Enhancing the Role of the Recreationist in the Conservation of Parks and Protected Areas

by

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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

The tension between ‘acceptable’ human use of the environment and the management systems that intend to mitigate this use continues to be an important focus for discussion and research. This is particularly evident in the situation of recreation in parks and protected areas. Enhancing public participation in the development and implementation of resource management objectives has received much attention, in literature and in practice, as a way to mediate this tension. However, how this participation will come about or is to be facilitated necessitates further investigation.

This thesis further develops the notion of public participation with a focus on recreationists as a valuable source of assistance for achieving the conservation agenda. It also highlights that the assistance that recreationists could potentially offer remains predominately untapped. Two reasons for this include the restrictiveness inherent in current recreation and environment management approaches, and underlying assumptions that discount the value of public participation or cater to an active public, or recreationist, minority. Drawing on relevant social research, this thesis attempts to better understand the individual recreationist and derive from this an understanding of possible opportunities through which recreationist participation in conservation could be enhanced. Complementing this discussion is an identification of park managers as key recipients of this research, and a redefinition of their role from manager to one that emphasizes aspects of leadership.

Two methods were employed to further investigate this research: an extensive review of relevant theory as well as the use of two case studies: Killarney Provincial Park (Ontario, Canada) and Fish Creek Provincial Park (Alberta, Canada). Within each case study, interviews were conducted in the months of June and July 2000 with park staff and other appropriate individuals. At the same time, recreationists from both parks were surveyed. Interviews and survey questions were guided by the primary question of, “how can the role of recreationists in the conservation of parks and protected areas be enhanced?”

Eleven recommendations emerged from this research in regard to: opportunities for recreationists to participate in conservation, the role of social research, and the relationship between park manager and recreationist. This paper concludes by establishing an argument advocating recreationist participation in conservation, and offers ways in which this participation could be achieved.

Acknowledgements

As with any thesis, there exist numerous individuals who need to be recognized and appreciated for having provided periodic or continual support to its development. First and foremost, I would like to thank Professor Stephen Murphy who provided me the freedom, time and support to learn, stumble and explore my way through this thesis. This freedom enabled me to experience this university the way that I think it should be, as a place and opportunity for learning and self-challenge. I would like to thank Professor Paul Eagles who provided me the initial inspiration to come to Waterloo and this thesis idea, as well as the critical eye of a seasoned expert to bring both humility and strength to this research.

In addition, I extend my appreciation to the all of my case study participants from Fish Creek Provincial Park and Killarney Provincial Park, and my two key informants whose willingness to participate and contribute to this research enabled me to challenge and develop my ideas. Hopefully this thesis will make an equally valuable contribution to their research efforts, and provide inspiration to recreationists and park managers alike, in their pursuit for conservation.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

> "Learning is a gradual ascent toward confidence punctuated by the slippery panic of disappointments" (Lee, 1993: 110).

The relationship between humans and the natural environment needs to be re-examined, as do the systems that influence this relationship. Human societies have undergone many shifts in how people perceive of or relate to their environment, from hunter/gatherers, into the age of domestication and utilitarianism (Watson and Watson, 1969; Cronon, 1994). Unfortunately, societal growth and development has come at a great cost to the environment, where global warming, deforestation, desertification, acid rain, pollution and habitat encroachment continue to push society along a path towards environmental collapse and devastation (Allen, 1980; Soule, 1991; Postel, 1994). Where individuals and societies are beginning to appreciate the negative consequences of past behaviours, there is even more concern that the impact from a period of even greater exploitation has yet to be realized (Goodland, 1995). It is within this context that the discourse on sustainability had emerged (Goodland, 1995; Robinson *et al*, 1990; Brundtland, 1987), and continues to guide on-going efforts to mitigate these concerns.

The environmental protection offered by parks and other protected areas are one way by which society's desire to maintain the landscape as natural is expressed, and the broader goal of sustainability is pursued. In addition, these parks also serve as places for people to experience nature and escape the stresses of urban life. For example, Canadian federal and provincial parks identify both environmental protection and public enjoyment or recreation within their mandates (e.g. National Parks Act, 1998; OMNR(a)). However, it has often been remarked that these dual mandates of protection and recreation are incompatible (Manning et. al., 1996; Killan, 1998), which is supported by many studies that document the negative environmental impacts derived from recreational use (see Liddle, 1997; Hammitt and Cole, 1998). Compounding this situation, are difficulties associated with increasing levels of recreational use and human encroachment, resource management understaffing, and decreasing levels of financial support (Mieczkowski, 1995; Eagles, 1999). There is a growing sense that research and management efforts are in need of assistance in order to protect these and similarly environmentally significant areas.

Most likely the solution to ensuring sufficient environmental protection will not be the consequence of a single initiative, but a composition of many initiatives, now and into the future. Where public

participation is often seen as an important source of assistance (Lawrence and Daniels, 1996; Pretty and Shah, 1997; Mitchell, 1997; Owen, 1998), one such participation perspective that has received limited attention and development is that of specifically identifying recreationists as valuable contributors in the conservation of parks and protected areas. Understandably, an extensive history of negative environmental impact, accompanied by a strongly institutionalized philosophy and practice towards the professional management of this impact, could be responsible for any oversight or neglect of valuing recreationist contributions to conservation. However, advances in research on volunteering, public participation, community development, sustainability and other forms of social research provide a favorable context in which to discuss and develop recreationist participation in conservation. Ultimately, there is a need to investigate whether recreationist participation can provide a suitable addition to existing conservation efforts, and the nature by which this would come about.

This research responds by exploring the primary question of *how can the role of recreationists in the conservation of parks and protected areas be enhanced*. In doing so, it will first have to provide a rationale as to "why" such a question has value, and then discuss a means, or the "how" it may be accomplished. As will be apparent in the ensuing discussion, these questions, "how" and "why", are deceiving in their simplicity, where potential responses required great amounts of discussion and development. As a result, three objectives were prepared to focus and provide the necessary operational guidance for this investigation:

1) document the present perceptions regarding the value of recreationists as a resource for conservation,
2) document the opportunities available for recreationists to participate in parks and protected areas conservation and the extent to which they are presently involved, and
3) explore opportunities in which recreationists could better contribute to parks and protected area conservation.

Through the exploration of these objectives, a *conceptual argument* will be presented which explores the role of the recreationist as a contributor to the conservation of parks and protected areas, and provides the necessary baseline rationale to pursue further investigative research.

1.1 Thesis Chapter Summaries

This research employed a complimentary design of theory development and case study investigation. The following chapter – chapter 2, entitled research methodology – provides an explicit review of how these two design components were conducted and eventually incorporated throughout the thesis.

It outlines the research philosophy employed, which case studies were selected and why, how the data were collected and then analyzed, and also reviews a variety of other methodological topics. Chapter 2 sets the stage for the development of theory and the presentation of case study results throughout the entire thesis.

Equally important, the valuation of recreationist participation is critical in the development of this thesis, since all other chapters depend on the position that recreationists are worth further investigation. Chapter 3 serves this function of answering "why recreationists," by drawing upon the wealth of public participation and local knowledge literatures for theoretical and case study support, along with notions of adaptive management and social learning. From this discussion, this chapter is able to address the first thesis objective regarding perceptions of recreationist participation.

Chapter 4 reviews current resource and recreation management practice, then uses the perspective of recreationists as a potentially valuable contributor, developed in the previous chapter, as the basis of critiquing management's approach to involving recreationists in the conservation of parks and protected areas. In developing this critique, accompanied by theoretical and case study results, this chapter discusses the opportunities available for recreationist participation in conservation, and thus the second objective.

This critique is carried forward into chapter 5, which applies existing social research, in the fields of leisure and motivation, to establish potential alternatives to enhance recreationist participation, as is the intent of the third objective. It does so by developing the identity of the recreationist as a leisure active subset of the public and investigates the implications of this identity and the role of constraints in regards to participation.

Objective three is further addressed by considering notions of implementation within chapter 6. In this chapter park managers are identified as important facilitators to enhance recreationist participation, and also the primary recipients of this research. In addition, this chapter provides a review of the opportunities and barriers for change, arising from both park managers and the institutions within which they operate.

Finally, chapter 7 highlights the main contributions of this thesis in the form of specific recommendations developed within each previous chapter, and situates them in the context of reviewed literature. It also reflects on the objectives presented earlier and highlights how they were

addressed by this research. The goal of this discussion is to conclude by providing readers a tangible perspective of how to enhance the role of the recreationists in the conservation of parks and protected areas.

Chapter 2 Research Methodology

2.1 Research Philosophy

Relatively few studies have specifically investigated the role of recreationists in the conservation of parks and protected areas. As a result, this thesis had to adopt a primarily exploratory design (Table 2.1), drawing upon a wide range of literature including recreation management, public participation, environmental behaviour, social psychology and sustainability in order to better address the thesis question. This literature review proved to be a valuable exercise since all of these information sources continue to ask similar questions, although from different perspectives. This consistency between literatures enabled a focus of theory and ideas that would be more descriptive and so this research finds itself incorporating aspects of both descriptive and exploratory research purposes, with a primary intent towards exploration and conceptualization.

Table 2.1.Goals of Exploratory and Descriptive Research (Neuman, 1997)

Exploratory Research	Descriptive Research
• Become familiar with the basic facts, people, and concerns involved • Develop a well-grounded mental picture of what is occurring • Generate many ideas and develop tentative theories and conjectures • Determine the feasibility of doing additional research • Formulate questions and refine issues for more systematic inquiry • Develop techniques and a sense of direction for future research	• Provide an accurate profile of a group • Describe a process, mechanism, or relationship • Give verbal or numerical picture (e.g. %'s) • Find information to stimulate new explanations • Present basic background information or a context • Create a set of categories or classify types • Clarify a sequence, set of stages, or steps • Document information that contradicts prior beliefs about a subject

As will become evident through the development of ideas towards the concluding statements, this research follows a critical social science methodology, or philosophy, as described by Neuman (1997). It is social research because of a focus on the social context that surrounds the issue of recreationist participation in conservation. Although containing many 'positivist' attributes, such as identifying principles, ideas, and concepts in order to contribute to realization of a goal or by providing result summaries, this research supports an interpretative approach and recognizes alternate ways of gaining knowledge. It will develop a critique on how the current system stifles the potential to gain even more knowledge. As a result, this research can most effectively be characterized as following a qualitative style of investigation, complimented by the use of quantitative information where appropriate (Table 2.2).

Table 2.2 Quantitative versus Qualitative Research Styles (Neuman, 1997)

Quantitative Style	Qualitative Style
Measure objective facts	Construct social reality, cultural meaning
Focus on variables	Focus on interactive processes, events
Reliability is key	Authenticity is key
Value Free	Values are present and explicit
Independent of context	Situational constrained
Many cases, subjects	Few cases, subjects
Statistical analysis	Thematic analysis
Researcher is detached	Researcher is involved

This research is critical social research for a variety of reasons. Similar to interpretative social research, it attempts to engage the social world, to understand perspectives and context. However, it does so to pursue the agenda of how to improve recreationist participation in conservation as a means to improve humanity's pursuit of a sustainable society. Consequently, there is recognition that this research is not value free, as it was initiated based on the values of the researcher and attempts to recognize the values of its contributors. One such value put forth is the belief that individuals have a great deal of unrealized potential that is constrained by material, cultural, and historical conditions. However this belief needs to be accompanied by a clear rationale and supporting evidence in order to effectively advocate and describe the change necessary for recreationists and park managers to realize this potential.

2.2 Researcher Background

To be true to the explicit recognition of values and alternate perspectives, an improved understanding of the researcher's background is necessary. I possess an undergraduate degree in ecology, with an emphasis on fish ecology, statistics, and modeling. As a result, I was immersed in the heart of positivist science, and was able to foster a strong belief in environmental protection. Upon completion of this degree, I became employed by a provincial park as a land management technician in order to bring 'better science' into a recreation management initiative. During that time, I quickly realized that science, although an expectation of the management process from both park mangers and the public, plays a different role and application for everyone involved. Moreover, the seemingly objective perspective and conclusions that science puts forth are often deferred to the socio-political context in which it operates. At the end of this management exercise, an opportunity was missed to develop a beneficial relationship between recreationists, managers and the environment. This outcome became the motivation for my pursuit of a master's degree and this thesis – so that I could better understand and improve recreation management practice. Also within the provincial park system, I had an opportunity to become an enforcement officer. This position obligated me to understand and respect the influence and responsibility of authority, whether perceived or legitimate.

It also provided insight into the importance of discourse as a means to resolve conflict and encourage cooperative participation, as well as appreciate the potential contributions recreationists could offer management. Finally, from my experience as a re-learning facilitator for individuals with head injuries and my employment in university disability services, I have gained an appreciation for the great potential of others to contribute from within a system that takes the time and is flexible enough to seek this potential by appealing to others on their own level. This experience is the basis of my values, which I reveal within this thesis.

2.3 Conceptual Framework

This research is conceptually divided into three distinct parts: literature review and synthesis, complementary field research, and implementation (Figure 2.1). The first part, inclusive of chapters 3, 4 and 5, provides both a review and synthesis of relevant literature and the presentation of relevant results. Each chapter addresses a research objective, as well as advances a line of reasoning and/or synthesizes the theories and concepts developed in previous chapters.

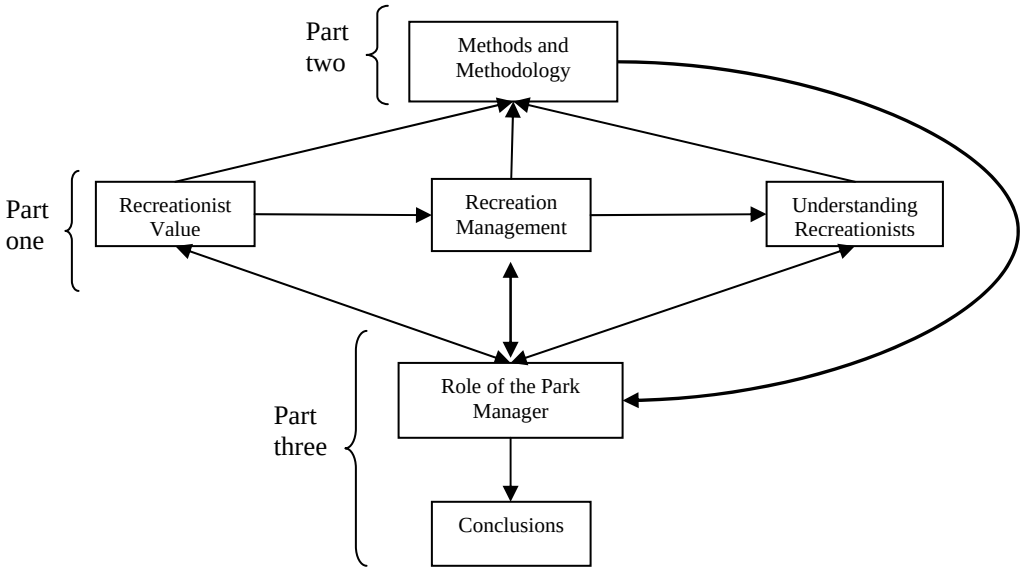

Figure 2.1 Conceptual Framework

The second part, chapter 2, explores the research topic through the use of a set of case study methods that will serve to support or refine the ideas developed in the whole of this research. Importantly, this part is not the focus of the research as it would be in a typical ‘hour-glass’ research design; however, it complements and supplements the ideas developed in the first part with valuable field research.

The third part, inclusive of chapters 6 and 7, discusses the role of the park manager as the means by which implementation will occur.

This research design evolved from a number of influences including the post hoc discovery of relevant literature, the consistency of theory advanced within different literatures and the limitations in the time and funds available to conduct research. However, the dominant factor influencing this design was the exploratory purpose of this research as a means to develop a conceptual argument or line of reasoning to address a deficiency in researching recreationists.

2.4 The Need for Field Research

Field research provided support for or substantiated many of the ideas and assertions presented in the following chapters. In addition, it facilitated the exploratory purpose of this thesis by allowing the exchange of new information, emergent themes, ideas and perceptions not previously anticipated by the researcher, or literature (e.g. new ways to participate). The researcher was able to experience and explore these ideas from an on-the-ground perspective and not just through the distilled summaries presented in literature. This was important in order to balance a theory-heavy thesis with a more practical perspective and application. Field research provided a valuable 'real world' situation, with knowledge of the social, political and environmental context surrounding specific participants, as a platform to develop many of these research ideas and offer specific recommendations. This is an important consideration when attempting to appeal to a wide variety of audience members with divergent backgrounds, expectations or preferences. Furthermore, this exploration was important, not only to gather additional support or refine theory, but also to create an opportunity to challenge the ideas being presented in order to understand the limitations and potentials of the research. Finally, this research needs to practice what it preaches, where a major theme to be developed in chapter three, was the need to develop an understanding of others, which would include both recreationists and park managers. It seems presumptuous to claim that literature alone could manifest a sufficient level of understanding.

2.5 Issue of Ethics

Confidentiality and anonymity was immediately guaranteed as a condition of participant involvement in this research. All participants received a copy of the interview transcript for review and editorial comments. In the case of the surveys, recreationists were not asked to identify themselves on the survey. In no circumstances were comments identified to a particular participant, as responses were referred to by their participant category (i.e. Fish Creek Provincial Park Manager).

