Examining Place-based Governance Principles in Two Atlantic Canada Protected Areas

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

A historical approach to preserving biodiversity throughout the world is the establishment of protected areas, with the underlying philosophy that the greatest public benefit is achieved by protecting natural resources, despite exclusion of affected human communities. Consequently, protected areas can become arenas of struggle between local communities and state conservation agendas. Some suggest socio-ecological sustainability is gained by shifting to decentralized governance structures and interjurisdictional arrangements. Biosphere reserves allow for policies, management and institutional arrangements that integrate social, economic, political and environmental issues and better aligns them with decision-making processes, place-based governance and dynamic socio-ecological systems. This research project explores the real-life experiences and unanticipated outcomes of public participation in conservation projects and compares them against the scholarly discourse to examine our understanding of public participation and place-based governance in two Atlantic Canada protected areas. Using case studies of South West Nova Biosphere Region, Nova Scotia and Burnt Cape Ecological Reserve region, Newfoundland and Labrador, this study assesses levels of public participation by various stakeholder groups within the two case studies, examines the credibility of the public participation criteria and explores the challenges and opportunities of implementing community-based conservation projects. The case studies were assessed against eight criteria for effective public participation, focusing on public engagement (strategic, inclusive, transparent), the decision-making process (enabling, respectful, constructive) and desired outcomes (instrumental and meaningful). Based on semi-structured interviews, participant observation and a literature review, results suggest that open and public deliberative activities seeking and incorporating public interests into decision-making processes throughout an initiative contributes to local legitimacy, credibility and fairness. The case studies provide insight into the value of the public participation criteria, the long-term regional commitment required, the complexity in shifting to place-based governance arrangements and the importance of linking individual and collective identity with public participation. The primary research findings advocate a comprehensive, flexible, pluralistic, bioregional and contextually responsive approach to public participation and place-based governance.

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Chapter 1 **Introduction**

1.1 Rationale and Research Question

Some suggest sustainability, the persistence of desirable and necessary characteristics of socio-ecological systems (Robinson et al. 1996), can be gained by shifting to decentralized governance structures and arrangements (Aberley 1999). Bioregionalism (the practice of organizing around a unit of land or territory defined by biophysical and cultural phenomena) allows for policies, management and organizational arrangements that integrate social, political and environmental issues into decision-making (Pollock 2004). Others suggest that the landscape or bioregion offers the most appropriate scale of human and environment interaction that can contribute to sustainable land use planning and place-based governance (Aberley 1999; Pollock 2004). Increased regional or local engagement of citizens can contribute to better informed decision-making, social capital, strengthening of civil society and sustainable livelihoods (Agrawal & Ribot 1999; Brocklesby & Fisher 2003).

Biosphere reserves are just one of many initiatives that cultivate public participation among regional or local citizens groups in community-based management endeavours such as, health, commerce, ecological monitoring and policing. Biosphere reserves may offer opportunities for civic society to engage in long-term planning, integrative decision-making and management (Francis 2004). Such citizen and civic engagement can contribute to a democratic, regionally legitimate, well-informed decision-making process and governance. At the same time, a variety of other non-formal arrangements, institutions, social pressures, spiritual rituals and customs can contribute to sustainable outcomes. Reaching socio-ecological sustainability may require the inclusion of less formal institutions as well as more visible and formal approaches to decision-making.

The challenges and reality of implementing a regional land-use planning model (formal and non-formal) can present different outcomes than anticipated in the theoretical discourse. Examining the real-life experiences from implementation and comparing them against the scholarly discourse are an important part of understanding and improving place-based governance and, ultimately, sustainability. Increasing the effectiveness of public participation in place-based governance for socio-ecological sustainability requires implementing a strategic, inclusive, transparent process, having enabling, respectful, constructive engagement and delivering efficient, meaningful and instrumental outcomes (Pollock 2004).

1.1.1 Research Question

How can stakeholders participate in the implementation of conservation planning and how has participation contributed to decision-making processes in Southwest Nova Biosphere Region, NS and Burnt Cape Ecological Reserve region, NL?

1.2 Research Goals and Objectives

The goals of this research project are to increase our understanding of place-based governance and improve the implementation of its principles for sustainable development. This study examines the lessons and experiences from conservation and land-use planning practitioners and citizens, and compares their perceptions against the scholarly discourse. These case studies will contribute to the literature on the principles of public participation and expand the breadth and depth of our body of knowledge on place-based governance.

The research objectives of this project are to:

1) examine the usefulness of the selected public participation criteria through field research,
2) examine the role of public participation to place-based governance,

3) assess the actual level of public participation in two case studies by applying public participation criteria,
4) explore the challenges to and opportunities for participation faced by communities engaged in conservation projects in two Atlantic Canada sites.

1.3 Background

The establishment of national parks and other categories of protected areas has been the cornerstone approach to protecting nature and, more recently, to maintaining the biodiversity of local areas (Abbot et al. 2001; Margules & Pressey 2000). In some situations, protected area borders have not only delineated boundaries for natural areas but have also criminalized the daily livelihood activities of local communities dependent on the resources in those natural areas. Consequently, protected areas can become arenas of struggle between local communities and state conservation agencies (Neumann 1998).

The concept of parks as a means of protecting pristine natural ecosystems or areas of particular scenic beauty has been well documented in the United States of America (USA) and elsewhere, starting with the establishment of Yellowstone National Park in 1872 (Pimbert & Pretty 1995). This concern for protecting nature emerged as the American Western frontier was being exploited and destroyed by an expanding population. The model endorsed by the USA was a “fortress conservation” or “fines and fence” approach that has been adopted by many other countries and international conservation agencies (Adams & Hulme 2001; Wells et al. 1992).

However, this approach to conservation has typically not considered the impact on local communities or their residents. A historical reference to this exclusion is the US army’s expulsion of the Crow, Bannock, Blackfoot and Shashone Native Americans from within the boundaries of Yellowstone National Park (Neumann 1998; Pimbert & Pretty 1995). These tribes

were later referred to as “early visitors”, despite their ancestors’ occupation and utilization of Yellowstone’s lands for thousands of years before its establishment (Neumann 1998).

The underlying philosophy of these management policies was that the greatest benefit for the public good could be achieved by protecting forests and water resources, despite the exclusion or relocation of affected human communities (Pimbert & Pretty 1995). Management plans of early reserves did not mention the people residing within the nature reserves or conservation areas (Pimbert & Pretty 1995), even though many of these areas were previously heavily populated, especially if they were situated on rivers or traditional migration routes.

The number of national parks grew worldwide after the Second World War because of the influence of international conservation discourse, endorsed by such groups as the International Union for the Conservation of Nature and Nature Reserves (IUCN), the World Wildlife Fund (WWF) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) (Adams & Hulme 2001).

The “fortress conservation” and “fences and fines” approach has drawn a number of criticisms over the past 40 years. Dramatic paradigm shifts have occurred during this period. These shifts have fostered approaches that are increasingly participatory, geographically wider-reaching and inclusive of human beings (Phillips 2003). The growing discourse of community-based conservation has challenged the practice of excluding people from protected areas and the entire conservation planning process (Adams & Hulme 2001). “Community-based conservation,” describes a wide variety of projects, such as community conservation, community wildlife management and integrated conservation and development programmes. A central theme of community-based conservation emphasizes the inclusion of local residents in the decision-making process while pursuing conservation goals and sustainable natural resource management.

Community-based conservation is a reaction to the historically top-down, centralized or state-controlled conservation policies and practices. Community-based conservation raises three challenges to traditional approaches to protected areas management, by endorsing local communities within protected areas; participation of local community members in management of local resources; and linking conservation objectives with local development needs (Adams & Hulme 2001; Berkes 2004).

Community-based conservation may appear to be forward-thinking in contrast to the "fortress conservation" approach, but it does have limitations. First, participation does not necessarily ensure empowerment (Maguire 1987). Participation neither guarantees the resolution of development needs, nor guarantees effective implementation of conservation practices. Second, the community conservation movement has been expensive for implementing agencies in terms of funding, time and effort (Wells et al. 1992). Third, community conservation can be mistakenly viewed as an end or a final product, as opposed to being identified as a process or a means. These shortcomings can lead to misconceptions of expectations or outcomes of institutions working to integrate conservation and development (Adams & Hulme 2001).

Despite these limitations, the central theme of community conservation emphasizing the inclusion of local residents in pursuing conservation goals and decision-making continues to gain support. Regardless of community conservation's definitions or its ambiguity, it is associated with an oppositional position to the previous top-down, centralized or state-controlled conservation policies and practices.

An important voluntary initiative in the community conservation movement was the creation of the Man and the Biosphere Programme (MAB), launched in 1971 by UNESCO. This evolving flexible approach was considered a marriage between conservation and development because its ecological foundations include both natural and human sciences. It is a blend of

"natural science that includes man, and a human science that includes nature," (von Droste zu Hulshoff 1984: 689). MAB's two initial lines of action were to assemble a global network of biosphere reserves and ecological research initiatives. The aims of the research were to study human use systems and how to satisfy the needs of humankind without environmental damage. MAB endorses a transdisciplinary approach, integrating ecological, social, economic and political dimensions to improve natural resource management and problem solving. It also encouraged participatory and communication components with local stakeholders to ensure constant improvements to the conservation efforts and the MAB biosphere reserve programme (Batisse 1997; von Droste zu Hulshoff 1984). More recently, a set of general directions, criteria, goals and objectives were formally approved in 1996 through the Seville Strategy for Biosphere Reserves and the Statutory Framework of the World Network (Francis 2004; Ravindra 2004).

Biosphere reserves offer a conceptual model of sustainable development and an important set of ideals. The adaptive structure of biosphere reserves encourages "place-based" arrangements that can adjust to changes and re-organization of local conditions (Francis 2004: 10). A responsive and flexible approach has been described as a necessary requirement for sustainable development (Gibson 2002). These sentiments are echoed by other sources suggesting "a sustainable society must be place-based and iterative," with a continuing dialogue between researchers and the public to pursue worthwhile policies for the locale (Norton 2000: 38). Biosphere reserves are designations that can initiate reconsideration of previous institutional structures and their outcomes, and can serve as arenas to reconcile people with nature and each other.

The resulting complex networks involve governments, businesses and civic society working together to develop culturally sensitive and community-based roles and responsibilities. These can contribute to democratic decision-making and legitimate governance processes

(Aberley 1999). Francis (2004) refers to biosphere reserves as "domains" occupying "a social space and/or geographic place" influenced by the perceptions of the actors within and associated with them (15). Francis continues to describe the structure of governance within these domains by rules, rights, customs and authorities (all include formal and non-formal versions). This does not imply that collaborative decision-making and the layers of networks are without challenges or issues.

Power relationships and activities of local politics still exist and play a major role in the decision-making and communities' cooperation. The participatory nature of a place-based governance regime allows for education and training to inform or convince others during decision making processes, instead of regulations or control from an outside authority (Francis 2004).

Place-based governance is decentralized in nature and focuses on the local cultural and bioregional identities associated with "place" (Aberley 1999; Slocombe 1998). Pollock (2004) suggests place-based governance offers "opportunities for sustainability" by embedding processes that stimulate public participation, develop social capital and strengthen civil society into a regional context. These processes require larger numbers of stakeholders (versus regulatory or command and control governance regimes) representing all parties directly influenced by land-use and resource management decision-making. Therefore, citizen engagement, which can simultaneously contribute to local social capital, is fundamentally vital to place-based governance. Public participation can contribute to regional services or roles beyond the capacity or duty of formal government arrangements (Pollock 2004). Biosphere reserves may provide good case studies of place-based governance regimes and socio-ecological sustainability.

1.4 Methodological Approach and Case Studies

This study collects qualitative data and is inductive in nature. It undertakes two case studies for intensive examination and comparison of similarities and differences. Methodological

techniques for this project include a literature review, participatory observation, and semi-structured interviews. In addition, document analysis was employed when relevant documents were available. This approach will use the four methods as a means of triangulation (Neuman 2003). Benefits of triangulation have been described as resulting in a study that is "fuller and more comprehensive" (Neuman 2003: 139). Triangulation produces more confident results because the varied methods do "not share the same methodological weaknesses - that is, errors and biases" (Singleton & Straits 1999: 394).

Triangulation requires planning and foresight. A literature review was started before the departure for fieldwork in the study sites. This provided a firm knowledge base of the region, identification of major issues, a preliminary conceptual framework and an understanding of gaps in the existing literature. During my field research in Atlantic Canada, I engaged in participatory observation, document analysis and interviews. In the initial stages of the study, most of the data collection was exploratory while gradually shifting to explanatory as the field research progressed. I presented myself to authorities, park managers and local community members, and shortly afterwards scheduled interviews with representatives of key stakeholder groups directly associated with, influenced by or influencing the establishment of the conservation projects. Data collection efforts focused on local scientists, local residents, local business leaders, park staff, members of community development agencies and local decision makers. The selection of specific interviewees was based on the data collected from observation, document analysis, informants and other interviews. Criteria for selecting interviewees and interview questions will be discussed in Chapter 3.

Canadian biosphere reserves are ideal conceptual models for examining of how place-based governance contributes to socio-ecological sustainability. First, in some cases, biosphere reserves can promote a model of regionalism, transdisciplinarity and cross many jurisdictional

boundaries (Pollock 2004). Second, they can foster citizen engagement of local populations to use collaborative and "cooperative strategies to sustain local economies and resource use while conserving biodiversity," (Pollock 2004: 37). Last, biosphere reserves can provide forums for collaborative solutions leading to political involvement and empowerment, and perhaps resolutions to local issues and governance.

The Southwest Nova Biosphere Reserve may demonstrate some sustainability ideals because biosphere reserves try to "contribute appropriately to conservation, sustainable development and scientific understanding" (UNESCO 1996: 6). In addition, this region and its human communities rely heavily on surrounding natural resources and their associated management constraints. The stresses from such dependency place great pressure on local governance and public participation. The Southwest Nova Biosphere Reserve will provide a unique data set that will complement the research undertaken by a University of Waterloo team investigating similar governance issues in Ontario's biosphere reserves, and add breadth and depth to the body of knowledge on biosphere reserves' role in place-based governance and socio-ecological sustainability.

The case study of Burnt Cape Ecological Reserve and its surrounding area will provide an interesting contrast and comparison to the biosphere model of Nova Scotia. The inherent differences between Newfoundland and Nova Scotia should not be underestimated and these differences may increase in magnitude over time (Gordon Nelson, *pers. comm.*, 2005). The case study of Burnt Cape Ecological Reserve, also provides an alternative conservation model to the biosphere reserve designation. The protection of the ecological reserve was lead by concerned botanists, local community members and the provincial government in partnership with Nature Conservancy of Canada (NCC). The latter agency is a non-profit organization normally focused on acquiring property rights (or conservation easements) to ecologically significant areas for the

protection of biodiversity and natural heritage. In the case of BCER, the NCC did not follow their usual model of acquiring property rights but instead facilitated the protection of the ecological reserve and its future management. In addition, the regional vice-president, Linda Stephenson, described positive social outcomes and the potential for economic benefits for the local community associated with the protection of the Burnt Cape Ecological Reserve. The primary findings from the Burnt Cape area provide a useful comparison to the biosphere reserve model and contribute to our understanding of public participation in place-based governance for socio-ecological sustainability.

Using case studies of the Southwest Nova Biosphere Reserve (SWNBR), Nova Scotia (NS) and Burnt Cape Ecological Reserve (BCER), Newfoundland and Labrador (NL) to gain a better understanding of public participation in place-based governance for socio-ecological sustainability, this study will assess levels of citizen engagement by various stakeholders groups within a bioregional planning context. The citizen engagement criteria noted in Pollock (2004: 31) will be used to evaluate the case studies noted above.

1.5 Overview of Thesis

This chapter outlines the research goals, objectives and rationale for this study. The research topic is placed in the context of examining key conservation and governance concepts and their associated assumptions. It also raises the issues revolving around public participation in local decision-making processes.

Chapter two examines the relevant literature covering conservation models, governance, sustainability, bioregionalism, participation, deliberative democracy, place-based governance and the conceptual framework's role in this research project.

The third chapter explains the methodology, the data collection techniques, the criteria for site and interview selection.

Chapter four introduces each case study by highlighting the existing systems (ecological, political and social) in the region and telling the story of each conservation project.

The fifth chapter discusses the results of applying the criteria to each case study, discusses the themes influencing public participation and place-based governance and identifies the barriers restricting public participation in each case study.

Chapter six highlights the major conclusions, summarizes the major findings of the study, explains the study's limitations and suggests future research opportunities.

Chapter 2 Literature Review

2.1 Introduction

A number of important concepts contributing to and informing this study include conservation planning, bioregionalism, place-based governance, individual and collective identity, and public participation. This chapter examines these ideas and their connections as they are presented in the fields of political ecology and sustainability. Section 2.1 discusses biodiversity and the shifts in the relationship between protected areas and human involvement. Section 2.2 examines sustainability and its associated implications. The philosophy and praxis of bioregionalism, and place-based governance are explored in sections 2.3 and 2.4, respectively. Section 2.5 examines the different forms of capital, while section 2.6 discusses local and regional identity. Public participation and deliberative democracy are presented in Section 2.7 and section 2.8 focuses the importance of pluralism. Section 2.9 discusses opportunities for place-based governance in biosphere reserves and the conceptual framework is described in section 2.10.

2.2 Protected Areas

This section reviews a brief history of protected areas, followed by paradigm shifts in the relationship between humans and protected areas.

2.2.1 History of Parks and protected areas

The establishment of sacred groves, parks and nature reserves has been the cornerstone approach to protecting nature and more recently, the biodiversity of local areas (Margules & Pressey 2000). The origin of using a parks and protected areas system to preserve nature is often has been accredited to the establishment of Yellowstone National Park and has traditionally excluded local communities or people (Neumann 1998; Pimbert & Pretty 1995).

The underlying philosophy of these park's management policies stresses that the greatest benefit for the public good can be achieved by protecting forests, water or other resources despite

excluding or relocating communities (Pimbert & Pretty 1995). The management plans of these reserves did not mention the people residing within the nature reserves or conservation areas. Unfortunately, many of these reserve areas were heavily populated, especially if they were situated on freshwater courses or traditional migration routes.

A unique tension emerges with the associated costs of localized exclusion and the global socio-ecological benefits of protecting biological diversity through parks or reserves. There is a substantial imbalance between the concentrated costs projected on local human communities versus the large scale benefits of contributing to global biodiversity. This imbalance or tension begs valid questions of compensation for the local human communities who have lost access to valuable resources. Compensation recognizes the loss of rights, access or entitlement of local community members to subsistence activities and natural resources (Ferraro & Kramer 1997). Compensation can lead to numerous debates centred on ethical, economic efficiency and legal arguments, but exploring these is outside of this study's focus. The historical premise of human exclusion from selected areas was an outcome of a response to a growing movement.

The origins of parks and protected area models are rooted in a reactionary position to the expanding industrial and consumptive population in the United States (Phillips 2003). The rise of the modern and capitalistic society began to send ripples to influential actors who felt it necessary to hold onto the quickly diminishing frontier in their once bountiful country. The logging and extraction process sweeping across the United States was fierce and swift. The opposition to this consumptive momentum was growing and a few preservationists acknowledged the self-destructive nature of society's direction and developed an oppositional discourse. This was the beginning of the preservationist narrative. A preservationist outlook is a protectionist or "hands-off" approach, whereas, the conservationist outlook is a managerial approach that incorporates the utilization and preservation of natural resources. These narratives rose from a rejective standpoint to the consumptive nature of society and acknowledged the importance of resources (or nature) to the economic, spiritual and social fabric of development (Pinchot 1973).

The merger between colonial interests of controlling poaching and hunting with the growing agreement of conserving idyllic wilderness gave rise to the institution of protected areas. Game reserves and nature sanctuaries were renamed as national parks throughout colonized parts of the planet (Adams & Hulme 2001). The number of national parks grew after the Second World War because of the influence from international conservation discourse, endorsed by such groups as the International Union for the Conservation of Nature and Nature Reserves (IUCN), the World Wildlife Fund (WWF) and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

2.2.2 Shifts to Community Conservation

The narrative of "fortress conservation" or "fences and fines" has come under a number of challenges and critiques over the past few decades. There is a growing discourse challenging the practice of excluding people from protected areas and the entire conservation process (Adams & Hulme 2001; Batisse 1982; Brandon & Wells 1992; McNeely & Miller 1982; Wells et al. 1992; Western & Wright 1994). This critique is labeled "community conservation," and describes a wide variety of projects, such as community-based conservation, community-based resource management, community wildlife management, and integrated conservation and development programmes, to name a few. During the 1980s, there was a growing concern about top-down and centralized approaches to governance and management of natural resources (McNeely & Miller 1982) that increased the popularity and acceptance of community conservation because of several key characteristics:

- community conservation links conservation with sustainable development and advocates a global commitment to sustainable development;
- community is widely associated with "tradition" or indigenous arguments as part of a strong oppositional social movement and used in opposition to modernism ideology;

- community conservation advocates grassroots, “bottom-up” development as part of an alternative agenda to centralized and top-down development approaches;
- community conservation allows the economic value of conservation to be opened up (e.g. ecotourism, renewable resources) because of the renewed interest in the market’s ability to deliver development;
- community conservation responds to the limited success of achieving conservation targets within the boundaries of protected areas or parks ((Adams & Hulme 2001; Western & Wright 1994).

The central theme of community conservation emphasizes the role of local residents in the decision-making process and the pursuit of conservation goals and natural resource management. However, differing opinions about defining community conservation are widespread, and rightfully so. These opinions question the defining characteristics of community (i.e. ethnic groups, the length of a group’s residency, shared interests in resources or regional farmers), as well as the definition of conservation (i.e. the maintenance of pristine ecosystems, slightly modified ecosystems, or maintenance of global ecological processes) (Western & Wright 1994: 8). Regardless of community conservation’s definitions or its ambiguity, it is associated with an oppositional position to the previous top-down, centralized or state-controlled conservation policies and practices. This position is based on two key elements: the allowance of local communities into protected areas and their participation in the management of local resources; and the linking of local development needs with conservation objectives (Adams & Hulme 2001).

Recent interpretations of biodiversity, a common conservation target of many protected areas, may help overcome the constraints of aligning conservation and development goals. Biodiversity has been described by some as the variety of life at various levels of organization (genetic, species, populations and community, and landscape), the diversity of ecosystem composition, structure and function, as well as, the ecological processes associated with them

(Dale & Hill 1996; Noss & Cooperrider 1994; Redford & Richter 1999). Others have cautioned the mistake of interpreting biodiversity as the sum of its parts (and levels of organization) and equating biodiversity to biological resources (Wood 2006). Wood argues biodiversity should be interpreted as an essential environmental condition and such a distinction conceptualizes biodiversity as "a necessary precondition for long-term maintenance of biological resources upon which humans depend" (Wood 2004:416). In other words, biodiversity serves as a source of biological resources (Wood 1997). Thus, meeting management and policy goals demands an ecosystemic approach to designing and managing habitats and protected areas.

Numerous authors have acknowledged that systems of strictly protected areas and parks rarely meet the criterion of maintaining regional biodiversity (Borrini-Feyerabend 1997; O'Riordan & Stoll-Kleemann 2002a; Stolton & Dudley 1999; Wells et al. 1992). In some cases, where conservation strategies are designed at regional scales, implementation of these conservation strategies rely on and initiate their activities from existing systems of protected areas (Francis 2003). Many activities will need to expand beyond the borders of the protected areas and develop institutional arrangements of collaboration compatible to the realities of complex and self-organizing systems (Dale & Hill 1996). The expansion of conservation efforts necessitates multiple stakeholder dialogue and broadening to integrate other programs, policies, and environmental and social issues (Dale & Hill 1996).

While the positions and assumptions of community-based conservation were gaining support and acceptance, concerns associated with the development discourse were growing too. These concerns, to name just a few, involved the interpretation and limits of growth, the well-being of future inhabitants (human and non-human), an increasingly disproportionate distribution of wealth and material advantage, and the consequences of increasing and unprecedented environmental damage (Organisation for Economic Co-operation and Development 2002; Robinson et al. 1996). An international commitment to acknowledge and address these concerns was under consideration. This investigation was not merely a remedy to the symptoms of these

problems but more importantly, their root causes. Perhaps the most widely acknowledged outcome of this concern was the concept of "sustainable development" brought to the forefront in the report "Our Common Future" by the World Commission on Environment and Development (WCED 1987).

2.3 Governance

Although community based-conservation does not equate to sustainable development, its principles advance some of the building blocks for sustainable development, such as localized support for democratic, well-informed decision-making (Robinson et al. 1990). Since its inception, the complexity and sophistication of sustainable development has been drawn out beyond simply meeting needs of current and future generations (WCED 1987), and has since encompassed sentiments of viability and resilience, in terms of socio-political systems and natural systems (Robinson et al. 1990). Sustainable development, at the very least, is a reconsideration of the faith in unlimited growth, development, status quo and modernism. It acknowledges that "business as usual" cannot be continued if the future is to be positive, desirable and sustainable (Robinson & Slocombe 1996). Sustainable development may not be a flawless framework, however, it offers values and principles in the right direction for society to become viable and sustainable (Robinson et al. 1996).

Increased attention to the subject has drawn a distinction between sustainable development and sustainability. Sustainable development has received criticism of continuing along the unlimited growth proposition with a gesture of environmental scrutiny (Holtz 1988), and others suggest it is a band-aid approach of "violating and healing" that simply delays the inevitable environmental disaster for future generations (Sachs 1999: 60-61). Daly points out that development need not equate to growth (Daly 1991). Sustainability offers a broader perspective and perhaps may withstand more critical scrutiny.

Paehlke acknowledges sustainability's subtlety and complexity by highlighting a fundamental challenge of sustainability: identifying when, in what forms and at what levels growth is most desirable because in some cases it may produce net positive outcomes - socially, economically and environmentally (Paehlke 2004). Sustainability expands beyond the traditional economically centred views of development but offers a far-reaching perspective of progress including issues in beliefs, attitudes and social practices (Robinson et al. 1996). Sustainability, for the purpose of this study, is defined as "the persistence over an apparently indefinite future of certain necessary and desired characteristics of the sociopolitical system and its natural environment," (Robinson et al. 1996: 31). Building upon this definition, a sustainable society exhibits the following seven principles of: socio-ecological systems integrity; sufficiency and opportunity; inter and intra-generational equity; efficiency; democracy and civility; precaution and adaptation; short and long-term integration (Gibson 2002). Advancing the principles towards a sustainable society implies that the three imperatives (ecological, social and economical) are interconnected, interacting, overlapping, independently important and overlooking any one of them would jeopardize society's well being (Paehlke 2004). Sociopolitical structures for sustainable societies and communities endorse decision-making processes that foster arrangements closest to the circumstances and promote public involvement to inform decision-making (Robinson et al. 1996). Others expand sustainable governance by strategically including "group-based collaborative and deliberative interactions that draw together stakeholders from government, business and civil society," (Durant 2004: 179).

The field of political ecology provides valuable background concepts of institutional arrangements and the relationship of power between the actors (Wilshusen 2003). Forsyth (2003) describes political ecology as the legitimization of legislation and policies based on ecological reasoning. His arguments suggest ecological knowledge and research is subject to political and social forces and manipulation (Forsyth 2003). Peterson's interpretation of political ecology is sympathetic to systems' thinking because he describes political ecology as "an ever-changing

dynamic tension between ecological and human change, and between diverse groups within society at scales from the local individual to the Earth as a whole" (Peterson 2000: 324). Political ecology illuminates the influence of humans on the global biosphere and how our interpretation of nature and our associated management policies are vulnerable to power relations and institutional arrangements. Institutions are defined as rule systems of that organize socially accepted activities or interactions (e.g. conventions or norms) (Dietz et al. 2003; Knight 1992). Expanding the concept of "community" beyond a single unit of homogeneous structures and values has been suggested to be more productive by Agrawal and Gibson (1999) who describe community as a collection of multiple stakeholders, interests and institutions shaping decision-making.

The realization of degrading ecosystems has forced society to acknowledge that governments are "limited in their capacity to assist social change towards a sustainable future" (Brunckhorst 2000b). The resulting gaps of service offer opportunities for (and in some cases necessitate) support and services by civil society (i.e. individual citizens, community groups, non-governmental organizations and public interest agencies) and the private sector. Engaging the multiple actors of social systems is vital but working at multiple scales is equally as important.

The concept of governance has gained popularity over the last couple of decades as an expansion of what was previously understood as the traditional role and services delivered by governments or central state bodies. Like sustainable development, governance is a broad term with the flexibility appropriate to be applied to various contexts, complexities and uncertainty faced in reality. Governance's ambiguity allows it to deal with the dynamic nature of socio-ecological systems and is often suggested as being open ended. By avoiding a concrete and detailed definition, governance has the capacity for continuous learning and adaptation (Gibson 2002; Kemp et al. 2005). Governance is defined by Jessop as "the reflexive self-organization of independent actors involved in complex relations of reciprocal interdependence" (2002: 1). Stoker (1998) describes governance as the manifestation of governing involving a decentralized

shift of complete authority from a formal government to include the public, a mixture of privately and socially regulated market incentives and prescriptions, and multiple geographical scales of responsibility. Others have highlighted that governance or "the 'steering' of public affairs becomes more and more a matter of joint responsibility amongst a variety of actors," (O'Riordan & Stoll-Kleemann 2002a: 94).

As noted above, governance discourse has a history of emphasizing rules and policies of public administration systems advancing towards high skilled services and increasing numbers of specialized ministries to address a variety of complex problems (Organisation for Economic Co-operation and Development 2002). More recently, the importance of formal and non-formal arrangements has gained increasing acceptance (Kemp et al. 2005). Governments will continue to play a central role in the ruling system with the acknowledgement of market forces and civil society as important sectors in governance (Pollock 2004). Limitations in governments and negligence in market mechanisms make them inadequate to respond to public or local needs. Non-formal arrangements, customs and voluntary choices are often overlooked despite the important roles they serve as tools for governance (Gibson et al. 2005). Examples of customs serving as governance tools include social pressure to "put out the recycling" during waste collection schedules or to avoid public displays of disciplining or "spanking" a child. In terms of voluntary choices, many individual citizens volunteer to support various agencies and initiatives (i.e. "big brothers", Canadian Blood Services or the board of the local hospital, etc.) or exercise their voluntary choice in larger collective groups (i.e. neighbourhood watch groups, rural fire departments, ecological monitoring networks) (Gibson 2004, personal communication). Collectively, these four tools provide important mechanisms that complement one another and will likely require integration and incorporation into sustainable governance.

With the understanding that collective responsibility of public affairs and participation of various actors needs to be incorporated into the concept of governance, the premise of public consultation and participation becomes more desirable. This desirability is based on the

assumption that open and public engaged decision-making processes are fairer, better and morally superior to those without open and public input. Still, public consultation and participation does not guarantee inclusiveness or responsiveness because institutional arrangements may still allow elites to hold power (O'Riordan & Stoll-Kleemann 2002a).

Sustainable governance of resources begs shifts be made from representative democracy to participatory or deliberative democracy. While deliberative democracy may not be attractive to policy-makers and decision-making processes because of untimely results and perceived inefficiency, civil society can become frustrated with the lack of information and ineffective communication of their concerns. Increasing frustration by civil society can contribute to perceptions of government incompetence, indifference and ultimately, illegitimacy. It is important for those holding power structures to acknowledge the mutual benefits and collective interests of communities within and between regions (Brunckhorst 2000b).

Approaches to regional (or bioregional) planning consider two major changes from top down decision-making processes: local public empowerment and responsibility; and addressing common public resources (water, air, energy, biodiversity) that extend beyond or originate from areas outside man-made jurisdictional boundaries, such as county, municipality or provincial borders (Thayer 2003). The distribution of public participation can include a number of institutions and actors (Non-government groups, private corporations, local community groups, advocacy agencies, public bodies and decision-makers). Francis (2003) suggests that in Canada and in most developed countries, to enhance governance, collaborative and cooperative partnerships across landscape and regional scales will help identify and reduce stresses on biodiversity and ecological services. This will require substantial efforts from the various agencies and players - with each having their own mandates and agendas - acting with (and around) the region, and long-term commitments (Hibbard & Madsen 2003). A bioregional framework can create links between local action plans and broader scale strategies or policies (Brunckhorst 2000b). Developing a nested series of plans from small scale details to broader

plans can inform bioregional decision making and better align societal and institutional arrangements with the spatial and temporal dynamics of socio-ecological systems (Dietz et al. 2003; Holling 1995).

Nested arrangements should not be mistaken for hierarchical arrangements, which have tendencies of control over information and authority. Nested arrangements require vertical and horizontal integration, thus allowing information and knowledge between the levels of organization to inform, learn from and adapt decision-making processes (Francis & Lerner 1996). It is also important to consider the socio-ecological services that flow within and across landscapes into the "five assets" or forms of capital: Natural, Social, Human, Physical, and Financial (Brunckhorst 2001).

Decision-making processes or governance require all parties involved to work at multiple scales simultaneously. Since society functions at multiple scales and all levels of organization in every geographical place, a framework advancing integration becomes an increasingly important goal.

2.4 Bioregionalism

Organizing societies' capabilities for a sustainable future will depend on integration and coordination of planning and management from local to global approaches (Brunckhorst 2000a). The global scale can be overwhelmingly complicated with a lack of detail to develop an effective framework, yet vital to sustaining the global biosphere. At the same time, the local level can be equally complicated with excessive detail and a loss of interconnectedness. It becomes important to acknowledge a framework that works in a nested hierarchy of management units. It is equally important for a framework to strategically encompass the adaptive management of the three systems of sustainability - ecological, social and economical (Francis & Lerner 1996). Unfortunately, management units are often arbitrarily delineated and do not connect to or align with socio-ecological systems (Slocombe 1993). The landscape-regional scale is suggested to be

the main scale of interaction between humans and the environment (Brunckhorst 2001; Slocombe 1993). It is suggested that bioregional scales can incorporate social, economic, biological and physical elements (Brunckhorst 2000a; Slocombe 1993). The bioregional approach presents a strategic and "operationally efficient framework in planning for integrated management" (Brunckhorst 2000a: 30). Bioregionalism can allow for linkages of institutional and biophysical systems within and between regions. This linking capability is especially important when policies can affect a combination of regions in similar, variable or synergistic manners. By necessity, the input and cooperation of multiple stakeholders at local or community levels allows for programs to address multidisciplinary issues in the region. This process is often described as "participatory democracy for sustainable resource governance" (Brunckhorst 2000a: 35).

Others have described bioregionalism not only as a social movement but as a philosophy of life (Carr 2004). The literature covering the bioregional movement describes a broad social campaign of integrating natural and human systems within and around various regional scales by networking and organizing various sectoral actors into a comprehensive and democratic governance arrangement. The philosophical aspect revolves around the social and cultural praxis of developing healthy and sustainable local communities (Carr 2004). Some argue bioregionalism has roots in the 1930's regionalism body of thought (Brunckhorst 2000a; Slocombe 1993), while some suggest the roots of bioregionalism stem from the turbulent times of student-led counterculture during the 1960's (Aberley 1999; Carr 2004). Much of the philosophical thought of bioregionalism brings together poetry and essays, feelings and thought to inspire emotion and intellectual vision. It is the values from these narratives that develop into a bioregional "way of thinking about human society and the natural world" (Carr 2004). Bioregional values direct a variety of activities and projects, like riding your bicycle, eating locally grown foods and attending community meetings. Five major concepts are regarded as the pillars of the bioregional discourse: reinhabitation, bioregion, home, community and place (Carr 2004). Reinhabitation is the praxis of bioregional activities that are environmentally and socially

responsible to the place of daily livelihoods; it recognizes the limitations of life support systems in areas which are generally disrupted or degraded from exploitation (Aberley 1999). Bioregion refers to the "geographic terrain and a terrain of consciousness" (Berg & Dasmann 1977: 399). This idea refers to bioregions as unique life regions with an interconnected web of life that gives rise to the flora and fauna, ecological services, as well as, human occupancy. Home is a concept encompassing a sense of kinship and belonging to place but expands to include a sense of domestic nurturing and civic responsibility as far-reaching as the bioregion. Community is often overused or with little thought invested into its meaning. In bioregional thought, community is a concept of valuing, sharing and nourishing the needs and desire of other inhabitants (human and non-human) in a particular place and realizing the affects on each other's lives (Carr 2004). In some respects, it can be considered social capital with an ecological component. Perhaps the most fundamental concept of bioregional thought is "place". It can be described as the foundation for life support systems (socially and ecologically) associated with the acknowledgement of embeddedness, responsibility of understanding it and the adaptive involvement of ecological reciprocity (Carr 2004). Many of these five concepts have overlapping meanings and are inherently connected to one another forming the pillars of bioregionalism.

