is not what most people are interested in.

PARTICIPANT2: Even that it would be seriously listened to at some high level, where the politician in charge or with the decision-making ability would look you in the eye and say “We can’t do that because of this”, not just “No, we’re not going to”. Even if it was to that level, then I would be all in. But it’s not going to go to that level so I’m out (FOCUS GROUP1 MEMBERS).

This need for governmental will comes from a place of experience – many focus group members have been part of planning exercises that “went nowhere” and remain frustrated and disillusioned with such seemingly empty gestures.

However, governmental commitment is not the sole requirement for scenario planning to be used effectively in the region – the commitment of regional community members to the planning process is also necessary. It was mentioned that planning processes frequently involve the same participants, thus resulting in volunteer burn-out and an unengaged public. Therefore, the value and advantages of long-range planning

and scenarios must be demonstrated to residents and other potential participants. Participants understood that due to the decline in the forest industry and a history of boom-bust cycles that the communities of the region are “emotionally depressed” (FOCUS GROUP2 MEMBER) and hence have little enthusiasm for the planning process. Participants noted that this is combined with the continued legacy of industry and resource dependence which encourages residents to hold out for “the next big find” or project. However, group members also pointed out that other communities in Northern Ontario exude a greater sense of creativity, entrepreneurial spirit, and initiative, and spoke of how these qualities can be cultivated.

First, participants highlighted the importance of demonstrating to the public how the scenario process has successfully been utilized in other locations and contexts to better visualize how it could be successful in their own region. Other cases can also demonstrate where previous mistakes have been made so as not to repeat them.

Second, the development of relationships and a “community spirit” is necessary. This can be done by adding a social element to the scenario exercise (such as making it part of a community event or dinner), and ensuring the scenario development exercise includes more than a “dry” presentation so the entire group has a chance to bond.

Third, the people or person involved in leading scenario development and planning, and in initiating and motivating long range planning, are important. Opinions on who the best choice would be however, varied among participants. It was suggested that it would be less effective if an initiative were led by someone from the “outside” (particularly a consultant or environmentalist from Southern Ontario), since it might build resentment towards another externally-directed process being imposed on the local

population. Furthermore, it was suggested that an initiator of the process could not be governmental staff due to a history of resentment towards the province. At the same time, some participants raised the concern that having certain local participants as a director of the process might result in short-sighted and overly biased planning compared to government staff trained in planning and resource management. It was debated whether a member of the “general public” could be considered to fill that representative role if they were supplied with planning and group consultation training:

And really understanding what your assumptions are. We’ve moved from community planning where it’s more individuals (i.e. government staff) doing the planning in a way that they assume they know what’s best for you, to community planning where everyone is encouraged to take part and get their fingers dirty and get what you want out of it. Where’s that balance between the training and knowledge that goes into becoming a professional and playing that role, to understanding what all the different parties are? A lot of people do not make decisions that are in their own best interests because they’re short-sighted or thinking of what they want right now...As someone who went through that training as a professional to manage a resource in the best interests of the public and took an oath to protect the public, there’s an ethical aspect to decision-making. So I have a mistrust that the general community would be able to accomplish it better than a professional group, acknowledging that maybe we don’t have the right information and what our interpretation of what’s best for the public isn’t what the public really wants because we’re not talking to them. I

know it's hard for me to work with other professionals and I've heard stories of professionals working with the general public and don't have training for how to work with groups. Working with groups is a huge component of doing that. And if you train members of the general public on how to do that, are they still members of the general public if they know how to do that? Are they still representative of who they walked in as, or have you just made a bunch of kind-of-professionals? That's just my distrust of community planning (FOCUS GROUP3 MEMBER).

Finally, it was proposed that a context-specific template was required to guide the scenario development and planning process. This would offer some consistency in process, whether it was run by governmental staff unfamiliar with scenarios or by members of the general public. Further, it would allow increased transparency of process, ensure a greater perception of fairness, and allow participants more certainty and comfort by demonstrating an initiative which is planned from start to finish. An additional benefit would be that if successful, the initiative and template could act as a model for other similar regions. This is particularly relevant since the isolated nature of scenario exercises, the associated lack of transferability to other contexts, and their seeming remoteness from action and decision-making is often viewed as a weakness of scenarios (Kok et al. 2006; Marchais-Roubelat and Roubelat, 2008). The factors above all point to another insight – not only is scenario development and planning an art (as well as a science), so is the decision process about how, when, where, and if, scenario exercises fit into broader planning processes.

7.3 Bridging the distance: Examining how the case study of the Northeast Superior region can address gaps in scenario planning

Scenario development and planning holds great potential for the management of uncertainty associated with long-range planning. The approach has been lauded for its utility in identifying driving forces and uncertainties that may impact the future and associated plans (Schwartz, 1991; Wollenberg et al. 2000), for creating collaborative opportunities (Helling, 1998; Frittaion et al. 2010; Svenfelt et al. 2010), for bringing together participants with differing backgrounds, training, experience, and expertise (Garb et al. 2008), and for providing space for multiple, sometimes conflicting perspectives to be incorporated into several narratives, as opposed to requiring consensus for one common vision (Mulvihill and Kramkowski, 2010). Scenarios can help the public and decision-makers better visualize a seemingly vague long-term future, stretch their assumptions about what the future may hold, and possibly inspire positive value shifts and behaviour changes (Frittaion et al. 2010). Scenarios are also notable for their capacity to incorporate discontinuous or “game changing” events and the ability to incorporate peripheral or “fringe” information on possible weak signals that herald larger movements or trends (Schwartz, 1991; van Notten et al. 2005; Mulvihill and Kramkowski, 2010). Scenarios can help planners, decision-makers, and participants understand how multiple trends may interact and extend forward, thus providing strategic guidance to present and future challenges, and allowing existing or developing policies and strategies to be tested against a range of possible future conditions (Myers and Kitsuse, 2002; Mulvihill and Kramkowski, 2010). Finally, not only does scenario planning allow preparedness and a

quicker reaction to crises that emerge, but it also allows decision-makers to more effectively harness opportunities that arise.

However, as with any emerging approach in planning, the development and use of scenarios exhibits several shortcomings, and related gaps can be found both in the literature and in the case study of the Northeast Superior region. These include difficulties envisioning the long-range future, to what extent discontinuous events should be incorporated, struggles with planning for uncertainty versus visioning a future goal, the emotional distress that comes from stretching participant beliefs about the future and resultant impacts on quality of the scenario process, a lack of reflexivity of how different visions of the future might be over- or under-represented and the impact on quality of planning, a lack of transparency, and ineffective transference of lessons from one scenario exercise to another. My case study of long-range planning in the Northeast Superior region speaks to many of these gaps and issues, and adopts a context-specific approach to the use of scenarios in managing the uncertainty that accompanies long-range planning.

7.3.1 Making scenarios satisfying: The tendency to plan for a goal versus uncertainty

Long-range planning can involve visioning to develop a goal, objective, or endpoint, backcasting to determine what steps are necessary to achieve that endpoint, or scenario planning to manage uncertainty. However, while it was made clear in the focus groups that the process being described and discussed was the development of scenarios for managing uncertainty, many participants frequently reverted to discussing scenarios

as a visioning exercise. This is a phenomenon little discussed in the literature but which must be noted and explored.

It has been observed that planning for uncertainty can be rather counterintuitive (Mulvihill and Kramkowski, 2010) – after all, humans frequently plan in order to reach a goal or achieve an objective, not to determine what may or may not happen. Therefore, for the public, there may be something inherently unsatisfying about scenarios where it can be difficult to identify a tangible outcome and measure of effectiveness. As well, adverse and inconsistent scenario methodology can sometimes lead practitioners and participants towards more normative styles of planning, such as visioning (7.3.5 Transparency and transferability).

This trend may also be exacerbated by two other factors in resource-dependent regions. First, in the wake of the forest industry decline, as well as due to other boom-bust cycles, many of the communities of the Northeast Superior region have already been involved in numerous visioning and/or backcasting exercises to determine the direction in which participants want their community or region to go and the steps necessary to achieve these goals. Therefore, members of the public may assume that all “scenario” exercises are actually visioning and when in doubt, may revert to the planning processes with which they have experience.

In addition, as mentioned above (7.2.2 Challenging beliefs and assumptions about the future), the Northeast Superior region is facing multiple uncertainties about the very survival of its communities, a fact which elicits strong emotions and stress. Therefore, participants may be unsettled by not only acknowledging, but actively exploring current

and future uncertainties, while planning for a vision or goal may offer a greater sense of control over the future.

Therefore, any scenario exercises for the management of uncertainty must begin with a very clear explanation of what the goal of the exercise is, what the expected outcome will be, and what the possible benefits will be both to participants and the region being planned for. This is an important component of scenario development and should not be rushed – there is no benefit to losing participants during the process due to their frustrated expectations about the ultimate goal. Furthermore, facilitators or planners leading the exercise may have to occasionally redirect a group towards the goal of the initiative – namely, developing multiple plausible narratives which incorporate driving forces and uncertainties that may impact the future of the region.

The development of several narratives does not guard against this inclination either. Noted tendencies for participants to gravitate towards a “favourite” scenario (Duinker and Greig, 2007; Lindgren and Banhold, 2009) must also be kept in mind. This tendency was observed in focus groups and in informal communications with some community members where, even after explaining the scenario process, people spoke of two or three possible scenarios with one being the clearly preferred one that any reasonable decision-maker or public would work towards. Therefore, practitioners and facilitators must be careful that a scenario exercise does not get “hijacked” – however inadvertently – into becoming another visioning exercise.

7.3.2 Difficulty envisioning the long-range future: Exploring futures and discontinuous events

In almost any context, humans have great difficulty envisioning the long-range future, with Tonn et al. (2006) indicating that the future tends to “goes dark” for the average person at about ten years in the future. Furthermore, scenario literature has also noted that participants, decision-makers, and the public have difficulty envisioning futures which are vastly different than what they perceive to be the status quo. For example, scenario makers and participants often gravitate towards a “favourite” scenario, rather than allowing the possibility that any of the developed narratives may come to pass (Duinker and Greig, 2007; Lindgren and Banhold, 2009; Reed et al. 2009). Essentialist perspectives that there are certain, intractable components to human nature and society also hinder effective exploratory scenarios (Mulvihill and Kramkowski, 2010). Further, many scenario exercises do not incorporate discontinuous events into the end product, and even when potential discontinuous events are identified, they are frequently filtered out in the scenario development process and treated separately (van Notten et al. 2005). Tansey et al. (2002) have also noted a conservative bias when extending past data to future conditions. This negates many of the strengths of scenario planning, namely an explorative approach that embraces potential uncertainties and “wild cards” which hold potential for societal or organizational disruption.

In addition to these challenges, resource-dependent regions experience additional barriers to visualizing the long-range future. A history of resource-dependence, associated boom-bust cycles, and a “company town” mentality often results in participants and the public looking to the next “saving” primary industry to move into the region – a long-running cycle. Even current transitions to multiple forest- and landscape-

based interests and industries have not occurred for a sufficient length of time for residents to visualize other potential futures, especially when all the municipalities of the region were born from a specific resource industry and company. This history also resulted in transient segments of the population which do not plan to permanently remain in the region. Hence their “long-range future” does not include the future of the region or community in which they currently reside. Further, due to decline phases of resource industries, even permanent residents may not be visualizing their long-term future in the region. This is exacerbated by local perceptions of limitless natural resources, thus interfering with scenarios in which such resources are not available to the same extent. Finally, the immediate vulnerabilities and threats that the Northeast Superior region and other similar regions are experiencing often means that the public prioritizes short-term goals and planning which will ensure the continuation of their community and livelihood, over long-range planning and planning for uncertainty which is viewed as a vague, intangible “academic exercise” which will not “put bread on the table”. As demonstrated above (7.2.3 The future ain’t what it used to be), these factors could also interfere with whether discontinuous events are incorporated into scenarios and if they are, the extent to which they are incorporated.

At the same time, this research demonstrates that several factors in resource-dependent regions can be utilized to expand participants’ temporal range in scenario development and planning, as well as encourage the effective identification and incorporation of discontinuous events. As explored in Chapter 6, residents, actors, and stakeholders in the region often experience a fierce loyalty to place, an identity shaped by landscape and by perceptions of being a “Northerner”, as well as a resultant sense of

place which can impact and be utilized in environmental planning. Furthermore, there is anecdotal evidence that many formerly transient residents and workers are seduced by the region's landscape, people, and lifestyle, and eventually become permanent residents. It should be noted that this is not necessarily a pan-Northern trend – several interview participants who reported this personal history for themselves also noted that they had lived and worked in many Northern communities prior to settling in the Northeast Superior region, thus suggesting that due to a combination of landscape, community, lifestyle, work opportunities, and other factors, certain “charismatic” regions may hold a greater power to “settle” transients. Furthermore, despite many participants stating that regions characterized by resource-reliance are unable to carry out long-range planning, it should be noted that boom-bust cycles and long-range planning are not necessarily mutually exclusive - a major mining development (or an oil strike in other regions) could plausibly be incorporated into one potential scenario. In addition, many resource-based industries which are themselves subject to boom-bust cycles utilize scenarios themselves. For example, Minerals, Mining and Sustainable Development North America's (2002) scenario document exploring the future of the mining industry in North America is supported by a variety of national and international mining companies. Scenarios can also be utilized for other landscape-dependent, non-primary resource industries in the region, such as for exploring tourism futures.

These features can be used in a variety of ways. In particular, “personalizing” the long-range future in some manner can make it more tangible and thus, more important to plan for. Frittaion et al. (2010) found that by writing scenarios in the present tense and imagining themselves as characters in scenarios which were set in the year 2050,

participants were better able to dissociate from the present and grasp the possibilities that the scenarios raised. Similarly, components of the scenario development process in which driving forces and uncertainties are identified can be a key window of opportunity to demonstrate to participants how their beloved and fiercely defended lifestyle, landscape, and region can be impacted by both local and broader forces. Further, one of the few ways that participants were able to more tangibly visualize the long-range future was to see it in terms of their descendants, both children but predominantly grandchildren. This resonates with themes identified in Chapter 6 (6.1.3 Links between residents and the landscape) in which interview participants not only suggested that their lifestyle was more true, genuine, and in tune with natural processes than urban lifestyles, but also voiced concerns that the current young generation and future generations would not experience the same lifestyle and its benefits. Therefore, tapping into the concept of a “legacy” that relates to the continued survival – and perhaps even prospering – of the current generations’ lifestyle, connection with the landscape, and values, can be an important means of extending the scale of participants’ visions of the futures.