Information collected during and after the research period was maintained in a locked location when they were not in use. This included specific notes, audio-tape records, written surveys and computer files. Data will be retained under these conditions for a standard seven-year period, unless circumstances allow for earlier disposal. Every participant was treated with utmost respect and appreciation. There were no apparent circumstances where participants felt that this trust had been violated. In the event that there is future concern, participants will be asked to initially approach the researcher. If this is not sufficient then committee members will be notified along with the University Ethics Review Board. As a condition of conducting research in the University of Waterloo, all research methods and revisions have undergone approval from the Office of Human Research.

2.6 Operational Definitions

Natural (or natural environment): refers to a state of the environment that maintains many of the qualities, processes, and conditions of a previous state typical of pre-human development or modernization. In this research, a natural environment would primarily refer to parks and protected areas.

Parks and Protected Areas: refers to regions or areas that are legally recognized for their role in environmental conservation and recreation, such as Federal, Provincial, State, Region or Municipal parks. This research will specifically explore Provincial protected areas.

Recreationist: refers to any individual that is actively participating in a leisure activity, where the performance of the activity is fundamentally dependent on their being in the "natural" environment. It would include individuals where a causal link can be established between an individual's actions and the physical act of their recreating in nature.

Environmental conservation (or conservation): the maintenance of biophysical resources, considering floral, faunal and geological diversity, with the allowance of appropriate human use and environmental change. It also includes activities or contributions that assist environmental managers in their pursuit to realize the official mandate of parks and protected areas to ensure environmental protection as well as recreational opportunities.

Participation: the process and consequence of voluntarily involving oneself or contributing.

Park Manager (manager): those individuals entrusted with the responsibility and authority to oversee and implement the mandate of environmental conservation and recreation within parks and protected areas. Such individuals would be employed at the specific park level and involved in aspects of policy development and/or park operations, including field staff. Any reference to

"resource" manager recognizes scale and refers to similar individuals that operate at a scale above the specific park level.

"Friends of" Organizations: public community organizations that work cooperatively with the management personnel of parks and protected areas and promote positive community and public relations. As a group they are involved in a number of initiatives such as research, education, management and interpretation.

2.7 Research Design

This research was conducted using three investigative methods: theory development, a general information-gathering phase, and case studies, where the case studies included interviews with park managers and park affiliated organizations, recreationist surveys, data log, and an audit of relevant park documents. The use of all these methods took advantage of a mixed-methods design or triangulation, so as to compensate for weaknesses inherent to any particular method, or to corroborate emergent ideas from a variety of sources.

2.7.1 Theory Development

This research intended to integrate, not create, concepts and theories from a variety of disciplines that have not been previously integrated or lacked substantive development, particularly with respect to recreationists and conservation. Consequently, the literature reviewed does more than just provide background context; it creates a theoretical space of inquiry. In many circumstances this integration of theory relies upon or produces a variety of assumptions, and it was the testing of these assumptions that formed the basis of the methods. As a result, theory development and the other methods are seen to complement as well as provide investigative support for each other.

2.7.2 General Information Gathering Phase

A variety of individuals or agencies representative of different aspects of the recreationist-conservation relationship, such as recreation societies, conservationist groups, and "Friends of" organizations were contacted using email. They were asked if they possessed any information documenting their perspective and practice regarding the recreationist as a contributor to conservation, which included requests for statistics, pamphlets, reports, contacts, and additional comments. It was conducted throughout the duration of the research period as potential sources of information were identified. The most significant contributors to this phase were: The Alpine Club of Canada, National Audubon Society, Ducks Unlimited, and Alberta Environmental Protection.

2.7.3 Case Studies

Case studies enabled the testing and exploration of theory at the level appropriate to recreationist engagement. They provided a means to gain insight into a variety of approaches and the underlying principles of how and why recreationists could participate in conservation. The case studies were not intended or extensively used as the basis of comparative research since the primary philosophy and goal of this research was the exploration of an idea and not of specific parks. Two case studies were pursued, Fish Creek Provincial Park (FCPP)(Calgary, Alberta)(Figure 2.2 and 2.3) and Killarney Provincial Park (KPP)(Georgian Bay, Central Ontario)(Figure 2.2 and 2.4).

Figure 2.2. Map of Canada

(source: Government of Canada with permission from Natural Resources Canada. © 2001: http://www.atlas.gc.ca/)

Figure 2.3. Fish Creek Provincial Park (Alberta, Canada)(source: Fish Creek Provincial Park, Management Plan, 1997)

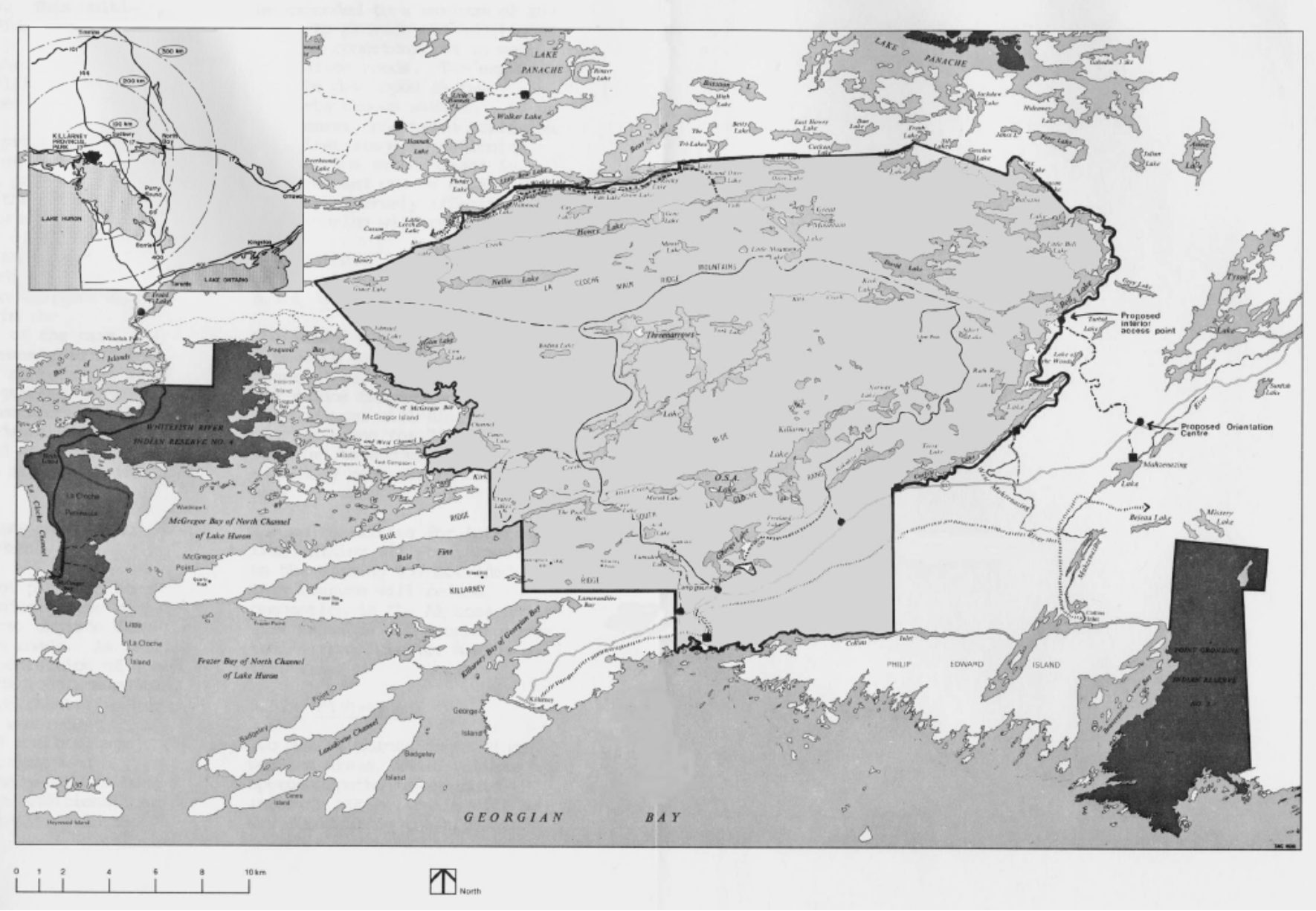

Figure 2.4. Killarney Provincial Park (Ontario, Canada)(source: Killarney Provincial Park Management Plan, 1985)

2.7.3.1 Case Study Description and Selection Criteria

"The success of all idea-generating techniques…is intrinsically linked to participant or expert selection, and the declaration of selection criteria" (Needham and de Loe, 1990: 136). With respect to parks and protected areas, a variety of criteria such as differences in governing agency, management practice, natural environment, recreational uses and intensity all play an important role in influencing differences or similarities in park context. The application of these criteria was considered to provide a sufficient level of discrimination to identify two appropriate case studies for the purposes of this research. Differences in recreational uses and intensities were maximized between the two case studies, where as divergence of the other criteria was minimized. The list of potential park study sites was based upon a process of internet research, consultation with committee members and government officials. The following paragraphs are an elaboration of each selection criteria in relation to the case studies.

2.7.3.1.1 Governing Agency

Provincial and federal governments play a significant role in natural area conservation, especially in North America. In addition, their dual mandate of environmental protection and public enjoyment provides the essential dynamic within which to investigate the role of recreationists in conservation. Both provincial and federal systems have similar governance structures, such as ministers, region managers and on-site staff, including conservation officers, and interpreters or educational staff, who actively interact with recreationists. Although, both park systems provide appropriate venues of study, the provincial systems were investigated, in part, for their greater emphasis on recreational use relative to federal parks. In addition, a focus towards provincial parks could begin to address the imbalance of research conducted in federal parks in comparison to provincial parks (Van Osch, Nelson and Lussier, 2000).

Both case studies are of provincial park designation; however, their location in either Alberta or Ontario introduces complexities associated with different governing agencies. A detailed investigation of the implications of these complexities with respect to environmental protection is beyond the scope of this study. However, a brief consideration of this governing concern reveals that both provincial systems were governed by Progressive Conservative majority governments during the time of this research, which seemed to be very consistent in their approach to environmental protection. At the level of the individual park, both Fish Creek Provincial Park (FCPP) and Killarney Provincial Park (KPP) share similar mandates of environmental protection and the provision of recreational opportunities, within an economically constrained and politically conservative context.

2.7.3.1.2 Management Practice

Preference was given to those parks that displayed an attitude or management practice, as determined through conversations with relevant park staff or management documentation, that most closely resembled the ideas being developed within this research (e.g. "success stories"). This preference enabled the constructive exploration of both the impediments and the solutions of theory implementation. In addition, it provided the most effective foundation in which to legitimize this research, either by way of documenting existing examples or through the acceptance and constructive development of research ideas.

Favorable attitudes were evident in staff willingness to support this research in their park, as well as their interest in subsequent research products. In addition, both parks have developed or are in the process of finalizing management plans, which will guide future management practice within the park. This management planning process is indicative of the parks having recently undergone a visioning exercises as well as assessments of their management intentions, including reference or non-reference to recreationists and conservation. The presence of public participation in park management was evident in their mutual support of a variety of volunteer programs as well as having active “Friends of” groups (elaborated in chapter four). Finally, they both provide extensive educational or interpretative programs for the public, particularly children.

2.7.3.1.3 Recreationist Use and Intensity

Preference was given to parks that identified within their mandate both high levels of conservation and the provision of recreational activities. The more diverse the activity types, the greater the number of situations that lend themselves to exploring the notions developed within this research, and the greater the variety of interactions that would exist between park managers and recreationists. In addition, the intensity of visitation had to be high enough to allow for a sufficient number of recreationist surveys to be completed within a short period of time.

Fish Creek Provincial Park and Killarney Provincial Park diverge dramatically with respect to how recreational opportunities are manifest as a result of their size, location, and classification. Fish Creek Provincial Park has been identified as the largest urban provincial park in Canada (1,189 ha) and is located within the municipality of Calgary, Alberta. It states within its management plan that "Alberta's Fish Creek Provincial Park is a natural landscape in an evolving urban setting where the needs of wildlife and natural systems are balanced with outdoor leisure and environmental education opportunities" (Fish Creek Provincial Park Management Plan, 1997). In addition, as a provincial

park it is intended to protect significant natural and historical landscapes and features while offering a range of facilities along with interpretive and educational programs to enhance opportunities for visitors to explore, understand, appreciate and respect the natural environment (Fish Creek Provincial Park Management Plan, 1997). However, it does so in a strictly day use facility offering approximately twelve recreation areas, including an artificial swimming lake with a sand beach, and access to the Bow River and Fish Creek, all connected by a network of paved or shale paths. As an urban park it receives an extraordinary intensity of visitation (2.2 million visits per year, 1996 estimate), predominately from communities adjacent to the park, and caters to many levels of visitor abilities. Recreationists can participate in such activities as hiking, walking, fishing, canoeing, swimming, rollerblading, horse riding, touring or mounting biking, nature watching and cross-country skiing.

Many of these activities, excluding rollerblading and biking opportunities, are also facilitated in Killarney Provincial Park in addition to the provision of sea kayaking in Georgian Bay, as well as overnight and interior park camping (e.g. 122 sites in the main campground and 170 scattered through the interior). As a wilderness park, Killarney Provincial Park (48,500 ha) is dedicated to "the protection of substantial areas where the forces of nature are permitted to function freely and where visitors travel by non-mechanized means and experience expansive solitude, challenge and personal integration" (OMNR(a)). It has also been designated as a World Conservation Union (IUCN) classification 2, which requires a mandate to protect outstanding natural and scenic areas of national or international significance for scientific, educational, and recreational use. Consequently, facilities are provided through minimal development, such as no paved hiking trails, which is also the preference of those individuals that pursue more physically challenging recreation, although signage and some trail maintenance occurs. Multi-day hiking, canoe and kayaking trips are popular attractions, leading into rugged and seemingly pristine regions of the park. Thus the recreation opportunities in the two parks are vastly different. Also, the level of visitation in Killarney Provincial Park is dramatically less than Fish Creek Provincial Park (40,000 visits per year; Miller, 2001, personal communication), and is likely a result of its distance from urban centres as well as the limited availability of overnight facilities.

A number of recreationist organizations associate themselves or are involved with Fish Creek Provincial Park, which include Calgary Mountain Bike Alliance and the Calgary Field Naturalists, to mention a few. A similar collection of organizations can be identified for Killarney Provincial Park such as the Killarney Outfitters among other privately operated outfitters, and the Sudbury

Naturalists Club. The presence of these organizations for both parks facilitated an improved investigation of recreationist activities for this research.

2.7.3.1.4 Natural Environment

A fundamental element of either case study was the existence and protection of the natural environment. Despite dramatic differences in size, Fish Creek Provincial Park and Killarney Provincial Park both support very similar types of species. For instance, wildlife including deer, coyotes, badgers, peregrine falcons, beavers, as well as a number of smaller animal species can be found in Fish Creek Provincial Park. In addition, transient species such as black bears, bobcats, cougars, and moose are periodically present because of the park's proximity to the Canadian Rocky Mountains and to the Bow River and Fish Creek water corridors. Similarly, local populations of black bears, moose, deer, lynx, peregrine falcons, beaver, and wolves, among many others, reside in Killarney Provincial Park. Although both parks share a number of natural features, there are many distinct differences. With respect to vegetation and the physical environment, Fish Creek Provincial Park ranges from prairies to spruce and poplar dominated forests stands, located within the Fish Creek and Bow River valleys; whereas Killarney Provincial Park is located along the north side of Georgian Bay and in the Canadian Shield, which results in a landscape consisting of numerous lakes and white quartzite ridges dominated by pine and hardwood forests. Furthermore, Killarney Provincial Park is able to maintain much of its land base as wilderness, while Fish Creek Provincial Park is only capable of maintaining some elements of a natural environment.

2.7.3.2 Case Study Interview Participant Selection

2.7.3.2.1 Position and Association within Case Study

In order to consider a variety of perspectives three main groups were investigated for each case study – parks managers and representatives from both recreationist and conservationist organizations that were directly affiliated with the park. Preliminary communication with the Research Manager or Park Superintendent enabled the identification of appropriate participants within the provincial agency, including volunteer and education coordinators, interpreters and other staff. These same discussions assisted in the identification of the park-affiliated agencies. For those groups that park managers did not provide specific contact information or recommendations, the appropriate agencies were contacted directly with a letter explaining the purpose of this research (see appendix D). In the letter they were asked if they could identify someone who would be willing to participate in this research as a representative of their organization. Since single or few individuals were available to represent specific positions, or prospective participants were identified through the recommendations of others within their agency, little room was available to be overly selective. However, preference

was given to those individuals who held senior positions within their respective agency or department, possessed specific responsibility over public involvement and communication initiatives, or who were recommended by others within their agency. Everyone was able to communicate effectively using email correspondence, except for one individual who required fax transmissions and phone calls. In the end, 13 participants were involved in interviews for both case studies.

Fish Creek Provincial Park: 2 Park Managers, 1 Park Educational Staff, 2 Friends of Fish Creek, and 2 Calgary Field Naturalists (total 7).

Killarney Provincial Park: 2 Park Managers, 1 Park Interpreter, 1 Friends of Killarney, 1 Sudbury Field Naturalist Club, and 1 Killarney Outfitters (total 6).

Everyone contacted was willing to participate with the exception of the Calgary Mountain Bike Alliance, in the context of Fish Creek Provincial Park, who declined.