While the concept of bioregionalism provides an effective framework for sustainable resource governance and philosophies, it is not without criticisms. Aberley highlights the tension that exists in the bioregionalism discourse of advancing the social movement without a true spokesperson or leader. He argues that the interpretation or articulation of bioregionalism through a single person's voice may be misleading. The social movement endorses the ideas of flexibility and responsiveness, i.e. local visions and solutions are to be place-specific in order to be effective. In other words, bioregionalism will have numerous leaders and they will be local champions. This may prove to be difficult, especially as a movement challenging the growing momentum of globalism (Aberley 1999).

Donald Alexander presents a critical interpretation of Kirkpatrick Sale's book entitled, "Dwellers in the Land" (Sale 1985). Alexander suggests Sale's ideas are based on environmental reductionism and Sale fails to acknowledge the importance of power structures as a basis for human constructs (Alexander 1990). In addition, Sale is noted as carelessly attributing "natural law" to human institutions, without considering the complexity surrounding social developments. According to Alexander, acknowledging that bioregions are "human intellectual constructs" is important and bioregional consciousness advocates for increased ethical consideration of environmental concerns and quality of life issues (Alexander 1990).

Mitchell Thomashow identifies the challenge that bioregionalists must face when supporting and disseminating their knowledge and solutions to other collective groups (Thomashow 1999). His argument is analogous to the challenges of landscape ecologists and conservation trying to develop habitat corridors between forest patches in a landscape matrix to allow gene flow and seasonal migration. Along similar lines, avenues for information and knowledge exchange are needed between bioregions. At the same time, the members of communities outside of the bioregions living in the "supposedly" homogenous landscape may experience isolation. How do communities connect, exchange knowledge or offer support without being identified as a bioregion or as a collective group living in place? These questions reinforce the importance of local identity and local legitimacy for bioregionalism to becoming a successful social movement and philosophy (Brunckhorst 2000a).

Bioregions, in essence, are social constructs because they are an interface of ecological systems with human governance arrangements (Brunckhorst 2000a). Whether bioregion is explained as a concept with loose boundaries or an area or territory with a more defined boundary on a map, it is not value free and remains a social instrument (Alexander 1990). Bioregions take their shape with similarities from biophysical and cultural elements (Aberley 1999). It is the social and cultural engagement of living with our physical settings that creates connections with

our sense of place. Gaining identity with a place or landscape is described as being equipped with awareness of our surroundings (Thayer 2003).

The ecological goods and services (clean water, forest products, nutrient cycling and agriculture to name a few) that allow human occupancy and exploitation serve not only as visual symbols of our surroundings but provide identities and meanings with our place (Thayer 2003). This identity can be attributed to natural and man-made features of admiration (desires), or landscapes that offer opportunities to "make a living" (necessities). Long-term occupation of human inhabitants modifies landscape, and human choices and activities may be having the largest impact on the global biosphere (Robinson et al. 1996). While ecological systems are changing under human (and non-human) influences, the social and cultural systems are simultaneously changing with their identity of the landscape. Unfortunately, the dynamics of landscape modification (and in some cases, culture modification) do not adjust in harmony with the economies of production and political boundaries (Brunckhorst 2000a; Norton 2000). Human identity with landscapes is especially important at small scales because a bioregion without local community identity will unlikely "serve as a strategic planning and management framework for sustainability goals," (Brunckhorst 2000a: 33). An example of this is illustrated in Nevada County, California, where a natural heritage program initiated by recent residents sparked high tension and conflicts with long-term residents. The recently arrived residents identified with the rural area's aesthetically appealing natural landscape and the rural quality of life offered refuge from their previous urban settings. Whereas the long-term residents identified their natural landscape as natural resources and commodities available to make a living and part of their livelihood activities. The lack of engaging stakeholders and developing constructive dialogue demonstrates that strategic planning cannot be politically persuasive if implemented without appropriate consideration of local landscape identity (Walker & Fortmann 2003). Identity of local community with a bioregion is vital because it can add a sense of legitimacy to the

bioregion and perhaps a shared sense of purpose to the associated planning. Public participation and deliberation can also contribute to this legitimacy.

2.5 Participation and Democracy

Over the years, there have been significant changes to the protected areas paradigm and conservation planning, in general. Perhaps most relevant to this study are the perceptions and roles of humans (and local communities) in conservation planning. During the 1960's, it was perceived that local communities were considered major threats to protected areas (Phillips 2003). By the beginning of the 1980's, the conservation movement began to perceive local communities less as threats and more as resources and, gradually during the 1990's, as partners for management (McNeely 1982; Miller 1982; Phillips 2003). A large part of the conservation planning literature suggests that the success of conservation projects depends on support of local communities and their members (Batisse 1997; Borrini-Feyerabend 1997; Jeanrenaud 1999; Wells et al. 1992). More specifically, public participation in the planning and management of conservation and development projects will increase their chances of success (Pretty & Smith 2004).

Public participation appears to have two lines of rationale for its involvement in public policy and decision-making processes. One rationale focuses on the right of the public to participate in policy, so the public's values and preferences can be articulated and represented in the policies. This would help to bring the public's values closer to becoming part of reality and give legitimacy to the policy process (Pollock 2004; Rydin & Pennington 2000). The second rationale not only focuses on the public's values reflected in the policies but the policy's effective implementation (i.e. goal achievement, unintended or undesirable outcomes, cost-benefit ratio), too (Rydin & Pennington 2000). Public participation in policy formulation and decision-making processes helps to: 1) inform the policy process and avoid inappropriate developments; 2) decrease the chances of or avoid conflicts; and 3) implement the policy process smoothly (Rydin

& Pennington 2000). Others have cited the benefits of strengthening a sense of community, more localized solutions, possibly empowering individual community members and developing a sense of community ownership (Tamarack Institute).

At the same time, the popularity of public participation has received valid criticisms.

Table 2-1. Criteria for Identifying Stakeholders in Conservation Planning

- the capacity to contribute to protected area management;
- existing rights to land or natural resources;
- continuity of relationship (for example, residents vs. visitors);
- unique knowledge and skills for managing the resources at stake;
- potential losses and damage incurred in the management processes (opportunity costs);
- historical and cultural relations with the resources at stake;
- degree of economic and social reliance on such resources;
- degree of effort and interest in management;
- equity in the acces to resources and the distribution of benefits from their use;
- compatibility of the interests and activities of stakeholders with the national protected area system plan; and
- present or potential impact of stakholder activities on the resource base.

(Borrini-Feyerabend & Brown 1997; McNeely 1999)

Some point out that the ambiguity of the term public participation can result in increased dependency on centralized resources or build self-reliance. In other cases, it can "justify external decisions as well as to devolve power and decision making away from external agencies" (Pretty & Smith 2004: 636). Public participation does not necessarily equate to empowerment or policy formulation or policy implementation (Maguire 1987; Pollock 2004). Others have argued about the definition of the public and the entitlement of individuals or institutions to provide input into policy and decision-making processes (McNeely 1999). In other words, who are stakholders and

how are they defined? Borrini-Feyerabend and Brown (1997) have developed a list of criteria to help identify legitimate stakeholders (Table 2-1). Consideration of these criteria may also help determine primary and secondary stakeholders and consequently, their roles, rights and responsibilities in decision-making processes.

Perhaps the most dominant criticism of public participation is around determining its level. The level of public participation can continue to perpetuate a level of dependency on centralized (or external) agencies or engender fear in the lead organization because of a loss of control and imprecise proceedings. Pretty and Smith (2004) describe public participation as six types:

(1) **"passive participation**, in which people participate by being told what has been decided or has already happened;

(2) **consultative participation**, in which people participate by being answering questions, with the process not conceding any share in decision making;

(3) **bought participation**, in which people participate in return for food, cash, or other material incentives;

(4) **functional participation**, in which participation is seen by external agencies as a means to achieve their goals, and people form groups to meet predetermined objectives;

(5) **interactive participation**, in which people participate in joint analysis, development of action plans, and formation or strengthening of local groups or institutions; and

(6) **self-mobilization**, in which people participate by taking initiatives independently and retain control over how resources are used," (636-637).

Despite the criticisms of public participation, advocates of bioregionalism, place-based governance and sustainability recognize the value of public input and participation in decision-making processes (Brunckhorst 2000b; Francis & Lerner 1996; Pollock 2004; Robinson et al. 1996). As pointed out above, stakeholder involvement may not ensure participation or contributions to decision-making processes. Furthermore, public participation does not ensure

public empowerment, especially when existing power relationships prevent equitable distribution of participation. Local actors in advantaged and persuasive positions may have a greater influence than others local community members in local projects. "Community-based" initiatives should not immediately invoke a sense of homogeneity or consensus, but more likely, the existence of many different groups, networks or actors which would make up the "local" voice (Peters 1996). A primary concern is whether projects truly and fairly represent local community members' values and interests as opposed to a select few local actors'.

The issue of representation becomes an important component of decision-making processes that are based on fairness, accountability and legitimacy. Representational democracy, while important to democracy and implementing the public's values into their daily lives is limited by offering periodic opportunities to vote for a summation of predetermined preferences. The public's interests are only captured periodically with no (or limited opportunity for) new insights, recommendations and transformations being incorporated into decision-making processes (Meadowcroft 2004). Deliberative democracy is described as the articulation of opinions, interests and concerns of the public, or allowing others to do so on their behalf, with the acknowledgement that these will be listened to, respected and taken into account as part of a forum to reach a collective agreement through open and rational discourse (Banjade & Ojha 2005; O'Riordan & Stoll-Kleemann 2002b). Theories of deliberative democracy acknowledge the right of each individual (or concerned citizens) to an opinion and the right to express their personal interest (i.e. participate in deliberations)(O'Riordan & Stoll-Kleemann 2002b). Faced with the reality of modern democracy, however, every individual cannot personally be involved in deliberations. Some form of representative mechanisms need to be employed but must be free from strategic manipulation, deception and influences of wealth, social status, class, age, gender, religion, etc. (Banjade & Ojha 2005; Meadowcroft 2004). Some may interpret deliberative democracy as an alternative to representative democracy but it would be wise to interpret it as an expansion and complement of it. Accountability and legitimacy become richer with deliberations

preceding (and proceeding) voting. Reasoned arguments and public reflections can produce new insights and adjustments to initial positions and consented preferences (Chambers 2003; Meadowcroft 2004).

Implementing deliberations to enhance decision-making processes does not come without criticism or opposition. Arguments that deliberative democracy (or place-based governance structures) are ambiguous or lacking formal systematic structure and can possibly lead to ad hoc processes or solutions are misleading. Some theorists argue that articulating diverse issues and perspectives, and developing public discourse outside of formally organized or structured forums, are the outcomes of dealing with reality. Indeed, it is the reality of deliberative democracy theory hitting the ground. The resulting discourse is a "richer and more useful idea of public reason that addresses real-world challenges," (Chambers 2003: 322). Gaining a better and comprehensive grasp of public interests is helpful in incorporating those interests into the discourse and moving towards meaningful public participation, democratically well-informed decision-making processes and sustainable actions.

Highlighting the implications of implementing deliberative activities to benefit public participation is important but it also warrants recognizing its limitations. While Pollock's public participation criteria advance legitimacy and fairness, they don't necessarily overcome existing power relationships. Resolving the inequitable distribution of power within communities, social groups or families is a challenging and often complex situation. Within certain communities, empowering some people may be at the expense of others (Igoe 2004: 181). Cultural norms, institutions and structures can amplify the challenges associated with overcoming imbalanced local power relationships. Existing institutional structures affecting power relations can influence deliberative activities, public participation and the outcome scenarios of decision-making. These institutional arrangements and responsibilities may need to be adjusted, such as by shifting legal responsibilities and voting privileges, for deliberations and public participation to become effective (Trainor 2006). At the same time, a distinctive tension begins to develop between

impressing ideas of legitimacy and credibility, and displacing cultures. Those imposing adjustments and modifications should be aware of displacing cultures and enforcing new cultures with concepts rooted in a specific context. Ideas of legitimacy, credibility and fairness are not universally agreed upon and accepted. Hopefully, adjustments will allow the results of decision-making processes not to cater to elite or privileged interests but to better represent local common interests.

Conducting deliberations may be a valuable step towards enhancing decision-making processes and governance, but it would be unreasonable to assume it could displace representative democracy. Instead, it would be wise to consider a combination of the two forms. As some suggest, deliberative democracy should be considered an expansion of representative democracy, not its replacement (Carpini et al. 2004; Chambers 2003; Francis 1988). The deliberation outcomes provide valuable inputs for decision-making processes and judgments. As Blowers et al. (2005) describe, deliberations contribute to effective democracy and are not substitutes but instead supplements to representative democracy.

A unique tension begins to surface when democracy is divided into two distinctive components: process (deliberations or reasoned debates) and outcomes (decisions or results). Too often these two concepts can be positioned in a duality, begging questions of one's importance over the other, which can become disadvantageous. On one hand, if difficult choices are being avoided, sanctuary can be sought in the process of deliberations. On the other hand, deliberative activities can become a convenient and immediate target for poor decision-making. As described above, the results of effective deliberations can provide inputs for decisions and the decision outcomes can provide input into deliberations. This leads to a cyclical relationship between deliberations and decision-making where decisions are not absolute or final, but rather, additional deliberations can refine or adjust previous decisions. A useful description illustrates an iterative relationship that is ongoing, or an open-ended governance system. More importantly, this interpretation allows the deliberative process and representative democracy to accommodate

changes in values, visions and new insights. In other words, the cyclic and iterative combination can be responsive and adaptive to the dynamic nature of socio-ecological systems.

Deliberative democracy, information exchange and knowledge sharing warrant the discourse to not only cross social and economic barriers but also disciplinary barriers. Biosphere reserves offer excellent opportunities to further interdisciplinary or transdisciplinary investigations (Francis 2004). Concepts of "consilience" have been presented to encourage a combination of theories and facts to provide explanations across scientific disciplines (Wilson 1998). More pragmatically, transdisciplinary studies, rooted in societal problems, are often described as a holistic approach of articulating the coherence of knowledge through a new discourse and institutional framework with an inherent awareness of different realities (Balsiger 2004; Ramadier 2004).

As Orr suggests, while the great contemporary ecological problems cross disciplinary boundaries, so should our analysis and our solutions (Orr 1994). Alternative and sophisticated responses need to adjust not only our practices and institutions but, as well as "the power relations implicit in current knowledge structures" (Healy 2003: 696). Some argue it is the rigid epistemological frameworks that influence the relationship between knowledge and power, and in turn, influence the narratives and discourses guiding sustainability initiatives (Manuel-Navarrete et al. 2006: 3). Place-based approaches to sustainability initiatives assert designs that are context-specific and epistemologically flexible to be effective (Manuel-Navarrete et al. 2006). Others provide a name for the idea - epistemological pluralism - and suggest it is a nuanced approach to knowledge sharing. This idea legitimizes and facilitates "the deployment of other relevant perspectives and methods in parallel with them," because it accommodates contextual circumstances of knowledge production, dissemination and application (Healy 2003: 694). By allowing all interested parties to participate in reasoned debates and deliberative activities that respect, legitimize and are sensitive to other ways of knowing, it may help enhance the success of reaching a well-informed, participatory decision-making process or sustainability initiatives.

As with stakeholder diversity, disciplinary diversity and epistemological diversity, arguments should be extended to include a diversity of values, too. Most communities are not free of conflicting interests or differing values, especially if forums of information exchange exist (Peters 1996). Environmental values can be part of the community dialogue and are concerned about human relationships with nature or the environment (Smith 2003). Imposing or claiming the superiority of an environmental value over another can be contentious and can seem offensive which is not helpful to collaborative approaches.

Two trends often occur with debates around environmental values. One is associated with the practice of applying intrinsic value to nature. Assuming nature is of value independent of human valuation is fundamentally flawed because this assumption is not value free. Although applying intrinsic value to the environment does not employ formal valuation (i.e. market value or full-cost accounting), assignment of value is still applied through an anthropogenic manner, regardless of the most objective human lenses. In other words, values (intrinsic or not) are the result of "a human valuing process that occurs in cultural, social and historical contexts,"(Trainor 2006: 4). Secondly, assuming the existence of a single environmental ethic that captures all values and can direct human activities is misguided and oversimplified (Smith 2003).

Assumptions of a single, coherent environmental ethic would eliminate value conflict and produce a convenient and ideal resolution to a major challenge of decision-making. Unfortunately, reality is less agreeable. Values are based on a variety of sources (social, cultural, historical, economic, aesthetic and ecological) and can arise from various scales ranging from microscopic to individual understanding to societal or international analysis (Davies 2001; Trainor 2006). Variations in value origins and scales can lead to a discordant situation. Issues of incompatibility and incommensurability warrant an adoption of value pluralism. The former concept describes two or more actions or ideals that cannot be fulfilled at the same time, whereas the latter acknowledges two or more values cannot be evaluated or weighed (Smith 2003; Trainor 2006). Some argue that while deliberation may not resolve issues of incompatibility or

incommensurability, it will provide opportunities to listen and comprehend other stakeholders' values, position and solutions. Equipped with the insights from others and from reflecting on our own values and fallible positions, groups can experience mutual learning. Through mutual learning, perhaps wiser judgments, more reasonable and more contextually appropriate choices will become more sustainable and reflect the communities' needs. Biosphere reserves may offer examples of local communities demonstrating wise and sustainable choices based on mutual learning.

2.6 Place-based Governance in Biosphere Reserves

The United Nations Educational, Scientific and Cultural Organization (UNESCO) Man and the Biosphere (MAB)'s biosphere reserve program serves as a model of bioregional planning with a history of working with local communities (Batisse 1990; Brunckhorst 2000a, 2001). The MAB was the product of the "Biosphere Conference" in Paris organized by UNESCO in 1968 to develop an interdisciplinary scientific basis for the conservation and rational utilization of the global biosphere's resources (Batisse 1982). It was in a 1971 MAB meeting that the "biosphere reserve" was established to recognize an international concern for the long-term conservation of representative ecosystems and as areas for ecological research (Francis 2004). MAB's biosphere reserve concept evolved over the years and began to develop its more contemporary identity with three functions and its schematic zoning. The three functions of biosphere reserves are the conservation of biodiversity, the development role of promoting sustainability of local economies and the logistic support role which facilitates research, monitoring, education, demonstration projects and training connected to local, regional and global issues of conservation and sustainability (Batisse 1997; Francis 2004). Each biosphere reserve has its own configurations on the ground but generally consists of "core areas" to protect native biodiversity and associated ecological processes; designated "buffer zones" surrounding the core areas which only permit human activities compatible with the conservation objectives; and a flexible "transition zone"

where sustainable resource management is promoted and local communities cooperatively manage the biosphere reserve together (Batisse 1997). The flexible nature of the biosphere reserve program allows for its implementation to reflect the complexity and heterogeneity of the global biosphere. The biosphere reserve program's strategic framework integrates social, economic and ecological imperatives across entire landscapes and regions (Brunckhorst 2000a). This makes biosphere reserves ideal social domains to foster place-based governance arrangements (Francis 2004; Pollock 2004).

Several key characteristics of Canadian biosphere reserves induce opportunities for place-based governance. Biosphere reserves can promote regionalism and can be multi-jurisdictional arrangements flexible to local circumstances, while belonging to a continental and global network of biosphere reserves. The biosphere reserve program draws on landscape scale conservation planning principles by protecting core areas with buffering capacities across the landscape region (Noss & Cooperrider 1994; Noss & Harris 1986). Simultaneously, it respects and incorporates the human dimension into its portfolio of ecological targets because it values protecting areas with "wild relatives of cultivated crops and domesticated animals," (Batisse 1997: 8). Biosphere reserves have opportunities to reconnect ecological systems with socio-political systems in the areas of cooperation with new partnerships and responsibilities.

Brunckhorst (2000a) explains that "people are an essential part of the fabric of landscapes," (78). The biosphere reserve program encourages local people to participate and take ownership of the program by integrating conservation priorities and appropriate development goals, forging partnerships agreements and developing an understanding of landscape and social processes beyond individual property' boundaries (Brunckhorst 2000a). Local participation involves various public, private and community sectors to integrate local and scientific knowledge and share available skills and resources (Pollock 2004). These networks of actors (and the processes that accompany networking) create a complex layering of connections and associations. Lastly, the biosphere reserve program offers opportunities for institutional

arrangements outside of formal agreements traditionally held by government bodies and/or state agencies. It directs local innovation to develop alternative domains for collaborative governance over their life places. Inclusive, participatory, well-informed and meaningful decision-making processes can hopefully develop contextual solutions, strong networks and regional institutional arrangements appropriate for their distinctive and unique life place; and ultimately, progress towards socio-ecological sustainability (Francis 2003; Pollock 2004).

2.7 Conceptual Framework

A conceptual framework was developed to inform the study and guide the research methodology and analysis (Figure 2-1). This conceptual framework is based on two major fields of study: sustainability and political ecology. Sustainability is a reconsideration of the faith in unlimited growth, development, status quo and modernism, while offering values and principles to consider the persistence of desirable and necessary characteristics of socio-ecological systems. Political ecology provides background concepts of institutional arrangements and recognizes the existence of power relationships at multiple scales. This field of study highlights humans' interpretation of the environment and how our dynamic relationships with the environment are influenced by power relationships and institutional arrangements. Furthermore, it begs an examination of how we manage ourselves, our engagement with each other and the planet, and our decision-making forums on natural resource use.

The conceptualization of decision-making processes (within conservation planning, as well as other systems) is acknowledged as an ongoing or open-ended process (Groves 2003; Kemp et al. 2005). It expands beyond representative democracy to include deliberative activities into an iterative relationship with a wider array of actors and stakeholders (i.e. government bodies, the private sector and civil society) (Dale & Hill 1996; O'Riordan & Stoll-Kleemann 2002b; Whitelaw 2005). Each of these actors holds and voices their interests, claims, positions, values, etc. in the deliberations and voting (or implementation of objectives), in hope of

exchanging information, hosting rational debates and having these interests become part of their reality. Enabling a decision-making process to increase fairness, accessibility and legitimacy is related to contextual sensitivity, individual and collective identities, and effective public engagement. The analysis is guided at one level by Pollock (2004:31) who has developed a set of criteria for effective citizen participation that includes a strategic, inclusive and transparent process; enabling, respectful and constructive engagement; and efficient, instrumental and meaningful outcomes (Table 2-2). These considerations will help determine the level of public participation that is meaningful, credible and provides a sense of purpose. Or in this study, it should help evaluate how the public partakes in place-based governance and contributes to socio-ecological sustainability.

Based on the public participation criteria, the interview questions were developed to inquire about various stakeholders' perceptions of the conservation project and effectiveness of the public participation associated with it. More specifically, the criteria were applied to each case study through open-ended interview questions focusing on the research participants' perceptions of the conservation project's decision making process, the quality of engagement and the outcomes of the process, engagement and overall project. In addition, interview questions focusing on definitions of a community and stakeholder were linked on the framework's contextual responsiveness and consideration of local identity. Since decision-making processes involve a cyclical and iterative relationship between voting (or implementing a desired objective) and conducting deliberative activities, it is important to examine text in relevant records and direct interview questions to determine which stakeholders were engaged, when they were involved, at what stages, how were they involved in the decision-making process, as well as the differences in each stakeholders' privileges and responsibilities. Research participants' responses and opinions were weighed and compared with themes encountered in relevant documents, records, field observations and findings within the relevant body of literature.

Table 2-2. Criteria for Effective Citizen Engagement

Criteria for Process

1. Strategic: a well-structured process involves planning, not only of the type of participation, but also the desired outcomes. It involves identifying timelines, resources, stakeholders, and objectives for the process. Task definitions and decision-making facilitation are very important for participants to experience a productive outcome.
2. Inclusive: processes should reflect the principle of fairness. There must be opportunities for meaningful involvement of participants; selected stakeholders should adequately represent the affected populations not only in terms of representation of community members (age, gender, ethnicity), but also in terms of competing values and interest groups.
3. Transparent: the process should make clear how decisions are being made, including differences in power or privileged information among stakeholders. A transparent process is open to outside evaluation and should clearly demonstrate to what extent stakeholder involvement influenced the outcomes.

Criteria for Engagement

1. Enabling: the process should be equally accessible to all stakeholders; stakeholders must have the capacity to participate in terms of articulacy, technical literacy and resources. They must also feel that their contributions have value and relevance.
2. Respectful: good relationships among participants and the sponsoring agency are important for constructive dialogue. An exchange of perspectives, called mutual learning, may build trust between participants.
3. Constructive: An exchange of perspectives and "knowledges" is essential for informed decisions to be made, while feedback is crucial for maintaining respect and transparency in terms of how decisions were ultimately made.

Criteria for Outcomes

1. Efficient: participatory processes should be cost-effective and timely wherever possible. A strategic plan may improve efficiency, increasing the legitimacy of the process overall.
2. Instrumental: deliberations should meet strategic goals and objectives, and make a difference to the broader policy and community. Substantive results should emerge from the process.
3. Meaningful: participatory processes should be relevant to participants; the deliberations should influence the decisions at stake and when possible contribute to a positive change.

(Pollock 2004: 31)

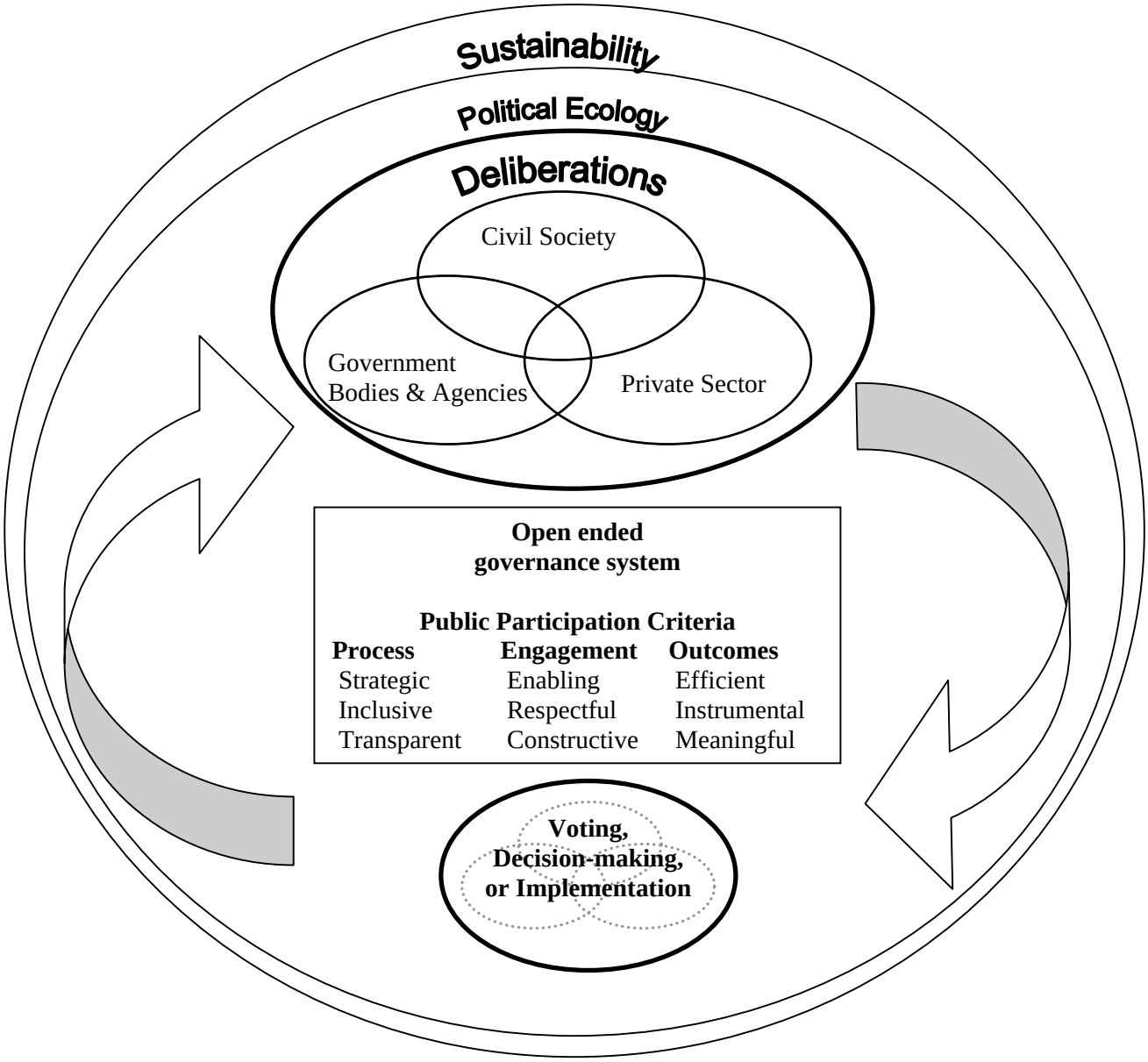

Figure 2-1. Conceptual Framework of Public Participation in Decision-Making (based on Dale & Hill 1996; Groves 2003; O'Riordan & Stoll-Kleemann 2002b; Pollock 2004; Whitelaw 2005).

Chapter 3 Methods

Introduction

This chapter explains the methodological approach and analytical techniques employed in this study. Section 3.1 outlines the qualitative and inductive approaches that are the foundations of the methodology. Section 3.2 describes the case study approach and selection process for the cases and research participants. Section 3.5 discusses the ethical considerations for this study and the researcher's role during data collection is explained in section 3.4. Lastly, section 3.5, explains the analysis process of the primary data collected from interviews and relevant documents.

3.1 Methodological Approach: Qualitative, inductive, case studies

This study is qualitative and inductive in nature, and employs a multi-case study approach. The two case study regions share a common aspect of having experienced community involvement in conservation initiatives. They differ in human population size, histories, geographical location and size. The study focuses on the primary data collected by examining the perceptions and opinions of various actors involved in the conservation projects or planning and decision-making processes. The study uses inductive reasoning because it is guided by the areas of sustainability, community-based conservation as well as the concepts of bioregionalism and place-based governance but draws upon observations and the data collected in the field (Silverman 2005). The study utilizes the observations and data collected in the field to organize and refine the findings into concepts, and "build toward increasingly abstract ideas" and generalizations (Neuman 2003: 50-51). In some case studies, such as this research project, generalizations may be difficult but the results maybe transferable or applicable to other contexts or cases (Neuman 2003).

The qualitative research method allows for the investigation and interpretation of social phenomenon and the "meanings people bring to them", in their natural settings (Denzin & Lincoln 2000: 3). The aim of qualitative research is to provide in-depth understanding of the social world and its specific context, usually with data collected by detailed and extensive examination of sources (such as documents, participant interviews, photographs, recordings and memos to self) and producing interpretations and findings that are open to emergent concepts and issues (Snape & Spencer 2003). Qualitative methods are well suited to examining topics of complexity and those occurring over a period of time. Such circumstances also favour the use of case studies.

Case studies help researchers understand "complex social phenomena" while retaining "the holistic and meaningful characteristics of real-life events" (Yin 2003: 2). Examples of events include an individual's life, a neighbourhood movement, immigration policies or international relations (Neuman 2003; Yin 2003). In this research project, the social phenomenon under investigation is the level of public participation in two conservation initiatives and how it contributes to decision-making processes. The case studies were selected on a nonrandom basis, more specifically through purposive sampling. This sampling model allows the researcher to choose a case based on the likelihood of the feature or process being studied to occur or to illustrate an example of it (Denzin & Lincoln 2000; Silverman 2005). In this study, the cases were not selected because of their representation of the population but because of their relevance to community-based conservation initiatives and possible examples of place-based governance. The primary aim of this study is not to produce generalizations but to explore possible cases of community-based conservation and place-based governance, in depth (Neuman 2003). The primary research was collected through semi-structured interviews of stakeholders, participant observation and text analysis.

3.2 Selection of Case Studies and Interviewees

To understand the influence of public participation in conservation planning on place-based governance regimes, I chose to use multiple case studies. Central to case selection, was to seek cases where public participation could influence place-based governance regimes both inside and outside of a formal approach to conservation planning. This allowed for a comparison between the formal model case study and a non-formal (or non-biosphere reserve) model case study. Conducting two case studies allowed for comparisons (seeking differences and patterns across the cases), thus resulting in a more robust overall study (Yin 2003).

Since Pollock (2004) and Francis (2004) suggest that UNESCO's biosphere reserve program may offer opportunities for place-based governance regimes, it was logical to select a biosphere reserve as one of the case studies. The Southwest Nova Biosphere Reserve in Nova Scotia was selected as one of the case studies. With one case study recognized as a formal model of conservation planning (i.e. a UNESCO biosphere reserve), it was important to select another case study that is not part of UNESCO's biosphere reserve network.

The second case study (a non-formal model of conservation planning) was selected with the advice of a conservation professional working in the Atlantic Canada region, who was asked to identify specific case studies of community-based conservation or public participation in conservation planning. Since a complete list of community-based conservation projects does not exist and identifying all the potential community-based conservation projects would have been overwhelming, this study incorporated an expert's judgment in "selecting cases …with a specific purpose in mind" (Neuman 2003: 213). The second case, which is considered the non-formal model of conservation planning, is the Burnt Cape Ecological Reserve in Newfoundland and Labrador.

The recruitment procedure for interviews was based on the identification of key stakeholder groups who directly affected, or are affected by or were involved in the establishment, designation and management of the biosphere reserve and the ecological reserve. Selection of interviewees was determined after preliminary participant observation and on-site text analysis identified the key stakeholders. In addition, key informants assisted my entry into each case study region. My data collection efforts focused on but were not limited to: local scientists, local residents, local business leaders, park staff, government representatives, educators, members of community development agencies and local decision makers. Since the interviewees were directly involved or associated with the conservation projects, most of the participants but not all were familiar with decision-making processes and the associated public participation concepts. In some instances, certain concepts and abstract ideas were explained to the interview participants.

The study employed a snowballing technique to identify and recruit some of the potential interview participants. Snowball sampling is a nonrandom sample approach involving the identification of other individuals who fit the selection criteria based on the information given by previously completed interviews (Neuman 2003; Ritchie et al. 2003). Like the analogy of a snowball suggests, this is a multistage technique beginning with a few interviews and can spread as each interview is completed and other potential interviewees are identified (Neuman 2003). This method was used until the desired number of interviews (between twelve and twenty per case study) was reached or until the departure date was reached. In each case study, interviewees from different sectors of society participated in the study, each with their respective responsibilities, interests and positions (Table 3.1). Interviewees agreed to participate in the study on a strictly voluntary basis.

Table 3-1. Interviews by Sector: Government, Private Sector, Civil Society

Case Study	Sector			Total
	Government	Private	Civil Society	
BCER	4	3	8	15
SWNBR	5	3	14	22
Total	**9**	**6**	**22**	**37**

In each of the case studies, primary data was collected through semi-structured interviews. This interview type involves a number of pre-determined questions but also allows and often expects the interviewer to digress or probe the answers provided for the prepared questions (Berg 1989). This freedom allows the interviewer to achieve both breadth (to identify dimensions or issues relevant to the participant) and depth (access to the meaning it holds and an in-depth understanding of the participant's issues) of coverage (Legard et al. 2003). All but one of the interviews conducted in this study were face to face and most of them were audio recorded. Most of the interviews involved a single person interview but a few of them involved more than one interviewee. One of the group interviews included one participant in-person and the second by telephone with speakerphone. In total, thirty interviews were conducted with 37 participants (see Table 3.2). Four of the interviews involved more than one participant. Of the 37 participants, sixteen were females and twenty-one were males. The difference in the number of males versus females may contribute to different responses and will be considered during data analysis.

Table 3-2. Interview summary

	BCER	SWNBR	Total
Total number of interviews	13	17	30
Number of group interviews	2	2	4
Total number of participants	15	22	37
Male to Female participant ratio	9 males: 6 females	12 males: 10 females	21:16

Interviews were generally conducted in a variety of settings, but always in a mutually agreed upon setting. These settings included participants' homes, participant's offices, the kitchen table of the research station I was residing in or public restaurants or cafeterias to name a few. The format of the interviews varied depending on the circumstances of meeting the participant and my familiarity with the participant. For instance, one participant had a very busy schedule and the interview was conducted within a precise time frame, which left little opportunity to "ease the interviewee down from the everyday, social level to a deeper level at which they can together focus on a specific topic," (Legard et al. 2003: 144). In each interview, the questions and dialogue with the participant were responsive to the interview setting and interviewee's personality, so as to establish rapport and gain trust with the respondents (Fontana & Frey 2000).

3.3 Ethical Considerations

Because my research collected data from human participants, the study was required to undergo an ethics review. The Office of Research Ethics at the University of Waterloo approved this research study. Primary considerations of the University of Waterloo's ethics review process include recruitment procedures, anonymity and confidentiality, risks versus benefits analysis, and informed consent.

Physical, psychological, economic, legal and social risks encountered during data collection were minimal to non-existent. Anonymity and confidentiality kept the risks minimal and the themes of the interview questions did not threaten the safety of the participants. Details of any risks, anonymity and confidentiality were explained prior to interviewee's agreement to participate.

Informed consent is an educational process of complete disclosure of the researcher's and participants' role. Disclosure was not considered complete without adequate comprehension by the subjects' decision to participate voluntarily.