As mentioned above (7.2.3 The future ain’t what it used to be), several focus group participants critiqued the notion of discontinuous events in scenarios as being outside the realm of “useful” in planning. However, based on other discussions that emerged from the focus groups, it is possible that when approached properly, participants in resource-dependent regions may actually be *more* amenable to the concept of such “wild cards”, having experienced many of them already. For example, many residents of resource-dependent communities are familiar with the threat of forest fire possibly destroying a portion of their livelihood or necessitating the evacuation of an entire

community, experiences which are frequently unimaginable in other contexts such as an urban area. The scale at which a discontinuous event occurs can also make planning for it seem more useful – for example, Tonn et al. (2006) note that while humans are often pessimistic about humanity's control over its future, they are frequently optimistic about the degree of control that individuals have over their own lives. By extension, community- or local-scale discontinuous events may appear to be manageable by community-scale planning, making the use of scenarios for local-scale discontinuous events seem more constructive.

However, even at broader scales, the public of resource-dependent regions have experience with discontinuous events and how these may or should be managed. Furthermore, participants may also have first-hand experience with how multiple local and large-scale driving forces can interact to form discontinuous events. For example, the decline of the forestry industry in Ontario has resulted as a combination of local factors (such as wood supply and increasing distance of wood supply to the mill) and provincial, federal, and global factors (such as soft wood tariffs, declines in American housing markets, and competition from international wood suppliers). The result of these combined forces has been an elimination of the major employer for the region, a societal shift of population, and a transformation of the region's communities. Examples from other similar regions (such as the Mountain pine beetle infestation in British Columbia) can demonstrate how ecological driving forces, such as climate change, can profoundly affect vast swaths of the province and the landscape upon which communities depend. Therefore, by utilizing examples such as these in which participants can actively relate to discontinuous events which they have experienced or which similar regions have

experienced and the ramifications, the utility of identifying, incorporating, and planning for such occurrences can become a reasonable – if not urgent – undertaking. Furthermore, even certain essentialist beliefs that may be held by the residents of company towns – such as always being dependent on an outside resource company to come into the region, bring economic prosperity, and control local processes – are now being challenged by the increasing prominence of community-controlled resource initiatives such as the White River-Pic Moberg mill, and provincial policy which gives some decision-making power to the communities in a Forest Management Unit (The Working Forest, 2012).

It should be noted that a further motivation for envisioning and planning for the long-range future rests on two other factors – crisis and political commitment. As indicated by many interview and focus group participants, the boom-bust nature of resource-dependent regions encourages residents to discard planning initiatives when times are good. Further, while the Northeast Superior region is currently experiencing its most dire downturn and while many participants admitted that they do not expect an equivalent return of the forestry industry, many still clung to the notion that a resource industry of the same scale (whether mining or a new forestry product) would enter as a “saviour”. Hence, despite the current crisis, an economic upswing in the region may seem to eliminate the perceived need of residents for planning for uncertainty. Therefore, the current economic crisis in the region offers a window of opportunity to expand visions of the future during a time when the public is actively tackling today’s consequences of yesterday’s uncertainties.

Further, many participants critiqued previous planning exercises due to a lack of governmental will and commitment to follow-through with actions based on the results of

the exercise. It is also true that many ambitious, interesting, and potentially useful scenario exercises are undertaken by think tanks or organizations with little connection to decision-making powers and policy processes (Mulvihill and Kramkowski, 2010). However, many scenario exercises have also been commissioned and/or undertaken by natural resource industries themselves which are subject to high uncertainty (Schwartz, 1991; MMSD-North America, 2002). Therefore, no matter how much of a potentially useful approach it may be, participants will continue to see scenario development and planning as an academic exercise unless it is backed by a governmental commitment. Such a commitment to action and tangible follow-up would offer an enormous incentive for participants to push farther and create diverse scenarios of how the future may play out. In addition, this governmental commitment must not only be to the process and outcome, but also to a continued monitoring of conditions – planning for uncertainty cannot be expected to be effective if sustained scanning for key indicators which may suggest that a certain scenario is underway is not conducted. However, such a commitment also requires that relevant levels of government understand the value of long-range planning, as opposed to shorter, temporal scales.

7.3.3 Stretching beliefs without breaking the process: Balancing the drawbacks and benefits of challenging assumptions about the future

Both the literature (Schwartz, 1991; Frittaion et al. 2010; Mulvihill and Kramkowski, 2010) and many focus group participants view one of the strengths of scenarios as being the imaginative stretching of assumptions and beliefs about how the future will, or may, play out. Focus group members also saw increased opportunity for collaboration and relationship-building as one of the assets of scenarios, a theme echoed

by other case studies (Helling, 1998; Garb et al. 2008; Frittaion et al. 2010; Svenfelt et al. 2010). These benefits are reinforced by the development of multiple scenarios which do not necessarily require achieving consensus on a common vision and which allows space for multiple, conflicting perspectives to be incorporated into the end product.

At the same time, others have noted that challenging participants' beliefs about the future can result in a perceived politicization of the scenario development process, emotional repercussions, and an erosion of the credibility of the exercise (Duinker and Greig, 2007; Volkery et al. 2008). This drawback can be exacerbated even further in post-productivist resource-dependent regions undergoing economic, social, and ecological transitions (7.2.2 Challenging beliefs and assumptions about the future), and especially so if participants believe scenarios to be predictive tools.

In addition, as observed in Chapter 6, the complex value and power conflicts that occur in planning in such regions can make certain scenarios politically and emotionally loaded. For example, in one focus group, I was asked to provide an example of what could constitute an emotionally distressing scenario. I provided a 50-year vision of the future which was offered to me by a (local, permanent resident) interviewee that the communities of the region would shrink dramatically or disappear and both economic factors and political policy would turn Northern Ontario into a large provincial park. Though this scenario was described specifically with the intention of illustrating how a scenario could be emotionally distressing and was clearly not offered as a positive or even realistic vision of the future, the focus group participants utilized the example to focus on themes of governmental mistrust, North-South power discrepancies, and the impact of urban environmental movements on Northern interests, and eventually led to

several participants eschewing the use of scenarios which explore such themes. Further, such scenarios which do not include either the status quo or what participants deem a “positive” vision of the future can also expose “the myth of self-sufficiency” described above (7.1.3 How resource-dependence and boom-bust cycles impact long-range planning), in which residents’ perceived self-sufficiency in daily living is undermined by their communities’ and region’s dependence on an outside industry and company deeming them worthy of economic activity. Therefore, even though an advantage of scenario planning is the space for multiple, conflicting perspectives among several narratives (Myers and Kitsuse, 2000), a scenario which might be developed as a more extreme illustration of certain driving forces in the future - though still only one narrative among many – has the potential to derail an entire planning process due to its emotional and political content.

This speaks to the point made above (7.2.4 The potential of scenarios in the Northeast Superior region) that while the development and use of scenarios is frequently referred to as an art, the decision-making process surrounding how, where, when, and if scenarios should be utilized is also a subjective process which requires knowledge of context, sensitivity, foresight, and good judgment. This is especially important in resource-dependent regions in which the intricacies of challenging beliefs about the future are highly complex. This also highlights the role of various actors – such as industry or NGOs – in spearheading exploratory and potentially provocative scenario exercises which may not be properly delved into when the process is led by local stakeholders.

7.3.4 Representing the future: How structure and participants can impact scenario content

As emphasized above (7.3.3 Stretching beliefs without breaking the process), the development and utilization of narratives about the future for planning can be a deeply value-laden exercise. Furthermore, which driving forces and uncertainties are identified, and how they are combined to form the scenarios that will be an important component of long-range planning, is also shaped by the participants and facilitators involved, and their perspectives, priorities, and values.

It is already acknowledged in the literature and by scenario practitioners that effective scenario building incorporates a wide range of stakeholders into the process to maximize diversity of perspectives and knowledge (Garb et al. 2008). However, other case studies have found that participant diversity is not always sufficiently achieved (Carlsson-Kanyama et al. 2008), that it can be difficult to recruit high-level participants and that in some cases, the difficulty in recruiting and engaging stakeholders actually increased with the heterogeneity of the participant group (Rotmans et al. 2000). Further, Rotmans et al. (2000) found that participants struggled with definitions for broad concepts such as “quality of life”, “cultural identity”, and “social cohesion”, thus demonstrating how the types of participants involved can influence the definition of key concepts.

Similarly, focus group members underscored the importance of establishing common meanings for concepts such as “sustainability”. They also emphasized the consequence of a diverse participant group. This included both a diversity of local perspectives, as well as “outside” participants from other regions or with unrepresented

or uncommon knowledge or expertise. Focus group members suggested that outside knowledge could be partly provided through guest speakers. However, they also emphasized it was important that such participants were part of the group itself, in the hopes that a broader set of issues and driving forces would be incorporated into the scenarios, thus making them more robust. At the same time, these “outside” participants could not be viewed as being given a “larger” voice than local participants when it comes to incorporating their views into scenarios. It is also important for participants to be aware of the authority the results of the scenario exercise will have and what its potential impact may be on future policies or initiatives. In particular, any compromises in definitions or understandings of key concepts, terms, or goals - while necessary - may have significant repercussions which participants should be sensitive to.

Therefore, the facilitator or leader of the scenario process serves as an important piece of the puzzle. In Chapter 6, interviewees highlighted the need for a neutral facilitator in environmental planning, as was lacking at the beginning of CLUAH and which many felt was a blow to the planning process. Further, some participants felt that in the Michipicoten Bay traprock quarry debate, certain local interests were politically over-represented and that subtle power relations and discrepancies shaped the planning process. Therefore, it is vital that the facilitator or leader of the scenario process ultimately comes from outside the region. This is not to say that the initiation and encouragement of the process cannot be spearheaded by local individuals – indeed it likely will not occur without this commitment and initiative and may give added legitimacy to the planning process as being instigated from “within”. It is also not to say that local government or planners cannot be involved in the organization of the scenario

process. While scenario exercises are sometimes led by individuals, they can also be led by teams and depending on the participants and the focus of local governments, it might be productive to incorporate some of these individuals into a team. At the same time, while the facilitator or leader should come from outside the region, if possible, there would be value to having the leader come from a similar region that shares similar characteristics to the one being planned for (whether from the North and/or a resource-dependent area) who participants feel can relate to their current and future state.

Finally, the importance of a tangible outcome is also critical. For example, VISIONS Europe (a visioning exercise) was criticized for setting processes rather than outcomes (Helling, 1998). This is echoed by the focus groups which, though they saw the value of increased collaboration, communication, and creativity in scenario development, emphasized tangible outcomes as the critical endpoint of a scenario process. This reinforces the point made in “7.2.3 The future ain’t what it used to be” that governmental commitment to and sponsorship of the process is critical, particularly at a level of government with the power to enact and/or support the outcomes of the scenario process.

At the same time, it should be emphasized that currently, government is not normally involved in scenario development and planning. Such initiatives are the almost-exclusive domain of industry, academics, think tanks, and occasionally NGOs (Schwartz, 1991; Myers and Kitsuse, 2000; Tonn et al. 2006). Therefore, while necessary in order to link scenarios to action, government support for scenario planning is unconventional. However, the increased use and perceived utility of scenarios can be facilitated within government by integrating scenarios with existing planning processes (7.4 Strengthening environmental planning and legitimizing scenarios).

7.3.5 Transparency and transferability: Utilizing and sharing lessons among scenario initiatives

There are numerous approaches to scenario development. The flexibility of methodology and the freedom to incorporate predictive, normative, and explorative components into the process as required by the context and by the needs of the situation, is viewed as a strength of scenarios (Mulvihill and Kramkowski, 2010). At the same time, while the development and use of scenarios are seen as both an art and a science, this flexibility can weaken the perceived and real efficacy of scenarios. As a result, scenarios are often criticized for the chaos that results from methodological and procedural inconsistencies, as well as conceptual and definitional confusion over what even constitutes a scenario (Godet and Roubelat, 1996; Bradford et al. 2005; Lindgren and Banhold, 2009; Varum and Melo, 2010). This methodological inconsistency and diversity can also be one of the factors that sway some practitioners towards more straightforward, normative planning processes, such as visioning (Mulvihill and Kramkowski, 2010) (7.3.1 Making scenarios satisfying).

Scenario development and planning has also been criticized for a lack of transparency in both procedure and relevance. Some scenario case studies found that practitioners did not discuss issues of relevance for non-expert participants and stakeholders (van der Helm, 2007). However, even in case studies where scenarios were seen as relevant, there can be a lack of transparency surrounding the internal choices that give rise to the scenarios and subsequent management decisions, thus posing a barrier to non-participants' understanding and appreciation of the methods, thought processes, and collective research of driving forces, trends, uncertainties, and opportunities that took

place. This methodological confusion and flexibility, unclear process and concepts, and vague notions of relevance can negate potential valuable contributions to overall scenario knowledge, discourage scientists, planners, and practitioners from utilizing scenarios, and decrease its transferability to other exercises (Rotmans et al. 2000; van der Helm, 2007; Mahmoud et al. 2009; Mulvihill and Kramkowski, 2010).

Similarly, in discussions with focus group participants, many raised doubts about the relevance of scenarios to the immediate problems, needs, and interests they were experiencing. Therefore, scenario development may not be readily embraced if exercises are viewed as unconnected to the stakeholders involved and with little significance beyond the exercise itself. If this is the perception of participants and decision-makers, there is also little impetus to transfer this process to other contexts.

At the same time, participants acknowledged that similar exercises have likely taken place in similar contexts elsewhere and saw the value in learning lessons from those other initiatives to save time and energy, and increase both the efficacy and effectiveness of a local scenario process. Similarly, the notion of creating a template for conducting scenario exercises was also raised by participants. While it was emphasized that any initiative had to be part of a broader, governmentally-backed planning process with guaranteed outcomes, some participants also felt it was important to (a) Have access to a scenario template which could be carried out by local governments or organizations that might not have access to scenario practitioners and professionals and/or might be unfamiliar with the process, and (b) That the scenario template was place-specific and was appropriate for the needs and contexts of post-productivist forest- and/or resource-dependent regions composed of small communities.