2.7.4 Key Informants

In addition, two key informants were involved with this research. These individuals were originally selected to participate in a broader discussion group in which this thesis idea could be explored using a mixed-Delphi design. This method was subsequently removed due to thesis time constraints; however, these two individuals had already contributed their valuable perspective and insights. In order to honour their contribution, they were included in this research as offering a non-case study viewpoint. Their apparent interest in ways of thought similar to what was being developed in this thesis, and their prominence in recreation research and environmental management in the United States (Bureau of Land Management and National Forest Service) were the criteria on which they were originally selected.

2.7.5 Method of Information Gathering

2.7.5.1 Email Communication

Email was used as the primary form of communication because it allowed for an inexpensive, fast and efficient means of correspondence between participants and the researcher that was not restricted by geographical distance. This proved invaluable when reviewing and confirming accuracy of interview transcripts with study participants. In addition, it accurately recorded, in digital format, participant responses with no concern for researcher errors in note taking and increased ease of importing information into a format appropriate for data management and coding.

2.7.5.2 Telephone or Face-to-Face Interviews

Both telephone and face-to-face interviews provided a fast and efficient means of communication, while facilitating improved social interaction and personal contact. They allowed for direct and immediate communication to questions and enabled the researcher and respondents an opportunity to probe responses and questions (see Neuman, 1997). As a result, it functioned to explore (improve breadth) and get justification for specific ideas (improve depth). Interviews were recorded, pending participant approval, using a tape recorder. Each interview was allotted 1 hour, with a few interviews extending beyond this time limit as a result of participant interest or diversion towards other topics. All interviews were transcribed immediately upon returning from the case study and then emailed, or faxed, to the respective participants for review. Participants were instructed to read through the transcript to ensure its accuracy, as well as to give them an opportunity to edit, clarify, and elaborate on any particular idea or statement.

2.7.5.3 Recreationist Survey for Case Study

The objective for the recreationist survey was to engage the recreationists, and highlight their perceptions regarding their contribution to conservation, the value of this contribution, and ways in which it can be improved. Final revisions of this survey were made in consultation with the thesis committee and park management staff; however the survey was adapted during and between case studies as a result of recreationist responses, or lack thereof.

A stratified random sampling technique was employed, whereby the survey was administered from strategic locations within each park in order to ensure sampling of areas that may be tailored to specific activities (i.e. trail heads, trail nodes, parking lots, bathrooms, beaches, campsites, fishing locations). Individuals age 15 years or older were included in the survey. Every third group, composed of multiple or a single individual, was approached with a standard greeting and request for participation. However, in circumstances where between-survey time exceeded 10 minutes, the next immediate group was sampled with the assumption that the groups were independent of each other. Up to three independent surveys were completed at one time. When group size was greater than one, the entire group was approached and a request for a single respondent was made. Often a single individual would come forward and participate. If other individuals of that group requested to participate, they were also given a survey to complete in order to capitalize on their willingness and interest. Although one survey was handed out per group, in many circumstances, and in particular for Killarney Provincial Park, most members of the group would jointly contribute to responses. This

was not discouraged for two reasons. First, involving the whole group in the discussion reduced the occurrence of non-participant members of the group pressuring the participant to accelerate their responses, thus improving the quality of the responses obtained. Second, the synergy that developed from the group's joint effort resulted in a thorough discussion of each question, which greatly contributed to the exploratory intent of this research. In these circumstances, the individual that filled in the survey, or dominated the discussion, was considered the primary respondent for the demographic questions of the survey. Typically, surveys were completed immediately in order to increase the rate of response and allow opportunity for questions and clarification. An allowance was made to accommodate those unable, or unwilling, to complete the survey at that moment by providing them with the researcher's mailing address.

A sample size goal of 150 completed surveys was intended for each park, for a total of 300 completed surveys. This sample size was chosen in order to allow a sample of recreationist perspectives and opinions while allowing the researcher an opportunity to administer each survey at an estimated 15 minutes/survey for a total of 37.5 hours of survey time per park. Importantly, this estimated time allotment is very conservative since it does not include time spent between surveys or surveys that took longer than fifteen minutes.

A total of 80 and 49 surveys were completed for Fish Creek Provincial Park and Killarney Provinical Park, respectively, for a total of 129 completed surveys. Primarily time constraints prevented further surveys from being completed, since many surveys took longer than the estimated fifteen minutes because of post survey discussions between recreationists and the researcher. This situation was particularly true for Killarney Provincial Park. In addition, Killarney Provincial Park, as with other Ontario Provincial Parks, allow longer stay overnight camping (maximum stay, 21 days), which reduced the number of individuals or independent groups that could be approached within a limited period of time. Implications of the actual sample size on research conclusions will be discussed later in this chapter.

2.7.5.4 Field Data Log

A Field Data Log was kept throughout the case study in order to document information not formally collected in the survey or in interviews such as weather, busyness of an area, researcher comments or reflections, and additional participant comments or actions. For instance, upon completion of each survey, participants were given an opportunity to become informed about how their survey was going to contribute to this research. In many circumstances, these recreationists revealed information

pertinent to this research that the survey was unable to sample, that they did not realize was valuable, or that they forgot to mention. It also provided valuable contextual information towards understanding participant responses.

2.7.5.5 Audit

An audit was conducted of reports and other sources of information that guided or recorded any instance of manager-recreationist interaction and communication. Sources included park occurrence reports, management plans, policy documents, and displays of public information. Any reference to recreationist contributions to conservation, or solicitations by management for recreationist participation, was explored.

2.7.6 Survey and Interview Questions

2.7.6.1 Open and pre-Coded Questions

Each survey and interview questionnaire was comprised of both pre-coded and open-ended sections in order to capitalize on their individual strengths as a method for information gathering (see appendix A). Open-ended questions facilitated exploratory research (Oppenheim, 1992: 112-115). They allowed the development and investigation of ideas and provided an opportunity for respondents to state the reasons that justify their answers, as well as provided insight into the context in which the answer was given. Pre-coded questions tended to be more suitable for confirmatory hypothesis testing (Oppenheim, 1992), and allowed for easier response integration or comparisons. In the context of this research, pre-coded questions provided three functions, a) a method in which responses were quickly compiled, analyzed and reported for the purposes of informing subsequent rounds of discussion, b) the provision of data in a form that was easily managed for final comparisons, reporting and display, and c) a means to ensure that all of the predetermined topics had been explicitly addressed. Scales, such as using units of agreement (e.g. strongly agree to strongly disagree), provided the mechanism in which questions were pre-coded.

2.7.6.2 Question Design, Structure and Pre-testing

Questions were designed to specifically address the three objectives outlined in this research, which were intended to address specific issues, gaps or assumptions arising from the theory development. Themes included:

- documenting participation opportunities (question 1)
- inclusiveness of participation opportunities to recreationist population (question 2)
- satisfaction with existing participation opportunities (question 3, 4 and 6)
- value and importance of recreationist participation in conservation (question 5)

- willingness of recreationists to participate in the conservation of parks (question 7)
- role of park management in the provision of participation opportunities (question 8)
- alternative ways to increase recreationist participation (question 9)
- exploration of constraints to participation (question 10 and 11)
- perceptions of the compatibility of recreation and environmental protection (question 12 and 13)
- demographics of survey respondents (question 14, 15, 16, 17, 18, 19, 20, 21)
- opportunity for respondents to communicate their own ideas (question 22)

Each question theme had two variations where one set of questions was used for the recreationist survey and the other for case study interviews. The survey questions adopted an easier level of wording difficulty and were directed towards their own recreational experience, such as "do you participate….". Whereas, the interview questions were also directed towards recreationists, such as "do you think that recreationists…". For interviews with recreationist organizations affiliated with either park, they were asked to respond as a representative of their organization as a group of recreationists. Both sets of questions were pre-tested by ten individuals located within various departments at the University of Waterloo including professors and students, whom were asked to consider issues of question clarity and appropriateness. These individuals were chosen because of their expertise in social research, as well as their ability to provide a critical perspective. Questions underwent approximately three iterations of review and revision until the thesis committee accepted their final form. However, during the course of conducting surveys in the first case study, Fish Creek Provincial Park, it was found that a couple of survey questions were consistently not being answered or at least not in a form that would yield useful information. Reasons for non-responses were not investigated with the participants; however, difficulties in question wording as well as the recreationist's desire to return to their activity were likely causes to inadequate responses. As a result, question 1 was reworded and a number of other questions were deleted from the survey, or made optional, which also shortened the length of time required to complete the survey. Alterations to survey questions were presented and approved by the park research liaison prior to their use.

2.7.7 Data Transcription and Entry

Email communications were transferred directly into the database in digital format. Survey open and closed responses, as well as interview responses were transcribed from audio or paper format into a social research computer program entitled NVivo (Scolari http://www.scolari.com). Each one-hour taped interview took approximately four hours to transcribe, verbatim.

2.7.8 Analysis and Reporting

The overall analysis design involves data being collected from either survey or interview methods, through a process of theme identification, coding, presentation (e.g. histogram plots) and discussion (Figure 2.5).

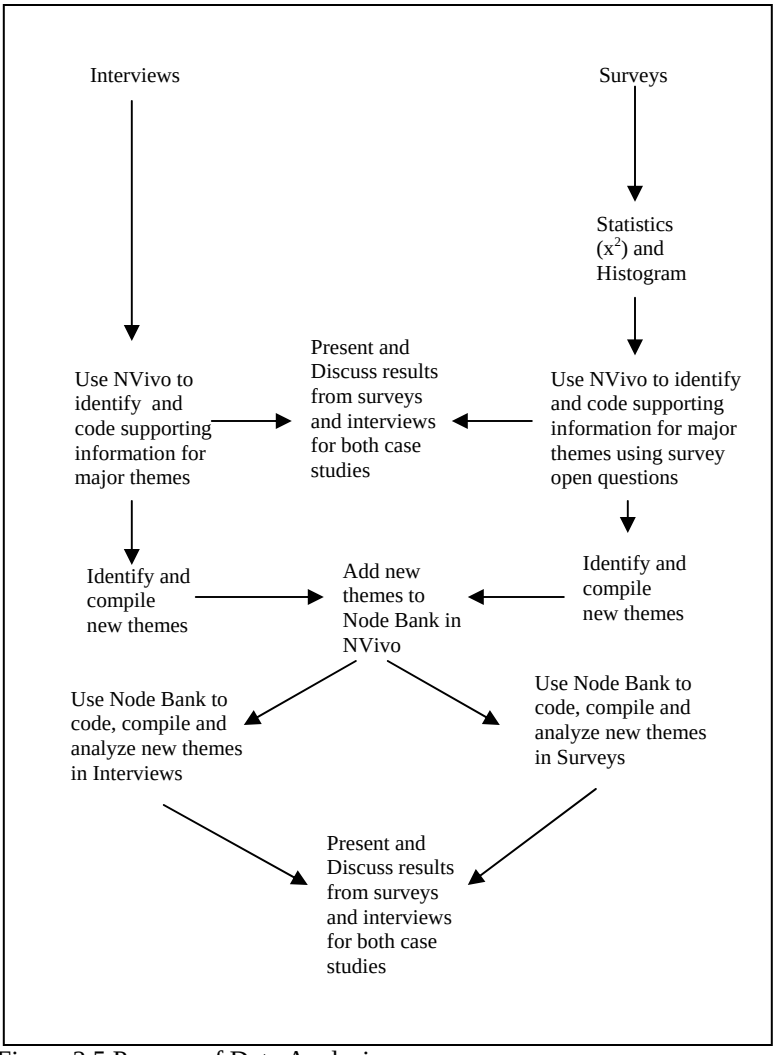

Figure 2.5 Process of Data Analysis

The combination of pre-coded and open-ended questions, in conjunction with the varied application of rating scales, allowed for a number of analysis techniques and investigations. Each of these techniques served a different purpose in the exploration of this research topic.

The frequency of pre-coded responses for the surveys were compiled into a matrix, with park location (i.e. Fish Creek or Killarney) on one axis and responses categories on the other axis. A

Kolmogorov-Smirnov two-sample test (Sokal and Rohlf, 1995) was conducted to determine if the parks were significantly different in their responses, where $K = 1.36$ for $\alpha = 0.05$, for the purpose of pooling results for questions that were not statistically different. The pooling of data between the parks is to reinforce the approach of this research as exploratory of an idea and not case study comparative. Sample sizes differed between the analyses for each question due to participant non-responses or unclear responses (appendix B). For the purpose of presentation, survey responses were plotted as histograms using response percentages in order to accommodate differences in sample size, or in the case of pooled data to maintain the consistency between all graphic presentations. Although the same sets of questions were asked for both the surveys and the interviews, including pre-coded options, in many cases interviewees did not conform to the question design or provided complex responses that could not be characterized by a single response (e.g. conditional statements). This point, along with the relatively small interview sample size (13 individuals), prevented the interviews from being effectively presented in the form of histograms.

Identifying the dominant positional response (mode) and the level of member consensus around the mode provided further summarization of the results. Consensus was determined using de Loe's (1995) criteria:

> high consensus: 70% in one category, or 80% in two contiguous categories;
> medium consensus: 60% in one category, or 70% in two contiguous categories;
> low consensus: 50% in one category, or 60% in two contiguous categories;
> no consensus: <60% in two contiguous categories

The open-ended responses for both the surveys and the interviews, email correspondence, journal entries, and the document audit were explored using a process of theme identification and coding. The unstructured nature of the responses maintained the integrity of the respondent's position in their own words but also required additional interpretation or refinement through content analysis and coding in order to develop and identify trends. Neuman (1997) highlights, and this research followed, an initial process of *open-coding,* involving the review of data to code major themes and assign preliminary codes (Figure 2.6).

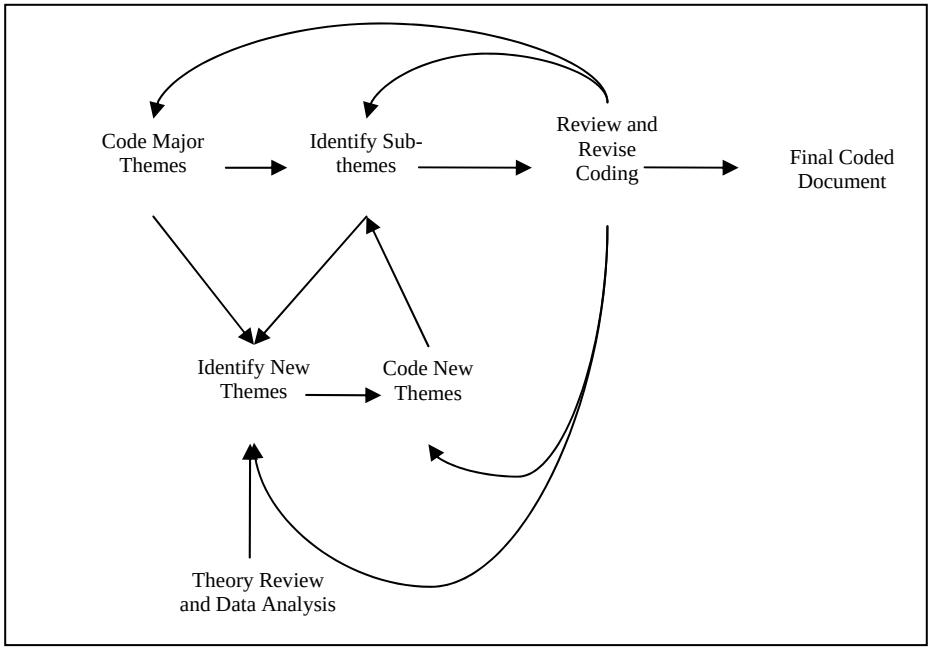

Figure 2.6 Coding Procedure

The identification of themes was enhanced through the use of the standard set of questions for both the surveys and the interviews. *Axial coding* was then performed in an iterative process, where the coded data was reorganized and reviewed in order to observe new themes, emergent relationships, causes, conditions, interactions and sub-themes. Throughout the entire coding process, themes were reviewed and revised in order to address redundancy or overlap between ideas. Content analysis was aided with the use of NVivo, which facilitated extensive data management and simple or complex queries to investigate the three research objectives and emergent themes. Upon completion of the node or theme bank, a collection of all identified themes, a response frequency matrix was developed with each theme or sub-theme located on one axis and the corresponding source of the information on the other axis (see appendix C).

Only one tally was recorded per participant for each theme, and participants could mention multiple themes. From this matrix, themes can be identified and presented as text within the thesis, along with the corresponding number of individuals that had mentioned that theme during the course of the research. Accompanying this form of data presentation are direct quotations from research participants in order to highlight examples of the dominant or mode response, an extreme position to broaden the scope of discussion, or to emphasize an idea that is valuable to discussion.

2.7.9 Integration of the Results

Each of these analysis methods assists in the generation and evaluation of ideas arising from the discussion group. Primary participant responses form a *first-order interpretation* of the notions contained within this study (see Neuman, 1997). Supplementary analysis using statistics, histograms, content analysis, mode, and consensus techniques comprise a *second-order interpretation*. Finally, linkages between open-ended and pre-coded responses, in addition to researcher interpretations and further synthesis will result in a *third-order interpretation*. Each level of interpretation facilitates and allows more depth into developing an improved understanding of the results and their implications for subsequent research. In particular, the survey histograms provide a static image of recreationist responses to specific questions. However, it is only through an investigation of the open-ended responses and the researcher interpretation that the underlying motivations, rationale or justification for their responses was better discerned. Finally, the difference between the relative quality of survey versus interview information was recognized by capitalizing on the greater amounts and depth of idea development within the interviews through the use of quotations and directed discussion.