All interviews will be confidential unless written consent was provided. Personal identifiers will be removed from tapes and documents. Only the research team was granted access to collected data and it will be kept secure from theft, interception and copying.

3.4 Researcher's Role

Before each interview was confirmed, a formal letter was submitted to each interviewee requesting their participation in an interview. Within this letter, I introduced myself as part of the academic community, that is, a graduate student at the University of Waterloo and presented the general topic and interests of the research project. When asked for further information about my research, I offered to provide a copy of my thesis proposal prior to a scheduled interview. I presented myself openly, and honestly answered questions about my opinions and background. Whenever asked, I explained to the participants, my previous employment positions with various conservation agencies (Grand River Conservation Authority, Nature Conservancy of Canada, Lower Grand River Land Trust, Royal Botanical Gardens). I was also forthright in explaining my understanding of governance and the various actors (government, private sector and civil society) participating in governance arrangements. A core set of open-ended questions was asked during the interviews, except when a question was not applicable to the participant (see Appendix A). For instance, the participant may not have known, or been involved in part of the conservation planning process, thus the irrelevant question or questions were omitted. Interviews ranged from 50 minutes to over 120 minutes.

In some instances during the fieldwork, I employed casual interviewing. Some community members (or informants) advised that I would have better responses from potential

participants by avoiding the use of the term, “interview”. They suggested I ask local community members if I could, “Ask them a few questions” or “chat” instead of requesting a formal interview because it would be perceived as less intimidating. In these rare situations, the discussions were not audio recorded, nor did they follow the interview schedule or use the entire core set of questions (Johnson 1975). These casual interviews often included only a few of the core questions. Notes were taken after these discussions and were incorporated into field notes. As Lofland (1971) suggests, these casual interviews should be interweaved into the listening, looking and asking activities of participant observation.

Participant observation is described as a research method involving the observer living or working in the area of study. The observer must be “accepted” into the community and needs to actively participate in the daily lives of the participants and the greater community (Singleton & Straits 1999). In the case of Burnt Cape Ecological Reserve, four weeks were spent in the province of Newfoundland and Labrador. I resided in a boarding house for three weeks in the town of St. Anthony (about 25 km East of Burnt Cape Ecological Reserve and the town of Raleigh). The remaining time in the province was spent in Twillingate (attending a conference on governance) and a few nights in St. John’s and Cornerbrook for interviews and a few nights traveling. Although I did not have to counter the problems of “going native”, there were adjustments to be made at the outset of my fieldwork. Adjustments included becoming accustomed to local customs (i.e. waving while driving, adjusting mealtimes), and understanding the Newfoundland accent and jargon.

In the case of Southwest Nova Biosphere Reserve, I lived in the community of Kempt (just outside of Kejimkujik National Park and National Historic Site), in the province of Nova Scotia for four weeks. I resided in the Mersey-Tobeatic Research Institute’s field station during my fieldwork. A few nights were also spent in a hostel, in Halifax to schedule and conduct

interviews. On my travels homeward, I stopped in Fredericton, New Brunswick to conduct an interview.

3.5 Data Collection and Analysis

Most of my fieldwork involved meeting and interviewing participants, setting up further interviews, taking notes and exploring the communities and natural areas. Notetaking consisted of preparing journal entries, taking field notes and audio recording of my observations. All interviews were audio recorded digitally and transferred to a computer immediately afterwards. Shortly after my data collection commenced, I began preliminary analysis, using it iteratively to guide subsequent data collection and stakeholder recruitment (Neuman 2003: 440).

During my fieldwork, various documents were made available to me and were included in my data collection. Participants provided many of these publications and some are publicly accessible through the Internet. Government agencies, non-government organizations and newspapers produced these documents. The publications range in topics from guidebooks to government policy reports to a UNESCO biosphere reserve nomination.

Text and document analysis involves acknowledging text as a form of artifact produced "under certain material conditions embedded within social and ideological systems" (Hodder 2000: 703). Written text has practical, social and communication functions, yet it can have different meanings in different contexts. In other words, documents and text are social productions. Despite claims that text is a "truer" indication of original meanings, text (written in documents) are a form of experience as they are reread in different contexts giving new meanings and "always socially embedded" (Hodder 2000: 704). I employed an "open coding" method of reviewing text and identifying potential themes by extracting coherent and similar text examples from the documents (Ryan & Bernard 2000). Text analysis in relevant documents was also used to verify and confirm historical events and experiences.

Data collected in the field was qualitative and the approach to analysis differs from those used to collect quantitative data. A grounded theory approach was used to analyse the primary data. Grounded theory is an inductive approach to developing theory based on first-hand observations and generating analytical categories and their dimensions (Singleton & Straits 1999; Spencer et al. 2003). It is more likely to resemble reality, "offer insight, enhance understanding and provide a meaningful guide to action" (Strauss & Corbin 1998: 12). After completing the data collection stage of the research, I adopted three main tasks of analysis: "1) organizing information and identifying patterns; 2) developing ideas and; 3) drawing and verifying conclusions" (Singleton & Straits 1999: 350). More specifically, the analysis used a sequence of coding techniques, including a) open coding, b) axial coding and c) selective coding for developing grounded theory (Neuman 2003; Strauss & Corbin 1998).

Open coding involves reviewing the raw data, locating themes and labeling themes into categories and thus into manageable pieces (Neuman 2003). Strauss and Corbin (1998) further suggest "developing categories in terms of their properties and dimensions" (121). Properties are described as the characteristics of a category, while dimensions are described as a point within a continuum or range (Strauss & Corbin 1998: 117). With the assistance of "NVivo"® qualitative research software, I reviewed each interview transcripts and labeled themes and developed categories. Since most of the interview questions were guided by the public participation criteria, the initial set of categories included the criteria. Other themes that emerged from the transcripts were also given categories. In the case of "Nvivo"®, categories are called "Nodes". At the end of this pass, each case study produced a long list of loosely related categories (Appendix B).

The next step of axial coding includes organizing and relating categories and subcategories. In other words, it is identifying the "axis of key concepts in analysis" (Neuman 2003: 444). It is suggested that relationships should be based on conceptual linkages, not necessarily linkages simply based on descriptive clues in the text (Strauss & Corbin 1998). This

second pass involved examining the different categories and identifying relationships and associations between the categories. It also provided opportunities for categories to be merged and aligned into subcategories. Essential to this realignment were the public participation criteria and the emerging themes linked to relevant concepts.

The third pass of the data, selective coding, involves examining previous codes to select and organize cases to support conceptual coding categories and central explanatory concepts (Neuman 2003; Strauss & Corbin 1998). Strauss and Corbin (1998) suggest selective coding entails refining the theory, however, they justify that the findings need not be explained as explicit hypotheses or propositions but instead can be outlined as explanatory statements or integrated into the narrative. This stylistic manner is dependent on the discipline being researched and the theoretical perspective. It was during this third pass that I examined the data coded in their respective categories to find quotations and examples to help illustrate and confirm the conceptual categories. Examples were selected based on their iteration of themes from the literature, unique insight or support for arguments developing in the project. Overall, the process of coding reduces raw data into manageable piles and analytically categorizes them into themes or concepts (Neuman 2003).

The analytical procedure, with the help of the qualitative research software, brought the data, ideas and concepts together. The *NVivo* software was helpful in coding the raw data and organizing it into categories (or nodes), but it is not analysis software. It served as a software tool to link documents to categories, and ease access to and retrieval between data and concepts.

The flexibly structured research methodology and analytical procedure enabled me to respond to the unexpected circumstances, barriers and opportunities of field research, as well as to organize and capture the features of the primary research.

3.6 Limitations

It is important to acknowledge this study's methodological limitations. The utmost limitation of this study is my personal experiences and associated biases. I have spent most of my post-secondary education and my entire career learning about and protecting ecological systems and biological diversity. The experiences gained during this time have influenced my opinions and personal and academic interests. I occasionally drew on my career and educational experiences to develop trust and rapport with some of the interview participants.

In addition, while preparing for my fieldwork and developing the literature review, I became familiar with various abstractions, concepts and theories. These ideas may have potentially predisposed my conduct and delivery of interviews and observations. It is possible that I may have been trying to draw out responses that I had "expected or anticipated". Furthermore, since there was approximately two months between my first and last interview, with over thirty interviews completed in between, I suspect my interview skills may have changed during that time. My personal conduct, delivery of questions and probing skills may have become more refined and hopefully, more balanced. Recognizing particular responses in the later interviews may have prompted pre-determined probes otherwise omitted in early interviews.

Group interviews also may have influenced the data collection phase of the study. For instance, on one occasion when I arrived for a scheduled interview, I did not anticipate interviewing two individuals. This did not pose a great threat to the data collection method because of the semi-structured nature of the interviews but it presented a different dynamic to the setting and prompted a slight change in the interviewer's role. I encouraged responses from all participants and was conscious of preventing one participant from dominating others. Group interviews can provide a forum to stimulate participants, aid in recall and produce cumulative and elaborative data. At the same time, group interviews can be dominated by an individual or party,

the group culture could override individual expression and generalizations of the findings can be limited (Fontana & Frey 2000).

The conservation projects in each case study were located in different provinces, different in nature and size making case studies comparisons complicated and requiring less attention to the equivalence of the units. More attention is directed to researching the similarities and differences in factors or themes between the cases. At the same time, questions can be raised about Galton's problem – if the units are part of larger unit or if the units share common origins– because both cases are situated in the larger Canadian culture and Atlantic Canada culture (Neuman 2003). Such an issue would prevent the two case studies from being completely separate or truly distinct units.

Chapter 4 Case Studies Overview

4.1 Introduction

This chapter introduces and provides the contextual basis of each case study by highlighting relevant history and background information. The first half of the chapter covers Burnt Cape Ecological Reserve region (Section 4.1) and the second half covers the Southwest Nova Biosphere Reserve region (Section 4.2). Each case study is explained as a collection of systems (ecological, political and social) in continuous change over time. Brief descriptions provide historical dates and interpretations of various forces and motives from far reaching areas influencing each case study's local systems. Lastly, the stories of Burnt Cape Ecological Reserve's protection in Section 4.1.5, and Southwest Nova Biosphere Reserve's designation in Section 4.2.4. are described.

4.2 Burnt Cape Ecological Reserve, Newfoundland and Labrador

This section provides background information and context for the Burnt Cape Ecological Reserve region. It describes the provincial and regional socio-ecological systems, the provincial protected areas system, a profile of BCER, and explains the story of its designation.

4.2.1 Background: Bio-Physical and Socio-Ecological Context

The natural products and resources Newfoundland and Labrador offered to its inhabitants and colonizers dominate the recent history of the province. However, before the colonies of England and France settled on the shores of Newfoundland and Labrador, archives suggest the first European discovery of Newfoundland was by the Norsemen from Greenland, visiting the island around 1001 A.D. Remnants of their settlements are currently identified as a national historic site (L'Anse aux Meadows National Historic Site) and tourist attraction (Norstead Viking Site) at the most northern tip of the great northern peninnsula.

Palaeo-Eskimo peoples settled 4,000 years before present (BP) in northern Labrador, and reached Newfoundland Island about 3,000 BP (Pastore 1997b). Evidence of settlement from different aboriginal groups includes the Dorset, Maritime Archaic Indians and Groswater PaleoEskimos at Port-au-Choix National Historic Site (Parks Canada 2006). The most recent aboriginal group was the Beothuk, who were driven to extinction in 1829 (Pastore 1997a).

In the documented history of the province, John Cabot (Giovanni Caboto) is cited as having reached the area of St. John's around 1497. Cabot's exploration was supported by Henry VII to plant England's banner on any "new-found-land" (Government of Canada 1950). Upon his return to England, he described the newly discovered area with seas full of fish and ignited further exploration by England, France, Portugal and Spain. Newfoundland, under various bodies (such as the Executive Council or the Commission Government) was answerable to England until March 31, 1949, when it became a Canadian province (McGrath 2001). Joseph R. Smallwood became the first premier of Newfoundland. Many, to this day, still dispute the grounds and consequences of Newfoundland and Labrador joining Canada.

4.2.2 Ecological, Political and Social systems

The next three sections discuss the ecological, political and social systems of Newfoundland and Labrador, and the Burnt Cape Ecological Reserve Region.

4.2.2.1 Ecological systems

Newfoundland and Labrador are located on the most easterly part of North America at the mouth of the Gulf of St. Lawrence. The province consists of a mainland section, Labrador and the island of Newfoundland. Together, the geographical area of the province is 405,720 km^2 (just larger than Japan) with Labrador making up almost three quarters of its total land area (Newfoundland and Labrador Heritage Web Site Project 1997c). Ancient glacier movements, continental collisions, volcanoes and oceans shaped the landscape of Newfoundland and Labrador. The Strait of Belle Isle divides the two provincial units. The island of Newfoundland

is the most northeastern portion of the North American Appalachian mountain range. Since the Laurentide Ice Sheet (18,000 BP), the glacial and ice cap movements have eroded the landscape into a unique mixture of barrens, plains, as well as deep valleys and fjords (Bell & Liverman 1997). The province's geographical location is largely responsible for its climate because of the number of daylight hours and solar energy, the influence of air flows coming across the continent from the west and the influence of cold and warm oceanic currents combining in the area (Newfoundland and Labrador Heritage Web Site Project 1997b).

Labrador consists of 10 ecoregions, while the island of Newfoundland has 9 ecoregions (Parks and Natural Areas Division & Department of Tourism 2000). Ecoregions are conservation planning units described as large areas of land and water or major ecosystems with geographically distinct abiotic features and biotic assemblages (Groves 2003). Each ecoregion can be divided further into smaller areas called sub-ecoregions, based on distinct differences between them. Burnt Cape Ecological Reserve is situated within the Strait of Belle Isle Barrens ecoregion. This ecoregion is located on the northern shore of the northern peninsula in the western zone of Newfoundland Island (Figure 4-1).

The Strait of Belle Isle Barrens ecoregion is characterized by cool summers and cold winters with an annual mean temperature of about 2.5 °C and a daily mean temperature of 12 °C, in the months of July and August (Friends of Burnt Cape & Parks and Natural Areas Division 2004). Vegetation cover further inland is dominated by black spruce and tamarack with an under story of mosses, whereas dwarfed patches of white spruce are found along the coastal areas (Bell 2002).

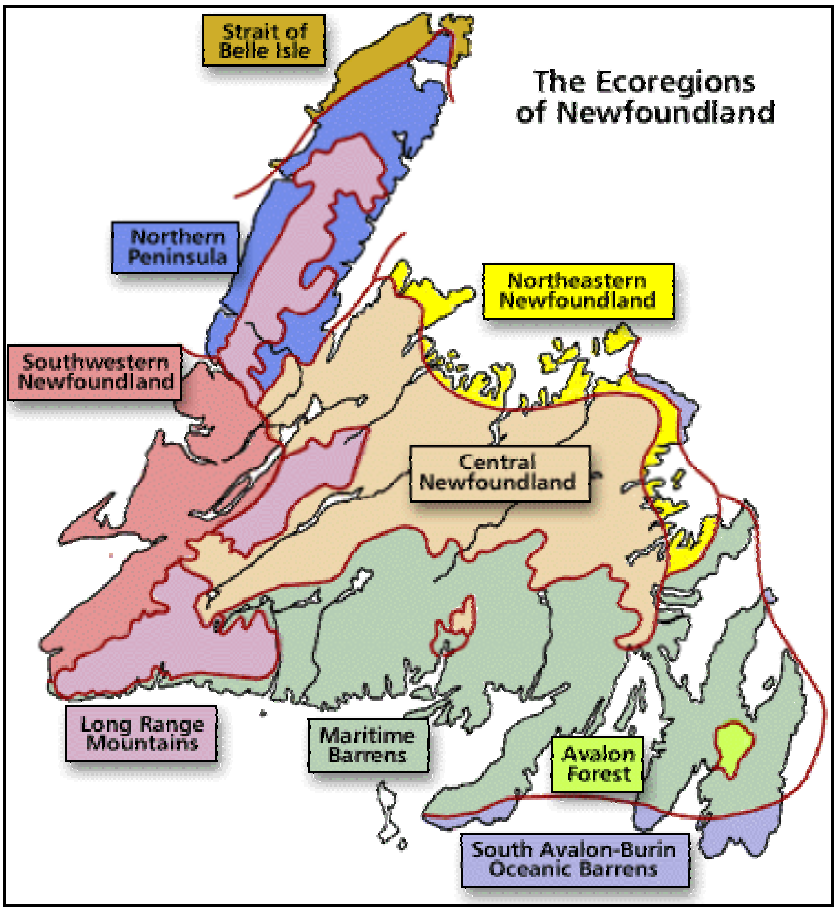

Figure 4-1. Ecoregions of Newfoundland Island (Riche 2002).

4.2.2.2 Political System

Since John Cabot's exploration of Newfoundland Island was under the banner of England, Newfoundland and Labrador was under English rule until 1949, when it "joined Canada as the tenth province in a federal state" (Newfoundland and Labrador Heritage Web Site Project 1997a). Prior to Newfoundland and Labrador's permanent European settlements, its decentralized political system had its origins rooted in natural resource management, that is, with the fisheries, seasonal fishing vessels and fisherman. For example, "fishing admirals", temporarily appointed to vessel captains served as the first civil officials, as well as natural resource managers. Later, however, when the Royal Navy was escorting fishing vessels across

the Atlantic Ocean, naval commanders were appointed as higher ranking military, civil and judicial officials (Bannister 1997).

An increase in permanent settlements began to develop Newfoundland and Labrador into a stable colony during the 16th and 17th century. Consequently, in 1729, civil governors were appointed to replace naval commanders and fishing admirals by England's government, who they were answerable to. The general populace pressed for a voice in decision-making processes and the first elected legislative assembly convened in 1832 (Webb 2001a). However, the elected assembly was given limited power until 1855, when responsible government was instituted in Newfoundland. Responsible government - elected members of the assembly, appointed by the governor to administer the colony – existed until 1934, when it was dissolved because of increased debt from the First World War and the great depression. For the next 15 years (up to 1949), Newfoundland and Labrador was governed by the Commission of Government, which consisted of seven persons appointed by the British Government, without elections or legislature during its time (Webb 2001b).

In 1949, the new provincial government passed the Local Government Act which allowed communities to become incorporated in a more timely manner than previous legislation and imposed uniform duties and powers to municipalities (Baker & Pitt 1988). Currently, there are 282 municipalities (including villages, towns and cities) across the province. Burnt Cape Ecological Reserve is situated within the municipal boundaries of the town of Raleigh.

4.2.2.3 Social Systems

It is quite well known that the history and social culture of Newfoundland and Labrador are deeply rooted in the fisheries and seasonal subsistence living. Others go further to imply that "Newfoundland is one of those places where many people have a loving and intimate knowledge of the land" (Doyle 2001). Robinson suggests the concept of "regional consciousness" is prevalent in the culture with immense pride (Robinson 1989). Palmer suggests the social

relationships within communities were strengthened because of harsh weather conditions and isolated small clusters of homes along the coast, which forced affirmation of social ties and networks. This sense of unity within communities is demonstrated by rituals of trust, such as "mummering" (Palmer 2005). Mummering is a traditional form of Christmas time house visiting involving the guests, disguising of "mummers" and hosts attempting to determine their identity. Some suggest the culture of Newfoundland was shaped by the merchant system and the struggle (or imbalance) of power between the merchant and the fisherman (McGrath 2001). It is also argued that Newfoundland, historically, has been exploited "by other nations and later, externally based companies" (McGrath 2001: 6). These arguments suggest that economic and political decisions were made outside of Newfoundland and Labrador's borders. Others have made more frank descriptions of Newfoundland and Labrador's history, as a legacy of dependency, which has resulted in decisions based on profits from resources and less interest in the development of civil society (B. Peckford, personal comm. 2005, McGrath 2001). Some residents feel they are currently living in the shadows of this dependency legacy.

With the moratorium on the "northern" cod fishery established in July 1992 because of reduced cod stocks, an emotional and social crisis followed that shook the entire province and mechanisms to cope were needed (Sinclair 2001). More recently, one of the mechanisms to adjust to the moratorium is to diversify the regional economies throughout the province. The Ministry of Development and Rural Renewal initiated the Regional Economic Development Program to craft and implement strategic regional economic development efforts in the 20 regional economic zones across the province (Ministry of Development and Rural Renewal 1997). Each economic zone has a board to assess regional opportunities and guide economic initiatives within their region. Burnt Cape Ecological Reserve and the town of Raleigh are within the Nordic Regional Economic Development zone.

4.2.3 Protected Areas System of Newfoundland and Labrador

Some suggest the "unrestrained exploitation of resources" by the Newfoundland people and the nature of Newfoundland's economy have put a toll on its ecosystems (Pastore 2001; Protected Areas Association of Newfoundland and Labrador 1993: 4). Despite these unfavourable descriptions, Newfoundland passed its first legislation in 1845 to "Protect the Breeding of Wildfowl in this Colony" (Protected Areas Association of Newfoundland and Labrador 1993: 4). Since that time, the protected areas system has become more sophisticated with more actors and different scales of application. The Newfoundland and Labrador government defines protected areas based on the International Union of Conservation for Nature and Natural Resources' (IUCN) – now known as World Conservation Union - definition, which emphasizes the designation of land and sea through legal and other effective means for the purpose of protecting or maintaining biological diversity as well as, natural and associated cultural resources (Government of Newfoundland and Labrador; Synge 2000).

Newfoundland and Labrador's protected areas system can be identified in two major jurisdictions: National and Provincial. Although many areas at the municipal (or city or town) level or privately owned properties (conserved through voluntary or non-formal agreements) might be considered part of the protected areas system, this discussion will focus on formally protected areas. The two National Parks within Newfoundland (Gros Morne and Terra Nova) are owned and managed by the federal government. The two other types of protected areas under federal jurisdiction are National Historic Sites and Migratory Bird Sanctuaries, however, the latter can be owned federally, provincially or privately. Collectively, federally governed protected areas cover almost 3% of the entire province's land area (Government of Newfoundland and Labrador).

Under Newfoundland and Labrador's jurisdiction, there are 7 types of protected areas. The most abundant types of protected areas are Provincial Parks and Ecological Reserves, with

31 and 16, respectively. Wilderness Reserves and Wildlife Reserves are the type of protected area covering the most land area in Newfoundland and Labrador (Table 4-1).

Table 4-1. Protected Areas of Newfoundland and Labrador

Jurisdiction	Type of Protected Area	#	Area (km^2)	% Island Protected [(b)]	% Labrador Protected [(b)]	% Province Protected [(b)]
Provincial	Wilderness Reserves	2	3,965	3.56%	0.00%	0.98%
	Ecological Reserves	16	910	0.74%	0.03%	0.22%
	Provincial Parks	31	211	0.18%	0.00%	0.05%
	Wildlife Parks	1	15	0.01%	0.00%	0.00%
	Wildlife Reserves [(a)]	3	1,183	1.06%	0.00%	0.29%
	Public Reserves [(a)]	1	178	0.16%	0.00%	0.04%
	Development Control Area	1	1	0.00%	0.00%	0.00%
Federal	National Parks	3	11,906	1.98%	3.30%	2.93%
	National Historic Sites	2	37	0.03%	0.00%	0.01%
	Migratory Bird Sanctuaries	3	0	0.00%	0.00%	0.00%
Total Land Protected (NL)		63	18,405	7.72%	3.33%	4.52%
National Protected Land Average (Canada, Nov. 2003)						8.52%

(Government of Newfoundland and Labrador)

The variety of protected areas, agencies and legislative mechanisms contribute to the complexity of the province's protected areas system. Each protected area is upheld by different legislation with variations in objectives, ownership, managing agencies, access rights and associated user rights (Appendix C). The goals and desired outcomes for each protected area

direct the selection of legislative mechanism for protection, protected area type and its associated uses.

Wilderness reserves protect large landscapes, ecosystems or natural features (usually greater than 1,000 km^2) for low impact recreation, and research and education opportunities. On the other hand, smaller areas (less than 1,000 km^2) fall under the ecological reserve category and are intended to protect representative ecosystems and/or unique, rare or endangered elements of nature heritage (flora, fauna or fossils). Provincial parks are established for tourisms opportunities, natural heritage recognition, providing protection to natural species and features, and are generally used for recreation and camping. Although this array of protected areas is helping protect Newfoundland and Labrador's natural areas, the Protected Natural Areas Strategy has become a contentious issue for many interested parties.

In 1993, the Protected Areas Association with the financial support of the Environmental Partners Fund, Parks Division of the Provincial Tourism and Culture Department, World Wildlife Fund and the Canadian Forestry Service drafted the *Protected Natural Areas Strategy*, entitled, "Towards Sustainable Development" (Protected Areas Association of Newfoundland and Labrador 1993). Shortly afterwards, a government appointed Task Force on Parks and Reserves recommended the appointment of a committee of experts to develop a Natural Areas System Plan (sometimes referred to as the Protected Areas Strategy) and by 1995, the Department of Tourism and Culture arranged a System Plan Committee made of academic, non-government organizations and government representatives. The Committee presented a confidential Natural Systems Area plan to the government with the recommendation of public input (McCarthy 2006). Since then, internal reviews including one by Dr. Bryan Greene in 2002, examined the readiness of the proposed reserves. However the strategy has not been released to the public, nor has it offered opportunities for public input (Government of Newfoundland & Labrador; McCarthy 2006; Western Newfoundland Model Forest 2005).

The inaccessibility of the natural areas strategy initiated an interesting collaboration between the Western Newfoundland Model Forest and the Protected Areas Association as the Natural Areas System Plan Coalition. This initiative has brought together a unique set of interest groups to endorse the public release of the Natural Areas System Plan and to advance its implementation (McCarthy 2006; Western Newfoundland Model Forest 2005). The inaccessibility of the strategy has been credited to a lack of full commitment by the government to designate and implement the strategy, as well as the lack of public involvement in its development. Opportunities for local public input during each protected area's establishment are available but there was no public forum or mechanism for input into the package of proposed and established reserves in the Natural Areas Strategy. This highlights the disconnect between provincial legislation and the provincial strategy for a system of protected areas. Despite provincial legislative mechanisms (in the Wilderness and Ecological Reserves Act) being ratified in 1980 to establish protected areas, their Natural Areas Strategy has not been publicly reviewed and disseminated leaving Newfoundland and Labrador as "the only Canadian province without a protected areas plan in place" (Natural Areas System Plan Coalition 2005).

Although various legislative mechanisms are used to designate the different types of protected areas, the Wilderness and Ecological Reserve Act is the relevant legislation to the Burnt Cape Ecological Reserve case study. The ratification of the Wilderness and Ecological Reserve Act in 1980 brought what some believe to be the most strict and favourable protected areas legislation for Newfoundland and Labrador (Ballam 2006). This Act not only outlines the positions of authority, the permitted and restricted activities and boundaries, it also describes the designation process. The process of establishing a wilderness or ecological reserve requires public input in the early stages of proposing a reserve and later in the process, during the presentation of the reserve's management plan (Appendix D). Public input and recommendations are permitted into the proposed reserve, yet the provisional reserve and the final reserve are approved by the provincial government (Lieutenant-Governor in Council). It

should be acknowledged that the title of Lieutenant-Governor in Council is often cited in legislation, bills and statutes but the role is strictly symbolic and represents the Provincial Government Cabinet. Another feature of this Act is the establishment of the Advisory Council, often referred to as the Wilderness and Ecological Reserve Advisory Council (WERAC).

WERAC can be made of up to 11 members, appointed by the Lieutenant Governor in Council (Government) who are to represent the public's interest during the process of establishing a reserve. According to the Wilderness and Ecological Reserve Act, WERAC's purpose is "advising the Lieutenant-Governor in Council through the minister on matters in relation to the establishment, management and termination of reserves and for the better administration of this Act" (Government of Newfoundland & Labrador 2006). Members are appointed for 3-year terms and can be reappointed. Members can include (but are not restricted to) academics, teachers, former civil servants, members of non-government organizations and active members of community development or environmental protection agencies. Generally, WERAC's role involves holding public meetings and accepting input from the public regarding reserves' establishment and changes. In other words, WERAC serves as an interface between government, industry, interest groups, local community members and the public (McCarthy 2006).

This independent body serves as a communication link between stakeholders who previously may not have been offered communication opportunities. The task of listening to and addressing a variety of stakeholders' interests and needs can be a challenging and unfavourable role. Especially if the stakeholder input leads to confrontational opposition. However, the task of providing an inclusive and transparent forum is the fundamental basis for WERAC.

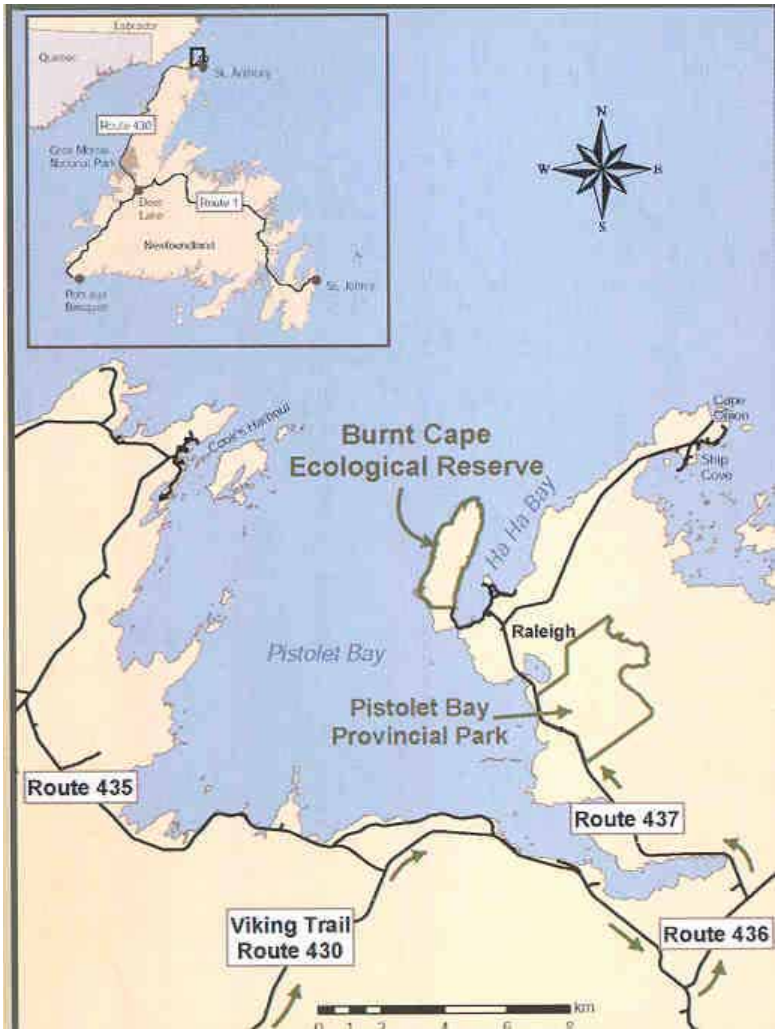

Figure 4-2. Burnt Cape Ecological Reserve Location Map (Friends of Burnt Cape & Parks and Natural Areas Division 2004)

4.2.4 Burnt Cape Ecological Reserve

Burnt Cape Ecological Reserve is located along the northern tip of the northern peninsula, next to the town of Raleigh, near Pistolet Bay Provincial Park (Figure 4-2). This limestone peninsula is 3.6 km^2, and about 4 km long and 1 km wide. It hosts over 300 species of flora, with over 30 of them classified as rare. Burnt Cape is home to the Burnt Cape cinquefoil (*Potentilla usticapensis*), where it was discovered for the first time in the world and only grows in nearby locations. Also found there is Dwarf hawk's beard (*Crepis nana*), the only place in Newfoundland where it grows. The wind exposed limestone barrens provide suitable habitat for

ground-hugging, Arctic-alpine calciphiles - limestone-loving plants (Meades 1996). Burnt Cape also hosts many interesting geological features including two large sea caves: Little Oven and Big Oven (Figure 4-3). A local geography professor estimates "Big Oven" to be one of the largest sea caves in North America (K. Nichol, pers. comm). Numerous frost polygons, which are circular patterns of gravel shaped by frost action, are found on the site too.

Figure 4-3. "Big Oven" sea cave at Burnt Cape Ecological Reserve (S. Rehman)

4.2.5 Protection Process and Stakeholders

The unique flora of Burnt Cape peninsula was first discovered by Harvard botantist M.L. Fernald when his team explored the flora throughout the Great Northern Peninsula in the 1920's. Fernald's team completed various botanical inventories over the next decade. It was during these expeditions that the Burnt Cape Cinqefoil *(Potentilla usticapensis)* was discovered and subsequently named after the site (Figure 4-4), as well as other rare species like Dwarf hawk's beard (*Crepis nana*) (Figure 4-5). The region gained popularity among the scientific community

and botanists around that time, however for most of the second half of the 1900's interest in the flora decreased.

Figure 4-4. Burnt Cape Cinquefoil (W.Greenham) **Figure 4-5. Dwarf hawk's beard (W. Greenham)**

During the 1970's (with the establishment of Gros Morne National Park) and 1980's, interest in Burnt Cape's rare plant diversity was rekindled (Meades 1995). Members of the Newfoundland Wildflower Society began to conduct botanical inventories on Burnt Cape. As well, botanists from the United States, Quebec and Newfoundland continued to explore this reserve (Bouchard et al. 1991). Dr. Beatty, a retired professor from Penn State University relocated Dwarf hawk's beard on the reserve in 1980, despite the last official records of this species having been in 1929 and 1926. However, Beatty's collection sites were not located again during the 1990's botanical explorations and the primary threat was gravel quarrying (Meades 1995). Commercial limestone gravel excavation, which was becoming increasingly more active, became the major threat against the rare assemblage of plants.

The quarrying operation was a small outfit active from about 1985 and was managed by a regional entrepreneur. A local community member operated the business in partnership with another business in the nearby town of St. Anthony. The quarrying operation was providing jobs to a couple of local residents and the limestone gravel was being shipped out of town to the contractor, in St. Anthony (BC5, Meades 1996). Some local residents complained about

limestone gravel leaving the area without much benefit to the residents of Raleigh (Roberts 1995a). In 1991, Sue Meades, botanist and NL Wildflower Society member, described as the "driving force" behind Burnt Cape's protection, was developing a growing concern about the threats of quarrying on Burnt Cape. She contacted local community members and the town council members to inform them "of the importance of the cape and the flowers" (BC11; BC5). The local council and community members recognized Burnt Cape's tourism potential and preserving it became a better route to "build up the economy and for the community" (BC 5). With support from local politicians and citizens, Sue Meades and members of the NL Wildflower Society mobilized themselves to protecting Burnt Cape's natural features.

To minimize (or eliminate) the threat of quarrying, this informal group began to contact the Ministry of Mines and Energy, as well as other government bodies (Ministry of Environment and Ministry of Forestry & Wildlife), to inquire about terminating the quarrying permits through letters and in-person meetings. After years of advocacy and receiving positive responses from many provincial departments, the Mines Division of the Ministry of Natural Resources, agreed in 1995 not to renew or issue any further quarrying or exploration permits for Burnt Island - this was the common name before being renamed Burnt Cape. The Mines Division permitted the current quarrying operator to continue excavating on the northwestern edge of Burnt Island, but "only in the areas he has already disturbed," (Meades 1995: 15), despite not following the permit allowance and illegally excavating outside the permitted area (BC7). "He has been instructed not to disturb new land or rare plant populations" (Meades 1995: 15). Legally, the Mines Division could not cancel this permit, which expired on August 25, 1995.

Almost a month before the permit's expiration, the quarrying operation had intensified its operations with "7 or 8 large trucks 18 hours a day hauling gravel off the Cape" (Meades 1996: 7). Furthermore, newly disturbed excavation sites were discovered, despite the Minister's statement of not disturbing any new sites. The excavation operation also closed the access road to Burnt Cape with a chain. A compromise was reached with a quarry inspector marking the

limits of the excavation area for the remainder of the permit and the Assistant Deputy Minister agreeing to keeping the road access open.

The operation blocked the access road to Burnt Cape again in August, which fueled tensions within the community. Because of Burnt Cape's inaccessibility, many tourists and visitors were turned away from the community and potential business was deterred from other community proprietors. Tensions lead to a physical confrontation and a thrown stone smashing a front end loader's window (Figure 6), but fortunately nobody was injured (Meades 1996; Roberts 1995b). The Royal Canadian Mounted Police (RCMP) were called onto the scene and the road was ordered to be left open, after reading the letters from the Division of Mines. Although the confrontation was diffused, the conflict remained to be resolved.

Employees and associates of the excavation operation attended public meetings and voiced their opposition to the ecological reserve designation and the associated restrictions imposed on their quarrying activities. Furthermore, a former employee of the quarrying operation expressed their discontent and enmity of the Burnt Cape Ecological Reserve's establishment during the fieldwork of this research project.

Figure 4-6. A smashed rear window from a stone thrown by protestors over the blocking of Burnt Cape Ecological Reserve's access road: photo in the *Northern Pen* (8 Aug 1995) (Reproduced by permission).