This hits upon a key debate in the scenario literature – how to transfer a scenario exercise successfully from one context to another. Kok et al. (2006) note instances in which scenarios from one region in the Northern Mediterranean were successfully adapted to another region, but they suggest that such transference can act as a “straightjacket”, by reducing the creative, exploratory characteristics which are such a strength of scenarios. Similarly, focus group members observed that a template would require some element of flexibility to account for differences in context and participants. At the same time, by too narrowly focusing on planning for place, no progression is made and no lessons are learned or transferred, thus limiting quality of planning even if it is carefully geared to a particular unique context. A potential solution to this question would be to develop a place-based scenario process framework that is geared towards a particular context and which can be shared among - and hence improved by - communities, regions, and/or organizations that share similar characteristics. Hence, based on my research above, I suggest several considerations for a place-based scenario framework (See Table 7.2)

A place-based scenario framework must incorporate both structure to ensure sufficient consistency and comparability between case studies, as well as some flexibility to allow for context-specific variations and accommodate the creativity needed to adequately construct exploratory scenarios. Since the specific planning needs, interests, and characteristics of the Northeast Superior region have been emphasized throughout Chapter 5, Chapter 6, and Chapter 7 of this dissertation, and since the Northeast Superior

Table 7.2: Considerations for a scenario framework for post-productivist forest- or resource-dependent regions undergoing social, economic, and ecological transitions and largely composed of Crown land
<i>Phase 1: Preparation</i>
<p>1. Political context and commitment</p> <ul style="list-style-type: none"> - Must be part of a larger planning and decision-making structure with commitment from level(s) of government with relevant powers - If political commitment is not in place, this must be made clear to participants to avoid false expectations - Expected outcomes made clear to participants - Expected roles of all group members to be made clear to participants (Ex: Who the facilitator will be, who will combine the driving forces and uncertainties into the resultant scenarios)
<p>2. Location</p> <ul style="list-style-type: none"> - Scenario development must take place locally - Must take place in a politically neutral setting (Ex: a community centre) - If scenario exercise is regional, travel considerations are vital due to distances and possible weather consideration. <ul style="list-style-type: none"> o Scenario meeting locations should rotate within the region to allow equity in access o Face-to-face interactions are vital to the process. However, possible use of telecommunications technology to allow participants to take part may be useful if temporary conditions impede participation
<p>3. Recruitment of participants</p> <ul style="list-style-type: none"> - A diversity of backgrounds, interests, experience, and expertise is vital and should be sought out - Participant recruitment should go beyond seemingly “relevant” stakeholders and include local actors who may have uncommon or unrepresented forms of knowledge (Ex: Artists, businesspeople from certain sectors) - Group dynamics cannot be predicted. However, care should be taken to not over-represent certain sectors that may result in uneven power distribution. If possible, recruits should be talked to ahead of time about the possible interests that may be represented to gauge comfort. - Relevant participants from outside the region must also be recruited - Group should be supplemented by guest speakers
<p>4. Facilitation</p> <ul style="list-style-type: none"> - Transparency of process is critical - Facilitator and leader of process <i>must</i> be a neutral third party. If possible, facilitator should be from outside the area but from a region that shares similar characteristics (I.e. characteristics which participants may perceive to be defining

<p>of the region being planned for)</p> <ul style="list-style-type: none"> - However, government staff or other actors can also be part of a leadership team as appropriate
<p>5. Collaboration and team-building</p> <ul style="list-style-type: none"> - Facilitate collaboration and team-building slowly – therefore, scenario exercise must consist of more than one meeting - Include a social aspect (Ex: potluck, dinner and a speaker) to the meetings
<p>6. Team training</p> <ul style="list-style-type: none"> - Scenario group members must be trained in basic planning concepts - Scenario group members must <i>especially</i> be trained in the process of scenario planning, concepts and components (Ex: discontinuous events), the expectations of outcomes, and the purpose of scenarios. A distinction must be drawn (and redrawn as necessary) between the development of scenarios for managing uncertainty and scenarios as a visioning exercise. This is NOT a visioning exercise. - The balance between art and science in scenario development must also be made clear to participants – there is no set “formula” on how to combine driving forces and uncertainties to create stories about possible futures. - Give examples of scenario exercises that have been successfully undertaken in similar and different contexts. Discuss the benefits and pitfalls of these processes. Bring in guest speakers to elaborate if possible.
<p><i>Phase 2: Conducting scenario development</i></p>
<p>7. Establishing scales and boundaries</p> <ul style="list-style-type: none"> - Appropriate spatial and temporal scales of planning must be established to focus scenario process and resultant narratives. However, driving forces and uncertainties taking place at larger or smaller scales can be identified and incorporated if they are relevant
<p>8. Establishing key concepts and definitions</p> <ul style="list-style-type: none"> - Discuss key concepts that may be utilized and/or are central to the initiative (Ex: Sustainability, quality of life, environmental justice). Clarify definitions of these concepts.
<p>9. Managing emotions</p> <ul style="list-style-type: none"> - Facilitator should acknowledge and discuss how this is not an emotionally- or politically-neutral exercise. - Discussions should be undertaken about how a potentially negative and/or extreme scenario for some participants (E.g. Northern Ontario as a giant park) can be useful in evaluating current policies and managing current and future uncertainties

<ul style="list-style-type: none"> - The difference between scenario planning and visioning must be maintained throughout (I.e. We are NOT evaluating visions and end-goals for the future). Therefore, potentially negative scenarios are not necessarily a vision of the future that should be pursued, but must still be planned for - Care must be taken to balance adequate exploration of futures with participant sensitivities
<p>10. Identifying driving forces, uncertainties (and possibly opportunities)</p> <ul style="list-style-type: none"> - Facilitator must encourage a broad range of ideas while keeping the group focused on the purpose of scenario development (I.e. continuously steer them away from any attempts at visioning)
<p>11. Identifying discontinuous events</p> <ul style="list-style-type: none"> - Proper exploration of possible discontinuous events at various scales must be conducted - If participants have difficulty envisioning a discontinuous event or its significance in scenario development, facilitator must introduce examples of discontinuous events experienced by the region or similar regions and how scenarios could help manage the impact of such an event
<p>12. Incorporating various forms of knowledge</p> <ul style="list-style-type: none"> - No form of knowledge should be prioritized over another form. As necessary, facilitator should emphasize that the development of multiple scenarios allows multiple forms of knowledge, as well as conflicting opinions to co-exist
<p>13. Scenario creation</p> <ul style="list-style-type: none"> - The general process of how driving forces, uncertainties, trends, opportunities and discontinuous events are woven together into scenarios should be explained to the group, emphasizing the subjectivity of this phase of the process - Prior to the leader or a smaller team creating the scenarios from the driving forces and uncertainties uncovered by the larger team, facilitator should get preliminary opinion from the group about which driving forces, uncertainties, opportunities, and discontinuous events might fit together into a scenario and how. - Possible ideas from the group about storylines should also be solicited
<p>14. Evaluation of scenarios</p> <ul style="list-style-type: none"> - Reassemble entire group to evaluate the scenarios that were developed. - Edit and reformat scenarios as necessary. However, be sure to retain the exploratory nature of the scenarios and guard against inadvertent “visioning” or participant preference of a “favourite” scenario. - If scenarios are to be used for a particular purpose (E.g. to test the robustness of MNR land use plans that involve adaptive management), ensure that the scenarios are appropriate for this purpose

Phase 3: Follow-up

15. Use of scenarios

- Keep group updated on how scenarios are being used. Ensure that the benefits and products of the scenarios (E.g. examples of policies that were made more robust by testing against the scenarios developed) be disseminated to the group involved.
- Ensure that the scenario process, any changes to it, pitfalls, benefits, and lessons learned are disseminated to wider audiences (Academic, other similar regions that have or are considering similar initiatives, other levels of government, related organizations, etc.)

region provides an illustrative case study of similar regions, I suggest that the preliminary framework developed below is best applied to post-productivist forest- and resource-dependent regions undergoing social, economic, and ecological transitions composed largely of Crown land. While certain aspects of this framework may also be appropriate for other regions (E.g. rural, agricultural regions composed of small communities), I also suggest that such regions contain other characteristics, such as a high proportions of private land, which may hinder the transference of this framework.

7.4 Strengthening environmental planning and legitimizing scenarios: Incorporating scenario development and planning into existing environmental frameworks

Scenarios have long been utilized in military, business, and financial applications to manage uncertainty (Schwartz, 1991; Chermack et al. 2001; Chermack et al. 2006; Bradfield et al. 2005; Godet, 2006; Lindgren and Banhold, 2009). While the predominant use of scenarios remains in the business world, in the past several decades scenarios have also begun to be utilized in environmental, land use, and sustainability initiatives (Rotmans et al. 2000; van Asselt et al, 2005; Kok et al, 2006). However, while some

planning initiatives have embraced scenarios as a way to test robustness of plans, identify and manage uncertainty, and/or assess cumulative impacts from complex projects, most planning initiatives which incorporate scenarios, utilize them in a minor, supplementary role (Mulvihill and Kramkowski, 2010). Therefore, there remains great potential for integrating scenarios into existing forms of environmental planning. This would serve a two-fold benefit: existing planning approaches could be made more vigorous in the face of uncertainty and scenario development and planning could be further legitimized in environmental planning by demonstrating its utility in current planning initiatives. To this end, I conclude with an examination of how scenarios can be integrated into existing forms of environmental assessment, forest management planning, and adaptive management to strengthen the weaknesses found in these approaches, and introduce scenarios to a broader audience of planning professionals, participants, and the public. A word of caution however - throughout this section, it is vital to remember the warning that for scenarios to be exploratory, they must be plausible, not probable. Therefore, when being integrated into existing environmental planning and assessment approaches, planners, managers, and practitioners must exercise caution that a “favourite” scenario – whether it represents a preferred future or a future that is deemed most likely to occur – be avoided.

7.4.1 Managing uncertain futures and cumulative impacts: Scenarios and environmental assessment

7.4.1.1 Utilizing scenarios to address the limitations of project environmental assessment

Project-based environmental assessment (EA) is frequently criticized for limited opportunities and resources for public participation, other technical, administrative, and political barriers, and scoping boundaries which restrict consideration of alternatives and longer-term concerns (Petts, 1999: 171; Sadar and Stolte, 1996; Sinclair and Diduck, 2001; Diduck and Mitchell, 2003; Mulvihill, 2003; Sinclair and Diduck, 2005). As well, though the assessment of cumulative impacts is now integrated into most EA processes, project-specific cumulative effects assessment (CEA) is criticized as reactive, too narrow in scope, and occurring too late in the planning process to influence significant changes (Dube, 2003; Duinker and Greig, 2006; Noble, 2009; Senner, 2011). This results in excessive duplication and wasted resources, a neglect of factors such as public preferences, and an inability or unwillingness to thoroughly examine long-range impacts, associated uncertainties, and potential alternatives (Spaling et al. 2000; Gibson, 2002; Noble, 2005:93-94; Therivel and Ross, 2007) (See “2.3.3 Current approaches to project and class environmental assessment” for a more detailed description of drawbacks).

At the same time, project-based EA is legally mandated at both the federal and/or provincial level in Canada, making the required EA of applicable developments a powerful tool. Therefore, scenarios can serve an important role in addressing the drawbacks evident in project-based EA. For example, Mulvihill (2003) notes that the scoping boundaries established early in the EA process and which bound the issues and scales considered, are often perceived as overly restrictive to the interests of participants and the public. Instead, the development and use of scenarios during the scoping phase -

perhaps involving certain key participants or stakeholders - could allow the incorporation of driving forces, uncertainties, and opportunities that such participants view as significant early in the EA process when key considerations such as terms of reference, impact boundaries, and potential alternatives are being established. Further, it is suggested that scenarios can be used to explore “highly unpredictable or even imponderable impacts”, a problem that EA processes frequently struggle with (Mulvihill, 2003: 45). This includes planning for the uncertain impacts of “wild cards” such as climate change. Duinker and Greig (2007) point out that in the example of a project such as a hydroelectric development, climate change can not only influence the success of the project through changing water levels and flow, but also cumulatively affect ecological values such as fish populations which will be further impacted by the development itself. As a result, the use of scenarios to explore alternative futures and compare the impacts of and on developments can help determine under which conditions a project is acceptable or unacceptable, the required mitigations (if any), and can make projects more resilient in the face of larger uncertainties.

Therefore, scenarios can offer a useful tool for identifying and assessing cumulative impacts. As mentioned earlier, CEA is a required component of many project-EAs. However, it can be difficult to identify possible future developments whose impacts may result in cumulative effects in conjunction with the project being considered. Considering how other driving forces - such as climate change, changes in relevant markets, or the development of certain policies – might affect or combine with developments and their potential impacts is also a challenge. Therefore, developing scenarios based on these driving forces can help delineate the bounds of potential

cumulative impacts that need to be considered, allow decision-makers to think about possible futures, and reflect on alternatives (Duinker and Greig, 2007). These contributions would expand the scope of project-based EA, facilitate improved consideration of cumulative effects, and address several of the current drawbacks of this assessment approach.

As a reflection of these advantages, Holroyd et al. (2007) detail how scenarios have been utilized in project CEA, such as an assessment of Terasen Pipelines Inc. to increase the capacity of a pipeline running through Alberta and British Columbia. In this EA, a computer modeling program was utilized to develop and evaluate potential cumulative effects on key indicators based on past and likely future natural and human disturbance patterns in the region. This is not an ideal example of scenarios in project-based CEA – there is no public or participant involvement and the limitation of scenarios to “likely” future disturbance patterns ignores the exploratory benefits of this approach and the potential to examine possible discontinuous events. However, it does demonstrate the possible utility of this approach, while highlighting how far project-EA has to go when it comes to pushing beyond its restrictive, reactive boundaries.

7.4.1.2 Letting scenarios shine: Incorporating scenarios into strategic environmental assessment and regional cumulative environmental assessment

Due to the restrictive nature of project-based CEA, there is currently a movement towards regional CEA which looks at a wider range of impacts, stressors, and activities from multiple sources that contribute to cumulative effects in a region or watershed. The purpose of regional CEA is to develop a broader understanding of the current state of the

environment due to cumulative effects, to better understand cumulative change processes, and to consider priorities for future environmental management and land use planning at a broader, more meaningful, and strategic scale (Cocklin et al. 1992; Spaling et al. 2000; Dube, 2003; Dube et al. 2006; Noble, 2009). Another higher-level form of EA is strategic environmental assessment (SEA) which refers broadly to the EA of policies, plans, and programs, and their alternatives. SEA can include policy SEA (which applies to policies and legislative proposals) (Noble, 2008: 181), sectoral SEA (which applies to sector-based initiatives, plans, and programs) (World Bank, 1999), and regional SEA (which assesses the impacts of policies, plans, programs, and their alternatives within a particular region, in combination with other regional activities, to identify the preferred regional-based environmental planning or development strategy or option) (Barrow, 1997: 85; Noble, 2006: 184). SEA is often associated with CEA, with the SEA process taking cumulative effects into account (Barrow, 1997:84-85; Noble, 2008). Both SEA and regional CEA are intended as an initial, broader, strategic EA which tiers down to, and influences, downstream project EA (Noble, 2002).