Results from the closed-ended questions, in the form of response frequencies and Kolmogorov-Smirnov statistics, are provided in appendix B, whereas open-ended questions are in appendix C. Results from these questions are presented throughout the discussion as histograms, frequency of individual support (e.g. 7 individuals), and quotations. It is important to realize that the information generated from each question was not presented in the same manner (i.e. histograms for all scaled questions). This enabled the results to be included in a style (i.e. figure, table or prose) that was most appropriate for the flow of the discussion. Furthermore, not all the information was used in this thesis in order to optimize the use of specific results in the development of particular ideas or lines of reasoning. However, the interpretative, content analysis methods enabled the identification of themes that were generated from information provided across questions.

Overall, each method had the capacity to build, without being fully dependent, upon the other methods. Specifically, the combination of the multiple investigative techniques and their complimentary design enabled a more comprehensive exploration of the main research question. Importantly, the three objectives were addressed using the results generated from content analysis from open-ended responses and the closed-ended statistics, accompanied by other data collection methods (Table 2.3). A consequence of this overlap was to provide insight about the same topic from a variety of perspectives (i.e. triangulation), as well as ensure the completion and fulfillment of research intentions, despite difficulties in any particular method (i.e. safe-fail).

Table 2.3 A summary of questions or methods of investigation, and the corresponding objectives they attempt to answer

Objectives	Interviews (question #)	General Information	Surveys (question #)	Field Data Log	Audit
Perception	12,13	Most	10,11	All	Most
Opportunity	1,2,3,4,5,6	Most	1,2,3,4	All	All
Development	7,8,9,10,11	Most	5,6,7,8,9	All	Most

2.7.10 Limitations and Potentials of the Results

As with any case study investigation, the issue of sampling procedures and sample size are important considerations for the validation of particular points, as well as to improve the applicability of the conclusions to a larger population. In the case of this research, 80 and 49 surveys were completed for Fish Creek Provincial Park and Killarney Provincial Park, respectively. Considering that Fish Creek Provincial Park receives greater than 2 million visits each year (Fish Creek Provincial Park Management Plan, 1997) and Killarney Provincial Park receives an estimated 40 thousand visitors annually (Miller, personal communication), is limited in its ability to be generalized to the broader sample population. In spite of this, the collected survey results retain some representative validity for three reasons. First, parks did not significantly differ in terms of surveyed recreationists' age and gender (appendix B). Second, there was a relatively high percentage of recreationist acceptance to participate in the survey, 39% in Fish Creek Provincial Park and 98% in Killarney Provincial Park, as compared to typical of survey methods such as mail-out surveys (e.g. 12% survey recovery), which reduces concerns for non-participant bias. Finally, for what these surveys compromised in sample size they gained in providing in-depth understanding of individual responses, as a result of the researcher personally conducting each survey and interview. This depth was critical for this research with exploration as its dominant methodology in developing a conceptual discussion. With respect to differences in survey sample size between parks, although more surveys were conducted in Fish Creek Provincial Park, which addresses issues of sample size, the level of response detail obtained by them was dramatically less than for Killarney Provincial Park. Given that this research intended to use the parks to provide unique yet fairly similar perspectives on this research topic, as opposed to being part of a comparative design, the divergence of sample sizes between the parks became less of a concern. In addition, with consideration of sample demographics, low turn-down rates, as well as the primary intention to determine if park results could be pooled, as opposed to conducting between park comparisons, the survey results were seen as appropriate for statistical analysis. Moreover, Sokal and Rohlf (1995) suggest that the Kolmogorov-Smirnov two-sample is very useful for small sample sizes, such as was collected from the case studies.

As revealed in the open-ended responses, many individuals spoke from perspectives such as what they thought was possible, what they wanted, what they knew of and what they do personally. As a result, strict adherence of the results to the survey or interview questions was often not possible; subsequently more general themes were formed within the analysis. Specific interpretations of what an individual meant is maintained in the how the theme is categorized, as well as in the specific text label of each theme in the response frequency matrix (appendix C). In all circumstances, these general themes were still able to inform the questions and objectives of this research.

As is apparent in the response frequency matrix, not every participant mentioned a particular theme in conversation. Factors that contributed to this result was, the state and experience of the participant, as well as the influence of the researcher in probing particular ideas that may have emerged from the conversation, among a variety of other factors. In addition, certain responses are specific to the context of that park (e.g. programs, recreational opportunities that exist). Consequently, a non-response does not imply that those individuals disagree with a particular theme. Alternatively, recognition of an idea does not necessarily imply complete support, since participants often provided multiple and conditional responses. This understanding has important implications to how this information is presented in subsequent chapters. Moreover, the reader will be able to judge for themselves the validity of the theme or idea by the number of respondents mentioning that theme (e.g. 7 individuals), along with the quality of the idea relative to the literature or their own experience. Similarly, it is difficult to contrast or compare interviews as representative positions because of the relatively few numbers of participants per one participant group (e.g. FCPP Managers). However, with a consideration of response breadth (i.e. responses from different participant groups) and total number of interviewees identified for a particular theme, as well as the specific idea itself, the interviews can provide valuable insight into this research topic.

Although the response frequency matrix provides a closer approximation of the level of support for a particular idea, it does not take into consideration multiple references to a single theme by a single participant which would emphasize the relative importance of the idea to that individual. This is compensated with the use of quotations and prose discussion gathered from the transcribed results.

Finally, a great portion of this research is interpretative where the values in each category are not exact and are subject to change depending on who would be doing the interpretation, in spite of an effort to establish unambiguous thematic categories. To account for this concern, the coding procedure described above provided a number of quality assurance measures. First, the round of

open coding, with no tally of responses, established a rich list of all possible ideas. This was followed by a revision of themes to reduce overlap and redundancy. Once this was performed the documents were coded accordingly. To minimize double coding or to identify theme overlap, NVivo provided a means to view all of the coding affecting any particular statement and enabled the revision of coding at any time during the data analysis. A tally or quantification of participant responses to specific themes then followed this coding process. In spite of the interpretative nature of this data, the results should provide a fairly consistent and strong argument for the range of ideas that exist and the relative support for these ideas.

The explorative methodology of this thesis provides great amounts of freedom in how the collected information can be used or discussed. Where possible, the quantification of support and other measures of validity are provided; however, ideas may reveal their own inherent value as they relate to theory or management development, in spite of low levels of participant identification. Case study results provide a platform to explore the perspective developed in the reviewed theory in an applied context, as well as provide support or highlight potential inconsistencies for this theory, all the while expanding its breadth. Consequently, this data can be effectively used to inform the broader discussion; however, to do so conclusions must be understood in the context of the limitations and potentials of the methods and the research methodology.

Chapter 3. Why Recreationists

Underlying any discussion of how to improve recreationist participation in conservation is the assumption that recreationists are worth further attention by researchers and park managers, or that they have something to offer conservation. This chapter attempts to establish the relevance and importance of recreationists as an appropriate group to study, and begin reconceptualizing the recreationist's role in conservation. In doing so, this chapter addresses objective one by exploring the present perceptions of the value of recreationist contributions to conservation. One important consideration is that this entire thesis is dedicated to answering the question "why recreationists" and that this chapter, alone, does not decisively answer this lofty goal. However, a conceptual argument will be provided, developed from an initial discussion of public participation literature, supported by case study results generated from the recreationist surveys and interviews, in order to better understand recreationists' potential value in conservation.

3.1 Right, Responsibility and Desire to Influence

Every member of the public has the right to influence and have legitimate voice in those aspects that affect their lives. Robinson *et al* (1990: 45) assert the "principle that the ability of all persons to participate in decision making about things that affect their lives, the lives of others and the world around them is a necessary consideration in the design and creation of all socio-political structures and institutions." Moreover, it has been suggested that the public has a responsibility for becoming involved and that the environment is not the exclusive responsibility of the government or ecological groups (Pelletier *et al,* 1998). Although governing agencies have to make decisions, the public should not be made to forfeit their opportunity to influence these decisions (Owen, 1998). Pretty and Shah (1997: 40) clearly state, "all groups have a right to speak and act for themselves and their communities, in their own voices, and have their voice accepted as authentic and legitimate." Many others also remain convinced "that working with local people in conservation areas is both ethically justified and is, pragmatically, the approach most likely to succeed…" (Colfer, *et al,* 1999: 41). Similar sentiments can be found throughout current community participation and resource management literatures.

In addition, recreationists from both case study parks suggested the need for their participation on the grounds of a personal responsibility or having a stake in their or their children's future in relation to the park (27 individuals). When asked, should managers increase recreationist involvement in the conservation of parks and protected areas, 81.7% of recreationists for both parks stated that

managers should increase recreationist involvement[1], and that this involvement was commonly thought to be of high priority (Figure 3.1). Interview participants, including park managers, expressed similar sentiments towards the need for recreationist' participation.

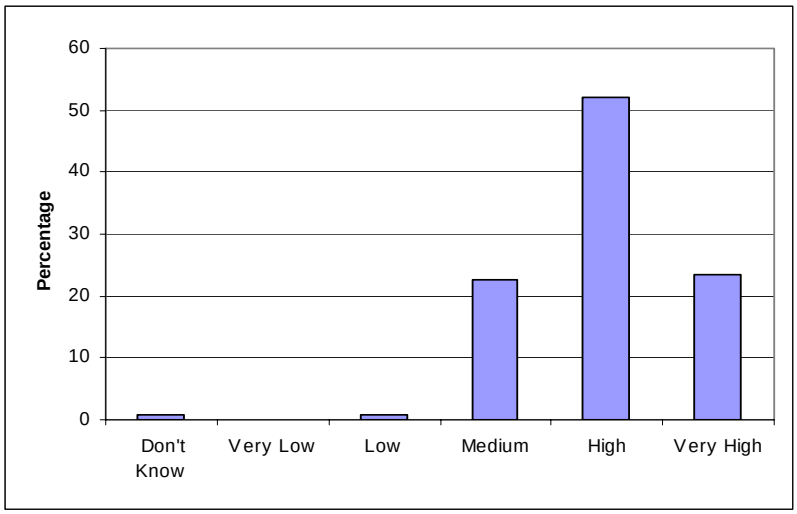

Figure 3.1. Surveyed recreationists opinion of what priority involving recreationists in conservation should be in Killarney Provincial Park and Fish Creek Provincial Park. Parks were not significantly different from each other (D = 0.20; Dcrit = 0.26; α = 0.05; $n_{(FCPP)}$ = 67, $n_{(KPP)}$ = 48), and their frequency values were subsequently pooled. There was medium consensus around the "high" response.

However, the strength of this position was often tempered by a contrary or conditional perspective. For instance, some participants cited that recreationists were paying money for managers to "do their job" and serve the public, or that it is up to others to look after themselves (9 individuals). Or, perhaps parks should not increase recreationist involvement, but definitely should not decrease it (1 individual). In addition, a variety of constraints, concerns, alternate priorities and conditions emerged from this research regarding the nature of this participation, a discussion that will be further explored in chapter five. Regardless, there seems to be broad support for resource managers to continue or increase recreationist involvement in resource management.

[1] Surveyed recreationist opinion of whether managers should increase recreationist involvement in the conservation of Killarney Provincial Park and Fish Creek Provincial Park. Parks were not significantly different from each other (D = 0.044; Dcrit = 0.26; α= 0.05; $n_{(FCPP)}$ = 70, $n_{(KPP)}$ = 45), and their frequency values were subsequently pooled. There was high consensus of the "yes" response.

3.2 Willingness to Participate

Nature and the environment are of considerable importance to recreationists and the general public (Filion *et al*, 1999; Dunlap, 2000, Cordell *et al*, 1997). For example, an estimated 20 million Canadians (84.6% of the population aged 15 and older) took part in one or more nature related activities in 1996, including a variety of activities in parks (43.7%) (e.g. camping, hiking) and wildlife viewing (18.6%) (DuWors *et al*, 1999). In the United States, nearly 74 million, and 53 million Americans aged 15 and older participated in outdoor adventure activities (e.g. hiking) and camping, respectively in 1994 (Cordell *et al*, web reference). Moreover, outdoor recreation is becoming more popular with dramatic participation increases in a number of activities such as backpacking (+73%), hiking (+93.5%) and birding (+155%) between 1983 and 1994 (Cordell *et al*, 1997).

It must be recognized that levels of use, although an indicator of importance, do not necessarily prove a supportive environmental ethic or a desire to participate in conservation. A legitimate, albeit cynical, perspective may argue that these statistics indicate public use of nature in a utilitarian sense, and not necessarily an appreciation for nature's inherent value or function. Especially when environmental protection seems to struggle as a political platform relative to other issues such as crime, education and health care (Dunlap and Saad, 2001), it is difficult to gauge how important the environment really is within public perception. However, Gallup poll results had found that American citizens identified environmental issues as their top concern for the future, 25 years from now, and that government, corporations and the public should do more for conservation (Dunlap and Saad, 2001). Gregory (1999) suggests that environmental values have become far more significant to many individuals and to social policies during the past 25 years. Others suggest that this environmental support had peaked 11 years ago, and now seems to have stabilized or declined slightly (Saad and Dunlap, 2000). These and similar discrepancies likely depend on the temporal, environmental, and socio-political context existent at the time of the assessment, as well as the research design and interpretation employed by the researchers. However, it is safe to conclude a favorable environmental ethic is firmly established, accompanied by a desire for positive environmental behaviours among many members of the public.

The public's willingness to participate in broader environmental causes may offer another form of insight. Many members of the public, including recreationists, have proceeded a step beyond verbal support by demonstrating their interest in environmental conservation by participating in a variety of resource management initiatives, such as volunteering, planning, policy development, and lobbying

among many others (Mitchell, 1997). It has been found that volunteering in environment and wildlife organizations has increased 130% between the 1987 and 1997, greater than any other volunteer initiative (Hall *et al,* 1998). For example, 5.4% of Canadians surveyed (approximately 1.26 million individuals) engaged in activities aimed at protecting the environment or wildlife as a volunteer through an organization in 1996 (DuWors *et al,* 1999). Another survey found that 17% of Canadian youth (age 15-24) were involved in activities to protect the environment (sample size 18,301; Canadian population size 23.9 million). Alternatively, DuWors *et al* (1999) showed that 24.4% of Canadians surveyed stated that they had some or great interest in joining a naturalist, conservation or sportsman's clubs. Similarly, Gallup poll results have found that 50% of the American population is sympathetic to the environmental movement and an additional 18% describe themselves as active in environment issues (Dunlap and Saad, 2001). According to Lee (1994) volunteers have had a long and valuable history in assisting resource managers (e.g. monitoring) with great amounts of potential remaining untapped. As many members of the public want to become more active in environmental decisions, public participation programs provide a way to harness this desire for involvement.

With regards to the case studies, 79.8% of recreationists surveyed stated that they were willing to increase their level of participation in the conservation of parks and protected areas[2]. Importantly, an affinity for the park, whether it be a love, personal history or some other connection, was found to be the most frequently mentioned reason that recreationists would be willing or should be involved in the conservation of parks (28 individuals). This is supported by the work of Kals *et al* (1999) who also found emotional affinity towards nature to be a powerful predictor of nature-protective behaviour. Other reasons included a desire to not hike in garbage (1 individual), and recognition that the cumulative impact of increasing numbers of recreationists (5 individuals) necessitates additional recreationist involvement in conservation. Managers also recognize this willingness on the part of recreationists to participate, as was evident in the public taking the initiative to contact park management about their concerns (3 individuals), but more importantly the significant and growing attendance in park conservation programs (8 individuals) (see chapter four). Managers and "Friends of" representatives for both parks often commented on the rising popularity of their programs, to the point that they may not be satisfying public demand for participation (7 individuals), and this popularity would likely overwhelm their supporting resources (further discussed in chapter five).

[2] Surveyed recreationists opinion on their willingness to increase their participation in the conservation of Killarney Provincial Park and Fish Creek Provincial Park. Parks were not significantly different from each other ($D = 0.030$; $Dcrit = 0.25$; $\alpha = 0.05$; $n_{(FCPP)} = 75$, $n_{(KPP)} = 49$), and their frequency values were subsequently pooled. There was high consensus of the "yes" response.

Even interest in participation beyond established programs is growing. For instance one FCPP manager stated,

> "Well, we actually have lots of people that phone and want to volunteer in the park, and that is through no advertising. They just use the park on a regular basis, either walking or with their dog or just themselves, biking or whatever. And they see things in the park and they phone use to ask if they can help do anything, which is really quite something. I haven't experienced that before."

In a related discussion, Skogan (1994: 180) states, "a public hungry for attention have a great deal to tell…and are grateful for the opportunity to do so." For instance, within KPP only one recreationist group refused to participate in the survey, where on another occasion someone initially refused but later sought out the researcher in order to volunteer their participation. Or, recreationists would actively work with the researcher to find a more convenient way of participating, such as being surveyed while packing their vehicle. Amidst this willingness as revealed in recreationist survey responses, there were also numerous statements of non-willingness, compromises or conditions for their participation. For example, 20.2% of recreationists surveyed stated that they were not willing to increase their level of participation in the conservation of parks and protected areas, recognizing a variety of constraints that would impede their participation. These ideas will be developed in much more detail in chapter five. Either way, this evidence speaks to a direct or potential willingness on behalf of many members of the public to participate in the conservation of parks and protected areas.