During the efforts to terminate the quarrying operation at Burnt Cape, Sue Meades also took steps to bring the importance of the Burnt Cape flora and its predicament to the attention of the Wilderness and Ecological Reserves Advisory Council (WERAC) in November of 1994 (Meades 1995). Subsequently, WERAC, along with the Ministry of Environment and Conservation's Parks and Natural Areas Division (PANAD) requested that the Interdepartmental Land Use Committee (ILUC) designate the site as a Crown Land Reserve, in late 1994 (or early 1995). While further quarrying permits were not granted, Burnt Cape was approved as a Crown Land Reserve for 2 years after the excavating permits expired (Parks and Natural Areas Division 1997).

In 1996, public meetings and "open houses" were held by WERAC and NAPAD in the community of Raleigh to discuss the proposal to designate Burnt Island as an ecological reserve. On July 19, 1996, of the twenty local community members who attended the public meeting, seventeen supported protecting the site as an ecological reserve, and the opposing three attendees were the quarry contractor and associates (Parks and Natural Areas Division 1997).

In the meantime, the provisional reserve stage of the Wilderness and Ecological Reserve Act was being debated in the provincial legislative and was temporarily removed from the Act (Parks and Natural Areas Division & Department of Tourism 2000). In January 1998, however, Burnt Cape was granted provisional ecological reserve status and provided strong interim protection. This status allowed WERAC and PANAD to undertake biological inventories and management planning; hold public meetings regarding resource and local issues around the permanent ecological reserve designation; undertake a final proposal review; and make a recommendation to cabinet.

The Nature Conservancy of Canada (NCC) was invited to support the project by the Parks and Natural Areas Division in July 1997, and NCC provided financial support for biological inventories and ecological rehabilitation of damage from the quarrying (Meades 1998; Parks and Natural Areas Division 1997). In March and July of 1998, the collaborative efforts of NAPAD, the Town of Raleigh, NCC and WERAC hosted public meetings to discuss the future of Burnt Cape and associated resource issues. The outcomes from the public meetings included the local interest in Burnt Cape's potential ecotourism opportunities; the exclusion of a portion of Ha Ha Bay's beach from the reserve's boundary; the desired involvement of local community members in Burnt Cape's management, rehabilitation and interpretive guidance; and allowing locals to continue traditional activities that were not ecologically threatening (Friends of Burnt Cape & Parks and Natural Areas Division 2004). In May of 1999, a management plan was drafted by WERAC and NAPAD for review and a public consultation on the management plan was held in June of 1999 by WERAC. A final review of the proposal was undertaken by

WERAC in the fall of 1999 and recommendations for a permanent ecological reserve were presented to the cabinet in the winter of 1999 and 2000. The recommendations involving Burnt Cape's regulations included the restriction of development; the restriction of vehicles to the existing road only; and allowing hunting, fishing, trapping and snowmobiling that do not threaten the rare flora of the reserve (Government of Newfoundland & Labrador 2000).

On March 24, 2000, the provincial government announced Burnt Cape Ecological Reserve's designation as a full ecological reserve. Since then, field interpreters have provided guided tours to many visitors - for example, the 2004 season had 719 visitors participating in guided tours (Bessy & Smith 2005). As well, a few committed town council and community members decided to keep the momentum from the designation process and created the Heritage Committee. Shortly afterwards, it was decided to become more politically strategic by moving towards a non-profit group and away from the town council. This shift resulted in the development of the Friends of Burnt Cape in 2002 (BC14). This community-based organization is "committed to the support of environmental and heritage protection, interpretation and research, and to the development and promotion of sustainable opportunities, while preserving unique cultural and natural heritage of Burnt Cape Ecological Reserve" (Friends of Burnt Cape 2005: 4). This group is described as "interested people, council members, interpreters and parks staff…and we have memberships throughout the world" (BC5). A local vacant house was purchased by the group and currently serves as the organization's office and meeting space.

In 2003, a steering committee was established to guide the management of Burnt Cape Ecological Reserve and the development of ecotourism opportunities. This committee consists of representatives from a local conservation organization (Friends of Burnt Cape), conservation managers (Provincial Parks and Natural Areas Division representatives), the regional economic development program representative and a representative of the federal Atlantic Canada Opportunities Agency (ACOA). Currently, an interpretation centre for the ecological reserve is at the centre of local debate.

The interpretation centre's design and management are the major issues at hand. As part of phase I, draft blueprints have been produced for the interpretation centre and stakeholder involvement has brought several issues to light. First are issues surrounding the role of a gift shop and the products available within the centre are at the forefront. The gift shop's impact on the tourist market niche and inhibiting tourists from visiting local artisans and proprietors is a concern. As well, the management of the centre, marketing of the centre and Burnt Cape, establishment of future goals and objectives, and whether and how these responsibilities should be allocated to different stakeholders are still to be determined (BC1). It appears that financial support from the federal government for the construction of the centre (Phase II) was contingent on developing its blueprints and further financial support from federal agencies may depend on resolving the above issues.

4.3 Southwest Nova Biosphere Reserve, Nova Scotia

This section has the same format as section 4.2, with the exception of focusing on Southwest Nova Biosphere Reserve. This section provides contextual information about its bio-physical, social, ecological, cultural systems and the protected areas system of Nova Scotia. This is followed by a profile of SWNBR, its designation story and its assistance with establishing the Mersey-Tobeatic Research Institute.

4.3.1 Background: Bio-Physical and Socio-Ecological Context

Nova Scotia, like Newfoundland and Labrador, drew the attention of many of the same colonizers, such as England, France, Portugal and Spain. Furthermore, like Newfoundland and Labrador, the settlers of this province had close relationships with the ocean and the natural resources available in this region. Settlements relied heavily on the fisheries, the timber and agriculture in the region, as they still do today.

Nova Scotia's history formed around the ocean and its inhabitants' relationship to it. It was a key resource in attracting the Paleo-Indians (11,000-10,000 BP), Archaic period peoples

(5,000-3,700 BP) and later the Mi'kmaq (~3,000 BP) (Leavitt 1995). For the Mi'kmaq, they travelled from the Bay of Fundy and relied not only on the marine resources but inland resources, too, such as plants, wood, mammals and birds for subsistence (Southwest Nova Biosphere Reserve Association 2001a). The Mi'kmaq's fishing, hunting and gathering skills allowed them to switch between animals and plants when some resources became scarce. This versatile set of skills helped the Mi'kmaq populations overcome periodic hard times and scarcity - reaffirmed by the Mi'kmaq language's not having a word for "scarcity" (Leavitt 1995: 135).

The southwest coast of Nova Scotia was explored thoroughly by Samuel de Champlain during the early 1600s (Bruce 1997). A series of French settlements along the shores of the Bay of Fundy (New Brunswick and Nova Scotia) developed into the Acadian community. During the next two centuries, several battles ensued in the Acadian territory, which was eventually seized by the British in 1758. Also during this time, many Scots immigrated to Atlantic Canada and Nova Scotia (New Scotland), where Scottish pride was considered an advantage (McCreath & Leefe 1982). The American Revolution resulted in a large exodus of Loyalists from America settling in Nova Scotia, where they were granted title to land. In addition, many African American loyalists, settled in Birchtown (Bruce 1997) during the late 1700s.

4.3.2 Ecological, Political and Social Systems

These sections describe the ecological, political and social systems of Nova Scotia and the Southwest nova Biosphere Reserve Region.

4.3.2.1 Ecological Systems

Nova Scotia, like Newfoundland and Labrador, consists of two units. There are the mainland and Cape Breton, the large island in the north-east end of the province. This natural barrier is also the division between geological formations, the Avalon zone (southern Cape Breton Island) and the Meguma zone (mainland Nova Scotia) (Davis & Browne 1996). Like most of Atlantic Canada, glacier movements, continental collisions, volcanic activities and

changing sea levels shaped the geological history. Unlike Newfoundland and Labrador, Nova Scotia lacks deeply carved valleys or fjords, especially in South Western Nova Scotia. With the exception of a long narrow range of mountains running along the Bay of Fundy coast, southern Nova Scotia is primarily a rolling landscape with glacial till, sediments forming eskers and drumlins, numerous lakes, wetlands, rivers and drainage networks (Davis & Browne 1996).

Nova Scotia's climate is influenced by five major factors: geographical location between the equator and north pole (i.e. temperate region), the effects of westerly winds; air mass convergences on the east coast; its alignment with many east moving storm routes; and its proximity to the ocean (Davis & Browne 1996). Ample precipitation, short summers, coastal fog and variable daily weather conditions mark the region's climate.

The entire province of Nova Scotia lies within the Acadian Forest Ecozone (Rowe 1972 cited in Neily et al. 2003). Nine ecoregions exist within the province, with four of them within Southwest Nova Biosphere Reserve boundary (Figure 4-7). These ecoregions are the Atlantic Coastal; Western; Fundy Shore; and Valley and Central Lowlands (Neily et al. 2003). The coastal ecoregions are dominated by their proximity to the Atlantic Ocean and Bay of Fundy.

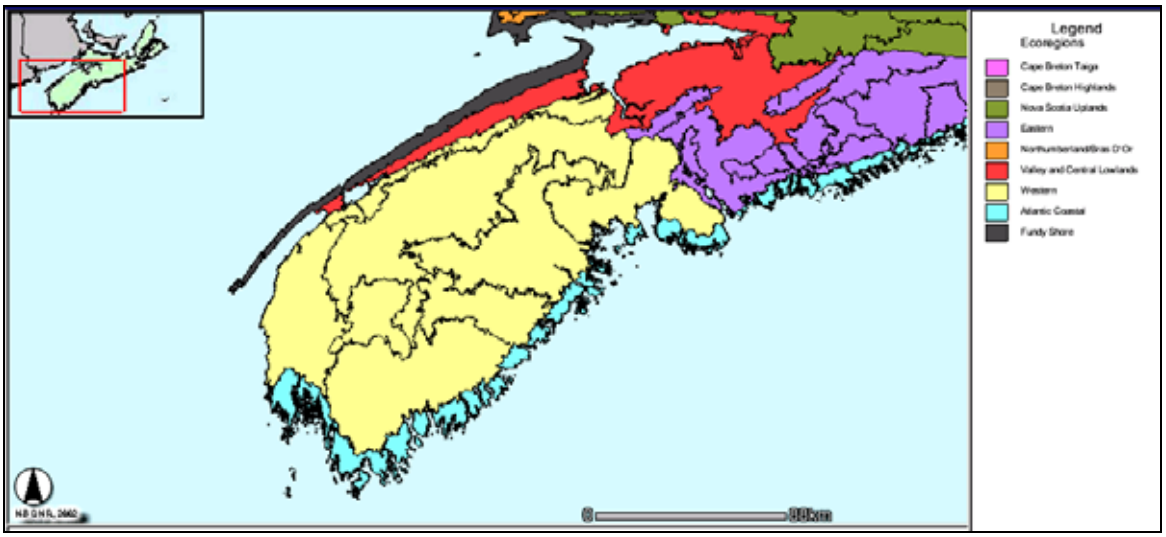

Figure 4-7. Ecoregions of Southwest Nova Scotia (Nova Scotia Department of Natural Resources 2006).

The Western ecoregion, the largest ecoregion in the Southwest Nova biosphere reserve, is an upland region tilting to the Atlantic Ocean with a mix of softwoods (red spruce, white pine and hemlock) and hardwoods (Red Oaks) with extensive wetlands and rivers. This ecoregion also hosts a variety of wildlife ranging from white tailed deer, Blanding's turtle, southern flying squirrel to scarlet tanager, wood thrushes to brook trout, lake chub and yellow perch (Southwest Nova Biosphere Reserve Association 2001a). The Valley and Central Lowlands ecoregion is protected from the coastal climatic influences and has a higher level of agricultural activity than elsewhere in the biosphere reserve (Neily et al. 2003). The Atlantic Coastal ecoregion is a narrow bank along the south shore and is heavily influenced by the Gulf of Maine, resulting in over half of the year being frost free and the mildest winters in the province (Neily et al. 2003). Vegetation is dominated by black and white spruce along the shore, with more protected areas hosting red spruce and tolerant hardwoods (maples and oaks). This ecoregion hosts deer and migratory bird populations, and nearshore areas host grey and harp seals. The North Mountains are the dominant landscape feature of the Fundy Shore ecoregion and bear the brunt of the colder coastal weather from the Bay of Fundy. This ecoregion hosts a large deposit of basalt under the mountain ridge. The vegetation is dominated by white spruce forests along the coastlines and near the foothills of the mountains but pockets of soils with varying drainage regimes allow hardwoods and mixed forests to thrive (Neily et al. 2003). The different ecoregions situated within the biosphere reserve demonstrate the complexity and variety of the landscapes and ecosystems across the region.

4.3.2.2 Political Systems

The history of this province illustrates the power of international forces and how these institutions influenced the destiny of Nova Scotia's landscape and its populace (McCreath & Leefe 1982). While a government did not exist in the first century of Nova Scotia's history because only a few settlements existed, politics were prevalent with various parties participating

in the relationships of power. Decisions made by royalty in cities vast distances away (London and Paris) had great consequences for the livelihoods and fate of communities along the Atlantic coast. Most of the power during the first two centuries of Nova Scotia's history was disputed between the British and the French empires. England gained power after destroying Acadian settlements, banishing the Acadians and developing strategic military positions along Nova Scotia's coast.

With the Treaty of Paris in 1763, France relinquished ownership of land east of the Mississippi River in North America to the British-American Empire, with the exceptions of St. Pierre & Miquelon (small islands south of Newfoundland) (Bruce 1997). The English monarch remained the head of state in Nova Scotia but an appointed Governor and the members of his Council (sometimes called the Executive) represented the interests of the monarchy and fulfilled the administrative duties. England expected it could manipulate Nova Scotia's affairs to its discretion and best interests. In reality, the Governor General and his Council had more freedom than implied but the ultimate control was in London (Campbell 1948). The other body involved in governance was the Assembly, local elected representatives. Issues revolving around governance and the tensions over power were growing. The Executive anticipated functioning like a transplanted arm of the British government in Nova Scotia, whereas the colonists desired a local executive to serve as "an obedient instrument of the colonial Assembly representing the people of the colony" (Campbell 1948: 246).

In 1848, Nova Scotia was the first British colony to elect a responsible government (Bruce 1997). The provincial government of Nova Scotia was also a key player in the union of the British North American colonies. Nova Scotia, New Brunswick and Upper and Lower Canada (later to become Ontario and Quebec, respectively) worked together to draft the British North America Act, which eventually gained the Queen's approval in March 1867 and was implemented on July 1, 1867.

The local government system began to take legal shape with the passing of the County Incorporation Act in 1879. Prior to this Act, crown-appointed justices and assistants would administer local matters such as hearing cases in court, making regulations and appointing officers. Initially, local governments functioned to tax local communities to repair roads and bridges (Policy Development and Research Division 1985). Based on sessional district boundaries, twenty-four rural municipalities were established under the County Incorporation Act. Sessional district boundaries delineated areas in accordance with the court of sessions system, originating from England. These areas were under the jurisdiction of the Justices of the Peace and their assistants to perform judicial and government functions (Services Nova Scotia and Municipal Services 2003). These sessional districts, later to become counties, are still the primary local government unit outside of towns and cities, which are also incorporated. The Municipal Act (the current legislation) was passed in 1967 to replace the initial County Incorporation Act.

4.3.2.3 Social Systems

Most of Nova Scotia's early history consisted of traders or fishermen visiting on a seasonal basis to harvest fish or to trade goods with the aboriginal tribes. Most of this trade consisted of trading knives, pots and fabrics for furs. It was not until more permanent settlements were established along the coasts, that the settlers began to clear the land for agriculture and increase their dependence on the natural resources of the region. The harsh winters and the inconsistent delivery of provisions from Europe hastened the dependence on the natural resources of the region and developing a relationship with them. The population of Nova Scotia was growing slowly until the American Revolution (1776), which resulted in an increase in migration and settlements.

While the number of settlers increased dramatically during the influx of loyalists and migrants, the land grants withdrew much of the Mi'kmaq land. Desperately, the Mi'kmaq settled

on reserves (with a band holding collective, not individual, rights to the land on a reserve). This translated to the Mi'kmaq having user rights to the land on the reserves, while title was held by the Crown. Currently, there are several Mi'kmaq reserves in Southwest Nova Scotia and the two major bands in Southwest Nova Scotia are Big Bear Band and the Acadian Band. There is an increasing mixture of ethnic and cultural groups in Southwest Nova Scotia, but the majority have British and German roots (Ravindra 1998).

While the settler's relationship to the ocean and milder seasonal climate shaped the culture and social networks of Nova Scotia, the policies and strategies of the governing colonies are important to acknowledge. The mercantile policy of England prevented the growth of manufacturing in the colonies. This was hard on the citizens because it suppressed locally developed industries, with the exception of fisheries, trading and shipbuilding (Campbell 1948: 216). Since many of the locals were limited to providing raw materials (fish, fur, timber, etc.) to the merchants, their outlook towards (and identity with) nature and resources were influenced by these policies. The settlers began to identify and relate to the land (and water) as resources and in terms of commodities for livelihoods. To date, Southwest Nova Scotia is a heavily resource dependent region (i.e. fishing, forestry, mining, aquaculture, agriculture, offshore oil and gas), yet there is a growing interest in developing the tourism industry (Ravindra 1998).

4.3.3 Protected Areas System of Nova Scotia

The International Biological Program (IBP) submitted a landscape inventory (Taschereau 1974) to help identify areas in Nova Scotia (and Atlantic Canada) for protection far before the Special Places Protection Act was passed in 1980 (Goldsmith 1987). Subsequent evaluations were submitted by Ogilvie (1984) and others provided evaluation methodologies to select protected areas (e.g. Katz 1986). The "Proposed Systems Plan for Parks and Protected Areas in Nova Scotia" was drafted by the Department of Natural Resources, and publicly released for comment and review in 1994 (Government of Nova Scotia 1994). This proposal offered a

framework for developing "a common vision of the role of protected areas and for encouraging future coordination and co-operation," with a goal of preserving NS's natural diversity and enhancing the quality of life and human welfare (Government of Nova Scotia 1994: 20). After holding thirteen public meetings across the province, an independent public review committee submitted a report to the provincial government in 1995, with 63 recommendations (Federal Provincial Parks Council 2000; Government of Nova Scotia 1995). Among many themes covered by the recommendations, the specific topic of public participation was addressed in recommendations 50 –55 and 60-62. These recommendations encourage the NS public service on protected areas matters, to keep open and effective public consultations, to encourage active stakeholder involvement in planning and management, to develop flexible partnerships, to encourage voluntary conservation initiatives, to hold consultations that highlight landowner benefits, to prioritize public information, to demonstrate how the public is to become involved, and to integrate protected area concepts into public education curriculum and the museum community (Government of Nova Scotia 1995). In 1997, based on some of the recommendations, the provincial government released Nova Scotia's Protected Areas Strategy, which highlighted the three main legislative mechanisms to shape the provincial strategy: nature reserves, wilderness areas and provincial parks. However, before discussing the provincial protected areas strategy further, the role of other protected areas (and their respective agencies) should be acknowledged.

Much like Newfoundland and Labrador's protected areas system, Nova Scotia has a complex system of Federal and Provincial protected areas in various sizes. Again, this discussion recognizes the existence of other protected areas (eg. municipal parks, non-government organization's conservation properties and private land conservation), but will focus on formal protection arrangements. Kejimkujik National Park and National Historic Site, and Cape Breton Highlands National Park, under federal control, protect large ecosystems in the south and north end of the province, respectively. Furthermore, Kejimkujik National Park is also designated as a

National Historic Site because of its historical ties to Mi'kmaq's roots and livelihoods. Kejimkujik National Park also has a Seaside Adjunct component along the south shore of the province to protect an area representative of the coastal ecosystem (Figure 4-8).

Figure 4-8. Kejimkujik National Park Seaside Adjunct (S. Rehman)

The Town of Lunenburg, a World Heritage Site, also provides a unique protection arrangement in Nova Scotia, just outside of SWNBR. While the designation of the World Heritage Site does not impose legal regulations, it acknowledges the historical significance of Lunenburg, as a "model town" of British Colonial settlement (UNESCO 2006). Another national recognition program supported by the federal, provincial and local governments, is the Canadian Heritage Rivers Program – a cooperative programme honouring and recognizing the cultural, natural or recreational significance of a river in Canadian history – which has designated two

rivers (the Shelburne River & the Margaree-Lake Ainslie River), in Nova Scotia. Shelburne River is in Southwest Nova Scotia, whereas Margaree-Lake Ainslie River runs in Cape Breton. There are also four of Nova Scotia's eight Migratory Bird Sanctuaries within the Southwest Nova Biosphere Reserve and the four equal a total of 990 Hectares (Burns & Warren 1994).

Like Newfoundland and Labrador, Nova Scotia also subscribes to the IUCN's definition of protected areas (Government of Nova Scotia 2006b). Protected areas under provincial jurisdiction can be categorized into one of three types: provincial parks, wilderness areas and nature reserves. The Special Places Protection Act, the initial legislation for protecting areas, was passed in 1980 with a three-fold purpose of: a) preserving archeological, historical and palaeontological sites for acquisition and research; b) protecting natural sites for research and preservation; c) fostering and acknowledging the scientific, cultural and educational value of protecting special places (Government of Nova Scotia 2006a). An Advisory Council on Protection of Special Places provides recommendations and public participation is incorporated into the designation process when the intended protection site has a registered owner, which warrants a notification.

Provincial parks offer another mechanism for protection under the Provincial Parks Act. This Act was passed in 1959 and protects provincial parks in perpetuity. The public is notified of provincial park designation by the publication of notice in the Royal Gazette and registration with the relevant office of the registrar of deeds. While the legislation does not provide much opportunity for public input or public review, the practice of the provincial department seeking public participation may expand beyond the provisions within the provincial parks legislation.

Another provincial protected areas legislation type is the Nature Reserve Protection Act, which allows the establishment and protection of nature reserves (Government of Nova Scotia 2000). Prior to the designation of a nature reserve on crown land, the Minister must hold public consultations; otherwise, on privately owned land, the Minister must obtain written consent from

the registered owner. Management plans may be developed (and revised) for nature reserves with public consultations, as the Minister considers appropriate, on crown land.

Since almost three quarters of SWNBR's core area includes the Tobeatic Wilderness Area, the most relevant provincial protected area legislation to this study is the Wilderness Area Protection Act. This Act was passed in 1998 for the purpose of protecting Nova Scotia's wilderness Areas in perpetuity. This *Act*, and the lands designated under it, are under the administration and control of the Minister of Environment. Wilderness areas cannot be converted to provincial or federal parks and require public notification and opportunities for consultation when proposing a new wilderness area on crown land or altering wilderness area boundaries on crown land (Government of Nova Scotia 2006c). Opportunities for public consultations are provided, when considered appropriate by the Minister, in the development of policies, programs, standards, guidelines, objectives, plans, codes of practice, directives and approval processes (Nova Scotia Department of Environment and Labour 2001). Public consultation is required for all management plans (and any revisions) of wilderness areas, and the socio-economic impact analysis of proposed wilderness areas must be made available to the public. As well, public consultations must be made before any regulations and/or any substantial amendments to the regulations are made. It should be noted that many of the provisions highlighting public consultations within the *Act* leave them to the Minister's discretion (i.e. as "the Minister considers appropriate").

The significant differences between Nature reserves and Wilderness Areas are size, conservation targets and user opportunities. Generally, nature reserves are smaller than wilderness areas because their primary objective is protecting unique and rare natural phenomena, whereas wilderness areas designate larger representative landscapes and ecosystems. In addition, wilderness areas allow for research, education and some recreational activities, whereas nature reserves mainly permit scientific and educational uses (Federal Provincial Parks Council 2000).

4.3.4 Southwest Nova Biosphere Reserve

Southwest Nova Biosphere Reserve (SWNBR) is part of a national and worldwide network of biosphere reserves (intended as demonstrations of integrated planning between humans and the biosphere) designated by UNESCO's (United Nations Education, Science and Cultural Organization) Man and the Biosphere Program. The national network of volunteers and professionals supporting the biosphere reserve program is the Canadian Biosphere Reserves Association (CBRA). SWNBR is one of thirteen biosphere reserves in Canada and the only biosphere reserve in Atlantic Canada. As mentioned in Chapter 2, the biosphere reserve designation is not legally binding. It is a recognition tool for acknowledging the collaborative efforts made by local community members and stakeholders to promote sustainability. In addition to local support and Canada-MAB's (Canada's national committee for the UNESCO "Man and the Biosphere" Program) approval, UNESCO designated the Southwest Nova Biosphere Reserve in September of 2001 (Baxter 2002).

The Southwest Nova Biosphere Reserve is situated, as its title indicates, in the south-western portion of Nova Scotia (Figure 4-9). It encompasses five counties (Annapolis, Digby, Queens, Shelburne and Yarmouth), as well as many towns and villages. The total land area covered is 13,770 km^2 with a population of about 99,500 (Southwest Nova Biosphere Reserve Association 2001a). The Southwest Nova Biosphere Reserve Association (SWNBRA), an organization of community groups, educational institutions, government and businesses, seeks to facilitate the implementation of biosphere reserve principles.

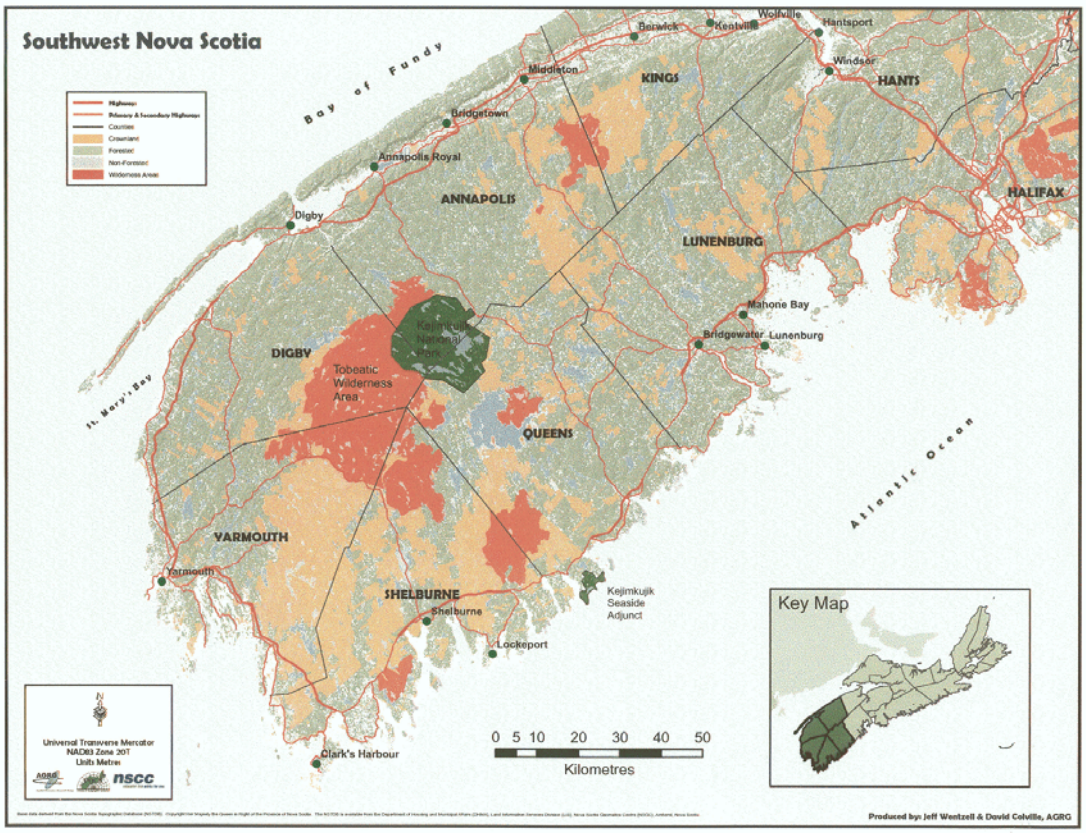

Figure 4-9: Southwest Nova Scotia (Wentzell & Colville nd).

Geographically, the core area of the biosphere consists of Kejimkujik National Park and National Historic Site and the Tobeatic Wilderness Area. A buffer zone does not exist in the biosphere reserve, however, the area of cooperation is the remainder of the biosphere reserve outside of the core. Within the biosphere reserve is the 53 km long Shelburne River, a Canadian Heritage river. The biosphere reserve covers portions of 8 major watersheds in southwest Nova Scotia (Southwest Nova Biosphere Reserve Association 2001a). The boundaries of the biosphere follow county boundaries, not watershed boundaries, thus including only portions of the watersheds. The boundaries of the biosphere reserve only cover terrestrial ecosystems and do not include the Nova Scotian shelf or marine ecosystems.

Building on the collaborative efforts of various stakeholders, a research network emerged from the process of initiating the biosphere reserve. This research network developed into the

Mersey Tobeatic Research Institute (MTRI) and their facility is just outside Kejimkujik National Park and National Historic Site, in the community of Kempt. MTRI aims to advance sustainable use of resources and biodiversity conservation in Southwest Nova Biosphere Reserve through collaborative research, management and monitoring (Mersey Tobeatic Research Institute 2005). The two legally protected areas serving as the core of the biosphere reserve help to protect the natural ecosystems, species and genetic variation in the Shelbourne river area. Currently, the SWNBRA is undertaking a major communications initiative to increase the awareness of the biosphere reserve (and its principles) in the general public and possibly increase its market appeal.

4.3.5 Designation Process and Stakeholders

The idea of a biosphere reserve in southern Nova Scotia began in scientific and academic circles in the 1980's and did not expand beyond these networks until the 1990s (Southwest Nova Biosphere Reserve Association 2001b). Attempts to seek parties interested in the biosphere reserve concept were made by holding informal meetings with various local agencies and parties in the 1980's with limited success (Canadian Biosphere Reserve Association 1997). A meeting of government officials, landowners and academics was held by Nick Hill at Mount St. Vincent University in 1991 to seek interest in and take initial steps in developing a biosphere reserve in south-western Nova Scotia (Southwest Nova Biosphere Reserve Association 2001a). This initial attempt did not produce substantial outcomes. One participant suggested the initial proposal "died due to circumstances" and added it was "misreported…and the thing went awry" (SW3). However, some actors felt it was a positive concept and "continued to present it" (SW3).

Francis and Munro increased interest in the idea by suggesting the coastal plain ecosystems of southwest Nova Scotia become part of a biosphere reserve in a recognized academic journal (Francis & Munro 1994). While the concept of a biosphere reserve was a favourable idea for Southwest Nova Scotia, its fruition into reality still required local champions

and “on the ground” mobilization (Francis, pers. comm. 2006). Fortunately, a high level of collaborative ecological monitoring, proper data management, information exchange and research being conducted at Kejimkujik National Park aided the fulfilling of this requirement (SW3). With the active community monitoring and research underway at Kejimkujik National Park, it was promoted as an EMAN (Environment Canada’s Ecological Monitoring and Assessment Network) site, and this facilitated a Kejimkujik staff member’s attendance at the second International Conference on Biosphere Reserves in Seville, Spain, in 1995. The result of the conference was the Seville Strategy for Biosphere Reserve, which included a vision of biosphere reserves with general directions, goals, objectives and explicit criteria for biosphere reserves (Francis 2004: 5). Having a Parks Canada staff member as a key proponent of the biosphere reserve initiative was an important factor in the early establishment of the SW Nova Biosphere because “it was great exposure to the UNESCO program and the biosphere reserve program which was very impressive. So we became more committed at that time,” (SW3). Upon returning from the conference, a group of ambitious community members near the Caledonia area began to research the concept further, assess the feasibility of a biosphere reserve and began planning an approach to designate SW Nova Scotia as a biosphere reserve. The group of committed community members included land use managers, Kejimkujik National Parks staff, a retired principal, local politicians and members of other communities and social networks.

Shortly afterwards, they began to seek key stakeholders and cultivate the support needed to nominate their region as a biosphere reserve. Good working relationships between the National Park and timber harvesting companies were a benefit in gaining local support (Miller et al. 1999). Support from other key relationships with municipal governments and their representatives, as well as federal and provincial government agencies, was being sought. While the “driving force” stemmed from a Parks Canada staff member, it was important to avoid perceptions of the biosphere reserve designation as a Parks Canada initiative (SW16). Consequently, Steve Malay, a local community member (and NS Power staff member) accepted

the role of chairing the Southwest Nova Biosphere Reserve Committee, which was formally established in 1998.

Also during 1998, a graduate student researched the feasibility of a biosphere reserve in Southwest Nova Scotia (Ravindra 1998). Not only did this research help the successful completion of a graduate thesis, it simultaneously explored, promoted and garnered interest in the

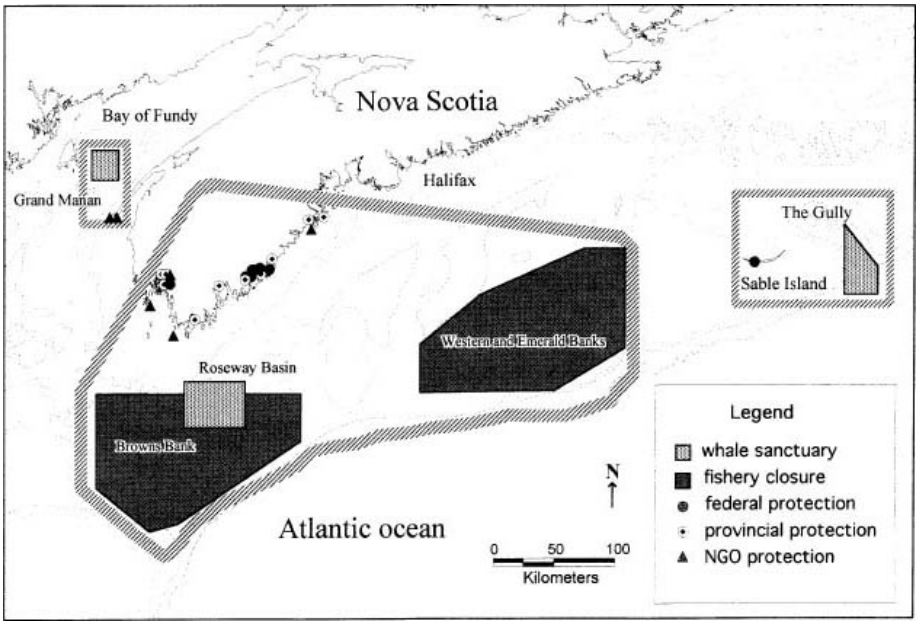

Figure 4-10. General location of the proposed "Scotian Coastal Plain Biosphere Reserve" and existing marine protected areas (Miller et al. 1999). (Permission of the authors granted by M. Willison, Jan 2007)

idea of a biosphere reserve (SW14). Shortly after the thesis was complete, a proposal was put forth by Miller, Ravindra and Willison (1999), suggesting a biosphere reserve which encompassed the Kejimkujik National Park, Kejimkujik Seaside Adjunct, Tobeatic Wilderness Area and existing marine conservation areas (Figure 4-10). Miller and colleagues were aware of the negotiations underway with the small group of committed individuals yet felt it necessary to include significant portions of the marine ecosystems. Miller et al. argue their proposal recognizes the “region’s intrinsic natural and cultural connections between the land and the ocean” (Miller et al. 1999). The Scotian Coastal Plain Biosphere Reserve was considered

ambitious and the reality of dealing with the complexity of the different marine agencies and resource regulations appeared to be overwhelming (SW14). The initial SW Nova Biosphere reserve concept was "a rather small biosphere [reserve], it was mostly Keji [mkujik National Park and Historic Site] and a few surrounding areas with the buffer zones actually inside the park,"(SW14). The final boundaries of the Southwest Nova Biosphere Reserve turned out to be quite different from what the initial negotiations proposed.

By 1998, the group of committed individuals established the Southwest Nova Biosphere Reserve Committee, and subsequently became incorporated as an Association in 2000. The stakeholders represented in SWMBRA include federal and provincial land managers, forestry businesses, tourism, hydro-electric power generation, environmental non-government organizations, youth groups and community health organizations (Southwest Nova Biosphere Reserve Association 2001a). During this period many meetings were held with local municipalities, provincial and federal agencies, the tourism sector, development agencies, the forestry sector and open community meetings (SW1).

At the same time, negotiations and public consultations were held involving the Upper Bay of Fundy Biosphere Reserve Initiative in Nova Scotia and New Brunswick, the first inter-provincial biosphere reserve proposal in Canada. This initiative played an important role in influencing the development of SW Nova Biosphere Reserve's proposal. The proponents of the Upper Bay of Fundy Biosphere Reserve held meetings with various key stakeholders including representatives of the government, industry and community groups, yet encountered strong public opposition. The opposition stemmed from misconceptions of the biosphere reserve concept, misconceptions about land use rights and residual resentment from Cape Chignecto Provincial Park and the Economy Wilderness Area's recent designations (Canning 2005). Two major concerns hastened the agenda of the SWNBRA. The growing opposition and negative attention to the Upper Bay of Fundy initiative, and the risk of the designation being refused because of two potential biosphere reserves in close proximity impelled the proponents of the SWNBR to corral

sufficient support, complete the nomination document, and send it to Paris (i.e. UNESCO) for approval (SW10).