However, despite their proactive, far-reaching scope, only policy SEA is suggested (though not legislated) for federal policies through a Cabinet Directive (Noble, 2002), with Class EAs, such as the Crown Timber Class EA, potentially being viewed as a sectoral SEA. Otherwise, there are little to no mechanisms to initiate and sustain regional CEA and SEA as an integral and ongoing part of regional planning (Dube, 2003; Noble, 2008; Spaling et al. 2000). In practice, there is also limited tiering of strategic- and project-level assessment and decision outputs, with limited connection between SEA and downstream EA input requirements (Noble, 2009). Some also critique regional CEA on

the basis that it is too focused on describing the current state of the environment and modeling ecosystem responses to past or current land use changes and pressures, rather than projecting trends, desired futures and objectives, and determining how to attain them (Duinker and Greig, 2006; Noble, 2006:173; Noble, 2008) (See Chapter Two for a full description of regional CEA, SEA, and benefits and weaknesses).

Yet with their futures-oriented focus on identifying alternative and preferred options, their broad spatial and temporal scope, and the increasing trend towards these forms of assessment and planning, both SEA and regional CEA offer an ideal match for the strengths of scenario planning. Several other authors have offered up similar ideas about the complementary nature of these approaches (Mulvihill, 2003; Holroyd et al. 2007; Noble, 2008; Zhu et al. 2011). For example, Holroyd et al. (2007) and Cizek (2005) outline how scenario planning can help in understanding and planning for the different cumulative impacts that may result from different development scenarios for the Mackenzie Valley pipeline project, including potential levels of secondary development, and resultant social and ecological effects. Similarly, in his analysis of a regional CEA for the Great Sand Hills region of Saskatchewan to determine development and/or conservation options, Noble (2008) describes the development and analysis of alternative land use scenarios and land use designations to allow planning decisions to be made on both past and future trends. An interesting case study can be found in Alberta which has initiated a series of regional strategic assessments entitled the Alberta Land-use Framework intended to address cumulative effects from various pressures such as the gas and oil sands industries and agriculture. In the Alberta case study, scenarios are intended to be utilized both as a regional visioning exercise and subsequently, in an uncertainty

management capacity to plan for multiple possible futures, analyze possible cumulative effects, and examine the efficacy of management strategies in managing impacts and maximizing benefits. This process is expected to provide direction for regional planning to adapt to possible future conditions, determine cumulative impacts from the development path chosen and how mitigation should take place, and incorporate public interests and desires into regional planning (Johnson et al. 2011).

However, while these case studies are notable for integrating scenarios as a key aspect of planning, the range that the scenarios cover is relatively limited. For example, in the Great Sand Hills regional CEA, the three scenarios developed and used for analysis were tellingly titled “Business as usual”, “Enhanced development”, and “Conservation approach”, thus demonstrating an inadequate use of the exploratory strengths of scenarios. Further, while the Alberta Land-use Framework case study demonstrates many of the characteristics of a good scenario exercise (Utilizing scenarios as part of a larger regulatory planning framework, public participation in both visioning and scenario exercises, producing several scenarios which are meant to cover the different futures that may occur, and utilizing them to analyze regional cumulative impacts from complex developments and driving forces) (Johnson et al. 2011), the process is still in preliminary stages, thus offering little insight into how it will extend through practice.

Both the concept of a regional CEA and/or SEA, as well as a process supplemented by scenarios could have great utility in contexts such as the Northeast Superior region. As mentioned above, the region is already familiar with the concept of sectoral SEA in practice, though likely not in terminology, since it is covered by Ontario’s Class Timber EA. Furthermore, some participants criticized the project-based (and hence legislated)

EA process both for a lack of opportunity for public participation, and its redundancy of process which wastes proponent resources and does not necessarily result in better environmental decision-making. Therefore, the region, the public, and related industries could benefit from a regional SEA or a regional CEA with a strategic focus which can facilitate public participation both in delineating uncertainties through scenario development and determining desired futures for the region. Such a planning framework would also provide greater certainty to industries proposing projects, would offer a scenario database against which they could compare their plans to test for robustness in various conditions, and would provide a context in which to assess possible cumulative impacts.

Scenarios may also offer an effective means of integrating different forms of knowledge. For example, regional CEA is often criticized for being overly dependent on a quantitative, science-focused approach, leading to tensions between scientific and local and/or traditional knowledge (Culp et al. 2000a; Culp et al. 2000b; Dube, 2003; Dube et al. 2006; Lawe et al. 2005). Similarly, both scientists and other participants in environmental planning in the Northeast Superior region discussed the difficulty of reconciling scientific and local knowledge which may conflict. Therefore, as suggested by Zhu et al. (2011), scenarios – which after all, are a combination of art and science - can offer a vehicle by which quantitative scientific data can either be merged with (within the same scenario) or exist alongside (in separate scenarios) qualitative, local and/or traditional knowledge. Similarly, First Nations traditional knowledge frequently takes the form of oral history in order to transmit knowledge of past and current uses of the environment, the location of important cultural and spiritual sites, and historical patterns

of land use and settlement, occupancy, and harvest levels (Peters, 2003; Lewis and Shepherd, 2005; Houde, 2007). Integrating this knowledge with quantitative scientific knowledge has long posed a challenge in environmental planning and resource management. However, when done with care, the narrative-based format of scenarios may provide a more appropriate framework for a more effective mixing of these varied knowledge systems. At the same time, just as scenario practitioners, planners, and participants must be careful to not latch onto a “favourite” scenario, so must all group members exercise caution that they do not gravitate more strongly to a scenario that represents (or may represent) a certain form of knowledge.

7.4.2 Forest management planning: A ready-made scenario opportunity

Forest management planning is already noted for its approach to long-range planning and managing associated uncertainties. For example, as noted in Chapter 5, forest management planning utilizes a combination of strategic planning and adaptive management to conduct long-range planning and respond to uncertainties such as natural disturbances (Ex: fire, pest outbreaks, windthrow), changing markets, and new policies. Planning is also done in conjunction with the LCC associated with the relevant forest management unit, and whose existence is mandated by the Crown Forest Sustainability Act (OMNR, 1994b) (OMNR, 2011a). In consultation with the LCC, the planning team forms a strategic plan by identifying desired benefits from the forest (including both timber and non-timber values) and the goals and strategies that are required to achieve them. Long-term model projections of different harvest and renewal levels are examined to predict short, medium, and long-term economic, social, and environmental benefits

(OMNR, 2012c). These predictions are utilized to assess the sustainability of the proposed FMP. Adaptive management is utilized to manage ongoing uncertainty, with MNR and industry monitoring results being used to make any necessary adjustments to the long-term management direction and the planning of operations in the next plan or phase (OMNR, 2012c) (See “5.5.1 Forest management planning” for a full description of the process).

While forest management planning already has several means of managing uncertainty during and after the formation of a forest management plan, scenarios could improve this process on several fronts. For example, a LCC presents a ready-made group of individuals with varied interests, experiences, and sources of knowledge which are already committed to the planning process. However, as mentioned in Chapter 5 (5.5.1.1 Adaptive management, participation, and accountability), while LCCs were previously able to incorporate other forest-related interests of members, recent cuts to MNR resources have limited these related but “extra-curricular” discussions and projects. This has resulted in decreased member engagement and an ineffective use of the interests, knowledge, and expertise of forest management planning participants. However, utilizing LCC members to undertake scenario development and planning – especially when supplemented by outside participants, guest speakers, and other sources of knowledge – could employ the broad range of experience at the table, introduce other interesting topics to members, and set intangible talks about “trees 100 years out” (FORESTRY2/TRAP2/NGO1) within a broader societal context and in a narrative format that might be more interesting and compelling for members.

In addition to more effective use of participants and increasing member engagement, such scenario development also offers another means of incorporating public participation into forest management planning, particularly since the management of uncertainty in this field normally falls within the realm of forecasts developed by industry practitioners and computer models (OMNR, 2012c). This is not to suggest that participatory scenario development should replace these other approaches to uncertainty planning. However, it can supplement existing methods that are currently used. Such a complement can be especially useful in an industry where uncertainties are constantly changing and expanding, particularly in regards to volatile and/or depressed markets, the consequences of climate change, and unknown policy development. Thus, scenarios can provide an important framework against which to test forest management plans for their response to a variety of potential conditions, as well as mitigate some of the limitations of predictive forecasting (Tansey et al. 2002). Scenarios can also be utilized in adaptive management, both for forest management planning and other forms of environmental planning.

7.4.3 Adaptive management and scenarios: Facilitating acceptance and mitigating “trial and error”

Adaptive management is an approach which is now widely utilized in environmental planning. It recognizes that complex ecosystems which experience a high degree of uncertainty cannot be maintained in an unvarying optimal state (Johnson, 1999). Instead it acknowledges that planning and management must frequently proceed with incomplete information about ecosystems and resultant impacts from decisions. Therefore, adaptive management is both a process through which environmental

management decisions are made, and a form of learning, monitoring, and information gathering through experience and different knowledge sources (including stakeholders, non-specialists, and other participants) which in turn informs and improves subsequent decisions and policies (Walters and Holling, 1990; Johnson, 1999; Lee, 1999; Benvie, 2005). Frequently, adaptive management is extended into adaptive co-management which includes the opportunity for multiple stakeholders to cooperate and share in environmental planning and management and which includes mutual learning (Armitage et al. 2008).

However, adaptive management also exhibits many weaknesses which have drawn pointed critiques. This includes criticisms of the rigour with which adaptive management is carried out, the degree and consistency of monitoring which in turn affects subsequent policy and management choices, limited opportunities for public participation, and limited opportunities for integrating monitoring results into new policies and decisions (Stankey et al. 2003; Allan and Curtis, 2005). Some also question the perception that adaptive management is effective in all environmental planning contexts and in all types of ecological systems (MacDonald, 2000), while others note that in the face of uncertainty, a greater emphasis should be placed on a precautionary approach, particularly since adaptive management is often criticized as a “trial and error” form of planning (Spaling et al. 2000; Baxter et al. 2001).

It has also been pointed out that while adaptive management is meant to be “learning by doing”, practitioners of the approach are often hesitant to examine “surprises” that come up in monitoring and are instead rewarded for their “steadfast pursuit of objectives (Lee, 1999). This resistance to “surprises” – and the poorer policies

that result from it – is influenced by other factors as well. Hesitancy to accept the surprises and behavioural change that can accompany “learning by doing” is also evident among stakeholders and non-expert participants in adaptive management. Allan and Curtis (2005) note that participants in two watershed management projects in Southeastern Australia tended to put a greater emphasis on the “doing” or management actions, and viewed the “learning” aspect of adaptive management as slowing down necessary decision-making. They also observed that participants could feel threatened by new or difficult ideas which might necessitate behavioural or conceptual alterations, and instead reframed them into recognizable, non-threatening – but sometimes inaccurate – concepts which did not require an modification of behaviour or attitude (Allan and Curtis, 2005) (See “2.3.1. Current approaches to long-range environmental planning: Adaptive management” and “2.3.2 Adaptive management: Limitations and questions” for a full description of adaptive management, its strengths, and weaknesses).

Participants in the Northeast Superior region also noted similar weaknesses regarding adaptive management. Several participants felt that the use of adaptive management by the province was “reactionary”, an arbitrary form of long-range planning, and did not achieve the necessary goals of effective environmental decision-making:

Adaptive management to me means we didn't plan. We don't have an endpoint in mind. Adaptive management to me means that we theoretically have a series of options that we can take that are considered and that we can do if something goes

wrong. For example, if we run into a wood supply crunch in the Northeast, here's what we can do. But that's not the case in what we do (PROVINCIAL2).

Other participants supported the concept of adaptive management but felt that it was not being carried out effectively due to a lack of resources, proper monitoring, learning from the monitoring, and appropriate alteration of policy or action plans:

(When asked if the participant subscribes to adaptive management) Of course, who wouldn't? But I don't think we do adaptive management very well. One of things we want to do is have everybody sit down and really take a close look at what's really happened in the last 20 years. We've had moose population objectives since early 80's and redid them in early 2000's. We need to look at the objectives, whether they were attained, and if not, why not. However we have limited time to actually do this (PROVINCIAL4).

The examination of local monitoring is important – several participants discussed how environmental planning had to take place according to local conditions and not by “rules of thumb” regarding animal populations or disturbance patterns. Similarly, other authors note that adaptive management must be tailored to be place-specific, including both site and social context, and must fit within institutional constraints and opportunities to achieve social and ecological fit (Gilmour et al. 1999; Habron, 2003; Benvie 2005)

Although the involvement of stakeholders and diverse participants is an important component of adaptive management, as mentioned above (See “7.4.1 Letting scenarios

shine”), integrating different forms of knowledge - in particular conventional scientific knowledge with local and/or traditional knowledge - can also pose a challenge (Drew and Henne, 2006; Houde, 2007). In addition, some participants noted a clear hierarchy of valued knowledge:

You know, these are the people who are supposed to be protecting the land...sometimes the challenges that we have in getting them to open to a different point of view is absolutely, categorically incredible. I had a discussion with (a person in a position of authority in the provincial government) and I said, “We have reason to believe that the wood is being removed from the land way quicker than the land can replenish the wood”. (He said) “Well, where’d you get that? From an environmental group?” Well, I says “Well, if I got it from an environmental group, would that mean that the information was not accurate?” (He said) “Well, yeah if it’s an environmental group they have to be registered and all this”, and I said “Ok. So if it comes from a registered professional forester, does it have more credibility than if it comes from an environmental group?” He said “Absolutely”. So I said “Well that’s good. It comes from a registered professional forester”. He said “Oh good”. (Then) he said “Well, is this person a government (employee) working for the province of Ontario?” I said “Well, what difference does that make? A registered professional forester is a registered professional forester. You mean to tell me if they’re working outside the organization that they somehow have less credibility than someone working inside the organization?” (He said) “Well, absolutely. There’s a lot of rogue

registered professional foresters out there”. (I said) “Really? Well, good thing – this guy is actually a member of the Ontario forest management planning team”. And I said “...you’re running out of excuses. You’ll have to listen to me”...When are you going to get it that your own foresters are telling you there’s something wrong? That the science isn’t working out. Your scientific model has flaws. It’s not dealing with all of the combinations of different factors. There’s some huge problems on the land. They just fiercely defend their world view and everything’s fine (FIRST NATIONS1)

It is interesting to note that despite its current popularity, adaptive management was once a “fringe” approach to environmental planning, much as scenarios are regarded today. Also interestingly, scenarios can offer much value to addressing the persistent weaknesses of adaptive management that make many practitioners roll their eyes at the concept, even as they acknowledge its positive attributes.