3.3 Success and Support

One consequence of involving the public in environmental issues is the creation of a sense of ownership in and support for management decisions (Mitchell, 1997; Harrison, *et al*,, 1998; Lawrence and Daniels, 1996). There is agreement among many researchers (e.g. Mitchell, 1997; Owen, 1998; Jensen and Mogensen, 1999) that involving the public, as those individuals whom are most interested in, knowledgeable about, and affected by the outcomes, will result in a more stable decision and avoid conflict. Without public involvement, understanding and subsequent ownership, many resource management decisions may be compromised or outwardly opposed (Krumpe and McCool, 1997; Nielsen and Vedsmand, 1999). For instance, as Pimbert and Pretty (1997: 308) state "there has been growing recognition that without local involvement, there is little chance of protecting wildlife. Moreover, the costs of park management are very high if local communities are not involved in caring for the environment." Pretty and Shah (1997), among many authors, recognize the increasing number of comparative studies of development projects showing that participation and subsequent ownership are critical components of success. Similarly and as will be further explored in

chapter five in terms of strategies to enhance recreationist participation, a sense of ownership in the park and of management actions, among other concepts, was identified as an important consideration of involvement and participation (7 individuals). It was also recognized that managers would not be able to manage without recreationist compliance, support or buy-in to programs or policies, or without recreationist efforts to not contribute to environmental degradation. (3 individuals).

3.4 Economic Contributions

Alternatively, the value of public involvement and support becomes apparent by the public providing the necessary "political will" to implement actions within a highly political setting that the resource manager is expected to increasingly struggle with (McCool and Cole, 1997). Moreover, it is the relationship between nature recreation and tourism, and its accompanying revenue that often provides an immediate economic rationale for establishing a protected area (Thresher, 1981; Dixon and Sherman, 1991) and garnering organizational and governmental support (Lindberg and Enriquez, 1994; Mieczkowski, 1995). For instance, in order for tourism to benefit conservation, it must do more than cover the costs associated with the provision of tourism opportunities (Lindberg and Enriquez, 1994). Monteverde Natural Reserve, in Costa Rica, provides such an example in that it generated an annual net revenue of $68,813, which was re-invested into the reserve (Alyward *et al*, 1996). Similarly, ecotourism has been estimated to generate significantly more revenue than many alternative land uses (Thresher, 1981; Dixon and Sherman, 1991; Davis, 1995). Finally, it was estimated in 1996 that Canadian and American citizens spent $11.7 billion on nature-related activities in Canada, and in many cases would be willing to contribute more money to conservation (DuWors, *et al*, 1999). Although not specifically related to the arguments being developed in this thesis, the exploration of the economic contributions from public activities in natural areas continues to be a critical area of investigation or perspective from which the public is valued.

3.5 Source of Assistance

Involving the public in environmental issues not only reduces resistance to management actions through a sense of public ownership, it has the potential to provide an alternate source of needed assistance (Mitchell, 1997), which could be characterized as human or social capital (Goodland, 1995). Recreationists within either of these two case studies are no exceptions, offering their assistance in volunteer programs, weed and garbage removal, reclamation, inventories and stewardship programs, to mention a few activities (appendix C). It was also speculated by three individuals in the interviews that if they, as Naturalist's Groups, were not involved then many

management activities, such as surveys, would not be done. This was reflected by one KPP Manager who commented that,

> "This will be the second year in a row that we will run the butterfly survey, and we have 31 species identified now. Maybe guessing from general knowledge, we were thinking that there were only 5-6, maybe up to 10 species. So our knowledge base improved and there is no way that we could have covered that survey territory on our own. Similarly in the backcountry, we just don't have the staff out there to be patrolling everywhere."

This assistance is particularly important since the parks and protected area sectors have and continue to experience dramatic decreases in funding and subsequent staffing (Eagles, 1998; Krumpe and McCool, 1997; McCool and Cole, 1997). The Friends of Fish Creek partially address this concern by providing within their annual report the number of volunteers and the corresponding total number of man-hours; however, a FCPP Manager completed this rationale by stating:

> “And again, the Friends of Fish Creek are an exception because they do all these wonderful things and document it, and actually tabulate how many people participated, what the cost savings were. If we go by a $10/hr value that a volunteer contributes and when you look at the bottom line and see that we have saved $5000 and people go yippee that is wonderful. But they don't really appreciate that that would be like one seasonal person’s salary for an entire summer. They don't look at it, they see the numbers but don't really appreciate the significance.”

Using this same logic, volunteers in Fish Creek Provincial Park contributed a total of 977 hours of labour in 1999 (Friends of Fish Creek Annual Report, 1999), which would contribute a conservative monetary equivalent of $9770.00. Even accounting for time spent in supervisory or organizational roles, the contributions of public participation in management programs are very significant.

Alternatively, relating to the sentiments of not being able to patrol everywhere, recreationists can provide valuable assistance by extending the arm of rules and regulatory influence through self-policing. Boo (1990) briefly referred to this notion of self-policing in the context of "informal rangers." On several occasions, a FCPP manager commented on the influx of information the public offers in regards to illegal or undesirable activity occurring in the park. In total, 10 individuals from the case studies identified their own or another's initiative to informally enforce the rules and regulations of the park. To illustrate, a KPP manager recounted an incident where,

> "We had the whole area cornered off [peregrine release and nesting site] with little signs saying don't go any further, this is a research site. Anyway, we went across the site in our unmarked canoe and we started up the hill towards the site and these people that were having a picnic on the beach where we landed said, 'you can't go up

> there, that is a peregrine site. You can't go up there at all, that is protected and you are not allowed to go up.' That was really satisfying to hear…People coming to this park have a real long relationship with the park, really deep-seated feelings for the park. So they are not going to let people destroy it. If they see something that is wrong, they will mention it."

3.6 Dealing with Complexity

Public participation has also been identified as a means to better define and scope potential issues or problems (Lawrence and Daniels, 1996; Mitchell, 1997), where environmental systems and the systems in which society operates are inherently complex and changing (Holling, 1995). Gregory (1999) suggests that the enlarged context gained from involving the public provides insight for analysts to "unpack" complex decisions by clarifying important linkages and relationships; or, as Mitchell (1997) states, public involvement may provide information unavailable or unrecognized by the scientific community. This notion of providing a unique perspective was explicitly acknowledged by three individuals in this research. For instance, one FCPP Manager commented,

> "…there are a lot of things that they ["Friends of" members] have come up with as projects that we [park managers] probably wouldn't have even thought of, regardless of how many staff we had or how creative of a staff we are. They see things that we don't because they are in the park all the time, using the park…There are things that we wouldn't have even dreamt of because we don't see the park through the same eyes."

Similarly, one KPP Manager stated,

> "Some people come back from a trip and say, 'did you ever think about this?' We may not have looked at that area of operations in that way. Many ideas may not be appropriate, but every once in a while a really good suggestion will be given to us."

"Because different groups will value things differently, clear self-analysis, communication and understanding of each other's interests can lead to a package solution which can provide better outcomes to each party than if they were simply competing on their own" (Owen, 1998: 18). With the potential that managers often lack adequate information (Manning *et al,* 1996; Mitchell, 1997), public involvement is an increasingly important resource. This is particularly important since environmental issues tend to be highly integrated, diverse, changing, and ultimately complex; or as Krumpe and McCool (1997) summarize, environmental issues are often “messy” and “wicked.” A major component of this messiness is the inherently value-laden process of environmental management, on the part of scientists, managers and the public (Krumpe and McCool, 1997). Consequently, managing the environment can no longer be addressed in a piece-meal fashion, where a more integrated or holistic approach is necessary, which includes necessary public participation and the identification of values (Cortner, *et al*, 1996; Krumpe and McCool, 1997; Mitchell, 1997;

Kay *et al*, 1999). In spite of these efforts our knowledge remains incomplete, and unexpected outcomes and our own ignorance cannot be avoided (Mitchell, 1997).

3.6.1 Adaptive Management and Social Learning

The notion of adaptive management has generated much interest among researchers and managers as a potential response to dealing with the context of environmental complexity and uncertainty (Mitchell, 1997). Adaptive management is based upon the idea of management as experimentation, and the resultant process of learning from both successes and failures as a means to improve (Lee, 1993). It is this notion of learning, and in particular social learning, that has garnered much attention from a variety of planning, organization and resource management researchers. For instance, Friedmann's (1987; 1993) transactive model and notions of social learning provide an effective means to respond to complexity and better address issues. He further reviewed in the earlier paper many ideas of social learning, of which Lewis Mumford's conception is most related to the ideas of this thesis. In this context, social learning, as part of the neighborhood and village, fosters a belief that people are able to do a lot for themselves. In addition, "[it] is the concrete, everyday experiences of people in their local and regional surroundings that form the basis of all reliable knowledge for guiding their actions in the present." (Friedmann, 1987: 199). Westely (1995) also identifies the importance of "local" level individuals as sources for innovation and learning because of their closer proximity to changes in the environment. Similarly, Lee (1993) suggests that social learning and adaptive management serve as a "compass" in society's search for sustainability. As a result, learning is seen as critical, as a way to gain new knowledge, as well as providing the incentive for adaptive change and an alternative to crisis (Gunderson *et al*, 1995; Michael, 1995; Westely, 1995). Finally, Irwin (1995: 140) argues that involving the public is a more effective way of dealing with complexity, and suggests that social learning and the resultant institutional change "may be one of the most valuable outcomes of science-citizen encounters."

3.6.2 Knowledge

A fundamental part of this learning process is the development or gathering of new or existing knowledge. In order to develop this idea, two topics will be briefly developed: local/traditional/indigenous knowledge as a comparative situation to that of recreationists, and the notion of experiential knowledge. These topics will provide the basis of a specific discussion and presentation of case study results regarding recreationists as a source of knowledge for the conservation of parks and protected areas.

3.6.2.1 Local/Traditional/Indigenous Knowledge

One resource that has been receiving significant amounts of attention is the incorporation of indigenous, traditional or local knowledge within resource management decisions. Warren and Rajasekaran (1993) define indigenous knowledge as local knowledge that is unique to a given culture or society, which provides the basis for communication and decision-making. It is the "systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture" (Warren and Rajasekaran, 1993: 8). Indigenous peoples have developed an intimate and extraordinary understanding of the environment, including biology and environmental processes, which is becoming an increasingly valuable source of information for scientists and conventional resource management practices (Steiner, 1998; Richardson, 1993; Johannes, 1993; Nakashima, 1993). Pinkerton (1994) outlines valuable contributions of traditional ecological knowledge in terms of enforcement, long-range planning, data collection and analysis, harvest regulation, resource enhancement and allocation. These contributions are also reflected in the overview provided by Berkes (1993). In the longer term, the incorporation of local knowledge may be cost-effective since it builds on local development efforts, enhancing sustainability and capacity building (Warren and Rajasekaran, 1993). Similarly, Finally, Harrison, *et al* (1998: 318) suggest in reference to local peoples that "building on their intimate knowledge of place and nature can bring rewards for nature as well." This form of knowledge along with the difficulties encountered in appreciating this knowledge, discussed in chapter six, provides an important parallel to the contributions of recreationists.

3.6.2.2 Value of Experiential Knowledge

The case of indigenous knowledge highlights the importance of experience and other forms of understanding. McCool and Cole (1997) identify the need to include experiential knowledge as one, but not the sole, source of information to guide decisions. Not appreciating its value can be detrimental to dealing with complex problems and uncertain outcomes. In addition, it can contribute to adversarial confrontations regarding who presents legitimate truth. However, as Stankey (1997) points out, normative conceptions of what constitutes “relevant” knowledge and who possesses such knowledge remain the domain of science, experts, and the positivist tradition of knowledge characterized by objectivity, replicability, and quantification. He draws upon the work of Friedmann (1987) stating that “there is growing recognition of, and appreciation for, other forms of knowing, especially what is called experiential, personal, or indigenous knowledge”(Stankey, 1997: 12). As a result, it is increasingly recognized that individuals possess the ability to provide important

perspectives or insights into the natural areas in which they live, work and play. This idea of valuing experiential knowledge has gained much support. For instance, Ehrenfeld (1993) suggests that amateur naturalists and residents of an area, in addition to trained ecologists, may possess great knowledge about the health of an ecosystem. Similarly, Chipeniuk (1996) develops this idea noting that members of the public may be highly competent at monitoring without being versed in the current jargon of resource management. Finally, these ideas form the basis of Irwin's (1995) discussion on citizen science and his exploration of the role of citizens in science.

3.7 Recreationist Knowledge as Sources of Information

Local knowledge is presented within this thesis as an analogous situation to recreationists. Arguably, recreationists possess a high degree of experiential knowledge, familiarity and understanding of the environment in which they recreate. A favorite trail, fishing hole, or hunting location and years of park visitation can lead to and may be a consequence of an in-depth awareness of that environment. In conducting this research, many recreationists displayed tremendous awareness and understanding of broad topics such as the history of parks and conservation, as well as more specific facts relating to the case study location. One KPP manager stated that recreationist

> "…comments can point to problems with fire pits, problems with human waste in areas. Which first of all tell us that we need to provide the public with more education in these areas, and maybe we are not doing something right, such as the backcountry maintenance schedule. In this type of case we have to fine tune the way that we are approaching things, as well as correct a potential health problem."

Interestingly, one of the key informants commented on the origins of catch-and-release fishing as arising from the angler's conservation philosophy and not from fisheries biologists, where such an idea was even disputed in many states. McCool and Cole (1997) recount an incident where tourist observations of killer whale and great white shark interactions caused marine biologists to “totally rethink” their theories about which one was the dominant predator. Although, not as fundamental as a total rethinking, recreationists in Killarney Provincial Park were found to provide unsolicited information on potential peregrine falcon locations while they were picking berries, where peregrine falcons are an important management concern. One KPP "Friends of" participant further commented that it is from recreationist comments such as these that they were initially made aware of the peregrine presence in the park. Recreationists are in the fortunate position of being the "eyes and ears" of the park (6 individuals), where the extensive and widespread use of parks and protected areas places recreationists, and the general public, in a position of reconnaissance that fewer park managers are able to enjoy (Porter *et al,* 2001; Boo, 1990; Gardner, 1993). This was mirrored by the

Killarney Outfitter representative who stated that they had performed a lot of independent research along the bay, documenting campsites, hiking trails, paddling routes, where to go and where not to go, and was wanting to share and better utilize this information. Moreover, within FCPP there is a desire on the part of the "Friends of" organization, and supported by park management, to redevelop a Park Watch program, which would capitalize on this form of experiential, on-site knowledge, as well as tying into the ideas of self-policing. It is probable that similar anecdotes exist, although not reported in the same context or importance as more conventional forms of information.

Alternately, recreationist involvement in successful programs such as the Christmas Bird Counts and Breeding Bird Atlases, are examples of participation opportunities that capitalize on an extensive base of enthusiasm, skill and knowledge (Ordubegian, 1993; McFarlane and Boxall, 1996). In addition to these programs, a variety of other monitoring programs have been conducted in either park, involving such species as loons, butterflies, frogs, and beavers. Both naturalist organizations have been extensively involved in these and similar programs, within and outside of these case study locations. A member of the Calgary Field Naturalists commented, "I have organized all the bird walks for several years, thirty-five or more, and kept records of every one." It is within this context that the Calgary Field Naturalists have participated in the compilation of these and other findings into a variety of reference guides for natural areas such as “NatureScape Alberta” (Federation of Alberta Naturalists) and about 15 other publications.

Moreover, if experiential knowledge is not compelling then perhaps the realization that significant numbers of recreationists, especially those that may be characterized as “enthusiasts”, have been found to possess high levels of education and expertise (Cordell *et al*, Web reference). In the case studies, about 40% and 65% of the recreationists surveyed in Fish Creek Provincial Park and Killarney Provincial Park, respectively, possessed education at a bachelor level or higher (Figure 3.2). The recognition of expertise and education was also reflected by a member of the Calgary Field Naturalists who commented that "half our members probably have a PhD", where the Sudbury Naturalists also highlighted their group's collective skill and experience. Even the Calgary Mountain Bike Alliance, as a user group of FCPP, hosts annual trail maintenance workshops to improve the skill base of their membership. These discussion and case study results suggest that many recreationists are highly educated and could offer a wealth of potential knowledge for managers could draw upon.

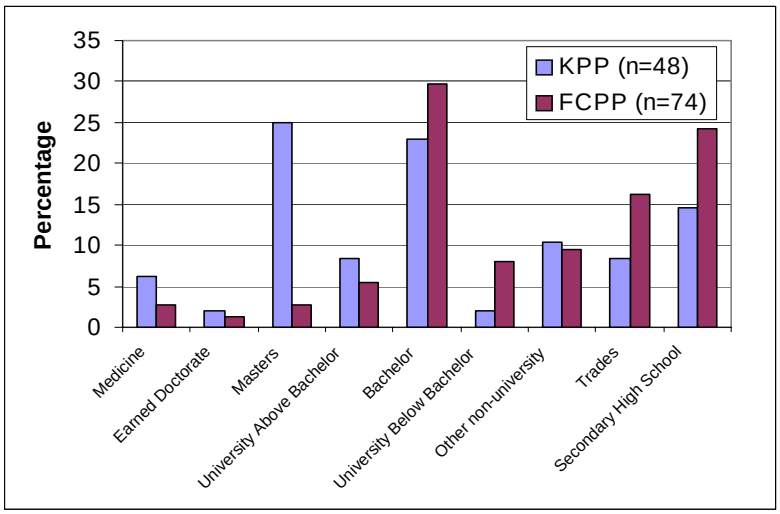

Figure 3.2 Education distribution of recreationists surveyed for Killarney Provincial Park and Fish Creek Provincial Park. Parks were significantly different from each other (D = 0.30; Dcrit = 0.2517; $\alpha = 0.05$; $n_{(FCPP)} = 74$, $n_{(KPP)} = 48$).