Near the beginning of 2000, SWNBRA began to draft a nomination document over an 18-month period. This collaborative effort involved different participants, each contributing their knowledge base to different sections of the nomination document. Furthermore, others were indirectly involved in various sections of the document, reviewing early drafts, editing and contributing to the final nomination document (Southwest Nova Biosphere Reserve Association 2001a). Meanwhile, efforts were put forth to gain the support of the five different counties within the biosphere reserve and the provincial government. The completed nomination document was presented to UNESCO in September 2001 and successfully received the designation of a biosphere reserve under the Man and the Biosphere Program (Southwest Nova Biosphere Reserve Association 2001b). UNESCO's designation was granted, however, providing that SWNBRA gain the official support of key local parties. Two of the counties within the biosphere reserve (Annapolis County and Shelbourne County) and the provincial government had not provided official support for the nomination and were not included in the nomination document. The timing of the federal government's formal endorsement is not clear. While some participants suggest Parks Canada supported the biosphere reserve designation from the beginning of the designation process and provided formal endorsements before the designation (SW3, SW11), other sources describe Parks Canada as not providing formal endorsements until after the designation of the biosphere reserve (SW13, SW19, Baxter 2002). Attempts to understand the reasoning behind the non-endorsing parties' reluctance and acquiring official support from these parties became an easily identified priority for SWNBRA (Baxter 2002).

The provincial government was hesitant to provide signatory formal endorsement for the biosphere reserve nomination document for reasons revolving around liability, policy development and public perceptions. To the provincial government, providing the formal endorsement for the nomination document did not simply equate to a declaration that the

application of a biosphere reserve concept to southwest Nova Scotia was a good idea. It had much greater complications and implications for the governing body with the greatest jurisdictional responsibilities and legislation in the region (SW13). Endorsement of the biosphere reserve begged questions about which agency would ultimately be financial responsible if the biosphere reserve declared bankruptcy, how would this decision influence the province's approach to the contentious situation in the Upper Bay of Fundy Biosphere Reserve proposal, and how would this influence the public's perception of the provincial government? The provincial government needed to assess the feasibility of the services promised in the nomination document and whether these could be delivered, regardless of the political party in power. Not surprisingly, the provincial government's perception was that local Members of the Legislative Assembly (MLAs) and the provincial ministries would become the channel, and perhaps a target, if public resistance for the biosphere reserve grew (SW13).

A provincial government interdepartmental team of senior staff felt "trepidation" shortly after a group from SW Nova Scotia delivered a presentation to them in Halifax (SW13). The uncertainty and questions mentioned above became apparent in the government's mindsets and thought process. The situation was augmented by the possibility of three biosphere reserve nominations in Nova Scotia within the next few years (ie. Southwest Nova Biosphere Reserve, Upper Bay of Fundy Biosphere Reserve and a Bras D'Or Lake Biosphere Reserve initiative in Cape Breton). The need for a policy to guide the provincial ministries' roles and involvement became imminent. The course of changing (or developing) policy involves bringing departmental interests forward and seeking policy direction from a central bureau (or policy board) of the provincial government. Once the policy is developed, it helps "to alleviate some of the bureaucracy and agencies involved" (SW13). Policy development was an important endeavour needed by the provincial government to address the uncertainty and details of providing formal endorsement of the biosphere reserve. A staff member from the Protected Areas Branch of the Ministry of Environment and Labour has been assigned as the provincial contact representing

their interests in SWNBR and a small portion of the representative's work plan is allocated to advising and supporting the SWNBR and its association. The policy development allows for provincial support and involvement in an advisory capacity (i.e. without voting privileges), and in turn, decreases their vulnerability to perceptions of dominating the agenda and to censure or grievances from disgruntled parties or critics. On June, 9th 2003, the provincial government provided their formal endorsement of the Southwest Nova Biosphere Reserve by a letter to the chair of SWNBRA and co-signed by the Minister of Environment and Labour and the Minister of Natural Resources.

In addition to SWMBRA seeking formal endorsement from non-signatory parties, public participation was also a priority. During the development of the nomination proposal efforts were made to invite public support and involvement by delivering "presentations to some municipal councils and NGOs, and through partnering on projects…Nonetheless, there remains a substantial number of people in the region who do not know what a Biosphere Reserve is, or that there *is* one in Nova Scotia" (Baxter 2002: 4). The SWNBRA acknowledged this public participation gap and initiated "an intense public outreach effort", which included three Focus Group Planning sessions in the Town of Shelbourne (April 9/2002), Cornwallis Park (April 10/2002) and Yarmouth (April 17/2002) (Baxter 2002: 4). A wide range of stakeholders were offered opportunities to learn about the biosphere reserve and its principles, as well as share their input during the planning sessions.

During their outreach effort and trying to understand Shelbourne county and Annapolis county's hesitation, SWNBRA identified a need to develop a sound governance structure. Annapolis County (i.e. its elected representatives) had concerns regarding the governance structure of the Biosphere reserve's board and the associated accountability. A research participant describes Annapolis County's concerns:

> "Annapolis Valley was very concerned about how precisely the board was structured? And the role of the counties. Were the representatives of the counties representing the counties or were they simply representative of the

> counties? In other words, was there some accountability of the person representing the county to the county, as well as to the board? At first, people were a bit perplexed? Why is he raising this matter here? And some people were defensive and some people were confused? But it was a very, very important point being made. He was ahead of most of the other people in the room with respect to realizing what was likely to come out of this and how important it would be for the roles of the member of the board, who representing the counties, were absolutely clear about their responsibilities to carry info to the county council, and bring info from the county council after having discussion at that level, versus just being there and keeping the county council informed on what they decided, and…so on. This is what they are representative of …and what someone was a representative of, as apposed to someone representing would do,"(SW14).

According to this participant's comments, Annapolis County asked questions regarding the accountability, and the responsibility of the county's representative to the county's council, as well as to the Southwest Nova Biosphere Reserve's Board. Was the representative simply sitting in Board meetings to represent their respective council or was there opportunity to present their council's interests and vote on decisions? Furthermore, when that representative was reporting back to the council, was there opportunity to discuss issues and how council's interests were to be aired at SWNBR board meetings? This line of questioning not only begged for clarification about the governance procedures, but also about the governance structure and voting privileges, too.

As a result, it was agreed that the SWNBR Board would consist of three even parts, each consisting of up to seven representatives (SW2). One third of the representatives would be from local municipalities, one third from ministries (federal and/or provincial) and one third from non-governmental organizations (NGOs). Within the NGO portion, two representatives were permitted from the education sector, two from the environmental sector and one from community-based organizations (SW1). This composition prevents certain sectors from dominating the board and maintains a variety of stakeholders' involvement in the biosphere reserve's board. One research participant's opinion about the board structure was, "I think we feel we have enough diversity of opinion that it is both enlightening and reasonably

representative," but also describes its limitations, "we just realized that it wasn't all inclusive and probably never could be" (SW2). Two visible stakeholders not participating on the board (of the biosphere reserve) are first nation groups and marine or fishery groups (SW13, SW14).

Representatives of SWMBRA have made repeated invitations to the first nations to participate in the biosphere reserve from the early stages of the designation but were unsuccessful (SW1, SW2, SW3, SW10, SW13, SW16). As for fishery or marine groups, it was a clear decision to avoid the complexity of involving marine ecosystems and social networks (SW3). The omission of these stakeholders may leave room for criticism, but the new governance structure was an important progressive improvement, in response to the concerns from the non-endorsing (non signatory) counties. At the same time, not all of the representatives on the board - for reasons of maintaining legitimacy and avoiding misconceptions - share the same voting privileges.

Representatives from the federal and provincial ministries advise and support the efforts of the board and committees, however, they do not vote when board decisions are made. The non-voting role allows the ministerial representative to maintain an advisory role without the liability for the Board's actions and decisions (SW13). As well, the other stakeholders (including local county representatives) can contribute and participate in decision-making processes.

While SWNBRA was addressing their first priority of refining their board's governance structure and responsibilities, the second priority of addressing concerns over the buffer zones and associated implications was the next priority (Baxter 2002). Some of the county councils and key forest industry stakeholders voiced their concern about the buffer zone component and its implications. A research participant described Annapolis County's jurisdictional and zoning concerns:

> "Annapolis County brought up an important point about jurisdictional issues and we [SWNBRA] hold no corporation and what does that mean? What does a buffer mean? What does a core mean? What are the legal obligations in each municipality?" (SW3).

The traditional biosphere reserve zoning scheme (i.e. core area, buffer zone, and transition/cooperation zone) was included in the nomination document (Southwest Nova Biosphere Reserve Association 2001a). This scheme, however, was adjusted during SWMBRA's outreach activities. A workshop was held with a variety of stakeholders to discuss the issues surrounding the buffer zone. On one hand, some of the workshop participants felt the purpose and function of buffer zones should be respected and appropriate practices within these areas should be carried out accordingly. On the other hand, others felt their current activities within the appointed buffer zones were not harmful and SWNBR "shouldn't be involved in telling them what they couldn't do and could do," (SW15). The issue was further complicated when interested parties requested details of permissible activities, practices and perhaps "determining a 'standard' for buffer area use" (Baxter 2002: 12). Since a resolution or compromise was not reached, instead it was decided to remove the buffer zones. The outcome of this discussion resulted in the biosphere reserve consisting of two zones, a core area with the remainder being an area of cooperation (SW1, SW3). This adjustment to the original proposal will warrant a notification to UNESCO or an explanation at the ten year review in 2011 (SW13).

After an earnest outreach effort, meeting with the non-endorsing counties and provincial representatives, and demonstrating improvements in their governance structure (and associated responsibilities), the remaining counties and the provincial government eventually provided the necessary backing for the biosphere reserve program in 2003. The public announcement of the UNESCO designation was intentionally delayed until the appropriate support was gained (SW1, SW13). It was in the spring of 2004, that the SWNBRA actively announced the designation of the Southwest Nova Biosphere Reserve at the CBRA Annual General Meeting. More recently, SWNBRA developed a communications strategy and has produced a brochure highlighting the privileged designation of this unique region in Nova Scotia. SWMBRA intends to circulate this brochure to partnering agencies throughout the biosphere reserve region and the public at large.

4.3.6 Mersey Tobeatic Research Institute

One of the positive outcomes from the designation of biosphere reserve in the Southwest Nova region was the launch of a locally unique research establishment. The Mersey Tobeatic Research Institute (MTRI) is a non-profit cooperative association of researchers and land managers advancing collaborative research, monitoring and management focusing on sustainable resource use in southwestern Nova Scotia (Mersey Tobeatic Research Institute 2005). MTRI operates a field research facility in Kempt, Queens County that provides workspace and accommodations for researchers conducting research in the area. The research facility played an important role in the development of the MTRI because it was the former field office of Bowater Mersey Paper Company, a key stakeholder in the SWNBR.

With the Bowater Mersey Paper Co. moving its operations to Liverpoole, the field house was vacant until a group researching Blanding's turtle populations used it for accommodations in the summer of 2004. The group of researchers (from Acadia University) were affiliated with the biosphere reserve and representatives of Bowater Mersey Paper Co. also became involved in the Blanding's turtle (classified as threatened by COSEWIC at the time) recovery team. These associations created a unique network of contacts and facilitated future initiatives and projects.

MTRI was spawned from a proposal by Parks Canada during the summer of 2004 that created a subcommittee of the biosphere reserve focusing on research opportunities. Upon this proposal being well received, funding was secured to hold meetings and develop by-laws (SW1). Subsequently, there was a desire to shift this subcommittee into an autonomous group from the biosphere reserve and by November of 2004, MTRI was established. The nature of MTRI presents a unique tension between remaining autonomous, yet maintaining a strong connection with the Southwest Nova Biosphere Reserve. While MTRI fulfills part of the biosphere reserve's logistical objectives (research, education and monitoring), its area of interest is the Mersey Watershed, the Tobeatic Wilderness Area and Kejimkujik National Park and National Historic Site, an area smaller than SWNBR. It also appears that MTRI may expand beyond its original

mandate of science research and facilitate socio-economic research interests (SW3). MTRI, in fact, provided accommodations for and facilitated this research project.

Chapter 5 Analysis & Discussion

5.1 Introduction

This chapter discusses the major results of the research project: themes drawn from the analysis of primary data collected from fieldwork (research interviewees' responses, personal field notes and relevant project documents). Central to this section are research participants' responses to the public participation criteria. Other themes and ideas were also drawn from the responses during the semi-structured interviews. The analysis of the public participation criteria is divided into the two case studies, and the discussions of Burnt Cape Ecological Reserve are further separated by the "designation" process and the "management" process. Section 5.2 discusses the major opportunities and challenges encountered in the case studies. Interviewees identified and raised these factors as affecting public participation and decision-making processes in their conservation projects. In section 5.3, the implications of trying to fulfill the public participation criteria, and their relevance to place-based governance and issues of implementation are discussed. Finally, section 5.4 briefly summarizes the major results of the chapter.

5.2 Public participation criteria

Increasing support of public participation is evident in scholarly discourse and hinges on the lack of faith in governments and top-down approaches to development and decision making (Eversole & Martin 2005; Harriss 2001; Lane 2005). Traditional government approaches often fail to offer services or provide them insufficiently because they lack information on local conditions and constraints, and lack awareness of local values, desires and priorities (Eversole & Martin 2005; Francis 2004). The public participation criteria are based on ideas of building fairness, credibility and legitimacy with local community members (Section 2.2.2, 2.3 and 2.5). This is especially relevant for local residents because they can become convenient and visible

targets of blame for protected area degradation, socio-ecological problems and suffer the consequences from inadequacies in top-down schemes (Wells et al. 1992).

Increased public participation may not resolve inequity, poverty and domination issues, however, developing meaningful engagement with relevant stakeholders will allow participants to help determine a desirable reality and beneficial outcomes. Expanding traditional goals and outcomes beyond economic agendas to include social and ecological goals will likely contribute to well-being and sustainability (Harriss 2001; Smith 2005). The criteria used in this study attempt to address issues of fairness, legitimacy, trust and credibility by providing a comprehensive and flexible list of desirable characteristics (Pollock 2004). This set of criteria, along with promoting pluralism and flexibility, is vital to place-based governance and contextually appropriate processes. The results of applying the public participation criteria to each case study are summarized in Table 5.1, but more details are described below.

5.2.1 Burnt Cape Ecological Reserve: Designation versus Management

Over the last 20 years, during the process of protecting the Burnt Cape Ecological Reserve, there have been two distinct stages: designation and management. The first stage, identified as the designation process, includes the events from botanists' rekindled interest in the botanical populations and communities (mid-1980's) to the provincial government's formal announcement of the Burnt Cape Ecological Reserve in 1999. The second stage of BCER's protection process is the management phase (or post-formal designation). The reason for this distinction stems from the shift in guiding principles for each stage.

The first stage of designation was guided by a different set of principles from the second. The conservation project's designation stage was guided by the legislative mechanisms of the Wilderness and Ecological Reserve Act. This included the development and use of an advisory committee made up of volunteers from across the province - often referred to as the Wilderness and Ecological Reserve Advisory Committee or WERAC - dedicated to seeking public input at

Table 5.1 Summary of Public Participation Criteria Against BCER and SWNBR case studies.

Criterion	Burnt Cape Ecological Reserve		SW Nova Biosphere Reserve
	Designation	Management	
Strategic timelines; objectives, goals	WERAC- process of designation	Steering Committee- Some key stakeholders	Board-regular meetings; visioning still needed
Inclusive fairness; involving stakeholders	Involved the public & stakeholders	Some key stakeholders	Most key stakeholders except the general public, First Nations, marine and agriculture sector
Transparent clear process; how & who?	Open to public; poor records	No minutes; no public record	Transparent but not distributed or openly accessible
Enabling accessible to all; valuable input	Many opportunities to contribute	Access and input is limited	Forum is accessible yet concept may not be & input from public is limited
Respectful good relationships; trust	Respectful (with a single confrontation b/t actors)	Respectful with some infighting	Respectful among stakeholders
Constructive exchange and feedback	WERAC process was constructive	Between steering committee	Between the Board
Instrumental meeting goals & objectives	Designation was reached	Too early; no long term objectives or goals	Too early to meet long- term objectives or goals
Meaningful relevant; influential	WERAC process was meaningful	Meaningful only to steering committee	Mainly to key stakeholders

Met Criterion Somewhat met criterion Did not meet criterion

several points throughout the designation process. The public input received by the advisory committee - collected during the initial stages of the proposed reserve's inception,

during the proposal review and during the management plan review - is incorporated into the proposal, the management plan and the final report from the advisory committee to the provincial cabinet. The process of selecting a collection of volunteers with different backgrounds from across the province to seek public input (through public meetings and hearings) and represent public interests in their reporting is distinctly different from the public participation during Burnt Cape Ecological Reserve's management.

Although the direct activities permitted on the ecological reserve are articulated in the management plan, which was drafted during the designation process, the management and future direction of BCER are not guided by provincial legislation. The management process is lead by provincial agencies, primarily the Department of Parks and Natural Areas. It involves the development of a steering committee made up of representatives from groups designated by the Dept. of Parks and Natural Areas as key stakeholders. The distinctions between these two processes warrant discussion and they are treated as separate stages during analysis (Table 5.1).

5.2.1.1 Burnt Cape Ecological Reserve - Designation Stage

This section discusses research participants' responses to the eight public participation criteria during the designation phase of BCER. The interviewees' comments highlight the strengths and general effectiveness of this stage.

5.2.1.1.1 Strategic

The designation process of BCER was considered by many to be strategic because of the clear goal of having the natural area protected by provincial legislation. To reach this goal, the objectives became a clear understanding of what was necessary to remove current threats to the unique biological communities and geological features (i.e. terminating quarry excavation), restore the disturbed areas and initiate the provincial reserve designation process. Three main stages of public participation are outlined in the provincial reserve designation process (Appendix D) and, generally, BCER's designation process followed that scheme. The omission of

establishing a definitive timeline with tangible targets or results was the major deviation from fully achieving the strategic criterion. It was, however, noted that the Burnt Cape Ecological Reserve was "one of the quickest reserves to reach provincial legislation" (BC7), in comparison to other wilderness or ecological reserve designations. This was largely due to the considerable local community support and minimal opposition from the private sector, primarily the "big boys of mining and forestry" (BC7). Nobody opposed the conservation project with the exception for the local excavation contractor, whose quarrying permits were not renewed (BC5, BC7).

5.2.1.1.2 Inclusive

Burnt Cape Ecological Reserve's designation was considered inclusive because several opportunities for public participation were offered. The Wilderness and Ecological Reserve Act, stipulates that WERAC is to "represent the public" by seeking public input and incorporating it into reports and recommendations to the provincial government. WERAC "met with the general public and held public meetings and talked to town council" (BC5). It was also suggested WERAC "had meetings with other agencies and other groups" (BC 5). These other groups may have been the Nature Conservancy of Canada and the federal Atlantic Canada Opportunities Agency (ACOA). In terms of seeking input from stakeholders, defined as parties who were affected by or have an effect on BCER's designation, WERAC sought representative input from major stakeholders. Public meetings were held throughout the designation process, including initial meetings with local community members, public meetings regarding the proposal for Burnt Cape's ecological reserve designation and after the initial draft of the management plan. Seeking participation or input from most of the stakeholders and offering open and public opportunities for input throughout the designation process is considered inclusive.

5.2.1.1.3 Transparency

The issue of transparency is difficult to assess because while the process of designation may have been transparent, records of public meetings and the nature of public participation were

not available during the fieldwork. After the fieldwork was completed, the Dept. of Parks and Natural Areas advised that staff turnover and relocation of offices from St. John's to Deer Lake added to the difficulty of maintaining and retrieving BCER's records of public participation (i.e. meetings with stakeholders, public hearings and open forums). At the same time, most of the participants did not express concern over the transparency of the designation process. Thus, while the designation may have been a transparent process, the limited public participation record (or access to records) fails to fully meet the criterion of transparency.

5.2.1.1.4 Enabling

This criterion is difficult to assess because there is a heavy reliance on the research participants' perceptions of themselves (or other stakeholders) having the capacity to articulate interests, possess technical literacy or resources. Research participants' perception may portray a different reality than what truly exists. However, the stakeholders directly involved in BCER's designation, generally felt their (and local community members') contributions were valued and incorporated into the decision making process. For example, a research participant explained how local community members' desire to continue traditional activities was incorporated into the designation process, "through consultation, probably about 3 community meetings with townspeople and parks [Dept. of Parks & Natural Areas] folks and that was all done before the management plan." (BC13).

Correspondence from the former chair of WERAC outlining the events at a formal public hearing (in Raleigh, NL) about the preliminary Management Plan, describes the handling of the hearing participant's comments as,

> "People were assured that any comments they expressed, positive or negative, would be included in the report submitted to cabinet, and that although there had already been several meetings in the region, this was another good opportunity to voice any opinions or raise questions." (Caines 1999).

Such sentiments from the sponsoring agency (WERAC) convey a message of open-mindedness and genuineness, which are important to helping stakeholders and their input become

valued and pertinent. With active stakeholders feeling relevant and with the capacity to participate, it seems like the stakeholder engagement was enabling.

5.2.1.1.5 Respectful

Most of the participants agreed that the dialogue between stakeholders was respectful. While instances of disagreement did exist (and may into the future), the dialogue was still perceived to be respectful. A participant expressed it as, "respectful disagreement" (BC3) including the tension revolving around the limestone quarrying, which was referred to as "respectful disagreement when further quarrying was prohibited" (BC3). While some community members may view this as respectful, it did escalate into a physical confrontation resulting in a scuffle, property damage and dispatching the local RCMP officers to dissolve the clash. Although this incident does seem to be an isolated event, the encounter and the parties involved can hardly be considered respectful. The public participation process itself, however, still maintained respectful engagement.

5.2.1.1.6 Constructive

The criterion of constructive engagement outlines opportunities for knowledge and perspectives to be exchanged, with appropriate channels for feedback. Most of the participants felt there were opportunities for exchanging of ideas and feedback during the designation process. The pubic hearings and meetings throughout the designation process allowed for some stakeholders to voice their interests and discuss relevant issues. In addition, WERAC also encouraged "anyone to submit their comments in writing or by phone as soon as possible" to provincial staff or other appropriate parties (Caines 1999). With opportunities to exchange information throughout the designation process along with the corroboration of participants' perceptions confirms that the dialogue was constructive.

5.2.1.1.7 Instrumental

Reaching the primary goal of securing Burnt Cape Ecological Reserve under provincial legislative protection can be considered a success in not only protecting the area but in reaching a substantive result. Accordingly, completing a number of other objectives (terminating quarrying, rehabilitation and acquiring public input) in order to reach that designation, helped fulfill the criterion of developing instrumental outcomes.

5.2.1.1.8 Meaningful

The designation of BCER has created a sense of pride for some local community members that is often shared with others outside of the region (BC5). With such an impact on local pride, the designation process and its outcomes equate to something meaningful and rewarding. In addition, WERAC's public hearings about the management plan and local concerns stemming from that ensured no user fees for local community members, the allowance of traditional local activities and adjustment of boundaries along Ha Ha beach to allow local picnic activities. Having local community members' interests incorporated into the management plan and contributing to protection of unique local biodiversity make the public participation process meaningful and rewarding.

5.2.1.1.9 Efficiency

The criterion of efficiency was altogether omitted from the assessment of public participation in these case studies. Efficiency invokes numerous interpretations, often stemming from the particular disciplinary lenses efficiency is examined with. An overemphasis on efficiency can compromise system integrity. Integrity describes the ability of a system to accommodate and adapt to various unpredictable forces and disruptions applied against a system. This ability of adjusting to complexity and uncertainty is highly dependent on resilience, redundancy, information accumulation and exchange (Kay & Schneider 1994). Economic and political efficiency often over-emphasize efficiency or over-simplify reality at the expense of system integrity and increase its vulnerability to system collapse, e.g. electrical blackouts in

southern Ontario, the Newfoundland cod fishery (Holling 1995; Manuel-Navarrete et al. 2006). Including this criterion in the project could have presented an enormous challenge of expanding participants' perceptions and understanding of efficiency, which is beyond the focus of this research project. Thus, it was decided to omit this criterion from the study.

5.2.1.2 Burnt Cape Ecological Reserve: Management Stage

This section discusses research participants' responses to the eight public participation criteria during the management phase of BCER. This phase was not guided by provincial legislation and interviewees' comments highlight opportunities to improve its regional credibility and effectiveness.

5.2.1.2.1 Strategic

The primary management focus of the BCER steering committee involves developing tourism opportunities for the reserve. One of the initial concerns was assuring the delivery of well-guided tours by knowledgeable staff. This involved the assistance of professors from the geography and biology departments of Memorial University to develop reference material and training sessions for guides. After completing the guides' training, funding for seasonal work was obtained but stable, long-term financial support was still needed. Funding was secured by transferring staffing responsibilities to the NL Dept. of Parks and Natural Areas, and the next major task was developing an interpretation centre.

Some suggest the interpretation centre has developed into a contentious project because of its capital costs but also because of its design and effects on the local community. It has been suggested the contention exists because of the lack of focus since BCER's designation:

> "Now that they've got designation, the bomb has gone off and everyone is scattered and they were saying we need this and we need that. I don't think there is a single group or window with a decision to make. I think its now that you need to focus on" (BC1).

Others have voiced their concerns on the development of the tourism product, "I think Burnt Cape is not run properly and they could improve it, in coordinating and marketing" (BC2). Despite these critiques, others feel "the steering committee is made of prime stakeholders and is giving direction for the future" (BC5). Regardless of the steering committee's competence, the lack of a transparent and well-structured decision-making process outlining timelines, goals, objectives, stakeholders involved and resources available, fails to meet the criterion of being a strategic process.

5.2.1.2.2 Inclusive

The Burnt Cape Ecological Reserve steering committee is the arrangement for decision-making and this committee consists of a select group of stakeholders. With financial support from ACOA, the provincial Dept. of Parks and Natural Areas took the lead role to assemble this committee of six representatives in the "fall of 2003" (BC13). Members of the steering committee include representatives of NL Dept. of Parks & Natural Areas, Friends of Burnt Cape, the Town of Raleigh council, NL Dept. of Trade and Rural Development, the Regional Development Officer, and the Atlantic Canada Opportunities Agency (ACOA). On occasion, there have been additional participants at their meetings including the local Member of the Provincial House of Assembly (MHA).

At the same time, local community members voice different opinions about the steering committee's inclusiveness,

> "I don't know because I don't know much about it, I don't attend meetings and I'm not invited and I don't know when meetings are or anything. I know its done through the provincial park. I know the higher ups come in. The community is never invited to the meetings [that are] taking place." (BC2).

> "I think business is a stakeholder. I don't think they're involved. No, I think business should be involved and should be asked questions and you know…what do you think we can do to help the community as a whole and help the businesses survive here? I don't think businesses and a lot of stakeholders are involved in this process with the ecological reserve," (BC12).

Some may perceive the steering committee as a representative and inclusive group but local community members and local business community members have expressed real interests and concerns. The steering committee's attempt at being inclusive can be improved because it fails to include important stakeholders (i.e. local community members and local businesses, and regional and neighbouring community representatives).

5.2.1.2.3 Transparency

The criterion of transparency during the management stage is considered the principal hindrance of BCER's decision-making process. The steering committee does not draft minutes of their meetings, or produce public records of their decision-making process or outcomes of their meeting or stakeholder involvement. In the context of a small community like Raleigh, one could dismiss the need for diligence and ensuring a transparent decision-making process that is accessible to community members because of "word of mouth" or local communication networks. Such sentiments about the steering committee's transparency, and producing records were expressed as,

> "Yes, I would say… yeah. Everyone's involved in it. The whole community knows what we're doing. We don't go out and report after every meeting or something like that but if anyone needs to know what's happening, it's easy to find out or where the money goes,
> "No, we don't [produce reports] and there are some things, basically that you can't just go out and report. But as for the process, how it's moving along and where we are in the process, it's very open." (BC5)

Despite the above participant's perception of a transparent decision-making process, differing opinions were expressed about the steering committee's transparency and stakeholder involvement.

> "If there are two or three people running things in this community, in Raleigh especially and I think a lot of other communities are the same thing, if you're involved in something, that's all you ever know. I know Tom, Dick and Harry are on the committee but getting any information from Tom, Dick and Harry, I don't. All I know is they are on the committee…but with regards to what is taking place or what's been done or what they're trying to get done. It's just blank." (BC2)

> "Nobody in the community knows how the committee is selected. We don't know if you can volunteer if you want. Or if they're volunteers or if they're paid? Nobody knows anything about them. But when you're asking questions like that in a small community, you're pegged as a big mouth."
> "I don't know about it and many people in Raleigh don't know about it. Its like I told you, its like they're trying to cover up, its hush hush. Why can't we have a public meeting once a year because if I'm not interested I won't show up. But if I'm interested in my community and trying to help my community and trying to keep people, or try to bring them home. I would go and see if my assistance would be beneficial to them, if not...If this is a community thing like they say it is, then why don't they make it a community thing? Why don't they make it public?" (BC9).

> "So you don't think the provincial government isn't dictating what is happening there?" (BC8).

There is a clear and apparent inconsistency in the perceptions of the steering committee's transparency. It may be fair to consider specific information or decisions as sensitive to public dissemination, however clearly outlining stakeholder involvement, decision-making processes and being open to outside evaluation will contribute to legitimacy, credibility and fairness in the local and regional community.

This study limited its sampling to direct stakeholders in BCER, so broader community perceptions of the steering committee's decision-making process may not be precisely reflected in the above participant's perceptions. However, it would seem unlikely that community members would place more credibility or legitimacy in the steering committee considering they have limited or no access to the steering committee's decision-making process.

5.2.1.2.4 Enabling

The steering committee may have developed a decision-making process that is enabling but only to those on the committee. Current stakeholders may have the resources or technical literacy to articulate their interests in the decision-making forum yet these concerns become secondary when access and invitation to such forums are not offered to other stakeholders. Without access to participate, it becomes difficult for other stakeholders or local community members to participate in an enabling manner.

Some may argue the lack of public participation may also be due to the lack of interest from locals. Yet, concerns raised by BC9 (in Section 5.1.1.2.3 Transparency) and other genuine interests to participate are evident, such as, "If some stakeholders were aware, then I think, where you could be ready… then you could provide the best service for people coming to your community and even for the community," (BC12).

Opportunities for stakeholder input, outside of the steering committee, do exist because one participant explains how a local proprietor raised concerns about how the steering committee's project could interfere with the market niche.

> "when they were going to build the interpretation center, they said they were going to set up a craft store and that really upset one of the craft stores here because he was afraid it was going to take business away from his business. And probably the crafts they were going to sell there are not even remotely related to what he's selling. It's where the people don't really know what's going on. You know decisions are being made,…if its explained to him, [that] maybe its not the same kind of thing as he's selling, he might not have a problem with them."(BC12)

This issue may have been resolved after the steering committee's decision was made, but other potential issues may not be as easily resolvable. In some cases, the consequences may be irreversible. To avoid situations of irresolvable consequences, it would be in BCER's and the community's best interest to expand access to the decision making process to other stakeholders and enable participation in a manner so their input and contributions are considered valuable.

5.2.1.2.5 Respectful

Again, the dialogue within the decision-making process is limited to the steering committee with occasional opportunities for stakeholders outside of the committee to contribute input. Most research participants perceived the limited dialogue within the steering committee to be respectful, despite many of them not being a part of the steering committee. Others have described stakeholder dialogue as "respectful disagreement" (BC3) or "yes [respectful], but not everyone agrees with the issues" (BC6). It is important to acknowledge that agreement and respect are not synonymous and respectful disagreement is not a negative situation.

Circumstances of respectful disagreement provide a healthy climate for values pluralism (discussed further in Section 5.3.1), an important part of environmental decision making (Smith 2003).

At the same time, suggestions of conflict, mistrust and "infighting" within the steering committee were voiced.

> "I think it's encouraged some infighting. As soon as there is opportunity, [and] there are resources associated with it and communities fight about resources, let's face it. Because they're encouraged to think that there is a limited piece of the pie and they should fight for it. So there has been some conflict within in the community as to what should be the right priorities. Should they build this large interpretation center, should they put more money into cultural heritage and if they put their money into one and will nothing go into [another]? I think that has been a negative side." (BC1).

In a more specific instance, some members of the steering committee were involved in an environmental education curriculum project, and subsequently faced distrust from other steering committee members. It was described as, "there was some involvement and someone wanted another group to take over the finances and they had some mistrust in some areas," (BC5).

It appears there is respect between members of the steering committee, yet expressions of mistrust and doubt do exist. It becomes increasingly important and beneficial for the supporting agency (and funding agencies) to promote concerted efforts, common interests and relationship building in an atmosphere of collaboration and cooperation, and less of competition.

5.2.1.2.6 Constructive

Most of the research participants who have been directly or indirectly involved in the steering committee felt there is constructive dialogue within the decision-making process. Assessing these ideas becomes much more difficult to do without having first hand experience at a meeting. Furthermore, the decision-making process is restricted to the steering committee. As one research participant pointed out, "there is not feedback from me or anyone in the community" (BC9).

Perceptions of absent community feedback may be considered contentious because other research participants claim anyone in the community could "find out" the results of decisions made, but these circumstances fall short of being even passive participation. Passive public participation is characterized by the public being informed of decision making, whereas with the steering committee, the onus is on the public to seek outcomes of decision-making processes. This is especially true when no records, briefing notes or minutes are produced after committee meetings. While having a constructive dialogue among a limited circle of stakeholders may be moving in the right direction, without dialogue with a wider stakeholder group it falls short of fully meeting the constructive criterion.

5.2.1.2.7 Instrumental

Many of the research participants generally agreed that the outcomes from BCER's management have not reached its potential. Some of the outcomes realized by research participants include the protection of a unique natural habitat in their backyards, the allowance of local community activities on BCER and the seasonal employment of three local residents. Others have suggested more tourists have visited the Town of Raleigh who wouldn't have otherwise and consequently allowed for a few enterprises to survive. A great deal of anticipation awaits the development of an interpretation center to accommodate, attract and service many more tourists. Despite these outcomes, some participants feel there is a lack of long-term goals and priorities for the community and region. Without such vision and foresight, reaching substantial outcomes and goals will be difficult, or simply not possible.

5.2.1.2.8 Meaningful

This criterion is difficult to evaluate within the management stage because of the lack of records of steering committee meetings or the decision-making process. Generally, the participants in the steering committee feel their contributions are meaningful but again, this does not include the full spectrum of stakeholders. The input and concerns over the competition from

the interpretation centre's gift shop expressed by a local craftsperson illustrate a worthy example. The stakeholder's input was relevant and influential because adjustments were made to the interpretation centre's craft store to avoid duplication or competition of the local craft and art market. Yet, there is room to engage a wider audience of local and regional community members to provide meaningful, accessible and influential contributions.

5.2.2 Southwest Nova Biosphere Reserve

This section discusses the results of assessing the public participation criteria in the SWNBR case study. The results are based on research participants' experiences, responses and perceptions of their engagement, the decision-making process and the ensuing outcomes. In contrast to the other case study, SWNBR was not divided into two sections because the transition between designation and management was consistent and fluent, and generally with the same core group of stakeholders participating throughout the project.

5.2.2.1 Strategic

The processes of designating SW Nova Scotia as a biosphere reserve and its management have involved different strategies. Prior to designation, priorities were relatively straight-forward in seeking formal support from important stakeholders, drafting a strong nomination document and meeting UNESCO's criteria. Normally, after the designation, one could expect the proponents of SWNBR to continue on the strategic path outlined in the nomination document. Instead, in SWNBR, many of the initial years were spent retracing their steps to gain official support of important stakeholders who did not initially provide signatory backing.

Some of the research participants suggested producing the cooperation plan, a formal endeavour, helped formulate their strategy by shaping their vision and goals (SW1). Others suggested, "our goals and objectives are somewhat clearly spelled out" (SW16). Developing a sound and well-structured decision-making process warrants a collaborative approach and the support of key stakeholders, but it also demands identifying and outlining

"timelines, resources, stakeholders and objectives" (Pollock 2004: 31). Other perceptions have identified that not all participants have a strong understanding of the SWNBR's goals and objectives, leaving some participants describing the SWNBR (and its Association) as a "hollow organization" (SW 15), and "I think goal setting and future interests have not been really well worked out yet and is still in its formative stages" (SW14). Other participants share their bleak position and perspective on the project's strategy,

> "I don't know. If you come to me today and ask me what is a BR. I have nothing, I don't have a piece of paper, a brochure. We don't have anything. We don't have anything that says this is what we are, this is our goal, and things like that. What's our mission statement? Where you're going? I don't know. I can't even explain [it] really, well if someone says, 'well, what's a BR and what are you doing?' All I can see is the good from the research work around here." (SW18).