In particular, scenarios can help raise adaptive management from its current status as “trial and error”. While some authors explicitly mention scenario planning as an aspect of adaptive management (Lessard, 1998; Benvie, 2005), rarely are true exploratory scenarios applied. This is where the development of scenarios can serve an important role. By combining the current range of knowledge about a system and its drivers with future driving forces and uncertainties in order to explore how these factors may interact and extend over time, scenarios can provide added information about the management choices being made in the present and can be used to test plans currently being developed. At this phase of the adaptive management process, it is vital that

discontinuous events be identified and integrated into scenarios. This is especially applicable for boreal forest ecosystems (such as those found in the Northeast Superior region) which are subject to major disturbances such as forest fire or windthrow, but remains important for other ecosystems which can still experience major disruptions from factors such as invasive species. Therefore, by utilizing scenarios early in the adaptive management process, it provides more perceived and real structure around how decisions are made about which planning route to take in the face of uncertainty.

Furthermore, although successful and thorough monitoring is largely dependent on the provision of adequate governmental resources, scenarios can help make the monitoring and subsequent “learning” phase of adaptive management far more valuable. An effective exploration and then integration of driving forces and uncertainties into scenarios can provide an important tool to help guide resource managers in what to look for in monitoring and more effectively scan for the effects of possible pressures or forces on the ecosystem. Furthermore, it allows planners to make preliminary arrangements for possible variations or more extreme “surprises”, thus better preparing them if such events occur.

Scenario development and planning can also be a good way to engage stakeholders and encourage ownership, and thus acceptance, of the planning process. For example, although Allan and Curtis (2005) found that participants reframed potentially threatening or difficult ideas as recognizable but inaccurate concepts which do not require attitude or behaviour modification, by engaging participants in scenario-building processes appropriate to the context (See “7.2 Utilizing scenarios to manage uncertainty in post-productivist resource-dependent regions” and Table 7.2 for the considerations

required), participants can be better equipped to accurately identify, think about, discuss, and plan for challenging ideas and concepts. Scenarios also offer a means of integrating scientific, traditional, and local knowledge and blurring the lines between these knowledge systems in a productive way that diminishes the perceived and real hierarchies in knowledge value (7.4.1.2 Letting scenarios shine).

7.5 Conclusion

Attempts at long-range planning and managing associated uncertainty always encounter numerous political, technical, methodological, knowledge-related, and behavioural barriers, regardless of context. However, as demonstrated above, certain contexts experience additional challenges due to history, social configuration, landscape, and other factors. In the case of the Northeast Superior region, long-range planning is permeated by a history of resource-dependence, associated boom-bust cycles, its current state of economic, social, ecological, and political vulnerability, and high uncertainty.

Scenario development and planning has been offered as one means of working with these challenges and managing uncertainty. However, while the use scenarios and their surrounding processes remain imbued with the current and historical state of such regions, they also offer a compelling, participatory, and exploratory approach to facing and planning for the uncertainties which haunt the Northeast Superior region. In order to achieve this goal effectively however, scenarios must be developed and utilized in a manner that respects the needs, limitations, and strengths posed by post-productivist resource-dependent regions. Achieving this requires not only a greater integration of place-specific findings into the scenario literature, but also the development of place-

based frameworks for scenario development and planning which incorporate both structure and flexibility. In doing so, the lessons from scenario exercises can better be transferred to other contexts, learned from, and improved, while still working with local conditions and limitations. Furthermore, through integration, scenarios can strengthen existing forms of environmental planning while facilitating the introduction and acceptance of scenarios to broader audiences.

This chapter has demonstrated how uncertainty can be more effectively planned for in long-range environmental planning for post-productivist forest- and resource-dependent regions undergoing social, economic, and ecological transitions. The diverse values and power relations inherent to such regions have also been explored as shaping factors of long-range planning and resultant outcomes. Finally, this chapter has established how scenarios can be integrated into existing regional environmental planning and assessment frameworks to engage participants, incorporate various forms of knowledge, and better plan for uncertainties and discontinuous events. In doing so, this research offers a means of improving planning process in post-productivist resource-dependent regions in transition, increasing a sense of agency and collaboration among and within the region, and more effectively and fearlessly exploring and planning for the alternate futures that lie ahead.

Chapter Eight

Conclusion and Implications

8.1 Overview

In the opening chapters of this dissertation I examined the concepts of new regionalism and post-productivism, and how resultant shifts impact resource-dependent regions undergoing social, economic, and ecological transitions. In particular, I discussed various forms of regional and long-range environmental planning utilized in such regions and how the shift to post-productivism and new regionalism influences the way planning is carried out. I also outlined the processes of developing and utilizing scenarios for managing and planning for the uncertainty associated with long-range environmental planning for complex regions, benefits and limitations to this approach, and gaps in the literature. Utilizing these frameworks, I set out to examine how the Northeast Superior region of Ontario can inform and develop linkages between these themes and sets of theory to more effectively plan for uncertainty and better adapt long-range and regional environmental planning to the changing and unique conditions present in post-productivist forest- and resource-dependent regions.

A summary of the main research findings and conclusions is presented below. In this section, I organize my findings according to the core research questions outlined in Chapter 1 and around which my work has been structured, with a summary discussion leading up to each conclusion. Subsequently, I discuss my main research contributions, several research reflections on the strengths and limitations of this work, a series of recommendations for various actors in the planning process, and future research questions and opportunities.

8.2 Main research findings

8.2.1 How can regional environmental planning processes address the cumulative, multi-scale temporal and spatial challenges inherent to forest-dependent regions experiencing social, economic, and environmental transitions?

Forest- and resource-dependent regions in Ontario and Canada are currently subject to multiple, interconnected, cumulative and multi-scale challenges, driving forces, and uncertainties (6.1 Driving forces, uncertainties, dynamics, and relationships of the Northeast Superior region, Table 6.1, Table 6.2, Table 6.3, Table 6.4, Table 6.5). Such regions are also home to complex and intimate links between humans, their landscape, and notions of resource-dependence. These challenges, driving forces, uncertainties, and relationships contain social, economic, ecological, and political components which simultaneously require recognition of the multiple values and interests inherent to the region, and result in a real and perceived lack of agency and decision-making power.

Frequently, such resource-dependent regions are described as being both in a state of new regionalism and post-productivism. The debate over whether post-productivism and new regionalism are actual trends will undoubtedly continue. However, based on the factors and forces outlined above, the case study of the Northeast Superior region satisfies the major criteria of these two frameworks as laid out in the literature (2.1 New regionalism and forest-dependent regions, and 2.2 The ongoing shift from a productivist to a post-productivist view of the forest and landscape). This not only demonstrates that the region is an typical case study of these two trends as they are currently defined, but also responds to critics that question the existence of post-productivism, both overall and

in a forest-dependent context (6.2 The Northeast Superior region as a case study for furthering the theories and frameworks of new regionalism and post-productivism).

At the same time, this case study has also established that the current theoretical state of both new regionalism and post-productivism is overly simplistic and insufficient for capturing the full context, complexities, and relationships evident in such characteristic regions. Currently, new regionalism lacks recognition of the linked political-social relationships inherent to such regions, including First Nations-Settler society interactions and power relations. New regionalism also demonstrates an assumed homogeneity of region which does not play out on the ground, a focus on the socio-economic aspects of planning with minimal discussion of internal political factors, and a scarce recognition of ecological driving forces and the tight links between ecological, social, economic, and political forces evident in regions dependent upon their landscape. While post-productivism is evident at both local and higher levels of governance in the Northeast Superior region, including more diverse decision-making structures, there is little analysis of how post-productivist trends in forest-dependent regions are frequently initiated by the environmental and social values of Southern, urban regions, and how such remotely-inspired shifts remove agency from already politically-voiceless regions, thus increasing inter-regional disparities of power and influence. As well, the current theoretical state of post-productivism only minimally recognizes how the boom-bust cycle of resource-dependent regions plays an important role in “re-marketing” natural resources during downturns to develop a further commodity from post-productivist landscapes. These factors have impacts on the type and quality of environmental planning which take place in such regions.

Conclusion 1: Both new regionalism and post-productivism are real phenomena which impact and shape resource-dependent regions in transition and associated planning processes. However, both frameworks are currently political and ecological oversimplifications of the contexts which they seek to describe.

The case study of the Northeast Superior region proves the adages that “planning is political” and that “environmental management means managing people”. As a result, the main barriers to effective environmental planning that addresses the multiple, interconnected, cumulative and multi-scale challenges, driving forces, and uncertainties that the region is subject to, is frequently related to public participation and decision-making processes (5.5 Approaches to long-range regional planning in the Northeast Superior region, 6.3 Regional environmental planning in the Northeast Superior region) (See Conclusions 11 to 15 for further discussion of how diverse values and power relations impact regional and long-range planning).

Conclusion 2: Environmental planning remains a predominantly political process and it is these political and behavioural factors which can influence the efficacy of planning approaches. This is especially so in resource-dependent regions

There are several reasons for, and implications of, Conclusion 2. Residents and other stakeholders and actors in the region possess a series of unique relationships that shapes their identity, sense of place, and their perspectives on and involvement in environmental planning initiatives.

Participants hold intimate and complex relationships with the surrounding landscapes, forests, water bodies, organisms, and natural processes of the region, which translates into an intense sense of place (6.1.3 Links between residents and the landscape, Table 6.6, 6.3.3 Planning for place). These links include economic, social, and lifestyle facets. However, they also encompass a combined sense of stewardship, ownership, and entitlement. This is partly mediated by the high area of Crown land in the region and associated perceptions that public ownership translates into “local” ownership. Residents also express strong feelings of being more in tune with sustaining natural processes, with perceptions of self-sufficiency arising from that. In tandem with these relationships to landscape also comes a relationship to the concept and reality of resource-dependence. This includes both historical and continued links to primary industry, how such dependencies influence perceptions of environmental planning and environmental decision-makers, and how such perceptions influence long-range planning and views of the future (or possible futures) (6.1.4 North and South, 7.1.3 How resource-dependence and boom-bust cycles impact long-range planning, 7.2.2 Challenging beliefs and assumptions about the future). Furthermore, intricate social, economic, and political relationships and subtle power relations - including history, personality, and planning and non-planning-related relationships - are at work in regional environmental and long-range planning (6.3.1.1.1 Looking beyond top-down and bottom-up, 6.3.1.1.2 The politics of government, 6.3.1.1.3 The politics in the personal)(See Conclusions 11 to 15 for further discussion of how diverse values and power relations impact regional and long-range planning). Therefore, multiple relationships, dynamics and dependencies shape regional environmental planning processes.

Conclusion 2a: Residents and stakeholder hold intimate and complex relationships with the landscape, with each other, with the concept of “the North”, and with their own resource-dependence. These relationships shape environmental planning and must be taken into account to improve environmental planning processes and objectives

Environmental planning is frequently built upon the “stakeholder system” (Booth and Halseth, 2011), in which members of the community, economic, recreational, cultural, or spiritual land users, those with other relationships to the land, and/or other “stakeholders” are recruited as representatives of their particular “interest” in the landscape. However, as established throughout Chapter 6, such simplistic relegating of participants to a single-interest ambassadorial role not only results in an inaccurate representation of the complex relationships and experiences that these stakeholders have with the landscape, but also sets up planning processes to be unnecessarily combative (6.3.1.1.4 Transparency and trust – Part I, 6.3.1.1.5 Transparency and Trust – Part II). Furthermore, this system ignores both the “extracurricular” links that governmental and planning staff have with the landscape, as well as the politically charged environment that persists in planning, despite reducing everyone to the “neutral” role of stakeholder. Therefore, the stakeholder system in environmental planning needs to be revised to more accurately represent the interests and values of participants. At the same time, while governmental staff should continue to serve a special role both as professionals regarding planning knowledge and as representative of elected officials, greater flexibility must be incorporated into the planning system to account for the diverse - and frequently non-work related - roles that government staff hold regarding the landscape. This also reflects

the reality of two provincial “governments” at both a local and higher level (6.3.1.1.4 Transparency and trust – Part I, 6.3.1.1.5 Transparency and Trust – Part II).

Conclusion 2b: The notion of environmental planning and associated public participation based on representative stakeholders is simplistic, ineffective, and confrontational. Instead planning must acknowledge the multiple and complex relationships that participants have with the landscape. This includes governmental staff.

The political aspects of planning are irrefutable, unavoidable, and permeate all aspects of the environmental decision-making process (5.5.1.1 Adaptive management, participation, and accountability, 5.5.2.1 Perceptions of water resource management and planning in the Northeast Superior region, 5.5.3 The Mayors Group, the Northeast Superior Regional Chiefs Forum, and the Northeast Superior Forest Community, 5.5.4.3 Crown land or public land?, 6.3.1.1 Planning is political but neutrality counts). However, the concept of fairness is an essential component of environmental planning in any context, and is especially so in resource-dependent regions. Without real and perceived fairness, environmental processes can be derailed resulting in bitter relations, ineffective planning processes which are rejected by participants and the public, and unsatisfactory outcomes (5.5.4.3 Crown land or public land?, 6.3.1.1 Planning and life). Therefore, achieving fairness within a political process requires *transparency*. Such transparency is especially vital when it comes to facilitation of process, perceived and real control of process (whether the process and outcomes are locally or remotely controlled), and perceptions of predetermined outcomes. When leveraged with established relationships

between participants and local government staff, this transparency can result in improved trust and willingness to work with government.

Conclusion 2c: While the political is an irrefutable component of environmental planning, transparency of process and of certain aspects of the planning process are vital to ensure participant trust, acceptance, and meaningful participation.