This discussion of activities is the first, or one of few, attempts to explore and compile actual and potential opportunities for recreationists to contribute to conservation, as founded on notions of experiential knowledge, sources of information and program support. Undoubtedly other examples exist, primarily in the form of anecdotes that are not being documented. Simple efforts in probing participant responses often resulted in statements of "oh yes, come to think of it" where multiple examples that support these ideas were then mentioned. Unfortunately, there was not enough time to explore the range of contribution types that are possible. Alternate methods such as focus groups, longer interviews, and additional case studies should produce a more exhaustive list of recreationist contributions. This deficiency gives rise to the first of eleven recommendations to be developed throughout this thesis.

> Recommendation: More research needs to be devoted to exploring and documenting the range of opportunities in which recreationists already or could contribute to the conservation of parks and protected areas.

To what extent have recreationist knowledge, skill and other contributions been appreciated? Every interviewee acknowledged, in some form or another, the value of recreationist knowledge, whether experiential or trained. General responses in this context ranged from suggestions of admiration and open appreciation for recreationist abilities (including Naturalist organizations) to one manager reflecting that more effort could be devoted to tapping into this intellectual resource and diverse skill base (see chapter five). Further to this point, ten interview respondents stated that recreationist involvement, or their involvement as recreationists, was generating a valuable data-set of

information, and two others suggested that these participation efforts should improve their contribution to conservation with time, popularity and opportunity.

While many recreationists likely develop a knowledge about particular places, others may challenge the pervasiveness and quality of this knowledge. For instance, one key informant stated that park managers are well trained and skilled, and that recreationists may not have much more to offer them in terms of knowledge, although the previous education results may challenge this position. Similarly, some park managers, park staff, "Friends of" participants and naturalists also expressed concerns about the value of recreationist contributions. Another significant challenge to this idea of recreationists' knowledge is that their transient and short term use of protected areas limit the depth and quality of information possible, relative to the credence gained from knowledge developed over generations such as in indigenous cultures. However, as Richardson (1993) points out, some changes may be noticeable in the short term, such as goose hunting becoming increasingly poor over a period of a decade. Further, the identification of an illegally trapped animal may only take an afternoon, but can provide valuable information for park managers in regard to poaching. The information that recreationists are capable of offering will likely be of a different type and quality in comparison to conventional forms, but remains potentially valuable. As one FCPP education participant stated,

> "Just the idea of all those extra eyes helping us, I think it is phenomenal. And maybe we don't…well realistically we don't have the staff and time to act on a lot of their comments, but if we can separate the wheat from the chaff, I am sure that there is some stuff in there that would be of large value."

As Gunderson *et al*, (1995) state as one of four key lessons they learned from their review of ecosystems and institutions, "[f]inally, we see the involvement and education of the people that are part of the systems as crucial to building resilient solutions and removing gridlock. The people who live in these areas or who are affected by the policies often become ignored or detached from the institutions established to serve them. They provide the 'pool' for creative and adaptive solutions." In addition, researchers such as McCool and Cole (1997) and Stankey (1997) still identify the increasing need to consider alternate forms of information and knowledge.

3.8 Reconceptualizing the Recreationist's Identity

Prior to being able to reconceptualize, there is a need to understand what the current conception of a recreationist is. Recognizing that it is impossible to accurately represent all the potential understandings of what recreationists are, references to recreationists, as entrenched in resource management practice and trends in research literature, offer a fairly tangible representation or

perspective to operate from. From this brief review, three basic identities of recreationists emerge, which include recreationists as client, burden and participant.

The perspective of recreationists as client can be rationalized in a variety of ways. For instance, both Federal and Provincial Parks are mandated to provide both environmental protection and recreational experiences for members of the public. Second, as park agencies are increasingly required to seek alternate sources of funding to compensate for budgetary cutbacks, effectively designed fee structures provide an opportune way in which recreationists can contribute to the necessity of income generation (Van Sickle and Eagles, 1998). However, in order to ensure ongoing public willingness to contribute or participate in these forms of recreational activities, parks have to provide an appealing product so that they are able to compete with other forms or locations of leisure. This effort to capture recreationist attention would be supported by a variety of recreation management frameworks and marketing strategies which are designed with the focus and intention of providing a quality recreational experience for park visitors, as will be briefly discussed in the following chapter. Each of these ideas contributes to the park's service-driven model of operation, with recreationists as the clients.

The second identity for recreationists, as a burden to conservation, is steeped within a history of negative recreationist impact on the environment, and the costs associated with mitigating this impact. For instance, Liddle (1997) provides an extensive review of these negative impacts, and the recent Panel on Ecological Integrity (Parks Canada Agency, 2000) identifies recreation as a major environmental concern. In addition, this negative perception of recreationists is likely fueled by enduring notions of humans as separate from nature (Cronon, 1994), and the entrenchment of this perception in current management practice (e.g. zoning, trails, rules and regulations; see chapter four). Gauthier (1993) states, "While there are many advantages for humans in the recreational enjoyment of wildlife, I am hard-pressed to conceive of any advantages for wildlife…". Moreover, of three recent reviews of recreationist impacts on the environment (Mieczkowski, 1995; Knight and Cole, 1995; Liddle, 1997), only Mieczkowski (1995) devoted any discussion towards investigating the positive impact of recreationists, albeit only one chapter. Alternatively, there may be recognition that many of the costs experienced by park agencies, in terms of lost time and finances, are associated with the provision and management of public recreation. As a result, the pursuit of environmental protection is conceivably burdened by the presence of recreationists, such is developed under the perspective that the "public creates the problems" (Gunderson *et al*, 1995).

This research attempted to explore the final identity of recreationists as participants to conservation. Importantly, much of this chapter has already been dedicated to establishing this perspective. However, further inquiry into the perceived relationship or compatibility between recreationists and nature provides valuable information from which to explore this identity. As can be seen in Figure 3.3, the majority of recreationists surveyed suggested that leisure activities and environmental protection are somewhat compatible goals; however, most participant responses were often qualified with conditional statements, which caused the post hoc development of the “center” response category.

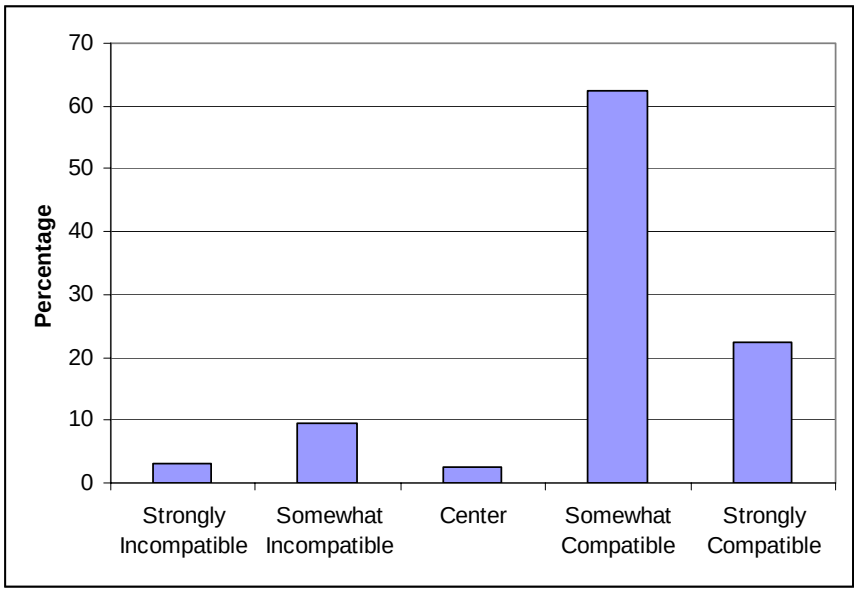

Figure 3.3. Recreationists' opinion on the compatibility between their leisure activities and environmental protection for Killarney Provincial Park and Fish Creek Provincial Park. Parks were not significantly different from each other ($D = 0.12$; $Dcrit = 0.25$; $\alpha = 0.05$; $n_{(FCPP)} = 76$, $n_{(KPP)} = 49$), and their frequency values were subsequently pooled. There was high consensus of recreationists towards "Strongly" and "Somewhat" compatible.

For instance, a few participants, including recreationists and interviewees, responded that these goals have to become compatible (4 individuals), that the public needs to use these areas in order to gain better understanding (8 individuals), or that recreation provides the economic rationale to support protected areas (4 individuals).

Alternate recreationist perspectives in regards to compatibility included the position that ultimately they are not compatible (5 individuals), or the best that anyone can do is just minimize their own impact (8 individuals). In most circumstances participants, including park managers, presented a perspective of compromise regarding the compatibility of recreation and environmental protection.

Common responses included the idea that compatibility could be improved with proper education, awareness and ethics (10 individuals), when within appropriate limits or intensity of use (11 individuals), if managed properly and allowed in appropriate locations (12 individuals) and if activities involved proper, low impact technologies (17 individuals). Finally and to the boon of environmental protection, many recreationists expressed a belief that other recreationists were considerate and conservation minded (17 individuals). Those who held a contrary belief were able to vividly recall past incidents of being offended by improper recreationist activity. Overall, there seemed to be support for current and ongoing compatibility between recreation and the environment.

In many ways, this research perspective is an extension of ideal forms of Ecotourism, relative to the individual ecotourist and not to the ecotourism industry. In the midst of differing applications or definitions for ecotourism and its derivatives, Ziffer (1989) provides one that will be sufficient to make this point.

> "… The ecotourist practices a non-consumptive use of wildlife and natural resources and contributes to the visited area through labor or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local residents" (Ziffer, 1989: 6)

The key concept of this definition is the role and responsibility of the individual to contribute to the well being of the area, including human and non-human environments, in exchange for the opportunity to visit. Advocates of ecotourism further explain that ecotourism promotes an environmentally responsible ethic since the quality of present and future experiences are predicated on the health and protection of the environment (Ceballos-Lascurain, 1991; Boo, 1991; Mieczkowski, 1995; Goodwin, 1996). Ecotourism is essentially a philosophy of responsible and ethical recreation in a natural environment. It would only take a glance into literature describing Native American culture, or other indigenous peoples to find a comparable analogy to the one being presented in this chapter section. Numerous recreationists and recreational organizations express similar philosophies within a "code of ethics" for the purpose of guiding responsible recreation. The best examples of this would be the guidelines provided by "TreadLightly" (http://www.treadlightly.org/) or "Leave No Trace" (http://www.LNT.org), which outline seven principles of outdoor ethics:

1) plan ahead and prepare,
2) travel and camp on durable surfaces,
3) dispose of waste properly;
4) leave what you find;

5) minimize campfire impacts;
6) respect wildlife; and
7) be considerate of other visitors.

Similar codes can be found in a variety of clubs or organizations such as the Alpine Club of Canada (http://www.alpineclubofcanada.ca/), where they state that “stewardship of resources and protection of the environment are both essential to preserve the quality of the experiences which we value so highly. As more people take advantage of outdoor recreation, the level of protection must increase or the experience will deteriorate.” Interestingly in the case studies, only the recreationists, and not any of the interview participants, particularly managers, mentioned recreationist responsibility for conservation, which was found to be an important aspect of recreationist's willingness to participate (appendix C). Some of this divergence in responses may stem from the client or service model implicitly adopted by parks and protected area management as well as perceptions of recreationists as a burden. However, the only conclusion that can really be drawn from this anomaly is that recreationist responsibility in conservation is not at the forefront of the interviewees’ minds, including the managers for both parks. As a result, this notion of responsibility provides the basis for the second recommendation to be presented in this thesis.

> Recommendation: Park managers should encourage or facilitate recreationists to assume greater responsibility for and participate in the conservation of parks and protected areas.

3.9 Conclusion

Numerous factors impede society's effort to conserve the environment. Park managers struggle to fulfill their mandate, and environmental problems associated with improper recreational activities or intensities are real and should not be discounted. However, this chapter advocates and provides both theoretical and case study evidence to support an alternate conception of recreationists as not only part of the problem, but as a valuable part of the solution for the pursuit of conservation. It draws upon the successes and learning derived from indigenous communities, to advance a perspective that recognizes positive potential to contribute to conservation. Environmental managers may be able to draw upon their experiences and lessons learned through appreciating the knowledge and alternate perspectives of indigenous peoples when they address recreationists. This chapter also incorporates aspects of the public participation literature, as well as notions of experiential knowledge and social learning as the basis of adaptive management. As was found in the case studies, the recreationists surveyed seemed to be willing to increase their participation in conservation, and are able to bring with them valuable skills and expertise. Interview participants, including park managers, also expressed the importance and desirability of public involvement. However, and as will be seen in

subsequent chapters, the nature by which this participation comes about needs further elaboration. This chapter puts forth an argument that the recreationist can provide a valuable and beneficial role in the conservation of parks and protected areas. It is within this sentiment that the rest of this thesis will be developed.

Chapter 4. Recreation Management in Parks and Protected Areas

The previous chapter established the perspective that recreationists are a potentially valuable agent in the management and conservation of parks and protected areas. However, few would disagree with the need for management given the pervasive evidence demonstrating the negative impact recreation can have on the natural environment. As will become apparent, this perspective has great influence on the actions pursued by park managers. Alternatively, park management agencies also provide a number of opportunities for public participation. It is this need to manage negative impact and the provision of participation opportunities, along with the ideas developed in the previous chapter in regards to the importance of recreationist involvement that sets the context for the following discussion. Specifically, this chapter, with the assistance of literature and case study results, will review and critique current management strategies and tactics, recreation management frameworks, and opportunities for public participation, as they relate to recreationist involvement in the conservation of parks and protected areas. In doing so, this chapter addresses objective two.

4.1 Management Strategies and Tactics

Recent changes in legislation along with the concurrent increase in the popularity of natural area recreation has increased the tension surrounding recreation and environmental conservation (Cole and Stankey, 1997; Nilsen and Tayler, 1997). As a result, recreation management has had to respond by becoming more complex and more sophisticated (Manning *et al,* 1996). A variety of strategies are available to mitigate this tension including the expansion of natural areas and facilities, access restrictions, rules and regulations, modification of the resource, or changing recreationist behaviour (see Manning *et al,* 1996; Hammitt and Cole, 1998). As will become apparent, each of these strategies employ direct or indirect tactics, as a function of whether they operate directly on recreationist behaviour or indirectly through the elements that lead to behaviour (Manning *et al,* 1996).

Expansion of natural areas or facilities to accommodate more recreation, as a strategy in itself, would result in short-term relief of recreational pressure in localized areas. As a long-term strategy it would prove problematic by introducing recreational impact in a much broader area, addressing only the symptoms of the tension and not the causes to the environmental concern. In addition, limitations exist determining to what extent expansion is possible internally, while still ensuring an appropriate level of environmental protection, or externally, as impeded by the surrounding developed landscape. As Hof and Lime (1997:29) state, “[t]he traditional management response of increasing the size of

infrastructure (building more and bigger parking areas, campgrounds, visitor centers, roads, and trails) to accommodate more and more people is no longer an adequate solution….More important, many park managers, as well as many segments of the public, are challenging the appropriateness of 'sacrificing' more park lands to pavement and other facilities." However, the creation of completely new natural areas to accommodate recreation could provide an improved alternative to other more destructive forms of land use.

Limiting use of areas through restrictions of access continues to be a dominant strategy employed by recreation management. At the most extreme level, it could refer to total exclusion of use, which may be appropriate for very sensitive natural areas. However, as Colfer, *et al,* (1999) point out, in spite of the potential for adversely affecting already marginalized people, 'fence and fine' approaches to conservation are difficult and costly to enforce. Alternatively, such an approach has been implemented on a temporal basis, such as during seasonal periods of nesting and breeding, or to minimize dangerous wildlife-human encounters (e.g. sow grizzly bear with cubs on a trail). Similarly, flexibility is introduced through a process of zoning or land classification that identifies and designates certain areas as appropriate for specific forms of uses, thus restricting access to other areas. For instance, Ontario has developed six broad classifications of their provincial parks including recreation, historical, natural environment, nature reserve, waterway and wilderness (OMNR (b)). A similar list can be obtained from the World Conservation Union (IUCN): strict nature reserve/scientific reserve (class 1), national park (class 2), natural monument/natural landmark (class 3), managed nature reserve/wildlife sanctuary (class 4), protected landscapes and seascapes (class 5), resource reserve (class 6), anthropological reserve/natural biotic area (class 7), and multiple use management area/managed resource area (class 8). Although descriptive, these classifications are also functional since they outline attributes and allowable uses of a natural area that are necessary to abide by in order to maintain that level of classification.