Others have expressed their concerns of moving beyond the research activities and the positive outcomes stemming from it,

> "now the SWNBRA has to think about where we're going because this is off the ground, real and funded …and even though we're here and we're also a part of this, what are the other activities that are not part of the research institute agenda that is part of the BR agenda? Where are we on outreach and education? Is there some piece of the agenda that this group should look at and let them MTRI [Mersey-Tobeatic Research Institute] do its biodiversity research stuff and let them worry about getting funding. What about the socio-economic side and sustainable development? There is nothing there." (SW2).

Others have acknowledged the importance of foresight and visioning for long and short-term goals.

> "I guess also, a key set of goals and action plans are another barrier that can easily be remedied. You can start working at targeting activities to accomplish the whole.
> "Right now I'm not sure they exist.
> "The lack of them. Yup. You have a big concept and its great and you have large goals within there that involve development and research and people and the environment. But I haven't seen anything that breaks them down into finer things or finer objectives. I haven't seen any plan that would help identify how those objectives are going to be achieved. It may exist but I haven't heard anything about it." (SW5).

Having developed a cooperation plan is likely a very helpful and valuable step to improving a strategic decision-making process, however, there appears to be room for improvement. Key tasks need to be clearly outlined and made available to all stakeholders. Collectively establishing a vision of immediate and long-term goals within a well-structured decision-making process could help facilitate informed and strategic participation.

5.2.2.2 Inclusive

The concept of biosphere reserves supports inclusion of community values, interests and members in decision-making processes. The 1996 Seville Strategy highlights the idea of inclusiveness by endorsing a collaborative approach with partnerships bringing together all interested groups and sectors (Ravindra 1998). Since these initiatives are voluntary, participation should also be voluntary (i.e. no force, manipulation or coersion). Invitations for participation, however, are also important. Offering opportunities to participate is equally as important to the concept of participation as are ideas of voluntary engagement and fairness.

Almost every research participant recognized that gaps in representing stakeholders exist, however realistically filling these gaps is accompanied with challenges and risks.

> "This is our approximation of the stakeholder mixes out there. Do we have mink farmers? No. Should we have them? I don't know. I'm sure there are things missing that we have not addressed." (SW2).

> "The biosphere reserve has always had difficulty filling in the quota which it had originally set up." (SW1)

> "We, the organization encourages anyone who wants to get involved, to get involved, to become a director [of the Board]. We're not excluding any one factor, anyone. We're a very open organization that anyone can take part in. The problem is the people are still, have an…unclear understanding of what the purpose is. You go to a meeting and talk about the governance structure of the organization and the different issues they talk about but they don't get a sense of what the purpose of the organization is." (SW15)

Recognizing the gaps in the stakeholder mix is an important and helpful chance for improvement. Two major groups repeatedly mentioned by research participants who have not been involved in the biosphere reserve are the First Nation groups and the Marine or Fisheries

sector. While the former was approached early in the biosphere reserve initiative and many times afterwards, the latter was intentionally avoided.

Both First Nation Bands (Big Bear and Acadia) were contacted and despite many efforts by the biosphere reserve proponents to engage both bands, neither one accepted the offer to join the SWNBR association. Although this research project was unsuccessful in conducting interviews with representatives of either First Nation Band, some research participants acknowledged their close association with the aboriginal communities or their Mi'kmaq heritage. Their input suggests aboriginal participation may be absent because of pre-determined inclinations toward a specific person and that aboriginal participation should be sought outside of the first nation reserves.

> "I don't believe they've been involved in the designation. They're not involved now. Although the biosphere, from what I've heard, has expressed interest in having a First Nations person on their committees and board. But from what I heard, they had a very specific idea of who they wanted and that person didn't fill in. And so, they don't have any first nations representatives." (SW20).

> "Typically what happens is you have a band or reserve that is represented which are not the majority of the native people living in the area. Often the people who live off the reserve have a larger effect because there are more of them but they also spread over a larger area. A number of these initiatives, the organizers go right after the band councils and forget there is a whole subset of people out there who haven't been consulted. For example, in SW Nova you have Acadia First Nations, you have a large reserve in Yarmouth. A lot of members of that band that live in the area and not sure how many of them are involved or if there is representation on reserves or off reserve." (SW5)

Some of the research participants thought the First Nations Band's disengagement was due to a preferential focus on project-based endeavours, the desire for immediate and visible benefits, a perceived compromise to their land claims position and undetermined cultural differences.

> "The saddest part is the aboriginal component because I really feel and its not, for not trying but we never got that group to respond or sit as players on the nomination document. Keji has very strong historic ties to the aboriginal community. We sent them lots of information and they never showed up at the table. It wasn't a lack of trying but it was sad they didn't respond and that we

didn't get their input into the process and the document. We did have their approval but we didn't have them at the table." (SW10)

"Well, I shouldn't say that everyone is on board. First nations organization that we have tried continually without success. I think its because we're not coming up with a project and sitting on a board doesn't appeal as getting involved in something that provides direct benefit. I think there is lots of work still left to be done on the first nations community." (SW13).

"We're still struggling to get representation from the first nations people and we've contacted several people. We've interests in it but with regards the First Nations people, today they want whatever they do to be meaningful. And work with their own communities because we all know the trial and tribulations they are confronted on a daily basis. With regard to having someone sitting on the board or having First Nations representation, we haven't been successful in that quest yet. It's not from a lack of trying and we are pursuing that on an on-going basis and we hope we accomplish that in upcoming days and years." (SW16)

"We worked at reaching first nations and talked to them because people are supportive in principle, informally. I think I talked to them…Their response as an organized group is that they didn't want to be signing on because it implied potentially a land ownership or you know…issue. And so they wouldn't sign on formally but they were consulted and they didn't certainly oppose the nomination of the Biosphere Reserve but they didn't want to sign formally.
"Land claims. Land claims, land ownership. You know, they just seem to say, 'no, we won't,' we're not involved in any of those kinds of things."(SW 3)

"Oh yeah, there have been attempts to involve first nations groups. There are only two or three bands. We know who the contacts are and where they are and they reside within the BR. But so far we've been unable to engage them in any dialogue. They're very…I don't know if its peculiar to here, or whether its first nations in general but they are very cautious to being co-opted in our colonial agenda. They don't want that perception. They're very cautious about where and how they spend their time and what they think is of value to them. To date they've never been at the table."(SW2)

Despite unsuccessful attempts to engage the First Nation peoples in the biosphere reserve process, perhaps further attempts to re-engage the SWNBRA and the First Nation representatives would be helpful. Such attempts may need to explicitly and openly acknowledge that First Nations participation with the SWNBR will not and should not, compromise their land claims. As well, seeking First Nation's interest (and perceived direct benefits or desirable projects) in the pursuit of finding common interests may help develop a meaningful and respectful dialogue between them. The following comments may provide a favourable and optimistic light for initiating new dialogue.

> "But because it's [SWNBR] becoming such a big thing now, there are some people in the communities who are saying, "Wow, we need to be involved in this and we need to be partners". They're thinking in ten years or so, we'll be partners. This is what I'm hearing from a chief and another respected elders from both of them [bands]. They would like to be involved in the future. But I don't see them taking these steps from both sides." (SW 20)

The second notable stakeholder group missing from the Biosphere Reserve decision-making process was the Marine sector. This sector includes the fisheries, marine tourism, oil exploration and extraction and marine transportation. Some participants explained the intentional exclusion of this sector allowed the biosphere reserve initiative to begin at a manageable size, reduced the complexity of reaching out to and educating new networks; and reflected the fear of replicating the obstacles encountered in the Upper Bay of Fundy Biosphere Reserve Initiative.

> "Fishing is a bit of a gap but there were several discussions about whether there will be coastal or marine elements to the biosphere reserve. But they decided, 'no'. There was careful thinking about who was to be involved." (SW1)

> "I don't know to what degree the biosphere reserve incorporates coastal areas but I think it does. As far as I know, I don't hear about fisherman or fisherman organizations. That's an integral part of the Nova Scotia and in particular southwest Nova Scotia. That seems like a notable absence." (SW5)

> "In terms of Marine, it was a conscious decision to not go that way because it was another jurisdiction and it had controversy associated with it and people would perceive that this is part of the Biosphere reserve, they would put on the panic button and close it up as a protected area. In a way it influenced it. You start with a manageable size and later on when you have the interest and capability to organize a marine component, then you can." (SW 3).

> "The marine industries and communities, whether is fish processors, ground fishers or lobster association. I don't know how they're organized or what they're called, those connections in the marine realm that have been made. Those are the stakeholders that weren't involved and are not involved in the biosphere reserve.
> "The biosphere reserve may envision something with a high degree of coastal land protection but their doing that without input from clam diggers, scallop harvesters, and mussel farmers, and those stakeholders don't have a role. I think that's a big gap right now." (SW13)

> "The other people I would say who have not really been in are the fishing communities, because the concept is land based. It is important to understand that in this part of NS, the primary industry is fishing.

> "Yet the major industry exploits the ocean, and those industries, because they're not considered part of it, were not drawn into it as stakeholders. But they all have a stake, because after all, the fishermen have camps. The standard thing is you fish in the winter, make a pile of money and maybe in the spring and fall, summer time they're mostly not fishing and in their camps in the backwoods and in the fall they're hunting deer. So you got a significant proportion of the population whose industry is out of it." (SW14)

Other stakeholder groups noted by the research participants not currently engaged include the agricultural sector, the manufacturing sector, village and town municipalities, and the general public. It becomes important to re-evaluate the definition of a stakeholder, and acknowledge the value of drawing in stakeholders (i.e. parties affected by, or who affect or have a genuine interest) into the decision making process based on principles of fairness. While valid arguments can be made for exclusions (intentional and unintentional) like the one below, the decision-making process is evolving and should be consistently improving towards open, comprehensive, participatory well-informed decision making processes.

> "So my answer will tend to be, of course there were stakeholders who were missed out, with such a big endeavour, it would be impossible that there couldn't be, that there wouldn't be, but on the other hand, there were substantial efforts beforehand to ensure that as many people were informed as possible and I think it was quite well done."(SW14)

5.2.2.3 Transparency

Transparency of the biosphere reserve's decision-making process has been repeatedly reaffirmed by most of the research participants. Transparency is an important factor in developing credibility, legitimacy and trust with other partners, stakeholders and the public at large.

> "It has to be transparent, not only within the BR but within our whole social framework. If it isn't, you're not going to able to gain the trust of the people. You're not going to get the people who have the integrity, the knowledge and ability to support these organizations if its not transparent. You have to be able to see why or how decisions are made?
> "And I think that's very important. And to have some integral side of an association and people have to be able to look at that association and what they are trying to accomplish for the better or the good." (SW16).

The key activities supporting this shared perception of transparency are the public announcement of SWNBRA's meetings, SWNBRA abiding by the protocol to remain a NS registered society and the annual general meeting. As well, SWMBRA records minutes for each meeting, which are distributed not only to the participating stakeholders in attendance but to the absent members of the board and all eighteen municipalities within the biosphere reserve.

> "When we send out minutes to the councils, we'll send out minutes to the 18 municipal units. So, we can legitimately put our hands on our hearts and say, 'oh, well at least we're in communication with the other entities, even though they're not at the table as a member of the board.'" (SW2)

Other research participants have shared slightly different perceptions of the biosphere reserve's transparency by expanding its definition. This includes expanding beyond clearly demonstrating how and what and by whom decisions were made, but also to assertively increase public visibility. This evokes the process beyond passive openness, but also to actively share, distribute and announce the outcomes of the decision-making process.

> "It's transparent in that there is nothing hidden. It's not transparent in the sense that it's not easily available to everybody. So I think there is two parts to transparency. One is where people make things opaque, so people don't find it easy to understand and I don't think that's the case here. I think their intentions are good with respect to transparency. Then there's perhaps not so much transparency but visibility. I think transparency is high but visibility is not so high."(SW14)

> "I would say no because I haven't seen anything. I mean, I haven't tried to get into the depths of the organization, but I haven't read about it in the media. I haven't seen anything in the local newspaper in Caledonia, or Annapolis Royal, or the Chronicle Herald. I haven't seen anything on TV. I hear little inklings of things every once in a while," (SW5).

> "I think it's transparent within the group that participates. Again, because of…,"(SW6)
> "lack of knowledge and awareness,"(SW9)
> "and getting that out,"(SW6).

In addition, transparency is also characterized by having a process open to outside evaluation and access (Morrison-Saunders & Bailey 2000; Pollock 2004). During the fieldwork, this research project experienced partial and limited access to the files of the SWNBRA. Initially,

this research project was granted access to previous minutes, correspondences and general files by the chair of the SWNBRA, but later the secretary limited access to documents that could be directly requested. This proved to be challenging for an external investigation, as this researcher could not identify specific target documents, through pre-existing knowledge of existing documents or their specific titles. Limiting access to the SWNBRA files may have been imposed to protect privileged information (i.e. employee records, "in camera" session notes, etc.) or staff did not have the time to accommodate this research project's requests, but a listing of accessible and available documents did not exist, which would have been helpful. This experience demonstrated a limited openness to outside inquiry.

Nonetheless, inconsistencies in the perceptions of transparency exist. Some research participants perceive the decision making process to be fully transparent while others consider the low level of public visibility to be lacking transparency. The inconsistencies in stakeholders' perceptions coupled with this researcher's experience of limited access to records certainly leave opportunities for improvement to provide a publicly visible, open and accessible decision-making process.

5.2.2.4 Enabling

Having a decision-making process accessible to stakeholders can help facilitate public participation and perhaps engage otherwise unrecognized stakeholders to participate. The public forum should be enabling and allow participants to articulate their interests, concerns or priorities. Articulation will depend on technical literacy, knowledge level of the citizenry or stakeholders, and resources available (Pollock 2004; Rowe & Frewer 2000).

Hosting public meetings during the development of the cooperation plan demonstrated a process of enabling stakeholders to voice their interests. It was during these public meetings that community members, county council members (mostly Annapolis Valley Town Council members) and other stakeholders expressed their desire for fair representation on SWNBRA's

board and the implications of buffer zones. SWNBRA developed the cooperation plan, and subsequently a sound governance structure for the board and the rezoning (and removal of a buffer zone) in the biosphere reserve to the satisfaction of the five municipal counties and stakeholders. In this case, addressing the concerns of Annapolis Valley council with an amenable outcome demonstrates the process not only enabled public participation but also affirmed the stakeholders' concerns and contributions were valued and relevant. This example may demonstrate the enabling quality of the decision-making process, but it is not consistently enabling. One of the research participants described how their contributions are valued and perceived relevant to the decision-making process,

> "I guess…I was in business and politics enough to know that I don't want to be in politics. So I know the corruption in both. And I know behind the scenes what goes on. At one point they told me, the guys at one of the meetings said, 'well, maybe you shouldn't be involved.' But I would hate to just quit...you know." (SW18)

While this stakeholders' comments and positions may not be representative of many people or may not align identically with values of certain social circles, and maybe deemed contentious, it is still imperative for arguments of gaining local legitimacy to appreciate and value stakeholder input and contributions. This is especially important if the input is presented in a respectful and constructive manner because value pluralism is inevitable and a necessary component of increasing our understanding and improving decision making processes (Smith 2003).

Others participants argue the lack of input and engagement from the grassroots or public at large reflects a poorly accessible process that is misaligned with reality and other people's priorities.

> "I don't think there is a lot of scientist or academics, in general, or politicians or people with higher paying jobs can actually understand or remember or acknowledge that other people live differently. And there are other things that are important to them than what [we think] there are…you forget there are people working manual labour and they're not concerned about their kids going to university but to finish high school.

> "And I think a lot of us forget and I know my salary comes a lot easier than the salaries of others who tend to live in these local communities. It's just a different way of life. But a lot of people making these decisions and coming up with the ideas and can't relate to the other way of life. And there is a lot of distrust between them.
> "I think there are major societal barriers that have to be dealt with when making decisions with the grassroots level."(SW5).

Gaining public input is valuable yet challenging to accomplish. The SWNBRA has invested a great deal of effort into gaining the formal support of specific key stakeholders (i.e. municipal counties and the provincial government), and appears to be setting their targets on the public at large in the near future. The communication strategy described by some research participants seeks to inform and cultivate support from the public about the significance and opportunities associated with biosphere reserves.

One of the key components of developing communications, activities, projects and other processes is the capacity of community to mobilize their resources for a particular goal (i.e. public participation in decision making processes). In the case of SWNBR, most of the resource mobilization has been based on social capital, voluntary convictions and limited economic support. While the idea of capacity building is a topic relevant to this section, it will be discussed in further detail in Section 5.2.2. As well, other barriers restricting stakeholder involvement identified by research participants will be outlined in Section 5.3.2

5.2.2.5 Respectful

There is a strong and consistent perception from most, if not all, of the research participants of a respectful atmosphere associated with the biosphere reserve's decision-making process. Many noted disagreements exist between stakeholders yet the dialogue remains respectful. The SWNBRA "directors are very cordial" (SW4) and the nature of their activities are described as,

> "The board operates on majority rule but it tries to seek consensus where it can. We spend a lot of time in discussion before a vote is taken. So there is tendency of seeking consensus and that requires a certain level of respect among participants.

> "One of the primary purposes is to provide that forum for exchange and issue resolution. We haven't got into issue resolution but we dabbled in the early days around the clear-cutting issue in the western part of the province where the board or association could provide a forum for resolution or issue identification or issue discussion leading to resolution."(SW13).

One participant described respectfulness as an inherent quality of Nova Scotia's cultural and social systems.

> "Its very Nova Scotian to be respectful. Its doesn't go over well here to be disrespectful. Its not part of the culture to be disrespectful. It's an aspect of Nova Scotia I like."(SW14)

Another participant provides a suggestion of improving stakeholder respectfulness beyond being courteous and affable but to appreciate and consider other positions, priorities, knowledge bases and investigative interests.

> "We have to come to grips with that as a society, is the fact that the science going on in the ocean is related to the science in the stream and estuary that feed into the ocean. And once we get a true understanding of that, our knowledge of how to protect those is going to be better. Do we agree with the practices of each other? Are we respectful? Maybe not of the practices but of the individual, yes."(SW16)

Expanding the concept of respectfulness to include consideration of other perspectives and different forms of knowledge is an important part of mutual learning and problem solving. This topic will be discussed in further detail in Section 5.2.4. - Knowledge Sharing. It certainly seems that the SWNBR provides an atmosphere for a respectful forum for exchanging ideas, building trust and responsible relationships.

5.2.2.6 Constructive

As the biosphere designation is so new and still in its formative years, many of the research participants felt opportunities for dialogue have been limited, but what has occurred is perceived as constructive. The example mentioned earlier, of Annapolis County council appealing for a sound organizational and governance structure "was difficult to deal with but being constructive in the sense of being thoughtful about it." (SW14).

Another example is the dialogue involving the buffer zone issue, "if we go back to the buffer issue, that was a contentious issue we had dialogue on and it was constructive," (SW15). Public meetings were held to exchange ideas and perspectives, while also providing feedback on a difficult subject matter. Everyone was not unanimously happy with the outcome of removing the buffer zone from the biosphere reserve, thus reducing it to a core protected zone and an area of cooperation, however it was an agreeable compromise.

One research participant acknowledged the constructive nature of the decision-making process but was disappointed with the incremental progress made and excessive attention to details at the expense of addressing fundamental issues.

> "The dialogues are…we spend a lot more time worrying about the fine tuning of wording or particulars instead of the getting the big concepts out there and getting going on them."
> "At the end of the day, very little concrete actions that arise form that dialogue." (SW5)

Others have expressed more optimistic and favourable perceptions of the dialogue between stakeholders. The nature of the dialogue and the exploration of different ideas are viewed as valuable and informative, especially when rooted in the research agendas of the biosphere reserve and the Mersey-Tobeatic Research Institute.

> "There is dialogue that may take place that is more discussion to help us sort out the flow or route of where we want to be. From that perspective, all dialogue is constructive as long as it feeds you to a means. I think with our organizations MTRI and SWNBRA, the dialogue brings us around to where we want to be and is necessary to have that dialogue so we can have a total understanding of how people rationalize things, how they are thinking and where their mind set is associated with, where they want their organization to be and why they're associated with the BR. That helps us understand how we can support them and how they can support us?"(SW16).

Dialogue certainly can become much more informative when viewed with an investigative lense and constructive if it's associated with respect, transparency and representation of all stakeholders. The dialogue between SWNBR Board members is constructive and allows for information exchange, but it is limited to the stakeholders within the Board and not the general public.

5.2.2.7 Instrumental

To maintain and cultivate broader public participation, it is important to ensure that the decision-making process is instrumental. This relies heavily on reaching strategic goals and producing substantial outcomes to create a sense of relevance and effective participation (Pollock 2004). The research participants cited many positive outcomes and impacts, yet the most common response describes the substantial potential of the project and how it still remains in infancy. Thus, the results described below appear significant, but they are perceived to be just the tip of the iceberg (i.e. the beginning to a long list of potential outcomes).

Perhaps the most substantial outcome from the biosphere reserve designation is the research organization of the Mersey Tobeatic Research Institute (MTRI). This separate but linked association helps fulfill part of the logistics function of the biosphere reserve and is described in Section 4.2.6. of the previous chapter. MTRI fosters a climate of problem solving, knowledge sharing and a pursuit of deeper understanding. This has contributed to increased collaborations and partnerships, as well as an increased exploration of sustainability.

> "But I think people are at the table and there is good discussion. Sustainability is starting to permeating discussions and probably filtering back to the councils. "So grassroots forces the government to make it sustainable. I like that link because it makes everyone involved and means that objective setting is a common understanding approach and of course there is the whole question of empowering people to understand what is going on." (SW4)

> "MTRI came into existence as a result or is part of the movement that created the biosphere reserve itself. That's symbolic of the way things are going. If the research provides information which then has effects and those effects are felt over the long term. And the ripples that come from increased knowledge are spread over a long period. I think given the nature of the venture. We can't expect to see big influence in the short-term but [we] should see them in the long term. Again, MTRI is an indictor of that because it's an effect that produces the long-term ripples."(SW14).

> "I think the single most important benefit to date has been the raising the public awareness of economic development and the environment are in fact both sides of the same coin. That good decision-making will result in economic development, which will not have adverse impacts on the environment and in some cases it may even enhance the environment…it has provided an opportunity for the people in government and non-government sector, and industrial sector the opportunity to come together to work together to establishing

> policies and promoting policies that will result in sustainable economic development,"(SW11).

Some of the participants describe the impacts associated with the biosphere reserve's international designation as, "I think the largest gains are the logistics piece and profile of the region" (SW13). Others elaborated on the impact of designation because it provides a unique regional identity, credibility and pride.

> "It was special enough to be designated as a biosphere reserve, then gosh, we must have something special here."(SW12)

5.2.2.8 Meaningful

This is perhaps the most challenging criterion because meaningful participation involves having a process relevant to participants, with outcomes contributing to positive changes. Deliberations have resulted in impacts on policies, such as the governance structure adjustments by the SWMBRA board, which in turn encouraged formal endorsement and participation from all five municipal county councils. Various sectors have experienced benefits from the biosphere reserve and its activities, such as a participating forestry company and possibly the academic community.

> "Because BoWater has come with, what it seems like open minds or open arms to Canada Parks, to [NS] Protected Areas Branch and [NS Environment and] Labour and researchers. We have a pretty interesting opportunity here in this part of the biosphere reserve with MTRI, to experiment and make decisions about how to do forestry or with fisherman, so they don't catch chain pickerel. I think we have a lot of opportunities to when we come together to use research to make some good decisions. That's working really well for BoWater."(SW1)

> "I think the academic community maybe benefiting. If you're doing research in a BR, don't you think it would be helpful in getting grants? I don't see the benefits reaching the common people who live here or the grassroots."(SW17).

While some sectors may be better aligned with the biosphere reserve's goals and activities to gain from the benefits, many participants have recognized the disconnect between participation processes, impacts and relevance to the general public. Bridging this gap is crucial to meaningful participation and it has not gone unnoticed.

> "we were talking about what does this mean to our community, here…for the local community. If we can't figure out what this mean to us, to our local community and we're actively involved, how is somebody 100 km up the highway going to relate to what we're doing? It was all part of that experiment. It's still an on going experiment. It's still going on as part of the debate of how to reach into the communities, how do you take the values that are implicit in the BR and make a difference in how people behave and how they use the landscape and what sort of things they do with the landscape in terms of economic communities?"(SW2)

Gaining meaningful public engagement is vital to developing sustainably and carving a difference in the community. Yet the real-life challenge of effectively implementing meaningful participation cannot be underestimated, especially when trying to reach the grassroots level.

5.2.3 Public Participation Criteria Summary

The figure below presents the results from the application of public participation to the case studies in an alternate form from the tabular summary in Table 5-1. The graphical representation of Figure 5-1 presents the results in a cylindrical format and is an adaptation of the AMOEBA approach (De Kruijf & Van Vuuren 1998; Ten Brink et al. 1991). Each corner of the octagon represents a public participation criterion. The centre of the octagon is marked as "0" and indicates the criterion has not been met at all. Fully meeting a criterion is shown as a "2" and is marked at the appropriate corner of the octagon. If an evaluation indicates all the criteria are fulfilled then the entire octagon is filled, otherwise the strengths reach the octagon's perimeter and the weaknesses remain near the centre. The patterns on the radar graph overlap but follow the data patterns of those behind them. In other words, the patterns in the front do not hide shapes behind them and nothing is hidden behind the overlaps.

With the Burnt Cape Ecological Reserve case study divided into two, the designation stage exhibited better performance on more public participation criteria than the management phase. The designation process was directed by the WERA and was assessed as strategic, inclusive, enabling, instrumental and meaningful. The management stage can be considered to display less effective public participation because it did not fully meet any of the criteria. More

notably, this stage failed to meet the transparency criteria at all and various research participants raised this issue.

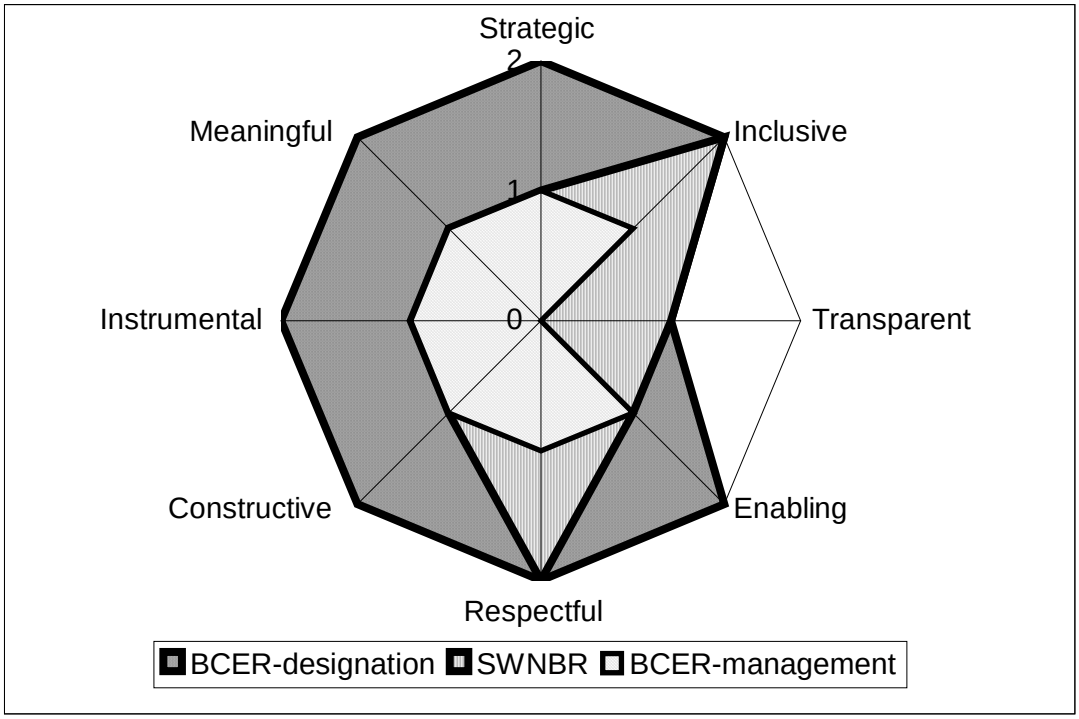

Figure 5-1. Radar Representation of the Public Participation Analysis (overlaps follow same pattern as those behind).

Applying the public participation criteria to the Southwest Nova Biosphere Reserve produced different results and exhibited diverse strengths and weaknesses. SWNBR's two strengths are its inclusive process and its respectful engagement. In addition, the initiative partially met each of the remaining criteria applied.

5.3 Other Opportunities and Challenges

This section discusses themes and issues emerging from the primary data outside of the public participation criteria but relevant to the other fields (i.e. socio-ecological sustainability and political ecology) informing the conceptual framework. Although these opportunities and challenges are presented separately from the criteria, they are highly linked and interdependent with the public participation criteria in pursuit of understanding and developing fair, legitimate

and accessible decision-making processes. In turn, highlighting and discussing these emerging issues may illuminate opportunities for solutions that enable sustainable resource governance and politically equitable institutional arrangements. Themes mentioned by research participants include whether projects are representative of the communities' interests or local actors' interests; the need for capacity building and financial support; the importance of recognizing and respecting perceived individual and collective identity; and the challenges of knowledge sharing.

5.3.1 Local vs. Community Conservation

The need for public participation in decision making processes is not disputed in the academic literature or in practioners' handbooks (Renn et al. 1993). Much of the debate around public participation has focused on the political and social mechanisms of participation, the authority given to the public and who from the public can participate (Peters 1996; Renn et al. 1993). The aim of shifting from top-down and centralized policies to decentralized approaches seeks to widen grassroots or community participation in decision-making processes and resource management. This shift intends to develop reciprocal relationships "between service recipients and providers thereby increasing the efficiency and accountability of the latter and fostering a culture of civic activism and political engagement in the former," (Raco & Flint 2001: 586). In terms of natural resource management and conservation, strengthening the voice of the public and empowering the local has been couched under such titles as local resource management or community-based conservation (Durant 2004). At the same time, it has opened up debate around the definition of terms and the assumptions associated with these concepts.

Firstly, the terms "local" and "community" are often used in the scholarly literature, policy maker's discourse and in grassroots' dialogue frequently and almost interchangeably. They have come to mean "people, places, institutions or cultural practices – or all of these at once" (Berry 2004: 82). Secondly, there is an implied equation of local with poor, marginalized, ordinary or less informed (Owens 2000). Thirdly, there is an assumption that local participation

will endorse an equitable distribution of political power and economic opportunities. Lastly, Berry suggests the assumption that "local people have both the incentive and the knowledge to manage environmental resources in an effective and sustainable manner" (Berry 2004: 80). All of these assumptions are relevant in part or entirely to each of this research project's case studies.

Many participants in BCER used the term "community" and "local" interchangeably and when asked to define community, two key facets were often raised. Community was often described as a place or geographical location, with unique or identifiable physical features, i.e. the cape and the town of Raleigh. The other main component described was the various relationships between different groups or actors, such as working, living near or sharing lives together. In the case of SWNBR, research participants defined community with nearly identical ideas to those in BCER. Similarly, their definitions also included a geographical component, as well as the variety of relationships between different actors or networks. Describing community with two key facets of physical or geographical features and networks of relationships and interests implies a sense of fluidity and shares some ideas of community described in the academic literature. The scholarly discourse, however, suggests focusing less on the ideals of community and more on multiple interests and institutional arrangements (Agrawal & Gibson 1999; Berkes 2004).

In response to asking research participants to define a stakeholder, a wider variety of responses were provided, but there were many commonalities worth acknowledging. First, most participants voiced the idea of vested or legitimate "interest" in some form or another (i.e. "claim", "interest", "stake", "concern" etc.). These terms were often expressed as having an impact on or having been impacted by an initiative or project. Second, this genuine interest could take on an economic, social, ecological or cultural form, and the degree and intensity could vary. Third, a stakeholder could be represented by an individual, a group or organization, a company, a community or the public at large. Last, the vested interest might not be recognized or understood by the stakeholder, despite its existence. It's becoming clear that the concept of stakeholders is broadening as the understanding of the connections and interdependence among a variety of

actions, networks and agendas becomes deeper. This implies a dynamic definition of stakeholder, which will have implications in future initiatives and participation. As a final note on stakeholders, one research participant suggested changing the term "stakeholder" to a more appropriate term such as "shareholder" because "Literally, a stakeholder is, in a gambling situation, one who hangs onto the money that is being wagered and then disperses it after the event. A shareholder is someone who has an interest in some venture" (BC3). Regardless of its historical origins, the term stakeholder holds a unique role within the narrative and discourse of community-based conservation, participation and place-based governance. Perhaps what is more important to this study is the institutional implications of community and stakeholder concepts for public participation. At this point, however, it may be worthwhile to revisit the reasoning for selecting the case studies.

One of the initial criteria for selecting a case study was the intent to study conservation projects that were community-based and, hopefully, continued to have community involvement in its management. SWNBR was assumed to be community-based and on a voluntary basis because these are two of the criteria set by UNESCO to successfully select an application for a biosphere reserve. In the case of BCER, a conservation professional working in Atlantic Canada suggested the project was community-based with the community still heavily involved in the project. Both conservation projects can be considered community based but other perspectives could disagree.

Both case studies were affected by external influences in the initial stages of development. In BCER, the initial discovery of the unique plant populations was by Harvard botanist, M.L. Fernald in the 1920's, and subsequently by a keen group of botanists almost 60 years later, also from outside of the geographical community. Sue Meades and the other members of the NL Wildflower Society researched, informed and mobilized particular members from the town of Raleigh to initiate protecting Burnt Cape. Shortly afterwards, many other community members supported the protection of Burnt Cape Ecological Reserve, but the catalyst was an external party.

SWNBR's case has a less distinct situation. On a national scale, interest from the Canadian Biosphere Reserve Association (CBRA) in having a representative Atlantic Canada biosphere reserve can be argued as an external source of the conservation project's catalyst. However, regional academic circles were interested in and considering the value of developing a biosphere reserve in Nova Scotia. For example, Nick Hill held a workshop to consider the opportunities of having a biosphere reserve designation in Nova Scotia. The biosphere reserve designation may have had external sources influencing the initiative, but regional and local networks fostered it.

Some scholars suggest a clear distinction between the use of the terms "local" and "community", despite often being used interchangeably and assumed to be homogenous units. The distinction between the two terms emphasizes the differences in equity and political might among the different stakeholders within the group of interested parties. Some suggest "local" refers to actors with privileged positions within the region – often elites or actors with access to resources and political power. "Community" alludes to a wider collection or networks of actors based on localized geo-spatial identity or interests in resources or common issues (Milley & Novaczek 2005). Such a distinction begs how much "community-based" initiatives represent the values and interests of the wider community or a few privileged elites or empowered actors within a community.

WERAC's hosting of many public hearings and meetings throughout the designation process provided opportunities for citizens of Raleigh and nearby towns to voice their concerns and interests. These exercises may not have necessarily reflected the wider community's future interests in Burnt Cape Ecological Reserve, however, they did offer opportunities for parties interested and available to attend to express their concerns. The situation is different with the management stage (and the steering committee) because a public forum for exchanging ideas between the wider community and the stakeholders on the steering committee does not exist. The

management stage of BCER may reflect a situation of limited local participation, and possibly not reflective of community interests and values.

Both the BCER and SWNBR cases have demonstrated controlled deliberations. WERAC's public meetings for seeking and representing community members' interests were certainly helpful and progressive. SWNBR's outreach project and development of the cooperation plan aimed to seek and incorporate public concerns in different areas of the biosphere reserve region. These concerns led to further participatory meetings or workshops focusing on the SWNBRA's governance structure and SWNBR's buffer zoning. These events demonstrate applications of participatory deliberations despite only being offered within a restricted window of opportunity within the conservation projects. At the same time, both of these cases have opportunities to improve and incorporate public participatory deliberations as an ongoing component of their decision-making processes.

5.3.2 Capacity Building

A hurdle repeatedly brought up by numerous research participants was the inadequate and unstable economic support to deliver many of the objectives or functions of the conservation projects. This restriction was occasionally brought up not as a financial issue but more as a restriction of resources. This concern falls under the topic of capacity building, which has become an important theme in many community conservation and development projects.

The concept of community capacity building has been gaining an increased profile in academic literature and its roots have been credited to economist Amartya Sen and his discussion of development as freedom (Mendis 2004). Many of his arguments rely on the efficiency of market mechanisms to allocate resources for individual choices. An important idea relevant to this study is his stress on the removal of barriers or "unfreedoms" that leave little choice and opportunity for individuals to improve their development or enhance their well-being (Batterbury & Fenando 2004). Community capacity building widens its approach beyond market

mechanisms. Community capacity building involves assessing various forms of capital (natural, social, economic, human and information) within a community or group, and organizing or developing relationships to mobilize these resources which can help achieve a goal or initiative (Mendis 2004; Simpson et al. 2003). This important theme was not equally expressed across the two case studies. SWNBR research participants were more vocal about the lack of financial support and the biosphere reserve's limited capacity to deliver its goal.