Along with their diverse values, interests, power relations, and social and ecological relationships, planning participants bring with them a wide range of knowledge. This knowledge comes from a variety of sources and can include any combination of scientific, local, and/or traditional knowledge (7.4.1. Managing uncertain futures and cumulative impacts, 7.4.3 Adaptive management and scenarios). Many participants also hold substantial knowledge of, and experience with, planning processes. Furthermore, while participants will take part in planning processes to protect and further their own interests (Hut and Haider, 2001), innovative planning initiatives and incorporating participant interests can act as effective “carrots” to entice and keep participants in the planning process. Such engaged and motivated participants can bring a wealth of knowledge and commitment to environmental planning in the region.

Conclusion 3: The actors, “stakeholders”, and participants in regional planning exercises in these regions possess their own interests, sources of knowledge, and motivations which must be accessed to ensure engagement in, and ownership of, environmental planning processes, as well as to strengthen the quality of process and outputs.

This research has highlighted the unique characteristics and needs of post-productivist forest- and resource-dependent regions undergoing social, economic, and ecological transitions. Participants have continually reinforced this uniqueness and the notion of Northern exceptionalism. Such concepts are further set alongside real and perceived relations and inequities between Northern resource-dependent regions and Southern urban regions. A repeated theme has been the insufficiency of remotely-designed regional and long-range environmental planning processes and frameworks which do not recognize the logistical, social, political, and economic needs of such regions, nor how Northern society is shaped by its landscape, by relations with government, and by historical resource-dependence. At the same time, environmental planning frameworks which are too narrowly focused and are suitable only for one specific site and context cannot be transferred, will not benefit from lessons learned in other contexts, and cannot in turn be improved and passed on to other situations. Therefore, the idea of *place* is vitally important in environmental planning for such regions. This includes utilizing the sense of place concept to better recognize and employ participants' relationship with the landscape and their priorities in the planning process, as well as developed a place-based scenario framework to allow effective long-range planning and uncertainty management to be transferred to multiple sites while still remaining geared to a particular context (6.3.3 Planning for place, 7.3.5 Transparency and transferability)

Conclusion 4: Effective environmental planning for resource-dependent regions undergoing transitions must be place-based.

8.2.2 How can uncertainty and medium- to long-term futures be planned for in environmental planning for forest-dependent regions in transition?

Uncertainty is a constant companion and barrier to long-range environmental planning. This theme is particularly pronounced in complex regions and systems undergoing transitions. My research explores how scenario and development can be utilized in environmental planning to manage the uncertainty associated with long-range environmental planning.

Scenarios have been used as a powerful tool for managing uncertainty in business but are currently untapped when it comes to environmental planning. Although exploratory scenarios exhibit many strengths (3.2 Strengths and opportunities in scenario planning), there are also challenges and barriers to their use and implementation (3.3 Challenges and limitations in scenario planning). These difficulties are exacerbated in resource-dependent communities such as the Northeast Superior region due to current vulnerabilities, barriers to imagining and exploring the future, a history of resource-dependence and associated reliance on natural resource companies, and other challenges (7.1 Long range planning in the Northeast Superior region, 7.2 Utilizing scenarios to manage uncertainty in post-productivist resource-dependent regions). However, many of these challenges can be addressed. Furthermore, several characteristics of such regions can actually make them more receptive to certain exploratory components of scenarios, thus making them a better fit for managing the inevitable uncertainty that accompanies long-range planning. This dissertation answers the two following questions:

8.2.2.1 How can scenario development be utilized in planning for long-term futures and uncertainty?

Many factors impede resource-dependent regions from embracing long-range planning. These include prioritizing short-term survival needs over long term goals, a resultant tendency to reactive (rather than proactive) planning, a history of resource-dependence, associated transient populations, expectations of a “saving” industry or development, and a hesitancy to challenge beliefs about how the future will play out and explore potentially uncertain - and thus emotionally distressing – futures (7.1 Long-range planning in the Northeast Superior region). These factors exist in conjunction with general barriers that most individuals have to visioning long-range and alternative futures (3.3 Challenges and limitations in scenario planning). It also hinders the development and utilization of exploratory scenarios for managing uncertainty, a process which requires that participants stretch their assumptions about the future.

However, when these characteristics of post-productivist forest-dependent regions are taken into consideration, the barriers highlighted above can be addressed. Furthermore, certain characteristics of such regions can actually make them *more* amenable to exploratory scenarios when applied properly. This includes the window of opportunity that crises such as the downturn in forestry presents, and the familiarity that resource-dependent regions already have with discontinuous events (7.2.3 The future ain't what it used to be, 7.3.2 Difficulty envisioning the long-range future. 7.3.3 Stretching beliefs without breaking the process). Achieving true exploratory scenario planning – as well as its benefits for identifying and managing uncertainty – is also dependent on obtaining the proper combination of participants, knowledge sources, expertise, and backgrounds.

Conclusion 5: Scenarios can be utilized to overcome tendencies towards restrictive, status quo futures and associated reactive long-range planning (both in general and due to resource-dependence). Instead, when geared to place-specific contexts, scenarios can expand assumptions about the future and allow more effective planning for the wide range of uncertainties inherent to such regions

As mentioned above, a major barrier to successful exploratory scenario development and planning is a resistance to challenging beliefs and biases about how the future will, or may, play out (3.3.7 Emotional tensions and value conflicts). This tendency is heightened in forest- and resource-dependent regions in transition which are experiencing social, economic, political, and ecological vulnerabilities and fear for the very survival of their communities. In such cases, exploring alternate futures – even as a means of examining possible trends – can be deeply upsetting and divisive to participants, and can impair or even halt productive planning and dialogue (7.2.2.2 Repercussions of challenging beliefs about the future, 7.3.3 Stretching beliefs without breaking the process). Scenario processes cannot necessarily prevent such emotional repercussions. However, through ensuring transparency of process, clear outlining of goals and outcomes, an acknowledgement of the political nature of planning, and constant mindfulness of the complexities of challenging beliefs about the future, such consequences can be partially mitigated (7.2.2 Challenging beliefs and assumptions about the future, 7.3.3 Stretching beliefs without breaking the process, 7.3.4 Representing the future, 7.3.5 Transparency and transferability).

Conclusion 6: Constructing narratives of the future is both a political and emotional exercise, especially in resource-dependent regions. While the politicized nature of scenarios must be embraced, transparency of process and group dynamics is vital.

Scenarios are often described as a combination of art and science, thus reflecting the creative and subjective nature of interweaving driving forces, uncertainties, and trends into narratives about the future. However, despite the flexibility which is a strength of this approach, scenarios are also criticized in the literature for an inconsistent methodology and for difficulties extending the lessons of one scenario exercise to other situations and contexts (3.3.1 Inconsistent methodology, 3.3.3 Difficulties extending the lessons of one scenario exercise to others). Similarly, interview and focus group participants highlighted the need for a scenario template or framework which would be suited to certain contexts but retain enough structure and flexibility that it could fit the needs of, and be applied at, multiple sites with common characteristics (7.2.1.3 Considerations for utilizing scenarios). Therefore, I suggest a place-based scenario framework for regions that encompass certain traits which may impact planning – in this case, post-productivist forest- or resource-dependent regions in transition which largely contain Crown land. By achieving such a framework, lessons from scenario initiatives in other similar regions can be incorporated, and the scenario process can be improved with the benefits transferred to other contexts (7.3.5 Transparency and transferability, Table 7.2).

Conclusion 7: The strengths of scenarios can be best tapped and transferred when the process is place-specific, and incorporate sufficient structure and flexibility

This research addresses certain methodological and conceptual gaps in scenario development and planning. It has been demonstrated that scenarios are already utilized by industry, NGOs, think tanks, academics, and other such actors. Frequently, these actors are well-situated to instigate and lead exploratory and provocative scenario exercises. However, for scenarios to truly be effective, they must be tied to governmental will and commitment, and be part of a larger planning process. While innovative scenario initiatives do take place, they are frequently associated with think tanks, research organizations, or academics with no direct link to governmental action. Many participants have also been part of planning or “visioning” exercises which produced no tangible outcome, thus frustrating expectations and discouraging future participation. In addition, the appropriate level of government with relevant decision-making powers must be involved and committed. Without this component, there is little motivation for participants, communities, or regions to attempt scenario planning.

Conclusion 8: Industry, NGOs, think tanks, and academics are important instigators of exploratory and thought-provoking scenario exercises, However, scenarios can only truly be effective when they are accompanied by governmental commitment and are part of a larger planning process with guaranteed outcomes.

8.2.2.2 How can scenario planning be integrated into regional environmental planning and assessment frameworks to explore, assess, and plan for alternative futures and accompanying uncertainty?

As mentioned, scenarios have long been utilized in business and military applications to manage uncertainty. While there has been movement towards the

incorporation of scenarios into some forms of environmental planning, scenarios currently remain a fringe method in this regard (3.1 History and evolution of scenario development and planning). Yet, how to manage uncertainty is a major question and challenge in environmental planning and assessment. Therefore, a two-fold benefit can be achieved by integrating scenarios with current approaches to environmental planning and assessment: First, existing forms of environmental planning can be strengthened through the added element of uncertainty management, public participation, and exploration of alternate futures that scenarios offer. Second, scenarios can be introduced to broader audiences of planners, resource managers, and the public (7.4 Strengthening environmental planning and legitimizing scenarios).

Scenarios can be especially fruitful when integrated with project-based environmental assessment (7.4.1.1 Utilizing scenarios to expand the limitations of project environmental assessment), regional cumulative effects assessment, strategic environmental assessment (7.4.12 Letting scenarios shine), forest management planning (7.4.2 Forest management planning), and adaptive management (7.4.3 Adaptive management and scenarios). These approaches must tackle and attempt to plan for uncertainty but frequently fall short both in practice and in theory (2.3 Current approaches to long-range and regional environmental management in forest-dependent regions of Ontario, 5.5 Approaches to long-range regional planning in the Northeast Superior region). However, these various frameworks each contain several procedural “windows of opportunity” in which scenarios can be easily and effectively integrated. Therefore, scenarios can strengthen the ability of these environmental planning and assessment frameworks to identify potential driving forces, uncertainties, and trends,

determine how they may interact and extend into the future, and develop scenarios of possible futures which can be analyzed and used to test plans for robustness in various conditions and contexts (7.4 Strengthening environmental planning and legitimizing scenarios).

Conclusion 9: Integrating scenarios into existing forms of environmental assessment and planning can facilitate the acceptance of scenarios by a wider audience, and move this approach from the fringe to the mainstream of environmental planning

Conclusion 10: Current approaches to long-range environmental planning contain “windows” of opportunity into which scenarios can be inserted. Such integration can strengthen these environmental planning and assessment frameworks, particularly regarding their ability to manage uncertainty.

8.2.3 How do diverse values and power relations inherent to a post-productivist forest-dependent landscape shape regional and long-range environmental planning, and resultant outcomes?

As demonstrated above, (See Conclusion 1), the shift from productivism to post-productivism is real and underway. Several of the key values associated with a post-productivist landscape include movement away from single primary industries related to commodity production, to an increased emphasis on more diverse economic activities, services, and the host of other economic, environmental, social, and cultural values that are part of the forest. Post-productivism is also characterized by a more diverse power and management structure, with decision-making moving from the hands of a few industry and government players to multiple local and regional actors (2.2 The ongoing

shift from a productivist to a post-productivist view of the forest and landscape). Similarly, despite continued hopes for a resurgence of the forestry industry, the Northeast Superior region exhibits an increased focus on varied forest- and landscape-related industries and activities, as well as a more diverse bottom-up governance structure. Furthermore, even when participants criticize planning and decision-making processes for overriding local desires, there remains the *expectation* of more equitable control of the landscape. There is also a movement both at local and higher governmental levels towards increased community control and/or ownership of forest resources, and the creation of space for smaller, non-industrial scale companies and players to be involved in forest management planning and the forestry industry (6.2.1 Post-productivism in the Northeast Superior region). As a result, environmental planning which does not include multiple stakeholders and interests in *meaningful* (whether real or perceived) public consultation and participation, is viewed as illegitimate and poorly carried out, thus impeding successful and effective planning (5.5.4.3 Crown land or public land?, 6.2.1 Post-productivism in the Northeast Superior region).

Conclusion 11: The shift to post-productivism in forest-dependent regions is real and underway. As a result, environmental planning in such regions must incorporate and attend to diverse values and interests to be viewed as legitimate and hence, be effective.

Historical, cultural, and physical factors, interests, and values shape environmental planning processes in post-productivist forest-dependent regions such as the Northeast Superior region. Values regarding the landscape and resultant relationships include economic, ecological, and cultural interests, lifestyle choices and preferences, a

genuine affectation for the landscape, a sense of identity that stems from a closeness to and awareness of sustaining natural processes, unique First Nations-related relationships to the land, spiritual connections, lifestyle and communities defined by the physical, and a sense of stewardship, ownership, and entitlement mediated by high levels of Crown land (6.1.3 Links between residents and the landscape, Table 6.6).

A history of resource-dependence has also acted as a shaping force for identities and planning in the region. This includes an added economic component of dependency on the landscape, an almost familial relationship with certain industries and companies, the impact of boom-bust cycles on the region's visions for its future, and a sense of uniqueness and Northern exceptionalism when the region is compared to Southern, urban regions (6.1.4 North and South, Table 6.7). All of this combines to form a "Northern" identity which frequently shapes the success or failure of environmental planning initiatives (6.3 Regional environmental planning in the Northeast Superior region, 7.1 Long-range planning in the Northeast Superior region, 7.2 Utilizing scenarios to manage uncertainty in post-productivist resource-dependent regions).

Conclusion 12: Perceived and real links to the landscape, to a history of resource-dependence, and to a Northern identity have far-ranging impacts on environmental and long-range planning.

However, despite this supposedly common Northern identity, the very essence of post-productivism acknowledges the diverse values, interests, and power relations that are present in such regions. The Northeast Superior region is an ideal case study of this phenomenon (6.2.1 Post-productivism in the Northeast Superior region). This

heterogeneity is evident in the physical and jurisdictional landscape of the region (5.1 Geographical description of the Northeast Superior region), demographically (5.3 Demographic history and shifting populations), industrially (5.4 History and description of dominant and emerging forest-based industries), and regarding interests in the landscape, surrounding environment, and perceptions of the North overall (6.1.3 Links between residents and the landscape, 6.1.4 North and South). Furthermore, even distinctions such as “resource-takers/hook-and-bullet” versus “resource-protectors/tree huggers” are blurred when examined more closely (6.3.1.1 Planning and life). Therefore, while the image of a common Northern identity may be useful to communities and regions when presenting themselves to the “outside” world and higher levels of government, the realities of a heterogeneous region must be recognized, worked with, and utilized in environmental planning (6.3.3.1 Politics and identities of North and South).