Often accompanying limitations in access are rules and regulations that the recreationist must follow in order to legally use a natural area. Acts and legislation such as the Alberta Provincial Parks Act, the Ontario Provincial Parks Policy, and Ontario Provincial Parks: Planning and Management Policies, guide managers and give them the authority of enforcement with penalty of fines and other forms of legal recourse. These regulations are intended to provide clear and predictive ways to deal with concerns, which initially prove to be very effective in increasing efficiency and reducing costs (Holling and Meffe, 1996). Although rules and regulations may be effective and reliable in instilling short-term behavioural change, they are much less effective in the long-term (de Young, 1993; see

chapter five). Nielsen and Vedsmand (1999: 25) state that "insufficient enforcement encourages even 'law abiding' fishermen to break the rules." De Young (1993) further suggests that disincentives, including fines or litigation, are more particularistic (i.e. action specific), therefore not as universally applicable. Indeed, a dependence on rules and regulations may reinforce the notion that recreationists are allowed to do whatever they have *not* been told they should *not* do, which places resource managers in a managerially necessary but often politically difficult position (Porter *et al*, 2000). This is particularly valid with the development of new technologies and recreationist behaviours (e.g. rise of extreme sports), or in being able to anticipate circumstances in which regulations may be necessary. In addition, Holling and Meffe (1996) argue that regulations and subsequent fines would contribute to the "command and control" pathology of resource management. They further suggest that this is an inappropriate approach to resource management, since the environmental context within which regulations operate is not well-bounded, clearly defined, or relatively simple with respect to cause and effect. In the development of their discussion, Holling and Meffe (1996: 331) state, "[t]he composite result [of command and control management] is increasingly less resilient and more vulnerable ecosystems, more myopic and rigid institutions, and more dependent and selfish economic interests all attempting to maintain short-term success. If the response to this pathology by other interests such as the environmental community, is exclusively demand for tighter regulation and prohibition, then the pathology is deepened…." Where an understanding or appreciation of this pathology may be limited, enforcement of rules and regulations continues to be a prominent recourse for resource managers, and in some circumstances has found support from surveyed recreationists (4 individuals) (see also chapter six). Moreover, rules and regulations instill change by constraining choice either physically or perceptually (e.g. laws, social disincentives, fines, fear, sense of guilt or duty), which could be described as coercive and unethical (De Young, 1993; Bass and Steidlmeier, 1999; see chapter five).

An alternate and strongly supported strategy is to instill behavioural change through the education of park visitors (Manfredo, 1992; de Young, 1993; Schneider and Winter, 1998). This is based on the premise that with an increased understanding and awareness of why and how to change their behaviours, the public or recreationists will do so (de Young, 1993). Manning *et al* (1996) reaffirm the importance of education, having found that, of the park managers they surveyed, 91% educated visitors about "pack it in and pack it out" policy, 77% educated about how to minimize their impacts, 75% urged the removal of litter left behind, and 74% instructed visitors not to feed wildlife. Previously mentioned resource management endorsed programs such as "Leave no Trace" or "Tread Lightly", as well as the use of interpreters, educators and pamphlets have become valuable

components of this education process. Although the topic of behavioural change through education was not a specific question of this research, it quickly emerged with both surveys and interviews as a dominant strategy for increasing recreationist participation in the conservation of parks and protected areas. Both FCPP and KPP have adopted a number of public education and communication strategies in which to engage or educate the public, including presentations, signs, newspapers, park tabloids, postings, staffed visitor centers and even television, to mention a few. However, the causal link between environmental awareness and behaviour has been inconsistent (Chaiken and Stangor, 1987; Green-Demers, et. al., 1997; Pelletier *et al*, 1998). As Pelletier *et al* (1998: 439) state, "[w]hile environmental knowledge is a necessary condition for environmental action, it does not appear to be sufficient." A more detailed discussion of the limitations and uses of education will be developed in chapter five.

Finally, managers can accommodate recreational use of a natural area by modifying the resource base to enhance its durability (Hammitt and Cole, 1998; Manning *et al*, 1996). Through the proper construction of trails, campsites and other facilities, the impact of recreation can be localized or focussed to facilities that are designed to withstand these pressures. An extensive literature has developed surrounding issues of facility design (see Gertsch, 2000). However, with this approach comes a cost, where biophysical impacts primarily on trails and campsites, have been found to be the dominant recreation-related problem perceived by managers (Manning *et al*, 1996), although the alternative of no facilities and the same level of recreation would likely be even more problematic.

The major criticism that can be offered is that these strategies and tactics reinforce and entrench the paradigm of humans being separate from nature. This is very apparent in zoning practices, restrictions in access and facility design, which keep recreationists out of certain areas and into designated areas. Rules and regulations provide a perspective of appropriate behaviour only by outlining what behaviours are unacceptable. In addition, they arise only as rule-makers react, or are forced to react, to specific activities that offend or compromise societal goals. Even educational messages tend to encourage compliance with rules and regulations, as well as project a negative tone, e.g. "do not stray off paths", "do not feed the animals", and "do not pick the flowers." Although these messages or practices are accompanied by explanations of why such behaviour may harm the environment, they fail to describe a more synergistic or positive relationship between humans and nature. Arguably, "double negative" messages (i.e. avoidance of causing harm) and comparable positive messages are not equivalent in their impact on behavioural change, or in their underlying assumptions about human relationships with nature. Positive messages may find greater influence

and credence in areas free from regulatory influence and in pursuing the broader goals of sustainability.

There is definite value and necessity to continue using these strategies and tactics; however, this critique hopefully exposes the underlying assumptions and biases inherent in what is currently being done in terms of management practice and the role of recreationists. In doing so, it establishes the basis to develop discussions presented in the following chapters in regards to how to improve recreationist involvement and how this involvement contributes to sustainability.

4.2 Recreation Management Frameworks

Resource managers have also developed or adopted a variety of frameworks to guide their efforts in the management and planning of recreation in parks and protected areas. There are a variety of ways in which to present or compare each of the following frameworks (see Nilsen and Tayler, 1997; and other articles in same volume) depending on the intended use of the information. In this case, only brief descriptions will be provided in order to establish a context for understanding the recreation management dynamic, where the reader is strongly encouraged to explore this source literature.

Early recreation management frameworks, such as Recreation Carrying Capacity (RCC), were based on biological models and looked to define the "maximum number of people who could use a resource without damaging the social or biological conditions stated in the area's objectives" (McCool, 1989: 186). For what it gained in spurning research and providing guidance, RCC, in particular, lacked in its ability to identify specific management objectives for an area, or address the diversity of human needs and desires (McCool, 1989). There was a need to identify concerns in socio-political terms, rather than simply as technical problems, as well as to enhance collaboration between managers, scientists and citizens (Stankey, 1997).

In response to this need, a variety of frameworks emerged including Recreation Opportunity Spectrum (ROS), Limits of Acceptable Change (LAC), Visitor Activity Management Process (VAMP), Visitor Impact Management (VIM), Visitor Experience and Resource Protection (VERP), and most recently the Benefits Approach to Leisure (BAL) (Nilsen and Tayler, 1997; Cole and McCool, 1997; Driver, 1996; Manning *et al*, 1996; Clark and Stankey, 1990; Knopf, 1989). Many similarities exist between each of these management frameworks including comparable origins of development and the recreation management purpose. In some cases, such as LAC and VERP, many key researchers agree that conceptually they are identical (Cole and McCool, 1997). Nilsen and

Tayler (1997) provide an extensive list of common themes between these approaches, including the establishment of clear management objectives and the definition of recreation opportunity settings with respect to biological, social and managerial conditions, among others.

However, there exist a number of significant differences between these frameworks, depending on their development, conceptual emphasis and intended use. For instance, LAC accepts that change or impact is a necessary condition or compromise of any environmental use, while explicitly recognizing that the evaluation of that change is largely a value judgement (McCool 1989; Cole and Stankey, 1997). Importantly, it was the marriage of "transactive" planning with recreation management, within the LAC framework, that facilitated the identification of values, including that of the public (Stankey, 1997). On the other hand, VIM places a greater emphasis on identifying causes of impact, as opposed to LAC's greater emphasis on defining opportunity classes and alternatives (Graefe, 1990). As Nilsen and Tayler (1997: 54) state "VIM is the only approach analyzed that specifically emphasizes understanding the probable causes of visitor impact." ROS and VAMP represent significant evolutions from the previously presented frameworks, particularly in their emphasis towards proactively identifying a range and mix of recreational opportunities within a park or protected area (Graefe, 1990). For instance, ROS focuses on the setting in which recreation occurs, activities, expectations and the role of management in order to provide a diversity of recreational opportunities and subsequent experiences (Clark and Stankey, 1990). Whereas, "VAMP represents a penetration of the mind…that has begun to expand Parks awareness of the limitations of sole reliance on a 'greening approach to environmental management' towards an approach that integrates social, economic and environmental issues in its planning and management activities" (Graham, 1990: 279). Interestingly, similar discussions could be presented in regards to LAC and aspects of the other frameworks.

The next two frameworks, VERP and BAL, seem to embody the subtle but important shift from "issue-driven" planning to "goal-driven" planning that Hof and Lime (1997) speak of, as well as approach an earlier point of fostering a more positive perspective within recreation management. For instance, the explicit use of the carrying capacity concept re-emerges within VERP, as well as an increased emphasis on both the quality of the resources and the quality of visitor experience, not just the activity. "The VERP process interprets carrying capacity not so much as a prescription for numbers of visitors, but as a prescription for desired ecological and social conditions" (Manning *et al*, 1996: 120). Alternatively, the Benefits-Based Management (BBM) framework and the broader BAL framework extend experience-based management not only "to providing desirable and

satisfying activities, settings and experiences for individuals but also on providing and promoting the use which yields on-site and off-site benefits" (Driver, 1996: 96; Driver and Bruns, 1999). BBM's emphasis on benefits as a desirable product of recreational activity and a focus that also looks beyond the boundaries of the park distinctly separates this framework from other approaches.

McCool and Cole (1997) provide an excellent reflection on the development, successes and weaknesses encountered as these frameworks continue to evolve and be applied, with the notable exception of BAL, which may have been too new at the time for their review. On the positive side they recognize an increased attention toward management of biophysical and social conditions, as well as the encouragement of innovative approaches to encourage citizen participation in wilderness decision making, among many other factors less relevant to this thesis. However, a variety of concerns or weaknesses also became apparent. For instance, they suggest that the legal framework necessary to guide the increasing need and demand for public involvement was becoming 'increasingly confused', which led to the "shattering [of] the more innovative public participation programs" (McCool and Cole, 1997: 76). They also recognize the lack of attention to experiential knowledge as a legitimate way to inform decision making, which was an important point discussed in the previous chapter. Ironic to the overall tone of this thesis, there remains a concern, also expressed by Cole and Stankey (1997), that these frameworks may be leading towards too much of an emphasis on the recreationist and improving the recreational experience, as opposed to the pursuit of environmental protection. Ultimately, each framework continues to develop, garner support and be applied in a variety of circumstances. It may seem unfair to overly criticize these management frameworks from the perspective of involving recreationists in the conservation of parks and protected areas. This is because they are designed not for the purpose of involving recreationists, although public input is a critical aspect of some of their development and refinement, but to understand and manage a balance between environmental protection, the negative impacts of recreation, and the provision of quality recreational experiences. However, the dominance of these strategies in creating a common rhetoric for addressing recreationists does influence and/or reflect how recreationists are generally viewed or valued within the conservation debate.

4.3 Public Participation Opportunities

Weaknesses arising from "top-down" management in its ability to incorporate the diversity of societal values, the increasing demand on the part of the public to have their voice heard in decisions that affect their lives, and an appreciation for the benefits gained from such an exchange, reveal the need for public participation (Holling and Meffe, 1996; Nielsen and Vedsmand, 1999). As was

already discussed, the public has enjoyed a long and important history of shaping parks and protected areas, as well as conservation in general (Western and Wright, 1994; Lawrence and Daniels, 1996). Consequently, park managers have also come to provide, or become involved in, a variety of public participation opportunities. Although public participation continues to evolve into various aspects of resource management, participation is often classified according to a number of themes or categories. Perhaps the most salient example of this categorization is Arnstein's ladder of public participation, which outlines a range of participation from citizen control to manipulation (see Arnstein 1969). Donald (1997) provides a spectrum of public involvement, which ranges from nominal (inactive) and one-time to occasional and ongoing (active). Pretty and Shah (1997) present their own variation including components such as manipulative participation, passive participation, participation by consultation, participation for material incentives, functional participation, interactive participation, and self-mobilization. Similarly, the Ontario Ministry of Natural Resources has compiled another list, which outlines contributory, operational, consultative, and collaborative forms of participation (Table 4.1). In some respects, the divisions between these participation classifications seem arbitrary, and more descriptive than functional.

Table 4.1. Strategic alliances identified by the Ontario Ministry of Natural Resources (1995). Adopted from Mitchell (1997: 160)

Type of strategic alliance	Purpose	Extent of power sharing
Contributory	Support sharing: to leverage new resources or funds for program/service delivery	Government retains control, but contributors may propose or agree to the objectives of the strategic alliance.
Operational	*Working sharing*: to permit participants to share resources and work, and exchange information for program/service delivery	Government retains control. Participants can influence decision making through their practical involvement.
Consultative	*Advisory*: to obtain relevant input for developing policies and strategies, and for program/service design, delivery, evaluation and adjustment.	Government retains control, ownership and risk, but is open to input from clients and stakeholders: the latter may also play a role in legitimizing government decisions.
Collaborative	*Decision making*: to encourage joint decision taking with regard to policy development, strategic planning, and program/service design, delivery evaluation and adjustment	Power, ownership and risk are shared.

4.3.1 Contributory, Operational, and Consultative Public Participation

Opportunities already exist for the public to participate in park management and conservation in terms of financial, energy, and informational contributions. For instance, financial contributions may arise from taxes or user fees, which under normal circumstances would not be considered "true"

participation if levied by the government, except in circumstances where there is public willingness to pay more to assist conservation efforts. In addition, the public can become involved in an operational context through a variety of management activities such as monitoring, data collection, and park maintenance, which typically takes the form of volunteer programs (e.g. Christmas Bird Counts, fish creel surveys) (Donald, 1997; Lee, 1998). Although all public participation is essentially voluntary, "volunteering" or "volunteerism" continues to be a distinct, important and underutilized form of involvement (Lee, 1998). Finally, resource managers have often depended on consultation as a means to encourage public involvement or gather feedback, particularly during the development and legitimization of policies, and management plans. This form of participation is increasingly being incorporated as a necessary and explicit component of many management schemes or planning processes (Kay *et al,* 1999; Manning *et al,* 1996; Mitchell, 1997), as is also apparent in the earlier discussions on recreation management frameworks such as LAC and the transactive process. Surveys, public meetings, hearings, task forces, and focus groups provide valuable mechanisms to facilitate this participation. In general, these participation opportunities would be most consistent with Westely's (1995) planning-led form of collaboration, where the source of project initiation and power remains with the agency or institution such as government. However, as they progress from contributory to consultative, there is an increase in agency dependency on public involvement and sharing of power.

This form of participation dominated the list of opportunities described by either the recreationists or the interviewees. The most mentioned example included participation in garbage clean-up, or spring clean up programs (11 individuals). Other specific and general examples were weed removal (i.e. purge the spurge), reclamation, naturalization, trail maintenance, contributing money, wildlife education, archaeological digs, campsite host, monitoring and inventories, knowledge, comment cards (e.g. on the back of permits), citizen science, Park Watch, Adopt-a-Lake and Junior Ranger programs. Actual statistics for some of these participation opportunities include, Killarney Provincial Park Butterfly and Loon surveys attended by 15 and 40 volunteers, respectively, in the summer of 1999, whereas their 2000 spring clean-up effort was attended by 87 individuals, 20-25 more than the previous year. Similarly Fish Creek Provincial Park conducted their Bow River Clean-up and weed removal programs which 90 and 155 individuals attended, respectively (Friends of Fish Creek Annual Report, 1999). In addition to these participation opportunities, an animal sightings board entitled "tell us where the wild things are", was developed by a KPP "Friends of" coordinator and is located as a display in the visitor center. It provides a description and photographs of wildlife that are of importance to park managers (e.g. peregrine falcon) and/or other recreationists (e.g. moose), and

allows recreationists to identify with pins on a map where they had seen these animals throughout their travels in the park. This passive form of participation provides a useful way for recreationists to communicate with park managers and each other. However the display's placement facing the side wall, reduces its prominence and perhaps use by recreationists; yet to alter this would require a shift in other displays. Alternatively, Alberta Natural Resources have programs for volunteer hosts, ranger assistants, interpreters, and campsite hosts. In addition, they employ the use of park stewards within volunteer stewardship program, who aid in the monitoring of protected areas and provide valuable assistance where there are limitations in the number of park staff (Sandra Myers, Volunteer Services Coordinator, personal communication). In addition, both parks had conducted or were in the process of public review of their management plans. Overall, a variety of participation programs exist for the public to become involved.

Another opportunity that required separate discussion is the role of "Friends of" organizations as a critical means of assisting park and protected area management (13 individuals). Participants in both case study parks, including managers, held their respective "Friends of" group in high regard, suggesting that they direct much of the public who are interested in becoming involved towards the "Friends". Even the Killarney Outfitters and the Naturalist groups have entered partnerships with their respective "Friends of" group. As a result, these groups have found themselves involved in, organizing and operating numerous conservation and participation programs such as the garbage clean-up, wildlife inventories and Park Watch programs mentioned above, as well as promoting park conservation and public education. They are quickly recognized and appreciated for their ability to raise funds and obtain grants that would otherwise not be available to the parks, as well as providing essential sources of labour and new ideas. For instance, one FCPP manager stated,

> "They [Friends of] are doing inventories for us, which is the direct conservation of the flora and fauna of the park. They are submitting requests for grant money, which is allowing us to do conservation projects, like the snake hibernaculum protection, that we would not be able to do ourselves with our own resources. So they give us access to funding and manpower that we would not have."