Some of the key advantages of the BCER were its support from outside sources, the provincial government, and legislative mechanisms. In the months before Burnt Cape received its provisional reserve status, the NL Parks and Natural Areas Division submitted a proposal to the Nature Conservancy of Canada (NCC) for their support of securing the long-term protection of the reserve. This invitation proposed assisting with ecological rehabilitation of Burnt Cape, a biological inventory and with guide/interpreter training. The provincial ministry was enabled to proceed with the protection of Burnt Cape because of "NCC's donated funds" and formal endorsement (BC5). In addition, the WER Act's legislative mechanisms helped build local legitimacy and backing for the designation of BCER.

After BCER's designation, formation of the steering committee to direct the development of BCER's tourism opportunities has yet to fully engage the local and regional capital forms. In its formative stage, however, it successfully "received $100,000 from ACOA for the [interpretation centre's] concept plan and [guide] booklet and repairs of the road,"(BC13). Having gained the financial support from the federal funding agency can be considered a short-term gain and may increase chances of further funding support in the future. At the same time, gaining community participation through deliberation and careful consideration of social impacts is a significant contributor to successful and sustainable community development projects (Simpson et al. 2003). Participation to determine the agenda and strategy includes assessing the community's needs, available local and regional resources, available contributions, and forms of capitals (locally and regionally) rather than relying on the steering committee and its members'

agenda. Sentiments of feeling isolated from the decision-making process and negligence of community member's contributions to the future of BCER have been noted in Section 5.1.1.1.1. Restricted agendas and little community engagement may lead to a lack of project ownership and have long term viability effects on the BCER (Simpson et al. 2003).

SWNBR had less financial support during its designation and management. Social and human capital within its region have provided most of the biosphere reserve's capacity to fulfill its goals. It has relied heavily on the social capital (networks, trust, norms, and commitment) and human capital (skilled and knowledgeable individuals, access to services and leadership) within the communities to initiate and sustain the project. Most of the financial support has resulted from the community's mobilization of social and human capital to garner formal and in-kind support from government agencies, as well as several funding proposals successfully accepted by government programs and funding agencies. Despite a flourishing record of funding proposals, many of the research participants acknowledge the limitations placed on the biosphere reserve's ability to fulfill its functions by the lack of steady financial support. Here are just a few of the participant's comments:

> "The fact that SWNBR association is penniless. So in the absence of funding their capacity to reach out is limited. Without question, its their biggest barrier."(SW14)

> "Right now we don't have a funding base and financial framework. The biosphere reserves that were connected to National Parks used to get funding of $5,000 a year and that money allowed us to attend the annual general meetings and doing some small communications - if you were prudent with your money. I think that money has been reduced over the last couple of years to around $1,600. That would hardly [be enough to] send a representative to the BR Annual General [meeting] wherever it may be held."(SW16)

> "Lack of capacity of the organization. Yeah, fundamentally, there is a dedicated group of volunteers but without significant dollars for fulltime coordinator, there is nothing they can achieve other than small projects."(SW3)

> "I can't remember what its budget was…it was pittance. If I remember correctly, it doesn't have any financial resources. Even to maintain its offices, it's doing well"(SW6)

It's clear the need for financial support is important, especially when social capital and human capital are limited or stretched thin (Baxter 2002). The community capacity has facilitated periodic small projects but it's hardly enough to reach out to distant communities and social networks. Some participants have looked to other sources or sponsoring agencies (e.g. federal government agencies or CBRA) for capacity building and financial support.

> "We do have, again, goals and objectives. They are restrained by finances, and because of that, that is where the national body should be leading us."(SW16)

> "CBRA, is lobbying federal government, Parks Canada, Environment Canada, Natural Resources Canada. It's a multi-stakeholder situation and trying to lobby the federal government to say, 'If you go to UNESCO and tell them you support Biosphere Reserves, don't come back and tell me we have $1,600 to do everything. Its absurd! If you want to use the concept politically in your international agendas, then I think you should be supporting the concept locally',"(SW2)

> "So ocean resources are absolutely critical in SW Nova. So if the BR opens to include the ocean and it could expand to the ocean, then DFO [Federal Dept. of Fisheries and Oceans] will play a critical role. And DFO shows significant signs of developing the capacity and interest to do so through the oceans and coastal management divisions, which is very strong in the Maritimes region."(SW 14).

Limited financial support and the strained social and human capital resources of SWNBRA (and other active individuals in the region) place a serious barrier on the accomplishment and fulfillment of the BR's goals and objectives. Seeking partnerships with existing agencies (e.g. regional development authorities and the Coastal Communities Network) to identify common interests and collaborations may offer opportunities to fulfill the SWNBR's goals. As Mendis has pointed out, social capital can serve as the driving force during a biosphere reserve's formative years, but core funding is still required to maintain a basic level of administration and coordination (Mendis 2004).

5.3.3 Community and regional identity

Since this research project hinges on examining stakeholders' opinions, experiences and perceptions of place, the notions of identity and interpretation become vital. Identity incorporates how local community members view the landscape, how it shapes their lives, their role within

their community and landscape, and how they communicate their story. In other words, identity uses experiences, sentiments and stories to turn space into place (Hague 2005). Many of the research participants raised this important concept (sometimes directly and other times indirectly), and each case study has inherently different perspectives.

Perhaps the most influential factor differentiating the interpretation of identity, is the scale of projects. The BCER is 85 acres (0.34 km^2), as opposed to SWNBR that is about 3,936,883 acres (15,932 km^2). Identifying with an area of BCER's size is vastly different from identifying with the region of SW Nova Scotia, which is socio-ecologically heterogeneous and a much more complex area. Narratives from both sets of research participants expressed their connection with the landscape, which provided a natural stage for growing up, exploring and carrying out their daily lives, and this connection has manifested in a shared sense of pride.

> "I think it's creating a little sense of pride because we have these flowers, with big and small oven and the cannon-holes and the whales and icebergs. This is what we got here. I think majority of this town are very proud of these aspects. Everywhere I go, I bring Burnt Cape forward."(BC5)

> "We have a tendency to teach our kids that the most interesting things are happening elsewhere and in fact this region is incredibly rich with the Historic sites, Parks, [the] Tobeatic [Wilderness Area], all the watersheds, the research, Keji [mkujik] monitoring and [it's] sent to the Smithsonian and representing the monitoring along the eastern seaboard. I tell the students that we have real scientists doing real science here. The biosphere reserve is part of who I am and what I'm interested in."(SW17).

One of the key aspects of BCER's designation was the sentiment and experiences brought forward by local community members at the public meetings about their traditional activities (of hiking, having picnics and fires along the beach of Ha Ha Bay) on Burnt Cape. These concerns were incorporated into the management plan of the reserve and a strip of beach along Ha Ha bay was omitted from the reserve. This allows residents to continue with their recreational activities without compromising the ecological integrity of the reserves.

> "Most people used the beach area and they didn't want to take anything away from the traditional uses of the town's people. They're still allowed to build fires and berry pick. Nothing was taken away from them."(BC6)

> "The community didn't own the land of Burnt Cape but they consider it in their backyard and it is, because this was a place they always gone for walks, hunt rabbit, harvest wood and remove gravel for their construction activities." (BC3).

Despite the obvious size difference between BCER and SWNBR, there was a definite and growing theme of recognizing BCER and the town of Raleigh as belonging to a specific regional area. This area is often referred to, for obvious reasons, as "the Northern Peninsula". Research participants acknowledged BCER's role as "part of a package" (BC12) within the region and moreover, the region's role as a cluster of tourism opportunities, "package of the region" (BC1). Some proposed the benefit of identifying and narrating BCER as a part of regional identity, by suggesting, "we can achieve more as a region instead of everyone in their own little pockets" (BC5). Recognizing the potential gains of cooperatively working with other and possibly more popular tourism opportunities within the region may offer mutual benefits for all involved parties.

> "I think the biggest draw is the Viking settlement and L'Anse aux Meadows [National Historic Site] and then is stuff in StAnthony, Grenfall [Interpretative Centre] and this [Burnt Cape Ecological Reserve] adds a wheel to that cluster."(BC10)

> "And L'Anse aux Meadows is the big draw because everybody wants to see it. And these things here are going to be secondary to L'Anse aux Meadows. I think cooperation could be done and people need to learn to get along better. Especially communities." (BC12)

> "right now, we have 28-30,000 people to see L'Anse aux Meadows per year. We just have to find a way to encourage people to drive over 10 more minutes. They're already coming up to the Northern Peninsula. Our goal is to get them to stay here a little longer." (BC13).

These proposals of partnership and cooperation seem attractive and inviting, yet the reality of local politics and existing social networks cannot be ignored. It is commonly perceived there is a competitive spirit between tourism attractions rather than a collaborative one. The last quote draws on a participant's personal experience to illustrate the point.

> "They want to keep them in their community as long as they can. And I've heard from tourists that we never planned for long enough down there (Northern Peninsula). Gross Morne [National Park] area is not really promoting around here, only down there. It's turning out to be one community versus another community."(BC12)

> "That culture of referral is non-existent here…We're a long way here in being sophisticated culture of tourism." (BC4)
>
> "L'Anse aux Meadows was the big thing and St. Anthony was next and the other communities were left over. They wanted to do up a guide and we were going to have two pages in the book. I wrote down what I wanted in my page and it said that I was 5 miles from the [Pistolet Bay] Provincial park. They wouldn't accept it because it said something about the provincial park…you can shove it as far as you can. Just because they were federal and this was provincial and I wanted to put down that I was 5 miles from a provincial park. If I was to put down 100 kms from L'anse aux Meadows they would have done it but not from Pistolet Bay Provincial Park. Crazy. This is what tears people apart. They weren't there to help me.
> "Pistolet [Bay] Provincial park could offer lodging and if someone came to L'Anse aux Meadows and they came to [the] Provincial park but that was no good because it would have taken people away from them. It's a dog eat dog world."(BC2).

With testimony from participants like the one above illustrating the lack of cooperation and collaboration, there may not be a shared understanding of the benefits from working collaboratively at a regional level. Furthermore, a shared identity of the landscape may not exist either. A shared identity may be unlikely because it may be too simplistic to assume the northern peninsula region as a homogeneous unit with commonalities in values, experiences and capacities. Some scholars suggest identities and landscape visions (socially constructed images of nature and the landscape) contribute to societal and individual values and land use practices (Walker & Fortmann 2003). Such identities are often rooted in histories of place, cultural loyalties and can contribute to political opposition or social conflict. When developing partnerships and introducing new projects or institutional arrangements, sponsoring or funding agencies need to be sensitive to the demands and challenges placed on existing social infrastructures (Simpson et al. 2003). It would not be unusual for these new projects to be perceived as social control.

In the case of SWNBR, interviews presented a slightly different perspective on identifying with the landscape. Indeed, drafting a biosphere reserve nomination document contributed to developing an identity and narrative of Southwestern Nova Scotia for the biosphere

reserve proponents. At the same time, such a large geographical area with many different communities and social networks, begs an almost equal number of identities associated with each. It becomes apparent that multiple identities or identity pluralism are an important consideration when working in the biosphere reserve at a regional scale, because some identities are shared and some are contested.

> "I never tell somebody I live in SW Nova Scotia. I have no identity tied to that. And that stems from the idea of psychologically, people tied to the land and place, in a very historical and traditional family kind of way. I'm not sure that we're there yet but the BR is there."(SW17)

During the process of drafting the nomination document to meet UNESCO's criteria for consideration, the application's authors and contributors researched various sources of information to develop a unique case for SWNBR. This process required composing lists and manuscripts that highlight the unique history and features of the region. During this proposal, there were also important omissions or exclusions, which influence the identity of the landscape. First, SWNBR's identity is shaped by some of the BR proponents' backgrounds, historical roots and their relationship to the terrestrial component of the region.

> "There was discussion from the academics not to get too focused on terrestrial. The reality of the situation was that most of the people who were involved in the biosphere reserve are based around north Queens [County] and either work or live around Keji [mkujik National] park. So there is a real central focus on the interior of the province. And that's what we know best."(SW13).

This terrestrial focus was further amplified with the intentional exclusion of the marine ecosystems from SWNBR proposal.

> "In terms of [the] Marine [sector], it was a conscious decision to not go that way because it was another jurisdiction and it had controversy associated with it and people would perceive that this is part of the biosphere reserve. They would put on the panic button and close it up as a protected area. In a way it influenced it." (SW3).

Others also feel their personal identity or their first nation community's identity has been omitted or does not overlap with landscape identity described by the biosphere reserve.

> "for a long time people forgot this was a traditional territory of the Mi'kmaq people, before Keji [mkujik National Park] was designated as a National Historic Site for those reasons. Just this area, people who've…their ancestors have been here a long time. This is their land, it was their great-grandfathers and grandfathers [who] were guides through the Mersey [river]."(SW20).

While some participants may contest the exclusion of certain sectors or the omission of certain historical roots from the identity of the biosphere reserve, others argue the biosphere reserve narrative neglects large gaps in the landscape itself and the associated anthropogenic and natural activities. Removing the buffer zone from SWNBR's zoning scheme has left a very distinctive core area surrounded by an area of cooperation. Consequently, excessive focus has been placed on the core area (Kejimkujik National Park and the Tobeatic Wilderness Area) and left the remaining landscape matrix overshadowed, perhaps neglected as this participant describes.

> "The problem is with most of your processes that impact the biosphere actually occur in the matrix, not in those special little packages.
> "It's all this other stuff and a lot of [it] involves human activity and most people aren't used to human activity being promoted as a good thing or as an integral part of a region. So, I think it gets neglected but it's absolutely integral."(SW5).

Having so many contested and differing identities should not be interpreted as discouraging because the geo-spatial area of the biosphere reserve is vast with a diverse set of ecosystems and communities. Multiple identities should be expected in such a heterogeneous region. What is important to acknowledge is that careful analysis of social contexts of the places where conservation projects are situated is vital to sustainability and the protection of natural resources and biodiversity (Fortwangler & Stern 2004: 159). Barrett argues recognition of local identity is vital to conservation projects because "whatever the underlying heritage values, they are first understood and mapped in the minds of the people who live there" (Barrett 2005: 10). In the case of place-based governance, cultural and historical backgrounds need to be incorporated into conservation projects that are implemented in different local contexts (Igoe 2004). In addition, gaining an understanding of and sensitivity to a "sense of place" or regional identity – the formulation of one's personal and collective feelings, meanings, experiences, stories and

memories of a place over time and filtered through social structures and socialization – and how personal and place identities are formed in relation to public participation opportunities is important (Fortwangler & Stern 2004; Hague 2005).

> "I like the scale the biosphere is at because a lot of the smaller jurisdictions, I mean the communities have a lot in common. We have a lot more similar to each other than we are to people who live in Halifax or Cape Breton. I think there are a lot of common elements that kind of pull us together and it makes sense to draw a line around SW Nova Scotia."(SW5)

While social experiments, like the biosphere reserve model, are intended to help protect the viability of ecological systems, realign social arrangements with socio-ecological systems or celebrate the uniqueness or heritage of a "place", the actual experiences of these projects beg important questions about their validity. More specifically, attention needs to be drawn to the absence of important stakeholders or local residents who are not engaged and why they are absent from engagement? The latter question is particularly challenging to address.

The effectiveness of the biosphere reserve's designation process and its inability to engage important stakeholders and local residents who have deep roots in the region come into question. In the case of SWNBR, this focuses attention on the absence of First Nation groups, especially since the core area of the biosphere reserve is recognized and celebrated for its unique First Nations heritage (Kejimkujik National Park is also a National Historic Site). Such situations should bring these inconsistencies to the forefront.

Perhaps what is needed is a strategy that attempts to collaboratively acknowledge local needs and develop a shared heritage. Establishing a shared sense of purpose and engaging relevant stakeholders may be gained through workshops, focus groups or open houses to name a few. Central to these forums is delivering exercises that map and incorporate local values, stories, landmarks (social and physical) and interests that help define and distinguish a "place". In the initial stages of a project's development, it is vital to have local community members identify a shared heritage and map out a common vision that builds on the "place's" past to

develop local legitimacy, a sense of ownership and make is accessible to the people who live there (Barrett 2005). Engaging relevant stakeholders may require a strategy that identifies their needs, allows stakeholders to feel a sense of self-determination and outlines potential meaningful gains. These benefits can include the identification of current local issues and possible resolutions to tackle them as well as potential issues in the future. The resulting solutions might not have been generated without a cooperative strategy involving local stakeholders early in the process. Useful exercises and insights may be offered by the "Resilience Working Book: A Guide for Resource Managers and Practitioners" that was under development by the Resilience Alliance during the fieldwork of this research project.

5.3.4 Knowledge Sharing

As highlighted in the public participation criteria and much of the academic literature, a key element of effective participation and well-informed decision-making processes is a forum for dialogue or information flow. Deliberative democracy is offered as a method of such decision-making and presents opportunities for civic engagement and stakeholder exchange. Historically, such forums were often held at "town hall meetings", but in contemporary political scenarios, these meetings seem to be less frequent. An important function of these forums or institutions is to exchange information, knowledge, perspectives, values, interests and so on. As Smith points out, two fundamental conditions are needed for trustworthy and legitimate deliberations: inclusiveness and unconstrained dialogue (Smith 2003).

Some authors acknowledge particular aspects necessary for deliberative democratic activities such as "reasoned debate, public justification and political equality" (Meadowcroft 2004: 184). The first idea implies that the nature of discussions should be rational and reasoned and free of manipulation and coercion. The second idea highlights the need for positioning public arguments in favour of collective interests and public validation, as opposed to personal or individual interests. Lastly, political equality hinges on all stakeholders having access and

opportunity to participate in deliberative forums and decision-making processes (Meadowcroft 2004). These ideas appear sensible but they are dependent on a framework that is open to equally respecting contributions from different forms of knowledge, information, epistemologies and disciplines.

The theme of information, education and knowledge sharing was highly prominent in the SWNBR research participants' responses and almost non-existent in BCER. The point should not be misunderstood that the theme of knowledge exchange and education is not relevant to both cases. Instead, it highlights the difference in the research participants' experiences in one case study versus the other. The backgrounds of key local actors in SWNBR and the formation of a research-based institution (MTRI) likely contribute to this difference.

Many of the SWNBR participants express the strategy of communicating information and raising awareness to improve engagement in the biosphere reserve and decision-making processes.

> "Try to enhance or foster a collaborative approach to things. To work together more and communicate things more so that the efforts they're making could be more coordinated and integrated towards a common set of goals or objectives that they've been involved in creating and therefore, have more faith in or buy in…Start the thought process to engage them"(SW12).

> "Information is important. Got to have information. Listing of reports and get access to it. Recognizing the benefits of regional strategy and not just local. Information to make better decisions. To have that ability to have access to information can lead to better decision. I think there is benefit to having the ability to work at that bigger level. The problem is if you get too big, you can become too limited." (SW3)

Some participants express a different picture of reality with current cooperation activities and dialogue among stakeholders. Other participants endorsed their model for information formulation and exchange. Perceptions of the general public having low technical literacy and an incomplete understanding of their environmental reality emerge in some of the research participants' responses.

> "So the level of communication is low and the level of cooperation among all of them is low."(SW13).

> "I would like SW Nova BR to become more of a research biosphere reserve. I want to network with all the people doing the research in the area.
> "People want to be in silos. They want control over their little patch. They don't…want to know what the other town is doing. Maybe the function that the BR is an informational thing. That allows equal access to that information and doesn't have no judgemental situation where one information is better than another. To prove its utility.."(SW10).

> "You have to be able to talk to the common bloke. I'm thinking there may be a missing link in terms of the communications being on a level that everyone can understand. The whole idea of BR is quite abstract. And for people to understand, need to see some benefits and direct benefits."
> "It's a question of bringing people to a common understanding. My general feeling about sustainable development is that it's too complex for the local to understand. You can't go to them and say, 'You depend on the environment.' They'll come back and say, 'No, I work at Michelin [Tire Plant].' They really don't understand that link. I don't think. (SW4)

As mentioned above, the complexity of sustainability and concepts associated with biosphere reserve models should not be underestimated. Proponents and practitioners of the BR need to appreciate this complexity and be aware of the socio-economic situation of the general public, who may not have the time and liberty to study and understand these ideas thoroughly. Communicating these ideas may also require sensitivity to the general public, otherwise it may lead to unfavourable circumstances for developing inclusive and participatory decision-making processes. Neglecting to recognize and respect the need for sensitivity to local populations and contextual circumstances could result in an unnecessary rift or division between "experts" and the "general public". These distinctions can often impose hierarchies of knowledge, leaving everyday experiences and personal meanings subordinate to formally trained education. Hierarchies of knowledge can reflect and in some cases reinforce social and economic hierarchies (Sohng 1995). There is evidence of rifts between local community members and the sponsoring agencies, but as this participant explains, the information and knowledge gaps between them warrant open and accessible deliberative activities to maintain effective and strategic project implementation.

> "Why don't they [BCER steering committee] make it public? Yeah, sure they'll get some nuts and bimbos there, knocking down their ideas and asking stupid questions but that's what keeps them on their toes. It keeps them alert, keeps them thinking and makes them not stray off the job they're supposed to be doing. If they had a public meeting explaining goals and we're going to this and we're going to do that …but we don't know that."(BC9)

Overcoming these biases and assumptions is vital to rational and reasoned deliberative activities. Furthermore, the need to resolve these biases and engage the public places emphasis on the sponsoring agency to communicate sophisticated concepts in an accessible manner to concerned parties who may not be familiar with the specialized discourse, technical terminology and unique jargon (Igoe 2004; Sohng 1995). At a broader scale, incorporating concepts of bioregionalism and sustainability into the curriculum of the education system may help introduce these unique concepts and perhaps encourage learning to know and care for our places. Place-based education reflects ideas of complexity, global sustainability, environmental quality and environmental justice through a "comprehensive vision for understanding the systems on which our ecological and human communities depend— visions for thinking, learning, and acting," (MacGregor 2005: 239). In the case of BCER, many students at the local school learn about the unique floral assemblages on the ecological reserve.

> "You go there and the kids there can tell you the latin names of rare plants and show them to you. This is very rewarding and astonishing to see. If this pride and knowledge of local ecology manifested itself across Canada, we would have a lot less ecological problems then we do today." (BC3)

The local school in Raleigh has made use of BCER because it offers a unique opportunity and distinctive stage for learning and understanding their "life place". Concepts of place-based education are being implemented in different parts of the world and an enrichment program fostering similar ideas is currently being introduced into the local North Queens elementary school.

> "Place-based education. Cooperative education. Kids getting credit for going out and doing work, particularly altruistic work…But not until we move outside

> of the isolation of our building will they see the kids as active community and not just potential active community members ten years from now.
> "In this program, students interviewed community members to look at three worldviews of the forest within the biosphere reserve…We interviewed Mi'kmaq elders, scientists from here and Keji [mkujik National Park] and old time loggers to get local ecological knowledge." (SW17)

As demonstrated by place-based education, crossing traditional boundaries is a crucial step in the advancement of understanding and progress. Knowledge sharing and deliberative democracy warrants us not only to cross social, economic and disciplinary barriers but to generate an atmosphere of being respectful and responsive to local and contextual traditions and knowledges.

5.4 Implications and Implementation

This section discusses other dimensions of implementing place-based governance and increasing the effectiveness of public participation. These dimensions are cited in the literature as necessary and important facets of implementing effective public participation and place-based governance in Chapter 2 and have relevance to the case studies. This section discusses the importance of employing a plural value system and highlights existing institutional and physical barriers in each case study.

5.4.1 Plural Value Systems

Implementing effective public participation and place-based governance implies establishing social conditions for a diversity of stakeholders, epistemologies, and disciplinary knowledge but should extend to include a diversity of values too. A clash of values (environmental or non-environmental) is inevitable in forms of information exchange and decision-making. Environmental values are often concerned with human relationships and nature or non-human entities. Often these are framed as a continuum, ranging from technocratic/utilitarian – human domination and control for purposeful use - to deep ecological – nature is intrinsically valuable with humans as a part of it. Values usually fall in between these

two ends of the spectrum. Claiming the superiority of one ethic over another is often difficult, and imposing an ethic is often unproductive and met with opposition or resentment.

Also misleading, as mentioned in Chapter 2, is adopting two notable assumptions. One assumption is that assigning intrinsic value to nature is free of anthropocentric valuation and values, and the second is the existence of a single environmental ethic which can guide and direct human activities. Both of these assumptions are misguided and over simplistic (Smith 2003). Perhaps accepting the existence of a variety of values and ethics and seeking a better understanding of these positions is more helpful in search of common interests and future goals.

In the case of the conservation projects investigated in this study (and in other conservation plans), value pluralism becomes a necessary condition with the various representative stakeholders expressing interests, actions or potential projects based on a variety of values. This is especially important to sustainability initiatives like SWNBR because they cover a large geographical area with numerous communities and a heterogeneous landscape matrix. At the same time, adopting a pluralistic value system is very important to decision-making processes in the case of BCER, especially with suggestions of "infighting" within the steering committee (BC1, BC5). Acknowledging a diversity of values, interests and knowledges will maintain information flow and increase opportunities to offer new solutions or perspectives that might not have been thought of otherwise (Smith 2001). Deliberative democracy and value pluralism may not be sure-fire solutions to every conflict but they can highlight areas of possible compromise and identify the attention needed to address acute points of tension. Reaching a point of accepting trade-offs and compromises can be a difficult yet necessary path (Kemp et al. 2005). Adopting and employing deliberative activities can have transparency and legitimacy implications for the outcomes of decision-making processes, two qualities generally advantageous in local or regional contexts (Davies 2001).

5.4.2 Existing barriers to participation

While researching the two case studies for this project, the existence of barriers restricting public participation became apparent. For the purposes of this study, barriers are described as institutional, social or physical circumstances restricting stakeholders from participating in decision-making processes. Both case studies experienced barriers, however each case study had its own unique barriers. This is not surprising, since each case study is inherently different with a distinctive set of contextual conditions (socially, economically, geographically, culturally, etc.). This section discusses the two case studies separately to identify and distinguish two different sets of barriers.

5.4.2.1 Burnt Cape Ecological Reserve

In the case of BCER, most of the barriers voiced by research participants came into existence during the management phase of the project. The designation stage may not have been flawless in encouraging public participation, mainly because examining it is limited by poor record keeping and a general deficiency of transparency. As well, the provincial legislative mechanisms guided the process in a favourable and open direction. According to Boyd's evaluation of Canadian and Provincial Parks and protected areas legislation, Newfoundland and Labrador, along with NS, were the only two provinces to receive passing grades against a set of 12 criteria. More specifically, NL's Wilderness and Ecological Reserves Act's "public participation provisions are the best in Canada," and it provides "excellent protection for Newfoundland and Labrador's wilderness areas and ecological reserves," (Boyd 2002: 30, 31). Concurring with Boyd's findings, barriers to public participation were mostly identified within the management phase of the project.

Three major barriers were expressed and identified from BCER's research participants. Firstly, some important stakeholders have not been acknowledged and thus are not engaged in deliberations or the decision-making process. Important stakeholders include the nearby service

sector (i.e. local stores, restaurants, artists and tourism-based businesses) and possibly representatives from regional tourism operations and towns. As well, the general public has not been invited to participate in defining the issues and direction of BCER's management. Responses from participants have implied an "open door" to interested parties, however participation should send a strong message of inclusiveness through formal and informal invitations to participate, while respecting voluntary engagement. Needless to say, there is plenty of opportunity for improved inclusiveness within the steering committee and the decision-making process.

Secondly, transparency is perceived and identified as a serious barrier restricting public participation. Omitting records of meeting dates, minutes, stakeholder involvement and the nature of meetings and so on, leaves a serious gap in information flow within the community, often increasing tendencies and perceptions of public illegitimacy and isolation. Some participants have asserted that information flows through informal routes or "word of mouth", however conversations among local community members may omit important details, can be susceptible to personal interpretation and leave little opportunity for debate, recourse or opposition. Furthermore, a lack of records and accountability makes it nearly impossible for external or internal audits of decision-making processes. Monitoring of decision-making processes and policies is a valuable component of ensuring quality public participation.

Lastly, and perhaps the most challenging of barriers is the lack of collaborative institutional arrangements and regional approaches to conservation planning and sustainability initiatives. Existing regional development programs are primarily organized around and focused on the economic sector. Sustainability initiatives warrant a wider definition of development and progress to include socio-ecological resilience rather than just traditional ideas of economic growth. Interests of community development, community and ecological health, sustainable livelihoods, conservation planning and so on deserve consideration when advocating sustainability initiatives.

Many of the research participants acknowledged that the Town of Raleigh and BCER are part of a package, so promotion should be done accordingly. Loose interpretations of regional identity have been acknowledged by many of the research participants, mostly based on geographical proximity and circumstances of being at the northern end of a large peninsula. On other fronts, some identify with the geophysical features of the landscape, that is, the stretch of limestone barrens (or alvars) along the western coast of the northern peninsula. Others identify with the historical roots of being a French fishing post and having been born, raised and lived within the region. Simultaneously, participants have recognized the benefits of collaboratively promoting and marketing the area as a regional tourism destination, as opposed to several individual promotional programs. Combining and transcending interests from the different tourism products (L'Anse aux Meadows, Norstead Viking Village, Grenfel Historical Interpretation Centre, Pistolet Bay Provincial Park and Burnt Cape Ecological Reserve) into a larger regional attraction, could draw on a wider audience with increased options. A regional approach may have a better chance of drawing visitors, who in turn might stay longer, or desire a more engaging and education experience. This might not require developing entirely new relationships because some institutional arrangements such as educational and health care systems already function at regional scales. Some new networks and opportunities of partnership might need to be formed but this should be done without taxing existing projects and social networks. Shifting from an area with competing towns and communities to developing partnerships and a regional collaborative approach would be advantageous in the pursuit of sustainability.

5.4.2.2 Southwest Nova Biosphere Reserve

The case of Southwest Nova Biosphere Reserve region is a different context from the other case study, reflecting less of a distinction between the designation and management phases because many of the same actors and representatives of interested parties were involved

throughout the initiative. The SWNBR case shows a different set of participation barriers but it does, however, share one similar barrier.

The issue of not recognizing stakeholders to participate is shared by both cases. Perhaps it is a historically narrow definition of a stakeholder or practical considerations that restricts the acknowledgement of legitimate stakeholders. Currently, many participants assert characteristics of having an effect on or being affected by the initiative as grounds for stakeholder status and others expand it to include genuine interests in the initiative to help define a stakeholder. Others suggest expanding the scope of the stakeholder definition beyond the immediate geographical area to include national and global citizens (BC3). For example, a resident of British Columbia or the Netherlands could have an interest in biodiversity conservation in either of the case study regions. If arguments suggest biodiversity protection has global benefits, then global citizens could, and perhaps should, be considered stakeholders (Ferraro & Kramer 1997). This argument may have stronger relevance if tourism attractions are appealing to global citizens or if the initiative seeks benefits from internationally renowned designations. Stakeholder groups most notably missing from the decision making process include the marine or fisheries sector and First Nation groups. Furthermore, other missing stakeholder groups include agricultural associations, development agencies and possibly health officers (Forget & Lebel 2001; Hancock 2001). One participant cited the inclusiveness of the Stakeholder Advisory Council for the Eastern Scotian Shelf Integrated Management Initiative, with environmental non-governmental organizations serving as proxy representatives for "the seabirds and the whales,…non-humans" and other ecosystem components (SW14). Another noteworthy stakeholders yet to be meaningfully involved in the decision-making process is the general public.

Community awareness, or the lack thereof, is a common barrier to reaching fully meaningful public participation. It was cited by many of the research participants, who generally agreed that future efforts are needed to reach the public. The recently developed communications strategy, involving distribution of brochures, disseminating minutes to relevant municipal

councils, updating the website and erecting road-side signs at entrance and exit points throughout the biosphere reserve may help reach the general public. Delivering messages through radio and newspapers becomes challenging because there is not a single radio station or local newspaper that is read by the entire region. Each town and village has their own local newspapers and radio stations, making media communication more demanding. Other groups, like the Tobeatic Wilderness Area Committee (TWAC), were able to gain valuable grassroots support for the protection of the natural area but not without relentless efforts and sacrifices. As one participant described the TWAC's (and their partnering groups) success at gaining grassroots public support,

> "I know one of their [Digby Fish & Game association] members,…carried a petition from Weymouth to Digby and knocked on every door. That's quite a distance to walk…
> "I can't tell you how many public presentations we made, in those first two years. We were on the road everywhere. We were out there!
> "I wouldn't give them information. I would bring the information to them. I would go there and give a face-to-face impassioned presentation, of how we did it, why we did it, why it was important, rather than hand them a brochure."(SW6).

The message of the biosphere reserve (and its associated principles) is a more difficult and abstract concept to communicate than the legal protection of a significantly large intact ecosystem, but the unwavering dedication and earnest promotion are necessary ingredients to cultivating grassroots support. The challenge of reaching and delivering these messages should not be underestimated, especially in a large spatial area like the SWNBR with its various social networks and cultural groups.

The enormous size of the biosphere reserve places a heavy burden on public participation. Since traveling across the biosphere reserve is generally only feasible by personal vehicle, traveling to attend a meeting can easily exceed a two-hour one-way trip. Poor weather conditions can easily extend the travel time. Thus, attending a meeting equates to a much larger commitment than just the meeting attendance itself, requiring a significant donation of time, driving and effort. As one participant explains,

> "We have a big geography. If we have meetings here in Middleton, and somebody has to drive from the other side of Yarmouth for Christ's sake. It's not just a volunteer effort, it's a two-hour drive each way for a half-day meeting. It's not just giving up a Saturday from 10 [am] to 3 [pm]. It's like leaving at 8 [am] and getting home at 6 [pm]." (SW2).

Such circumstances place difficult burdens on volunteers and agency representatives, and contribute to a critical public participation barrier. An inflexible physical barrier like this one warrants imagination and a creative institutional arrangement. Telecommunications may help resolve some of these issues. Perhaps a delegation scheme with smaller geo-spatial networks or focus groups throughout the biosphere reserve region is needed to develop grassroots community support and draw meaningful engagement. This issue will certainly require further investigation and consideration for innovative solutions.

The last major barrier identified in the interviews is the general public's lack of technical literacy on the issues. The topics of conservation planning, sustainable development and public participation are sophisticated subjects and often wrought with jargon and technical terminology. This can become a challenging situation for a person not familiar with these terms or socialized in a formal educational setting (where these topics are often taught). At the same time, it is also equally important for sponsoring agencies and proponents of the biosphere reserve to acknowledge and be mindful of the different levels of formal education, training and general literacy levels in their region. Such responsiveness merits efforts to communicate (orally and in writing) clearly and accessibly to a wider audience (Igoe 2004). Exercising flexibility and accommodating to contextual circumstances is fundamentally important to overcome participation barriers limiting meaningful public participation, place-based solutions and well-informed decision-making processes.

5.4.3 Beyond the Implementation Criteria

The public participation criteria employed in this study encourage conditions or qualities that increase legitimacy, fairness and credibility of decision-making processes in the eyes of the

local public, the people most affected by these decisions and who must live with them. The criteria offer a flexible and responsive framework to contextual circumstances and heterogeneity across physical and social landscapes. It is the important premise of socio-ecological systems' heterogeneity and diversity that these criteria recognize and oblige. Accommodating such diversity widens the parameters of other associated characteristics, such as an increased diversity of actors (or stakeholders), diversity of values, diversity of knowledge types, diversity of epistemologies and perceived realities, and a diversity of desired outcomes. Deliberative democratic activities offer opportunities for this diversity to be articulated and incorporated into decision-making processes. Arguments of efficiency and convenience may invoke a model of impartiality but this may cause a disservice to the process, especially if perspectives and issues may be contextually bound. Impartiality may not truly exist if interpretations of them are rooted in a specific institutional or cultural setting. Instead, diversity can expand arguments, reasoning and debates towards pluralism within deliberative activities and place-based governance frameworks (Chambers 2003).

A cautionary note should be acknowledged with arguments imposing the public participation criteria and deliberative democracy. A distinctive tension begins to build between impressing ideas of legitimacy and credibility, and displacing cultures. Those imposing adjustments and modifications should be mindful of replace cultural norms and arrangements, while enforcing new cultures with concepts rooted in a specific socio-cultural context. It is unlikely that our interpretations of legitimacy, credibility and fairness are universally agreed upon and accepted. Hopefully, with appropriate levels of foresight and cultural sensitivity, adjustments to decision-making processes should not produce outcome scenarios catering to elite or privileged interests but rather, better represent local common interests.