Conclusion 13: The Northeast Superior region – and by extension, other similar regions – are composed of heterogeneous interests, residents, and values which must be recognized and incorporated in planning.

Post-productivist forest-dependent regions are also home to an assortment of power relations and discrepancies. These power relations extend to environmental planning processes, making them a politically charged arena. The political nature of planning often manifests in a distrust of provincial government initiatives and intentions (6.3.1.1.2 The politics of government, 6.3.1.1.3 The politics in the personal, 6.3.1.1.4 Transparency and trust – Part I). However, not all “government” is viewed in the

same light – many participants see local provincial government as connected to – but still distinct from - more remote, higher levels of the same government (6.3.1.1.2 The politics of government). Furthermore, while conventional top-down power relations are evident in the region, there also exist more subtle “horizontal” power relations in which the highly interconnected nature of small communities results in multiple levels of power relations and discrepancies which are not immediately apparent but can still have enormous impacts on planning processes (6.3.1.1.1 Looking beyond top-down and bottom-up). Such political and power ties cannot be erased. Instead, transparency of process must be utilized to ensure (a) That the political nature of planning is both recognized and embraced as unavoidable, and (b) That participants can still attain a satisfactory level of fairness within a politically-charged system (6.3.1 Planning is political but neutrality counts)

Conclusion 14: In addition to conventional top-down power relations, resource-dependent regions also experience “horizontal” power relations. Thus, the political permeates all aspects of environmental planning and must be recognized and embraced, not ignored.

These dynamics are situated within a larger inter-regional context. Specifically, remote, Northern, resource-dependent regions are frequently posed against Southern, urban regions. This relationship is perceived to be one of inequity in which decision-making powers and related agency is removed from Northern regions. Instead policy which affects the North is developed in the South, resulting in decisions and governance which Northerners feel are unsympathetic to and ignorant of their needs and

characteristics. This includes environmental planning policies which are designed in the South or related directives which originate in southern seats of government. In addition, Northerners often perceive such directives and policy to be instigated by Southern and/or urban environmental and social values. In particular, Northern residents view these values as being propagated by urban environmental groups whose interests they perceive as being at odds with resource-dependent regions. At the same time, many recognize that due to Northern residents' connection to the landscape, many of these supposedly conflicting environmental values actually hold common ground (6.1.3 Links between residents and the landscape, 6.1.4 North and South, 6.3.3.1 Politics and identities of North and South, Table 6.3).

Conclusion 15: Environmental planning in Northern, resource-dependent regions is mediated by real and perceived relations and power discrepancies with Southern, urban regions. This includes inequity in decision-making powers, policy that is unsympathetic to the North, and perceptions of what Southern, urban values are and how they impact the region.

8.3 Main research contributions

8.3.1 Conceptual contributions

My research offers an improved understanding of new regionalism and post-productivism in forest- and resource-dependent communities. Specifically, this work speaks to the overlooked role that inter- and intra-regional politics and power relations play in bringing about these theoretical frameworks. It also challenges notions of Northern homogeneity inherent to new regionalism (Markey et al. 2007a; Markey et al.

2008a), as well as highlighting the missing role of ecological driving forces and the insufficient linkages between the social, economic, political, and ecological in this framework (6.2.1 New regionalism in the Northeast Superior region). Through this work, I also confirm the shift from productivism to post-productivism at both local and higher levels of governance in forest-dependent regions. I provide further insight into how inter-regional shifts of environmental values in urban area have propagated the post-productivist model in resource-dependent regions (Mather, 2001), and I also raise the idea that industrial declines and boom-bust cycles play a further role in bringing about post-productivism (6.2.1 Post-productivism in the Northeast superior region).

My research has also provided conceptual contributions to current frameworks in environmental planning and assessment. This includes a place-based approach which better recognizes and works with the power relations and value conflicts inherent to environmental planning. In particular, this work contributes to advancing environmental planning and assessment beyond the current communicative approach which inadequately recognizes the implicit power relations and values present at every level of planning (Lawrence, 2000; Fischer, 2003; Connelly and Richardson, 2005; Richardson, 2005). Instead, this research identifies and incorporates the state and complexity of power relations in resource-dependent regions into environmental planning. Therefore, by bridging post-productivism and new regionalism with existing environmental planning, my work plays a role in improving and strengthening the theoretical framework surrounding approaches such as environmental assessment which have been previously critiqued for a weak focus on theory (Lawrence, 2000; Bina 2007) (See Chapter 6).

This research also contributes to scenario planning theory, which at this time also remains scant. It advocates for a recognition of the value conflicts, power relations, and emotional components in scenario development and which are particularly exacerbated in resource-dependent regions in transition. These challenges cannot be served merely by the open, communicative approach advocated for scenario planning in the literature (Myers and Kitsuse, 2000). Instead, I offer a place-based approach to scenario development and planning to address these constraints, increase transferability, and build a stronger scenario theoretical framework (Chapter 7).

Finally, this research seeks to address a major limitation of long-range environmental planning and assessment – namely, the management of uncertainty (Spaling et al. 2000; Baxter et al. 2001; Berube, 2007; Duinker and Greig, 2007). Therefore, by integrating scenarios with existing forms of environmental planning and assessment (i.e. environmental assessment, project and regional cumulative effects assessment, strategic environmental assessment, forest management planning, adaptive management), my work offers a means for these approaches to better apprehend and manage the uncertainty inherent to long-range planning (7.4 Strengthening environmental planning and legitimizing scenarios).

8.3.2 Empirical contributions

Through this dissertation, I document several regional environmental planning approaches being utilized in the Northeast Superior region. These include forest management planning, water resources management, the Northeast Superior Forest Community and related initiatives, and provincial land use planning initiatives such as

the Crown Land Use Atlas Harmonization project (CLUAH). I assess their efficacy in regards to managing uncertainty, meaningfully engaging stakeholders, actors, and other participants, and negotiating the power relations inherent to the region. As a result, this work will help parties involved in such initiatives to recognize barriers to effective planning, and offer some considerations that may be useful for current or future planning. I also suggest larger scale governance transformations at a provincial level regarding the developing Northern Policy Institute and a suggested Northern Secretariat or Northern Committee of the Legislative Assembly to empower Northern Ontario regarding policies and legislation for its regions and communities (Chapter 6).

As established throughout this research, the Northeast Superior region – like many other areas of Northern Ontario and Canada – is a vulnerable, resource-dependent region subject to high uncertainty. These factors frequently compromise social, economic, and environmental long-range planning efforts. In response, this work identifies barriers to successfully implementing long-range planning and scenario development and planning specific to such regions. I also offer suggestions for how these barriers can be addressed and surmounted at various scales including all levels of government, in various industries, and among local participants and actors in planning processes (Chapter 7).

Dissemination of results has been, and will continue to be, a priority. Preliminary findings have been shared at conferences (Canadian Association of Geographers Annual Meeting, Waterloo, 2012; *People in Places: Engaging Together in Integrated Resource Management*, Halifax, 2011). This dissertation and all associated academic articles will be made available to participants. Relevant findings will also be written up in report format, as will the considerations for a place-specific scenario planning framework.

8.3.3 Methodological contributions

One of the major methodological contributions of this research is a place-based scenario development framework for use in post-productivist forest- or resource-dependent regions in transition and encompassing large areas of Crown land. This framework partially addresses the challenge of inconsistent scenario methodologies and difficulties extending the lessons of one scenario exercise to another (Rotmans et al. 2000; van der Helm, 2007; Mulvihill and Kramkowski, 2010). Therefore, the development of such a place-based framework can help increase the transferability and suitability of scenarios to different contexts and allow for improved incorporation of lessons and subsequent enhancement of the framework. This dissertation also demonstrates how a case study can be utilized for place-based scenario research (Chapter 7).

8.4 Strengths, limitations, and considerations of this research and the case study

Semi-structured interviews offer many strengths, including the flexibility to explore and engage in issues and topics which are not specifically covered by interview questions but which are relevant to the research and/or which the participant has a particular knowledge of. This is also an appropriate interviewing method for case study work in which both facts and opinions are being solicited (Yin, 2003: 89-90). However, the open-ended nature of the interviews also offered significant space for topics which were less relevant (though not necessarily irrelevant). Therefore, for issues of manageability, analysis of these interviews (as well as for some parts of the focus groups) required

researcher judgment about what to include and what to leave out. Although this sorting was achieved using the code book that I developed upon reviewing and re-reviewing transcripts, there is a strong element of subjectivity and researcher bias to this component of analysis

Furthermore, the space for personal opinion in semi-structured interviews often resulted in discussions of local politics, histories, incidents, and/or “bad blood”. Different participants also had different approaches of discussing these issues, with some being more or less vocal in their opinions. All participants however, regardless of affiliation or background, demonstrated enormous concern and thought for their region and the surrounding landscape. Therefore, I have attempted to highlight these instances of discord only when relevant to the topic of environmental planning.

Due to the interconnected social nature of the Northeast Superior region and its small communities, participant confidentiality was a priority in my work. This is especially relevant due to the contentious tone of some environmental planning initiatives that I examined. Therefore, as mentioned in Chapter 4 (4.2.2.4 Focus groups), although conventional focus groups are often composed of “random” individuals, in these communities there was a significant likelihood that such “random” participants would not only be familiar with each other, but could possibly be tied through a variety of social, economic, or political links and power relations unknown to myself. Therefore, I chose to recruit established groups and/or groups of people known to each other and who agreed to take part in a group discussion knowing who else would be present. Although, this resulted in greater comfort for both the participants and myself, it is also possible a lesser

range of ideas and debate took place in these focus groups than if the participants had truly been random.

In my work I attempted to attain a sufficient diversity of participants from different communities in the region, and I remain satisfied with the range that I achieved. However, it should be noted that during my fieldwork I lived exclusively in Wawa. This community was chosen both for its size (it was the biggest of the municipalities of the Northeast Superior region), its central location in the region, its accessibility by road and bus, and its amenities. Therefore, due to the long distances between communities and the expenses of driving, there may be a slight over-representation of participants from the Wawa area. This possible over-representation is also related to other factors such as the location of a larger Ministry of Natural Resources office in Wawa and the offices of several resource- and forest-related businesses, many of which were sources for interview participants. Furthermore, while I remain grateful to the many participants who readily gave their time and thoughts to me during the research process, many individuals were understandably hesitant to speak to an “outsider” from the South, associated with a Southern university, and who was discussing environmental planning and forestry-related issues. Therefore, my physical proximity in Wawa and the increased familiarity that many individuals developed with myself and my work, also served to facilitate a greater response from local participants.

While I achieved an array of participants through several sampling techniques (4.2.2.3.1 Sampling and participant selection), certain sectors, levels of government, and interests were under-represented. This includes mining, First Nations government, and the Federal government. This is due to a variety of reasons which include scheduling

conflicts and travel restrictions (the major reason for limited mining participants). However, other factors also come into play. For example, after I spoke to a regional First Nations representative, other First Nations leaders perceived their views as having been represented in my research and were less inclined to be interviewed directly. As well, due to the heavy presence of the Ministry of Natural Resources and the Ministry of Northern Development and Mines in the region (as opposed to Federal offices), and due to the role of the provincial government in land use planning, provincial staff were both more accessible and more relevant for many interviewing purposes. Therefore, while a satisfactory array of participants took part in this research, it must be remembered that certain perspectives may be over- or under-represented. I attempted to account for this in my analysis and the results produced.

Finally, as mentioned in Chapter 4 (4.2.2.4 Focus groups), while I conducted focus groups to ascertain perceptions and opinions on the use of scenario development and planning, I did *not* conduct a scenario exercise in the Northeast Superior region. Undoubtedly, conducting a scenario exercise would have proven interesting and would have further supplemented my data and conclusions. Indeed, during the proposal process of my dissertation, I had hoped to cap off my fieldwork with a scenario exercise. However, it soon became apparent that this would not be feasible for a variety of reasons. First, the proper implementing of a scenario exercise would require considerable time from both myself and my participants. Considering the difficulty involved in finding willing participants for focus groups, it did not appear realistic that I would be able to recruit and retain sufficient numbers for a scenario exercise that would require many months of commitment, at minimum. Second, I did not possess the financial resources to

rent space, reimburse participants for travel, provide refreshments, etc. which would have been required. Finally, a major frustration expressed by focus group participants was the perceived lack of connection between long-range planning and/or scenarios with governmental action and commitment. This included criticisms of scenario planning as an “academic exercise”. I hope that the output of this research is useful and interesting to participants, and might effect some positive change, whether at a policy level or a more local scale. However, if I had conducted a scenario development and planning initiative, in this case it would have indeed been an academic exercise and completely unconnected to governmental action or planning processes. Therefore, at this time, conducting a scenario exercise was beyond the scope of this research.

8.5 Recommendations

This section offers a series of recommendations for practitioners of, and participants in, the planning process. These suggestions relate to various aspects of regional environmental planning including structure of process, public participation, and value conflicts and power relations. There are also suggestions for local and higher levels of governance. As well, this section makes recommendations to improve the long-range planning process for resource-dependent regions, with application for both environmental and socio-economic long-range planning. A rationale and short discussion precedes each recommendation.

Current stakeholder systems utilized in environmental planning can be inaccurate, gloss over the complexities of participants’ relationships with the landscape, and cause

unnecessary conflict. This system also does not take into account the top-down and horizontal power relations that are frequently present in regional planning initiatives which take place in small communities. However, there are undoubtedly benefits to this system, such as ensuring that a range of relevant interests are represented in planning. Therefore, I suggest a revisiting and revising of the stakeholder system in environmental planning initiatives which better accounts for the complex and multiple roles and relationships that participants experience in relation to the landscape and each other. This may include a system with a continued “checklist” of certain interests being represented at the table (E.g. hunters, silent sports, remote tourism, etc.), but an avoidance of assigning participants as a “representative” of that particular interest and thus setting up potential conflicts. This system would need to be supported by organizations and special interest groups which have traditionally been involved in environmental planning in the region and have had a representative in the process, such as the Ontario Outdoors Recreational Alliance (OntTORA), Nature and Outdoor Tourism Ontario (NOTO), Ontario Federation of Anglers and Hunters.