Another central challenge brought up during the research project was the implications of transcending institutions at the regional or bioregional scale. Scholars have made arguments begging the re-alignment of institutional or social arrangements with the dynamics of socio-

ecological systems (Dietz et al. 2003; Holling 1995). Others have provided examples (from the Great Lakes and Baltic Europe) of initiatives realigning institutions with regional ecosystem redevelopment (Francis 1988). Introducing discussions of shifting current decision-making processes (based on county or municipality boundaries) to incorporate bioregional interests (i.e. transcending interjurisdictional boundaries) was occasionally met with confusion and misinterpreted as amalgamations of counties. Emphasis was placed on ideas of interests expanding beyond county boundaries to bioregional scales, and not on substituting existing institutional arrangements with an amalgamation. Admitting that a shift would not occur in the near future was implied, if not prominent, in many participants' responses. Undoubtedly, proponents of transcending sustainability initiatives require an unwavering and diligent long-term commitment to such a cause. The challenges facing such management shifts were augmented with this participant's response.

> "I don't get a sense that there is a lot of interest between municipalities to do a lot of co-operating with other municipalities to create a regional plan. They have their staff and by-laws, policies that they've worked [on] and represent their constituents. It would take a real change in the way of thinking to bring that to another level and kind of create a regional decision-making body with some kind of authority," (SW15)

It was obvious that a need and benefit for this new scale would have to be illustrated and perhaps demonstrated. Others highlighted the fear existing within political units may feed into a perceived loss of power by expanding to incorporate bioregional interests into their decision-making process. Avoidance of an additional layer of bureaucracy was another valid concern raised by participants. It should be noted that bioregional planning or biosphere reserves are not designed to hold authority but to offer an opportunity or a forum for sustainability considerations at bioregional scales. One participant describes how the biosphere reserve "serve[s] as a table for different people to come and discuss issues," (SW1).

Another optimistic response made reference to opportunities for SWNBRA to invoke "philosophical dimensions and broader policy" considerations in dialogues with the counties and

municipalities (Local County Mayor). In addition, others suggested the issue of transcending decision-making processes and offering opportunities for further scholarly investigations and participatory research projects. Future and worthwhile research opportunities will be discussed in greater detail in Chapter 6.

5.5 Summary

This chapter presents three major areas of discussion based on the primary data collected during this research project' field work. Section 5.1 presented and discussed the results of research participants' perceptions of their engagement, the decision-making process and the outcome scenarios of their respective conservation projects. More specifically, the section covers participants' responses to the application of the public participation criteria (strategic, inclusive, transparent, enabling, respectful, constructive, instrumental and meaningful) against the conservation projects, with each case study presenting its own strengths and weaknesses. Section 5.2 discussed themes of representing community interests versus local interests; community capacity building; individual, community and regional identity, and knowledge sharing. These themes and issues emerged from the primary data relevant to the topic of public participation and place-based governance but outside of the public participation criteria. Lastly, in Section 5.3, the implications of implementing place-based governance, and the social conditions and political mechanisms (i.e. deliberative democracy) necessary to improve public participation in decision-making processes were discussed. This section also highlighted the major social, institutional and physical barriers, as well as conceptual considerations each case study faces to implement effective public participation.

Chapter 6 Conclusion

6.1 Introduction

This chapter aims to summarize the key conclusions from the primary research and presents inferences about their broader implications. Section 6.1 highlights a summary of key outcomes and findings from the primary research, and leads into a discussion of the important themes emerging from the primary research outside of the public participation criteria in Section 6.2. A discussion of how the study's findings address the research questions and objectives is included in Section 6.3. The study's limitations are presented in Section 6.4, while Section 6.5 suggests opportunities for future research pursuits. Section 6.6 draws a brief final summary of the results from study.

6.1.1 Summary of findings

This research presents three sets of results from the two case studies of Burnt Cape Ecological Reserve, NL and Southwest Nova Biosphere Reserve, NS. The results were based on data collected from participant observation, relevant documentation and participant's responses to semi-structured interviews. The line of questioning was guided by the application of 8 public participation criteria to the designation and implementation of two conservation planning projects. Contextual differences make each case study inherently different and unique because of histories (social, cultural, political, economic and biophysical), the nature of protection (legislative versus social designation) and bio-physical differences. The case of BCER was separated into two distinct stages for public participation analysis. The first was the designation stage - guided by provincial legislative mechanism - and the second was the management stage - with provincial agencies leading the decision-making process and public participation. SWNBR

was not separated because it maintained a consistent process and relatively smooth transition from designation to management.

The results from BCER in Section 5.1.1, highlight the strength of the NL provincial legislative mechanisms by meeting the most public participation criteria of either of the BCER stages or SWNBR. The BCER management stage failed to fully meet any of the criteria with a notable lack of transparency (Table 5.1). The SWNBR case study revealed strengths in being respectful and inclusive for currently recognized stakeholders but lacked in providing substantial outcomes because most of its recent efforts focused on gaining formal endorsements from key stakeholders who did not initially support the initiative. Nonetheless, a strong research presence and network (with the establishment of MTRI) has emerged in the SWNBR which serves to increase understanding of the natural environment, increase the profile of the region and carry out some of SWNBRA's goals and objectives.

The public participation criteria proved to be a useful tool because of their flexibility and comprehensive nature. The criteria place uniform emphasis on engagement, the process and outcomes, thus avoiding unnecessary tension between the different components of public participation.

Additional themes drawn from the field data, which manifest challenges and opportunities associated with the conservation initiatives were highlighted and discussed in detail in Section 5.2 of Chapter 5. External sources, as well as local actors, influenced the initial stages of both conservation projects. The scope of this research project did not explicitly include the general public's role in the conservation projects in this investigation, so it is still questionable whether these projects represent the community's interest or the interests of a few privileged and adept local actors. The need to build community capacity or secure financial support to deliver goals and objectives was voiced as an important consideration, especially in SWNBR's case, but

in turn, it must be done while avoiding burdens on existing social capital. Individual, regional and community identity played a large role in informing and shaping the local community members' positions, vision and values, thus warranting concepts of identity be incorporated into public participation criteria or to help contextualize the application of such criteria to a place-based framework.

The research also considers the implications of scholarly discourse for public participation and place-based governance implementation. Deliberative democracy theory suggests deliberations can enhance civic engagement and public participation, offer contextual solutions and improve democracy's political potency. Deliberations serve a supplementary role to representative democracy and should not be considered an alternative. Deliberative democracy, however, would warrant a plurality of stakeholders, values, knowledge types, epistemologies, perceptions of reality (ontologies) and desired outcomes. In addition, key participation barriers need to be resolved, such as expanding stakeholder definitions, cultivating grassroots support, increasing transparency, delivering messages and concepts in an accessible manner, employing innovative solutions such as telecommunications to facilitate participation and encouraging collaborative partnerships and cooperative regional approaches. Overcoming these barriers and incorporating deliberative activities in decision-making processes can enhance democracy and improve chances of fulfilling sustainability initiatives.

Time and energy demands imposed on stakeholders, organizations, social networks and institutions should not be underestimated and a long-term commitment will be needed to shift and transcend decision-making processes and judgments to reflect place-based interests and bioregional (perhaps interjurisdictional) arrangements. Future research opportunities can explore local community member needs, perceptions and understanding of the conservation projects and

sustainability initiatives, as well as employing participatory research approaches to facilitate these communities' progress towards sustainability initiatives.

6.2 Additional Themes

This section summarizes some of the key themes emerging from the primary data that were not directly related to the public participation criteria but still relevant to public participation in place-based governance for socio-ecological sustainability.

6.2.1 Local versus Community

Some scholars suggest a clear distinction between the terms "local" and "community" based on differences in equity and political power among the different parties within a group of stakeholders. Some suggest "local" can refer to actors with privileged positions within the region who have access to resources and political power, whereas "community" can allude to a broader collection of stakeholders with multiple values or interests in resources or common issues (Milley & Novaczek 2005). On the ground, however, these terms are often used interchangeably, and consequently this inconsistency begs the question of how much in any "community-based" initiatives represents the interests and values of a few empowered local actors versus the wider community.

Both case studies here demonstrated efforts of seeking, representing and incorporating public interests into their initiatives. In the BCER case, WERAC's public meetings for seeking and representing the local community members' interests exhibited sincere efforts to incorporate the community's interest. SWNBR's outreach project and development of the cooperation plan offered opportunities to consider and integrate public concerns into their governance structure and SWNBR's buffer zoning issue. Although these participatory deliberations were offered within

the conservation projects, sustainable governance demands open and inclusive deliberative activities as an ongoing component of the decision-making processes.

6.2.2 Capacity Building

An issue commonly raised in the primary research was the inadequate and unstable economic support and limited resources to deliver many of the objectives or functions of the conservation projects. The need to build community capacity – the ability to mobilize community resources through developing relationships and assessing community capital forms (natural, social, economic, human and information) – is common to many conservation and community development projects but was more prominently voiced in the SWNBR case study. Early in the BCER initiative, it gained provincial government support, and later NCC's and ACOA's financial support, to achieve its goals. The appeal for support (financially and otherwise) was much stronger from SWNBR because it did not share similar financial support to BCER. SWNBRA has primarily been operating on social and human capital to initiate and sustain the project, but the lack of steady financial support has been recognized as a serious restriction on delivering its goals and objectives. Developing partnerships with existing agencies to identify common interests and collaborations may be necessary and may offer opportunities to fulfill mutually beneficial goals because social and human capital can serve as the driving force during the formative years, but core funding is still required to deliver basic administrative and coordinating functions.

6.2.3 Shifting to place-based governance is complex

The complexity of shifting decision-making processes to a place-based governance regime should not be underestimated. Shifting to place-based governance elicits two major adjustments: one focuses on the physical area of interest; the second focuses on our understanding

of governance and the actors involved. The first consideration involves the spatial planning or management unit, which shifts from traditional units (a county or municipality) to a locally defined "place", a bioregional unit or bioregionalism. Locally defined places may not necessarily be at a bioregional scale but the philosophy of bioregionalism plays a valuable part in re-aligning social arrangements with socio-ecological systems. The second consideration involves expanding the concept of governance beyond formal agreements (legislation, laws, and policies) enforced by governments to include informal agreements (customs, traditions, market mechanisms, social pressures and volunteerism) with a variety of actors. Thus, it also requires an expansion of responsibilities to civic society, private sector and government and raises attention to the relationships between them. Public participation is central to understanding and engaging all relevant actors or stakeholders into fair, legitimate and credible decision-making processes.

Scholarly concepts and aspirations may sound imaginative and distractingly interesting but reality presents obstacles to implementing such ideas. Based on the primary research gathered, a number of existing considerations or barriers challenge broadening and utilizing the concept of "place" and "governance". Local politics and local power relationships often play an important role in determining "place" and its boundaries, as well as distributing authority or allowing participation in decision-making. Cultural loyalties also play an important role in identifying with "place", and thus interpretations of historical linkages, traditional activities, and historical experiences shape a "sense of place" and visions of it. At an individual scale, a local community member's identity with the landscape may influence their perceptions and understanding of ecological systems as well as their role with the landscape and its natural resources. An individual's role and actions within the landscape and natural resources also are influenced by their identity with social groups, communities or sectors, which can be based on shared environmental values, positions and worldviews. During the research project, it became

increasingly important to recognize how the influence of identity affects public participation, decision-making, governance and sustainability initiatives.

6.2.4 Regional & Community Identity

Regional and community identities shape local community members' perspectives and roles within the landscape and institutional arrangements. For example, since SWNBR has only two zones (a core area within an area of cooperation), there is concentrated attention and focus on the core protected area (Kejimkujik National Park & National Historic Site and Tobeatic Wilderness Area) over the remainder of the landscape matrix. The consequences of such identifications are a skewed view of the entire biosphere reserve region and project or action emphasis on the core area. Similarly, local community members in the BCER case study exhibit a disconnect between identifying with the regional area of the northern peninsula and developing a substantial regional and collaborative approach to sustainability initiatives. Since place identity (and the factors affecting it) are socially constructed and contested through participation and participatory actions, it deserves to be incorporated in the participation criteria. Alternatively, identity may need to be explored, mapped and articulated to establish or frame the context of conservation plans. Contextual framing of public participation and evaluation of participation criteria may be done simultaneously, and not necessarily sequentially.

6.2.5 Long-Term Commitment

Socio-ecological systems are dynamic, yet social changes, grassroots movements or institutional adjustments can take a considerable amount of time to produce tangible outcomes. Both conservation initiatives, over 20 years in the making, demonstrate a long period of time is required to reach designation, and consequently management becomes an ongoing and iterative process. Such demands on social capital and local community networks need a network of

dedicated practitioners and community members. Long-term commitment also applies to sponsoring and funding agencies, who need to recognize their vital role in conservation and sustainability initiatives. This may warrant redefining their traditional roles and agendas. One example would be transforming the mechanism of offering funding opportunities from a forum of competing proposals to a cooperative approach requiring proposals to focus on common interests and collaborative partnerships with a broad list of legitimate stakeholders. Proponents seeking funding should demonstrate a concerted effort with partnering stakeholders to seek shared interests and mutually beneficial actions, and in turn reduce "infighting" and possibly alleviate local tension. In the case of facilitating an initiative, the sponsoring agency may need to relinquish leading and authoritative roles after the formative stage, to allow and encourage project ownership, local community responsibilities and legitimacy.

6.2.6 Increased Deliberative Activities

The results of this study suggest having deliberative activities throughout a project's decision-making process can have significant impacts on the effectiveness of public participation. Increasing opportunities for deliberative activities appears to be a favourable direction. Deliberative democratic governance encourages greater public participation beyond existing ideas of democracy, where the public comes together periodically (every few years) to vote on predetermined ideas or preferences. Deliberative activities need to develop into a norm for current representational democracy or decision-making processes, in order to fully implement local values, ideas and visions into reality and daily livelihoods. Expansion of representational democracy to include deliberative activities will also require an iterative relationship between voting events and deliberations, which promotes information flow, value sharing and ideas exchange. Hopefully, this will lead to mutual learning too. An iterative process will demand a level of pluralism that recognizes and respects differing opinions, knowledge forms, values, ideas,

visions and perceptions of reality. Furthermore, some public participation criteria will require a certain level of flexibility. For example, a decision-making process should be strategic but not so rigid that it cannot incorporate and adjust to new insights and views of previous strategic goals, objectives and timelines. Similarly, interpretations of stakeholders and inclusive interests may have to adjust as our understanding of these ideas changes. In other words, our understanding of the world and how we should manage ourselves is dynamic, and our social organizations, institutional arrangements, processes and policies should reflect and administer this dynamic nature. Improving participation to a meaningful, relevant and credible level is a valuable step to place-based governance and sustainability.

6.2.7 Inherent Differences Between Case Studies

Not surprisingly, the two case studies selected for this research project - Burnt Cape Ecological Reserve (BCER) in Newfoundland and Labrador, and Southwest Nova Biosphere Reserve (SWNBR) in Nova Scotia - shared some similarities, but also rendered dissimilar results. On one hand, both projects were selected for their community-based initiatives with local community proponents and involvement. It was discovered, however, that each case study also experienced "outside" or external influences in one form or another. Both case studies are facing the many contemporary issues of rural areas: dwindling populations (especially youth), unemployment, and dependency. On the other hand, the case studies were selected because each used different conservation approaches, BCER using provincial legislation (Wilderness and Ecological Reserve Act) for protection and SWNBR gaining support through an international designation (UNESCO's Man and Biosphere Programme's Biosphere Reserve) with a core area consisting of a national park and a provincial wilderness area. Aside from their different approaches to protection, the case studies differed in spatial size, population size and histories (geological, social, political, economical, and ecological). This might have raised questions about

whether the differences warrant a comparison between the two cases, but examining the challenges and opportunities faced with public participation in different cases and contexts is important and valuable to gaining a better understanding of public participation. Initially, SWNBR was viewed as a formal model of conservation planning and BCER as the non-formal (or non-biosphere reserve) model, but during the research it was discovered that BCER was not devoid of a model or scheme. It followed a model and process outlined by provincial reserve legislation process (i.e. WERA). Having used differing cases studies and gaining a better knowledge of the contextual differences between these cases contributed to the public participation body of knowledge. This study adds breadth and depth to place-based governance and elucidates its complexity.

6.3 Research Results, Questions and Objectives

This research project acts on the need to explore real-life experiences of implementing public participation in conservation projects and to compare them against the scholarly discourse to improve our understanding of place-based governance. At the outset of this project, four objectives were outlined. One of the objectives of this research study was to examine the usefulness of the selected public participation criteria through field research. The second objective examined the relevance of public participation to place-based governance. Another objective was to assess the actual level of public participation in the two case studies, and the last objective was to explore the lessons learned (challenges and opportunities) from the stakeholders involved in conservation projects in each case study. Attending to these objectives can help answer the broad research questions of *how community members participate in the conservation project's implementation*, and *how does this participation contribute to decision-making processes*?

6.3.1 The Public Participation Criteria's Usefulness in the Field

The selected public participation criteria offer a very useful basis to guide research activities. The criteria assign fair attention to public engagement, the process, and the outcomes, presenting a comprehensive list of qualities to examine. The results of this research project also highlight the benefit of omitting the efficiency criterion to keep this investigation within a manageable size and scope. Traditional interpretations of efficiency from economical and political disciplines often oversimplify reality and over-emphasize efficiency, which can compromise system integrity and increase the vulnerability of systems' collapse. Undertaking the challenging task of expanding participants' perceptions and understanding of efficiency would have been enormous and might have diverted the focus of this project. Although the properties of the strategic criterion are associated with aspects of efficiency by highlighting the need for well-structured processes that identify timelines and desirable outcomes, direct examination of efficiency was omitted from the study. However, investigation into efficiencies of delivering outcomes and decision-making processes may offer a line of inquiry for future research opportunities.

Each of the selected criteria outlines different properties that contribute to the effectiveness of public engagement and can guide distinct lines of inquiry into the dimensions of these criteria. For example, the transparency criterion describes properties of being forthright, clear and open about how decisions are made, each stakeholders' privileges and responsibilities, who made the decisions and having a process open to outside evaluation. While these properties can guide inquiries into the criteria, the distinction between these criteria is not concrete but rather fuzzy. The public participation criteria are linked and interdependent, and these associations may vary in degree when applied to different contexts or "places".

6.3.2 Public Participation and Place-based Governance

The selected public participation criteria are useful in guiding research activities and also provide a comprehensive list of qualities. All of the criteria are equally important and given equal weight but this distribution of importance can be adjusted to accommodate the contextual (spatial and temporal) circumstances. Meeting these criteria should contribute to an accessible, fair and legitimate decision-making system. At the same time, fulfilling these criteria may not necessarily develop a shared sense of purpose and engage relevant stakeholders unless efforts are made to map and incorporate local values, stories and interests that help define, distinguish and turn a space into "place". Prior to undertaking a project, it is vital to have local community members identify a shared heritage and map out a common vision that builds on the "place's" past to gain local legitimacy and a sense of ownership. Engaging relevant stakeholders may require a strategy that identifies their needs, allows stakeholders to feel a sense of self-determination and highlights meaningful benefits.

The comprehensive criteria list, which describes the qualities or properties in a flexible manner giving it a contextually responsive nature is imperative for place-based governance. Despite the criteria being presented as separate and distinct qualities of effective public participation, they are not independent of one another. All of the criteria share strong associations and can be considered interdependent. For example, sustaining respectful and enabling citizen engagement can help deliver meaningful outcomes, which in turn, can draw a wider group of stakeholders, and consequently, contribute to a more inclusive process. The interdependence and linkages between many of these criteria can serve as positive feedbacks or inputs into other criteria or properties. In addition, personal and collective identities can serve as inputs into or affect the criteria and ultimately, the effectiveness of public participation.

6.3.3 Public Participation in BCER & SWNBR

The primary data indicates public participation during BCER's designation process exemplified the best contributions made to decision-making processes. Public input and information flowed between the community and the provincial agencies, but public participation did not reach a self-mobilization level. Ultimately, the provincial government made the final decisions about the reserve and its management plan, which is expected because it is a provincial reserve.

Because the SWNBR designation is an international non-legally binding arrangement and most of its formative years have been dedicated to gaining stakeholder support, decision-making processes are mostly based on SWNBRA's board meetings. Without significant grassroots support, public participation remains limited to current stakeholders and mostly towards research education and monitoring activities around the core area, not broader socio-ecological sustainability or resource management actions. At the same time, the SWNBR is still in its formative years and may develop into a working forum demonstrating critical thought and knowledgeable action.

6.3.4 Challenges and Opportunities in BCER and SWNBR

In the case of Burnt Cape Ecological Reserve, the project's designation stage can be considered an effective example of public participation because it met most of the public participation criteria. This stage was directed by the Wilderness and Ecological Act, and can be judged as strategic, inclusive, enabling, instrumental and meaningful. This project demonstrated a credible and legitimate form of decision-making involving public participation. The second stage of the BCER (the management stage) can be considered less effective engagement because it did not fully meet any of the criteria, and failed to be transparent. The primary data suggest that having a voluntary advisory committee develop partnerships, seek public input and facilitate

forums for information exchange with a broad circle of stakeholders throughout the lifespan of an initiative can have significant impacts on public participation's effectiveness.

Public participation in the Southwest Nova Biosphere Reserve case study exhibited different strengths and weaknesses. SWNBR's public engagement can be considered inclusive because many (but not all) key stakeholders are involved in SWNBRA and there is a high level of respect among the stakeholders involved. Many participants raised concerns about SWNBR's failure to achieve its goals and objectives, while some of its stakeholders were not aware of them despite the nomination document providing detailed descriptions (Appendix E). Considering SWNBR's accomplishments of forming a core group of local champions to prepare a successful nomination document and helping develop a notable research community at MTRI, it has fulfilled some of its anticipated objectives. However, the limited financial support SWNBR receives and the substantial efforts needed to gain formal endorsements from important stakeholders within the region have limited the initiative from fulfilling its initial goals and objectives. At the same time, its efforts to gain support have resulted in important steps of developing a sound governance structure for its board and their associated responsibilities. Furthermore, SWNBR also addressed stakeholders' concerns about the implications of the biosphere reserve's buffer zone. A public meeting was held that resulted in the removal of the buffer zone from the biosphere reserve's zoning scheme. More detailed accounts of each case study are described in Sections 4.2.5, 4.3.5 and 5.3.

6.4 Recommendations

The task of designing and implementing a decision-making process around protected areas that is accessible to local community members, based on principles of fairness and gives local residents a sense of legitimacy should not be underestimated. It will require a long-term

commitment, openness to new ideas and interpretations, and a desire for positive change. A few key recommendations are described below to help implement positive changes.

An early and necessary step to gaining the trust and involvement of local community members is to acknowledge and incorporate their regional and collective identity. This will involve mapping and recognizing their understanding and connections to the land or "place". It will allow them to map interpretations of their landscape, local landmarks, their interests, their needs, their roots and heritage, physical and social features, and current and potential issues. Seeking areas of overlap and commonalities to develop into a shared heritage and sense of purpose can help gain a common vision for the future that build on this "sense of place".

Another beneficial exercise would involve developing a well-structured decision-making process. This would include clearly identifying the type of participation, the purpose for participation, resources, timelines, goals, objectives, anticipated outcomes and relevant stakeholders. Including rights and responsibilities of each stakeholder would be helpful. It is important to be clear about the expectations and purpose of stakeholder participation and to identify stakeholders not involved, but who should be as the understanding of issues deepens.

Increasing transparency, exchanging information and making it accessible can help build local trust, legitimacy and stakeholder engagement. This would involve keeping and disseminating records of decisions, meetings and other deliberative activities to the public. This may involve delivering them to interested parties, printing them in local newspapers, or posting them on a website, a local store or at a town hall. Hosting deliberative activities can facilitate information flow and exchange through focus groups, workshops, advisory committees, citizen juries, demonstration tours or public meetings. Ensuring that information is physically accessible and readable, and that technical jargon is minimized are helpful steps to reduce information deficiencies and in turn, gain public support. Drafting handouts and supplementary materials

covering complex ideas and concepts (such as sustainability, ecosystem-based management, system integrity, inter-jurisdictional management, bioregionalism, common property and governance to name a few) in a comprehensible manner may help make information more accessible and redistribute information equity. In some cases, it may be worthwhile to develop a collection of relevant material, e.g. books and journals at a local library or community center. Increasing opportunities for knowledge sharing and mutual learning may help understand each others' as well as one's own interests, values, positions and assumptions, thus deepening our understanding of issues and possibly rendering solutions or positive change. Such exercises of knowledge exchange and reasoned debate

Widening public participation and reasoned debate to a variety of interest groups and actors will warrant openness and recognition of a plurality of views and ethics. It is important to acknowledge, respect and offer opportunities for engagement to a diversity of actors but it is not necessary for every stakeholder and interest group to be involved for a project to succeed or deliver positive outcomes. Public participation should be voluntary and free of coercion and manipulation.

It is also recommended to critically and closely examine each project's decision-making processes. Applying the public participation criteria (and their properties) to conservation projects and sustainability initiatives, can help evaluate each project's efficacy and effectiveness. This evaluation may need the assistance of an external party to reach an appropriate level of scrutiny.

Accepting and appreciating the long-term commitment needed to produce sustainable and positive changes, and to gain the necessary economic support for such efforts should be acknowledged. The last recommendation is directed to funding and sponsoring agencies (government or non-government). It is recommended that financial support be granted to

multiple initiatives and projects that clearly demonstrate partnerships and regional collaborative approaches of addressing common interests, future goals and mutually beneficial actions, as opposed to the traditional forum of invoking competition between many worthwhile projects and only supporting one. Long-term commitments also apply to sponsoring and funding agencies, who need to recognize their vital role of providing dependable, long-term funding for conservation and sustainability initiatives.

6.5 Limitations

During the data collection phase of this study, it should be acknowledged that not all stakeholders (parties directly affecting or affected by the designation or management of the conservation initiative) were included in this study. In the BCER case study, for instance, the tour guides and park staff from a nearby provincial park represented the provincial government, whereas senior staff and policy managers did not participate in the study. Other stakeholders did not respond to my request to participate in the study and this may have been because of my limited stay in the region. On one occasion, one participant irately declined to participate in the study and may have failed to comprehend my research interests and assumed I was a proponent of the conservation initiative.

As mentioned in Section 6.3.6, the two case studies are inherently different despite the popular use and convenient grouping of "Atlantic Canada". The two case studies are located in two different provinces with different geographies, biophysical compositions, laws, land holdings, geological and anthropological histories, cultures, economies and climatic regimes. Less attention was paid to the equivalence of the case studies since the conservation projects in each case study were different in nature and size, thus making case studies comparisons complicated. Furthermore, it is possible that other investigative comparisons between the two case studies could produce different outcomes.

As noted earlier in the chapter, the selection of these two case studies was non-random and these case studies will unlikely be representative of all other conservation projects or plans but may be representative of some. Although this research project investigated two case studies from Atlantic Canada and the insights gained from them are valuable, generalization should be limited. These two projects are selected for their demonstration of community-based conservation initiatives, not because of propositions of being representative of Atlantic Canada. It would be difficult – perhaps nearly impossible – to find truly "representative" cases. Each province in Atlantic Canada is distinctively different and each province is heterogeneous itself. Case studies are employed to gain detailed and in-depth findings of a specific set of circumstances or situation. The results produced from this research project are associated with the specific and contextual circumstances of each case study. Many of the study's methodological techniques, results and findings are transferable or applicable to other research studies and conservation projects but imposing generalizations universally maybe be misleading and inaccurate.

6.6 Prospects for Future Research

While attempting to answer a specific research question and contribute to the body of knowledge around public participation and place-based governance, this study also unraveled opportunities for future pursuits and worthwhile investigations. As mentioned in the previous chapter, participatory research opportunities do exist in each case study. Both cases include community members who identified an interest in developing or enhancing a regional (and perhaps an interjurisdictional) approach to sustainability initiatives. This would likely involve identifying and articulating the regional communities' needs and facilitating a research agenda to fulfill these needs.

In the case of SWNBR, exploration of the general public's perceptions and knowledge of the biosphere reserve would be worthwhile investigation. Acquiring a snapshot of the general public's interest in the biosphere reserve and how it could impact or benefit their livelihoods would help develop the priorities and goals for proponents of the initiative.

Another possible future pursuit would be the exploration of the place-based educational initiatives underway in SWNBR. Research projects could explore a number of directions with this topic. For example, examining the effects of place-based education on the value system of students, their parents and other community members could provide valuable findings. This would be especially relevant, to those interested in building empirical evidence to support the theoretical framework of place-based education.

6.7 Conclusion

The results of this research project support a comprehensive, flexible, bioregional and contextually responsive approach to public participation and place-based governance. Primary research collected from two conservation projects in Atlantic Canada suggests open and public deliberative activities seeking and incorporating public interests into decision-making processes throughout an initiative contribute to local legitimacy, accessibility and fairness. The case studies were assessed against eight criteria for effective public participation (strategic, inclusive, transparent, enabling, respectful, constructive, instrumental and meaningful) focusing on public engagement, the decision-making process and desirable outcomes. In the Burnt Cape Ecological Reserve case study (Newfoundland and Labrador), the Wilderness and Ecological Reserve Act's legislative mechanisms helped guide effective public participation during its designation phase, whereas the management phase delivered poorer public participation qualities. The Southwest Nova Biosphere Reserve (Nova Scotia) exhibited a respectful and constructive dialogue with its stakeholders but has invested much of its efforts in gaining the formal signatory endorsement of

key stakeholders. Increased local community engagement in deliberative activities can contribute to a plurality of stakeholder, value, epistemology, and knowledge types, and along with increased financial support can thus advance to open, accessible, participatory, well-informed decision-making processes and sustainability initiatives. The complexities and challenges of shifting to place-based governance should not be underestimated because of the local politics, power relationships, cultural loyalties, and personal and collective identities with the landscape and natural resources. Although socio-ecological systems are dynamic, grassroots and social movements demand a long-term commitment from a variety of community stakeholders.

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Appendix A Core set of questions in semi-structured interviews

Background

- What role did or does your organization /agency play in conservation planning or the conservation project?
- How did your organization become involved in conservation planning or the conservation project?
- In your opinion, what defines a community?
- In your opinion, what defines a stakeholder?

Outcomes

- In your opinion, what impacts has the designation or protection of the reserves had for your region?
- Have the communities benefited? If so, how?
- Have the communities lost? If so, how?

Process & Engagement

- Can you tell me who was involved in the process of designation or protection, from the beginning to now?
- How did these stakeholder groups (or individuals) become involved?
- In your opinion, were all key stakeholders fairly represented in the process of designation?
- Was there anyone (or stakeholder) who should have been involved in the process but was not?
- Do you know of any reason why they were not involved?
- Can you identify any barriers that restrict stakeholder involvement, currently?
- To your knowledge, are stakeholders involved in establishing future goals and common interests?
- Would you say that the process of decision-making is transparent? Why or why not?
- Would you say that the relationships are respectful between stakeholders? Why or why not?
- Would you say that the dialogues are constructive? Why or why not?

Appendix B List of Codes (Categories) From Open Coding

Awareness
Benefits/Meaningful
Capacity Building/Economic Support
Collaboration
Community Definition
Community Meetings/Consultations
Constructive
Democracy
Development
Education
Efficiency
Fair Stakeholder Representation
Impacts/Instrumental
Local Involvement
Local Value
Loses
Management
Outside Influence
Population/Out Migration
Rarity/Significance
Regional Identity
Respectful
Seasonal Benefit
Social Capital
Stakeholder Definition
Stakeholder Involvement Barrier
Strategic
Sustainable Development/Sustainability
Time Specific
Tourism
Transcendence
Transparency
Value Pluralism

Appendix C Types of Protected Areas in Newfoundland and Labrador

Agency	Legislation	Type of Protected Area
Parks & Natural Areas Division Natural Heritage Branch Department of Environment & Conservation Newfoundland & Labrador	Wilderness and Ecological Reserves Act Provincial Parks Act National Parks Lands Act	Wilderness and Ecological Reserve Provincial Park
Wildlife Division Natural Heritage Branch Department of Environment & Conservation Newfoundland & Labrador	Wild Life Act Endangered Species Act [1]	Wildlife Reserve Wildlife Park
Lands Division Department of Environment & Conservation Newfoundland & Labrador	Lands Act [2]	Crown Reserve Special Management Area
Oceans Programs Division Science, Oceans and Environment Branch Department of Fisheries and Oceans	Oceans Act Federal Fisheries Act	Marine Protected Area
Parks Canada	Canada National Parks Act Parks Canada Agency Act Canada National Marine Conservation Areas Act National Historic Sites and Monument Board Act	National Park National Marine Conservation Area
Canadian Wildlife Service Environment Canada	Migratory Bird Convention Act Canada Wildlife Act Cooperative Management Wildlife Area Species at Risk Act [1]	Migratory Bird Sanctuary National Wildlife Area Marine Wildlife Area

[1] This legislation is not designed to establish protected areas, however, it can prescribe land use activities and has implications for the establishment and management of protected areas.

[2] This legislation can be used to grant temporary protection to an area of land, the lead agency is Lands Branch, Environment and Conservation, but authority for site management can be designated to other Ministers.

(Government of Newfoundland and Labrador, Parks & Natural Areas Division)

Appendix D Newfoundland & Labrador's Reserve Establishment Process

Wilderness and Ecological Reserves Act

1. Proposal received by Advisory Council. *Section 11.(1)(2)* 2 or proposal rejected

2. Preliminary review by Advisory Council. 3 or proposal rejected
   - meeting with person or group submitting the proposal
   - site visit and investigation
   - preliminary meetings with community representatives and/or local residents
   - preparation of preliminary report and study area boundary

3. Proposal reviewed by government departments and agencies. *Section 12.(1)* •
   - outstanding land use issues identified
   - meetings held by Wilderness and Ecological Reserves Advisory Council and Parks and Natural Areas Division to clarify and attempt to resolve outstanding land use issues

4. Proposal reviewed by community representatives and local residents
   - public meetings held to inform the public of the reserve proposal, including the study area boundary
   - meetings held to clarify and attempt to resolve outstanding land use issues

5. Second review by Advisory Council. *Section 12.(2)* 6 or proposal rejected
   - approve or reject suggested revisions to proposal
   - update preliminary report and study area boundary
   - draft Government submission (report and order for gazette)

6. Recommendation to Cabinet to establish provisional reserve. 7 or proposal rejected

7. Provisional Reserve established (published in the Gazette). *Section 14.(1)*

8. Preliminary Management Plan drafted.

9. Public notice published within 1 year of the establishment of the provisional reserve, including boundary description, outline of management plan and statement that the public provide written notice within 30 days if they intend to participate in the public hearing. *Section 15*

10. Minister sets a time and place for the public hearing (within 90 days of the first public notice) but giving the public at least 30 days advance notice of the date of the hearing. *Section 16.(1)(2)*

11. Public hearings are chaired by Wilderness and Ecological Reserves Advisory Council.
    - final report written
    - Government submission prepared

12. Within 120 days a report of the public hearing and final recommendation to Government is submitted including boundary description, management plan and proposed regulations. *Section 17.(1)(2)(3)*

13. Final reserve is established by Order in Council *Section 18.(1)* or proposal rejected. If established, public notice is published in a newspaper in circulation in the area of the reserve to indicate establishment of the reserve, boundary description and management plan. *Section 18.(3)*

(Government of Newfoundland & Labrador, Parks & Natural Areas Division)

Appendix E Southwest Nova Biosphere Association's Goals and Objectives

Conservation

- Support voluntary conservation measures to protect landscapes, habitat, species and genetic diversity in the core, buffer and transition zone
- Encourage conservation of species of commercial and traditional importance
- Promote increased recognition and understanding of the natural environment of the Southwest Nova Biosphere Reserve.
- Preserve the ecological integrity of the protected Wilderness of Kejimkujik National Park and Historic Site of Canada and the Tobeatic Wilderness Area through appropriate management and community stewardship

Sustainable Development

- Promote and enhance the quality of life enjoyed by citizens of the Southwest Nova Biosphere Reserve.
- Promote increased recognition and understanding of the cultural heritage of the Southwest Nova Biosphere Reserve.
- Develop and promote demonstration sites to illustrate traditional sustainable practices of the regional economy.
- Encourage development of innovative resource use and conservation techniques to explore new approaches to local resource issues.
- Encourage development of appropriate nature-based recreation that is ecologically sustainable (ecotourism).

Capacity Building (logistic support)

- Gain the support and voluntary cooperation of the business, industries and communities of the Southwest Nova Biosphere Reserve to support conservation and development activities.
- Support citizen participation to inform conservation and development planning and implementation in the Southwest Nova Biosphere Reserve.
- Develop and promote successful local examples of cultural, educational, ecological research and development in the region.
- Develop opportunities for participation of students, teachers and community leaders in Biosphere Reserve activities to improve local awareness of cultural heritage and natural environment.
- Support scientific research and monitoring of ecological systems and socio-economic patterns of the Southwest Nova Biosphere Reserve, to obtain further understanding of environmental conditions to support sustainable resource management.
- Facilitate cooperation among federal and provincial agencies and private landowners with respect to conservation and development objectives.
- Establish a community-led mechanism for the resolution of local issues and concerns.

(Southwest Nova Biosphere Reserve Association 2001a: 114)