Furthermore, local governmental staff also hold multiple relationships with the landscape that encompass and go beyond their work. Many have also developed long-running relationships of trust with the communities of the region (and of which they are a part). Therefore, the simultaneously “local” and “provincial” interests that regional staff represent should be acknowledged and utilized in planning. This requires that higher levels of government allow their local representatives to hold a more complex role that better reflects their multi-faceted identity in the region. Such an action may seem like a counter-intuitive, and perhaps even impossible, undertaking. However, achieving this

would allow a more accurate representation of the interests of provincial staff, would increase transparency of process (See Recommendation 3), would better utilize the professional and personal relationships that staff have built with participants over time, and would make provincial staff more relatable to participants.

Recommendation 1: Revisit and revise the current representative stakeholder system utilized in environmental planning

Recommendation 2: Achieve an improved and more accurate recognition of the complexity of local governmental staff's roles and relationships in planning.

History, relationships, personalities, and horizontal power relations and discrepancies are critical forces in the planning process and can single-handedly cause a planning initiative to succeed or fail. Unfortunately, these factors are also extremely difficult – if not impossible - to plan for or control. However, ensuring transparency of process can maintain some sense of fairness for participants and can mitigate some of the potential negative effects of these issues. Transparency can be achieved through actions such as having a politically-neutral outside facilitator who can still appreciate regional issues and needs, acknowledging past and present conflicts and power inequities present in the process, ensuring that participants are clearly informed of the process and expected outcomes, not prioritizing one group's sense of place over another, acknowledging the simultaneously “local” and “provincial” interests of provincial staff involved in the process, and provincial staff maintaining a hyper-awareness of historical perceptions of provincial land use planning initiatives.

Recommendation 3: While history, relationships, personalities, and horizontal power relations cannot necessarily be planned for or controlled, transparency of process and outcome can mitigate these factors in environmental planning

This recommendation targets Ministry of Natural Resources staff and the provincial government, as well as forestry companies with Sustainable Forest Licenses and associated Local Citizens Committees. The volunteers who take part in Local Citizens Committees are enormous assets to forest management planning. This is due to their often long-running commitment to the planning process, their resultant procedural knowledge, and their wealth of related ecological, social, cultural, and economic knowledge and interests. Accessing these interests and knowledge can not only supplement and benefit forest management planning, but can also maintain the engagement of participants. Therefore, both the provincial government and forestry companies must push for increased flexibility of process and a stretching of the relevant topics and activities associated with forest management planning to better access this knowledge and retain participants

Recommendation 4: Incorporate participant interests and knowledge into long-range environmental planning initiatives, especially forest management planning

Scenarios can be effectively utilized to explore and manage uncertainty in long-range planning. It has been demonstrated in Chapter 7 how a place-specific scenario framework can be a useful means of appropriately applying scenarios to resource-dependent regions in transition and increasing transferability of such exercises and their

benefits to other similar regions. The development of a detailed, step-by-step, place-based scenario development and planning template can be an enormous asset for such regions. In particular, it can be utilized by organizations, industries, companies, or governments which may not have experience with, or knowledge of, scenarios to detail how to undertake the process. If such a place-based approach is successful for post-productivist resource-dependent regions in transition and containing large areas of Crown land, there is also a role for scenario practitioners and/or academics to develop similar place-based approaches for other types of regions or contexts. This would further increase the transferability of scenarios, while ensuring that the process is suitable for the needs and characteristics of certain contexts.

Recommendation 5: Develop a detailed, step-by-step, place-based scenario development and planning template for use by organizations, industries, companies, governments, or other interests which could benefit from exploring and managing uncertainty through scenarios but which might not have experience with, or knowledge, the approach.

Recommendation 6: Research the needs, characteristics, and opportunities present in other types of contexts, such as agriculturally-based regions close to urban areas with a high percentage of private land, to develop appropriate place-based scenario frameworks for a variety of contexts.

Current approaches to long-range environmental planning struggle with how to manage and plan for future uncertainty. The integration of scenarios with these

approaches can offer a useful tool to engage participants, and identify, assess, and plan for uncertainty, and test plans for robustness and resiliency in various future scenarios

Recommendation 7: Integrate scenarios into existing frameworks for long-range environmental planning to strengthen their approaches for managing uncertainty and introduce scenarios to broader audiences

Undoubtedly, the higher population of Southern Ontario should result in more electoral seats in the provincial government. However, it is an inequitable arrangement that governmental representatives of these regions – many of whom are unfamiliar with resource-dependent regions and represent constituents who may also be unfamiliar with the North – have a disproportionate say in the development of policy which will impact Northern, resource-dependent regions. Organizations such as the Northwestern Ontario Municipal Association and the Federation of Northern Ontario Municipalities provide a stronger united political voice for these regions and their communities. However, a Northern governance and policy framework within the existing provincial government is required. This has been partially achieved through the initiation of the Northern Policy Institute by the provincial government (6.3.3.1 Politics and identities of North and South). However, it must be ensured that such an Institute is independent, politically neutral, proactive, forward-thinking, and provided with the resources and abilities to monitor policy decisions.

It has also been suggested that the creation of a Northern Ontario Secretariat or a Northern Committee of the Legislative Assembly could empower Northern Ontario to better recommend, influence, and develop policies and legislation which will affect its

regions, communities, and interests, as well as confer greater decision-making power and agency to Northern regions. Such a Secretariat or Committee should also be tasked with long-range planning initiatives for Northern, resource-dependent regions. This would be a suitable agency for developing policy and/or legislation for appropriate regional long-range planning for Northern Ontario. Such an agency would also be a fitting venue for introducing scenario development and planning as a means of testing and assessing long-range plans against future uncertainties, and supplying appropriate knowledge and financial resources to enable such planning to take place.

Recommendation 8: Ensure that the developing Northern Policy Institute is an independent, politically neutral, proactive, and forward-thinking organization that has been allocated the resources and abilities to monitor policy decisions.

Recommendation 9: Explore the creation of a Northern Ontario Secretariat or a Northern Committee of the Legislative Assembly to empower Northern Ontario in recommending, influencing, and developing appropriate policies and legislation, and confer greater decision-making power and agency to Northern regions. Such a Secretariat or Committee would also implement and support regional long-range planning in Northern Ontario.

8.6 Future opportunities and research questions

Upon completion of this phase of my research, several future opportunities and lingering research questions are apparent.

First, in order to truly assess how effective place-based scenario planning could be for managing uncertainty in post-productivist resource-dependent regions in transition, the continuity of a long-term study is required. Such a study must track the planning process from beginning to end, including scenario development, scenario planning for uncertainty and/or testing plans or policies against scenarios and potential futures, continued monitoring and scanning for indicators of potential driving forces, uncertainties, weak signals and other trends, and assessment of the process and the efficacy of the resultant scenarios in identifying and managing uncertainty over a long-range temporal scale. This includes the need for studies of a similar time-range for examining the efficacy of integrating scenarios into existing forms of environmental planning and assessment in regards to the engagement of participants, utilization of various knowledge forms, and the management of uncertainty.

Second, the potential for scenarios to integrate various forms of knowledge and various vehicles for delivering this knowledge poses an interesting question. This includes exploring the appropriateness and the means of integrating Aboriginal traditional knowledge and oral tradition into scenario narratives. This research would require interest and consent from Aboriginal partners and cross-cultural learning to fully understand Aboriginal learning styles.

Third, a theme that often emerged in this research has been resident links to landscape. This was such an important notion that even those who vociferously attacked “tree-huggers” later admitted to being a “tree-hugger” themselves (sometimes even literally!). Sometimes when prodded further, these participants admitted to sharing many of the values of the predominantly urban and southern environmental groups that they

critiqued, even when such similarities are not immediately apparent. There are cases that have demonstrated how other historical rivals have found common ground and developed productive relationships and initiatives, such as the Canadian Boreal Forest Agreement that emerged from a “truce” between forestry companies and environmental groups (Mittelstaedt, 2010). It would be interesting to further explore at what junctures similar relationships could be developed between Northern and Southern Ontario in order to facilitate learning, relationship building, greater local ownership of planning processes and policies, and hopefully, more effective environmental planning. Such overlaps in interests are also important to ensure appropriateness and acceptance of policies such as the Canadian Boreal Forest Agreement which is frequently criticized by local interests for its perceived capitulation to the values of Southern residents and environmental groups.

8.7 Conclusion

This chapter has highlighted and summarized my research findings, conclusions, and recommendations. I have offered fifteen conclusions based around my three core research questions. I then outlined the conceptual, empirical, and methodological contributions made by my dissertation. These contributions include (a) An examination and development of new regionalism and post-productivism in forest- and resource-dependent regions, (b) Building theory for environmental planning and assessment, and scenario planning through a place-based approach and through the recognition of the political and power relations inherent to planning and specific to resource-based regions, (c) Better equipping long-range planning to manage uncertainty, (d) Documenting the environmental planning approaches utilized in the region and offering suggestions, (e)

Offering larger scale governance transformations at a provincial level, (f) Identifying barriers to long-range planning in the region and suggesting how they can be addressed, and (g) Developing considerations for a place-based scenario framework. I then reflect on some of the challenges encountered during research and fieldwork and which bear consideration. Further, I outline nine recommendations that emerge from this research and which are applicable to a variety of players, practitioners, and participants in long-range and regional environmental planning including all levels of government, industry, academics, and a variety of local interests. Finally, I conclude with further questions and directions for future research which emerged from this phase of work.

As a whole, this dissertation attempts to describe the state of environmental and long-range planning in forest- and resource-dependent regions in Northern Ontario. The findings indicate a number of challenges, such as a history of resource-dependence which such regions and their communities are only now beginning to examine more closely and question. Such forces are powerful things. It is difficult for these regions and their people to challenge the mentality and assumptions from which their communities were born. However, just as this research emphasizes the unique challenges that resource-dependent regions face in this regards, my hope is that the enormous opportunities which are inherent to these regions – namely their deep sense of place, love of landscape, proud spirit, resiliency, and the fierceness with which they defend their values – have also been made clear. Environmental planning in contentious situations and managing the uncertainty that accompanies the long-range future is full of thorny questions and issues in any context, let alone one where the stakes seem so high. However, when approached with care and thought, planning for the future of these regions can be turned from

something to be feared and rejected, into something to be embraced as one component of a thriving, vital, and dynamic people and landscape.

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Appendices

Appendix A

Informed Consent Form

Study Name: *Landscapes in Transition*: Integrating scenario planning and strategic environmental assessment (SEA) as an approach to objectives-led watershed planning in post-resource regions

Researcher: Victoria Kramkowski-Epner
PhD Candidate, Faculty of Environmental Studies, York University
epner@yorku.ca

Purpose of the Research: My research focuses on resource- and forestry-dependent watersheds, the decision-making processes employed as these regions transition to alternate industries, and the resultant ecological, socio-economic, and cultural effects. I am also examining how strategic environmental assessment (SEA), scenario planning, and the valuation of ecological services can be used in objectives-led watershed planning, assessment, and management. This research will be used for my PhD dissertation, for academic conference presentations, and in the preparation of peer-reviewed articles.

What You Will Be Asked to Do in the Research: This study will consist of a semi-structured interview about the environmental, social, and economic challenges facing forestry-dependent communities and regions, and what you envision for the future of your community/region. The interview will be approximately one hour in length.

Risks and Discomforts: We do not foresee any risks or discomfort from your participation in the research.

Benefits of the Research and Benefits to You: Benefits include the opportunity for participants to reflect on potential ways to address the challenges faced by their community and region.

Voluntary Participation: Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer will not influence the nature of your relationship with York University either now, or in the future.

Withdrawal from the Study: You can stop participating in the study at any time, for any reason, if you so decide. Your decision to stop participating, or to refuse to answer particular questions, will not affect your relationship with the researchers, York University, or any other group associated with this project. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible.

Confidentiality: All information you supply during the research will be held in confidence and unless you specifically indicate your consent, your name will not appear in any report or publication of the research. Interviews will be tape recorded unless requested otherwise, in which case handwritten notes will be taken. Your data will be safely stored in a locked facility and only research staff will have access to this information. Data will be stored for a minimum of 5 years and will be archived with the researcher thereafter in both digital and hardcopy form in a locked facility for related future research purposes. Confidentiality will be provided to the fullest extent possible by law.

Questions About the Research? If you have questions about the research in general or about your role in the study, please feel free to contact me or my Graduate Supervisor - Dr. Peter Mulvihill either by telephone at (416) 736-2100, extension 22634, or by e-mail (prn@yorku.ca). You may also contact my Graduate Program – Faculty of Environmental Studies, HNES 109, 4700 Keele Street, Toronto, (416) 736-5252. This research has been reviewed and approved by the Human Participants Review Sub-Committee, York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a

participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, York Research Tower, York University (telephone 416-736-5914 or e-mail ore@yorku.ca).

Informed Consent Form Continued

Legal Rights and Signatures:

I _____, consent to participate in *Landscapes in Transition* conducted by Victoria Kramkowski-Epner. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature _____
Participant

Date _____

Signature _____
Principal Investigator

Date _____

Appendix B

Semi-structured Interview Questions

1. What is your past/current involvement in the region? (Background)
2. What are the major challenges facing this region?
3. What are the main driving forces that are shaping the long term future of the region?
4. What is your biggest concern about the region? What is the biggest opportunity for the region?
5. What are future uncertainties that the region has to contend with?
6. How is the long-term future (20+ years) planned for, or how could it be planned for?
7. How is your community/region dependent on the surrounding natural landscape, forest water bodies of the area?
8. How is your region linked to other regions? (both other northern/rural regions and urban regions) How could planning and management make better use of these connections?
9. Where do you envision the region ten years from now? Twenty years from now? Fifty years from now?
10. What needs to be done to achieve the positive aspects of your future vision and to change the negative aspects?

Appendix C

Focus Group Questions/Discussion Guide

What are the challenges in planning for the long-range future in forest-dependent regions?

How can future uncertainty be planned for or managed re: both environmental, social, and economic issues?

What base conditions are necessary in a region/community for planning for the long-term future?

What is the most appropriate or effective way to take multiple interests and value conflicts into account in long-range planning? How should power relationships or discrepancies be taken into account in long-range planning?

VK explains the concept and process of scenario development and planning

What do you think the strengths and weaknesses of this approach to planning for the long-range future would be in forest-dependent regions? How effective do you think it would be?

- Ask further questions about:
- How different values might over/under/mis-represented in scenario development,
- How the act of scenario development might affect the future
- How scenarios might challenge deeply held beliefs and what the repercussions (positive or negative) might be
- How (or whether) extreme or discontinuous events should be incorporated into scenarios
- Do you see any role for scenarios in long-range planning? What would it take to get you actively interested in this approach?