Or as another FCPP manager commented,

> "…last year they did their first annual report, which is really quite phenomenal and it lists all of the projects that were undertaken last year and they ended up with probably 13 projects that were fairly significant and weren't one day type events. They actually had some fairly significant work."

And continues by saying,

> "I am personally of the viewpoint that whenever they come up with an idea that I think is a great idea, personally I will push it as hard as I can to ensure that it does get accomplished. I support them whole-heartedly, because they have yet to come up with an awful, off-the-wall kind of idea. They are very devoted to the park and they actually bring us [park management] back to the reality that what we are trying to do here is protect this landbase. It is almost like they are our conscience in a lot of cases."

Similar sentiments were expressed in reference to Friends of Killarney Provincial Park. Although the "Friends of" groups express a desire to do more, there was also a concern identified by one member in regards to being depended on by the parks too much, and not being provided the necessary support. This latter point is an important concern that eventually needs to be addressed; however such a discussion is beyond the scope of this thesis. Even in the midst of this heavy responsibility, there remains optimism from most everyone in this group's ability to facilitate public involvement in the conservation of parks and protected areas.

4.3.2 Collaborative Public Participation

A significant departure from the previous forms of participation opportunities are those that pursue a more equitable distribution of power between government, relevant agencies and the public, all within an open management structure. Such collaborative public participation emphasizes that decisions are made jointly, and risk is shared. Specifically, co-management has gained legitimacy in defining and shaping relationships between aboriginal, native communities or indigenous peoples, government agencies and the environment for which they share responsibility (Nielsen and Vedmand, 1999; Morgan and Henry, 1996; Pinkerton, 1994; Binder and Hanbidge, 1993; Nakashima, 1993; Usher, 1993). For example, Binder and Hanbidge (1993) review co-management regimes that are responsible for bowhead whales, beluga whales, charr, whitefish, grizzly and polar bears. Other examples can also be drawn from the African context with respect to the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe (http://www.campfire-zimbabwe.org/index.html). Communities are granted authority from the government wildlife department to manage local resources with the assistance, advice and training from a variety of government and non-government organizations. However, the impetus for co-management structures, in many cases, remains a reactive response to a public wanting to become involved, as opposed to being a proactive and intentional government strategy. Although, Nielsen and Vedsmand (1999) would suggest that such a bottom-up driven design is ideal for developing co-management structures.

4.3.3 Unsolicited Public Participation

Although not listed among the Ontario Ministry of Natural Resources participation categories, unsolicited public participation is implicitly recognized to be a significant contributor to resource management (Stout *et al*, 1996). Members of the public can, and do, become actively involved in environmental issues of their own accord, often because of a mutually recognized problem or disillusionment with authority (Lerner and Jackson, 1993). Unsolicited participation would be consistent with Westley's (1995) learning-led collaboration, which is described to result from the independent reactions of people who coalesce around specific issues. Gardner (1993), in her discussions of environmental non-government organizations (ENGO), has categorized public participation into either advocacy or stewardship roles, while recognizing great overlap between the two. Advocacy groups demonstrate their concern for the environment and of government inadequacies through such activities as lobbying, publicity, protest, education, civil disobedience written correspondence, and telephone calls (Gardner, 1993; Stout *et al*, 1996). In addition, advocacy groups align themselves with various like-minded organizations (i.e. NGO's) such as, Canadian Parks and Wilderness Society (CPAWS: http://www.cpaws.org/), World Wildlife Fund (WWF: www.wwf.org/), Sierra Club (www.sierraclub.org/) and GreenPeace (www.greenpeace.org/), which provide a medium to inform and empower individuals through enhanced coordination, membership, financial support and public profile. Alternatively, participation may involve smaller organizations, particularly in the early stages of many "grassroots" or "community based" initiatives, such as local Naturalists Clubs (Lerner, 1994).

Many of these groups also perform stewardship roles, which are characterized by their activities to protect the environment (e.g. habitat enhancement, monitoring) as well as their more supportive, although potentially vital, relationship with the government (Gardner, 1993). Stewardship groups have been further divided according to their roles in relation to their perception of the government, including reactive (advocacy), supplementary, cooperative and independent tendencies (Gardner, 1993). Their ability to involve themselves along with their improved relationship with governments make stewardship groups an important component of environmental management. As was found in the previous chapter, 5.4% of Canadians surveyed in 1996, stated that they were a member of, or contributor to, a nature-based organization (DuWors *et al*, 1999).

Numerous examples of this form of unsolicited participation can be drawn from the case study results. As noted earlier, recreationists were found to often communicate with park staff about concerns through phone calls and writing letters. As one FCPP manager commented,

> "Constantly you get complaints…about people doing things in the park, building forts, having parties and things like that, which are not in keeping with the management guidelines of the park…about operational things like why is the lake open. …Then you get lots of complaints about positive things, I saw a deer with a broken leg, I saw a bear, there is a peregrine falcon nesting, and such and such. It continually comes in."

The challenge for managers is to identify and act on the most relevant and valuable comments. Similarly, the notion of self-policing falls into this category, where the public takes it upon itself to educate and monitor fellow recreationists. Of the ten individuals that had mentioned this form of participation, many stated that for the most part other recreationists seemed very open and appreciative of their efforts saying, "thanks for telling me, I never knew." Whether, this instilled lasting behavioural change is another issue. In addition, the case study participants were all were able to identify the few occasions where their overtures were not appreciated, but stated that that would not deter them in the future as long as they could remain careful and diplomatic about these exchanges. With respect to participation in stewardship groups, the very presence of Naturalist groups and their valuable activities in the parks demonstrate one important form of unsolicited participation. Other opportunities include proposals brought forth by universities and colleges, recreationist organizations, girl guides and boy scouts, school groups and even industry. For the most part, unsolicited participation within the case studies seems to be recognized and greatly appreciated; however, it is still dealt with in an *ad hoc* fashion, which leads to the third recommendation.

> Recommendation: Unsolicited public participation should be explicitly recognized as a significant contributor to the conservation management of Parks and Protected Areas. Once recognized, unsolicited participation should be proactively incorporated into strategies for public participation by park managers.

4.3.4 Compliance and Miscellaneous Forms of Participation

Finally, there is the act of compliance and other forms of participation that also are not listed as part of the OMNR's public participation framework. Compliance with rules and regulations and its derivatives was the most mentioned form of conservation participation opportunity, such as staying on paths (or do not make new ones) (21 individuals), and not disturbing or harassing plants and animals (e.g. picking plants, feeding) (13 individuals). Other examples relate to limiting impacts on the environment. This list includes, clean up their own garbage (pack it in/pack it out) (35 individuals), clean up after others (leave campsite cleaner than it was found) (19 individuals), leave everything as you found it (No Trace Camping, Leave No Trace) (14 individuals), no littering (15

individuals), and appropriate disposal of waste (e.g. grey water) (10 individuals). Similarly, recreationists, particularly in KPP, also mentioned that they bring wood from elsewhere, keep fires in designated areas, and do not use deadfall. Where these examples differ from the contributory, operational or other forms of participation, is that this form of participation is actively advanced by park management (e.g. through education and enforcement), where management does not seek anything other than compliance with the rules and regulations.

Finally, a variety of opportunities to participate in conservation were mentioned that did not fit in with the above themes. Examples include, watering the grass around the park, taking photographs, donating trees, as well as developing a broader respect for the park. Some individuals had also mentioned bringing only burnable material, using propane stoves, or in contrast to a point made above, to burning only deadfall. It is likely that a broader list exists or could be generated that would identify unique ways to participate in conservation, as well as areas to direct additional education to maintain a common conservation direction.

4.4 Evaluation of Public Participation Opportunities

So far within this chapter, three main areas have been reviewed: management strategies and tactics, recreation management frameworks and opportunities for public participation. These are intended to establish the context from which to evaluate management practice with respect to fostering recreationist involvement. This is an important point that needs reiteration, it is this perspective of improved recreationist participation that will form the basis of this evaluation, and so a more general critique of management practice will not be provided. As with any evaluation, a variety of weakness and strengths will become apparent, where both will yield opportunity and support from which to develop this research. However, only the weaknesses will be discussed in this chapter, since the concept of strengths within the current management system in regards to recreationist participation will be more effectively presented in chapter six within the context of opportunities for implementation of this research.

Based on the evidence already presented, it would appear that the opportunities available for recreationists to participate seem to predominately cater to an active public minority, to the neglect of a less active public majority. Many forms of participation opportunities, such as attending public meetings, filling out surveys, monitoring, becoming informed, volunteering in a project, or co-management legitimately, or perceptually, requires a high investment of time, finances and/or dedication on the part of the public. Participants often undergo additional training or testing

procedures in order to ensure that they are capable of producing high quality and rigorous data for monitoring programs, or are encouraged to commit to at least two years of participation such as for the Alberta Stewardship programs. Both Naturalist groups clearly expressed that individuals need to possess a minimal level of skill and expertise before they can contribute effectively (e.g. seeing a little brown bird is not sufficient). One KPP manager stated,

> "A volunteer backcountry ranger travelling with one paid staff, if they are not here for at least six weeks, I don't get a positive return. For the backcountry, if they are travelling with one paid staff, they have to know how to use the radio systems, access the emergency systems, because they are the partner for that other person. And that takes…training takes at least a full week of time. And after the formal inhouse training, their first trip….it is a physically demanding job, so they cut the travel time of my crews in half in the first two weeks. But by the fourth week they are pretty much into it by then. But to make up for the two weeks that you have lost, it takes two weeks of being up to speed. So after the end of the sixth week it starts to have a positive return for park management."

Importantly the public, as represented by the participants in the case studies, is very cognizant of these investments, as will be discussed in the following chapter with respect to participation constraints. Understandably, these individuals may view participation as a great learning experience, an opportunity to contribute their skills, or their duty to become involved (see Ordubegian, 1993); however, not all members of the public feel the same way.

As mentioned in chapter three, one survey suggested that 5.4% of Canadians engaged in activities aimed at protecting the environment or wildlife as a volunteer through an organization (DuWors *et al* 1999). Although this is a significant level of participation, researchers can present a much different interpretation by considering the 90% or more members of the Canadian public that did not participate in any of these identified conservation activities. DuWors *et al* (1999) recognize the great potential to be gained in addressing the 24.4% of individuals showing some or great interest in joining a naturalist, conservation or sportsman's club by supporting such opportunities. The high level of willingness to participate in conservation, as found in the case studies, suggests that there is a broader interest to become involved. More conservative estimates can be found in the Gallup polls evaluation of support for the environmental movement, which suggest that 50% of the American population are sympathetic to the environmental movement, in comparison to 18% of the population as active in environment issues, and 5% as unsympathetic, where 25% remained neutral (Dunlap and Saad, 2001; Dunlap, 2000). This distribution is similar to the participation spectrum presented by Donald (1997). However, it is uncertain whether this public is not active because they are genuinely not interested, or if it's a consequence of the design of existing opportunities not appealing to them.

Exploring this dichotomy between interest and design is *critical* in addressing the estimated majority of the North American population (>50%) that are not active or may not consider themselves as active in conservation, at least in our current conception of what conservation entails.

Even upon participation, individual burnout and project disenchantment taxes the most active and dedicated public, particularly when there is likely a strong dependency on public involvement being drawn from a small volunteer base. For example, statements that express an obligation to continue participation as opposed to enthusiasm (Ordubegian, 1993), may be symptomatic of wavering volunteer support and interest. In spite of the noble nature of volunteering, it can have significant detrimental effects on those individuals that offer their time and energy, depending on the context that surrounds that participation (see Snyder *et al*, 1999). As a result, many individuals are not willing or capable of committing in the way that current public participation opportunities require.

Moreover, the source of management-led opportunities being myopic or restrictive is likely attributable to the rigorous protocol demanded by the scientific method, conventional approaches for "good science" and ideas regarding what constitutes legitimate information. Quality assurance continues to be a key issue, particularly with respect to using volunteers (Joliat, 1999; Anonymous, 1997; Stout *et al*, 1996; Pearce, 1993). Irwin (1995) identifies this concern for potential scientific ignorance as a motivation to create a "better informed" citizenry in order to make science more accessible, but recognizes that there may be "strict limitations on the extent of its accessibility." As was mentioned in an earlier section, volunteers may have to undergo training or demonstrate their skills prior to being accepted to participate in operational opportunities such as monitoring. Consequently, the public is encouraged and potentially limited to conform to the same high standards that govern experts, contractors, and resource managers. Such a preoccupation with "glamorous" types of conservation programs, which involve high amounts of skill, planning and equipment are likely seen as the most effective way to practice conservation, yet may overlook the value of less glamorous or simpler, although not less important, contributions to conservation (e.g. picking up other recreationists' garbage). There needs to be increasing recognition that the public and volunteers produce valuable information and that the pursuit of a higher level of quality may not be necessary or the most prudent use of time (Anonymous, 1997). Resource management defined opportunities that direct – or depending on one's perspective - distort participation to best suit the needs of management. This pursuit of self-interest is a trait of transactive relationships (Bass and Steidlemeier, 1999), which characterize many of the previously discussed public participation opportunities. Although protocols may be necessary to ensure a certain quality information in a form

that may be useful for management, they are by nature restrictive, and the implications of such protocols in regards to who participates and the characteristics of that participation needs to be considered.

Another perspective may identify a silent public majority as “those people who do not usually become actively involved in social or environmental issues, being more focused on coping on issues at home or at work” (Mitchell, 1997: 161). Mitchell (1997) continues to suggest that “[t]he reality is that the active individuals or groups make it their business to become involved, and managers do not have to make special efforts to hear from them.” This lack of need to make special efforts may facilitate management practice in becoming myopic and entrench a bias towards the active public. Manning *et al* (1996) has noted a comparable management preoccupation precedent, although in reference to overnight visitors. They found that “…in the judgment of managers, day users are more responsible than overnight visitors for most of the other categories of problems described earlier in the current study" (e.g. campsite, trail, water, and wildlife impacts)(pg 145); yet, “day users were often not targeted for management actions.” Similarly Kerr *et al*, (1994) more generically warns of not letting real limitations of time and money result in a complacency to accept the current situation and not challenge the norm, where a long history does not make it correct.

The importance of considering all members of the public in the pursuit of sustainability is paramount, particularly in reference to their cumulative impact in environmental degradation, in guiding government policy, as participants of the capitalist system, and the social structures that perpetuate these behaviors. Moreover, the urgency and need for sustainability necessitates a system that encourages a high level of support and involvement from everyone. Robinson *et al* (1990) suggest that sustainability has to be acceptable to the general public, and that “environmental autocracy” may not be feasible or desirable in addressing the problems of unsustainability. It is unlikely that society, or the environment for that matter, has the luxury to turn away interested members of the public, or neglect others because of management limitations or scientifically rigorous expectations. Parks and resource management cannot shoulder complete responsibility for achieving sustainability. Ultimately, all members of society have to contribute. This critique leads to a fourth recommendation.

> Recommendation: Opportunities for recreationists to participate in the conservation of parks and protected areas should be made more accessible, either singularly or as part of a range of opportunities.

4.5 Conclusion

Combining both literature and case study results, this chapter provided an overview of the current system of resource and recreation management, including strategies and tactics, management frameworks and public participation opportunities. From this discussion and the application of the perspective that recreationist participation is a desirable component of a conservation initiative, two major points were developed. The first was the examination of the inherent bias in current management practice that treats humans as separate from nature, the results of which are apparent in rules and regulations, as well as the messages presented in education programs. The second point argues that current participation opportunities are limited in their ability to involve the general public, including recreationists. Management expectations regarding valuable forms of involvement may be too high, or even unwarranted in the pursuit of the overall goal to conserve the environment. Recognizing that there will always be examples that will undoubtedly contest the details within this evaluation, a position is made identifying a need for improvement. The value of the critique will become evident through the development of the following chapters, which will explore how some of these weaknesses may be manifest and discuss alternatives with particular reference to recreationists.

Chapter 5. Looking at the Recreationist

Much of the literature on public participation and even the previous chapter refers to a group entitled the "public." However, many researchers would likely agree that the public is not an amorphous group, but it is a composition of individuals with many faces, identities and behaviours. Understanding this diversity is vital in order to foster a meaningful and effective relationship, particularly if it involves an agenda of increasing individual participation such as the one being developed in this thesis. Overall, this chapter will discuss participation while drawing upon three pertinent literatures - leisure, motivation, and environmental behavior - which have implicitly addressed this topic from their own perspectives. As a result of the extensive use of theory, this chapter develops a more conceptual and literature based discussion, with fewer references to case study results as compared to the previous chapters. However, many of the theories and concepts developed within each of these research literatures, complement and serve to inform and extend their mutual development. In addition, leisure will be explored as an important element of the recreationists' identity in order to develop an understanding of how their participation could be enhanced. As a result, this chapter, along with the following chapter, addresses the final research objective.

5.1 A Need for Understanding Others

To begin with, it is important to re-emphasize, by way of a few examples, the need for understanding "other." Hultsman *et al* (1998) present a concern regarding the "…failure on the part of planners, designers, and administrators to blend together the *needs of the user and the environment* when developing and managing parks and other resource-based recreation areas" (pg 4). They later discuss three elements for successful planning, technical knowledge, common sense, and creativity, where creativity requires putting "…*yourself in the user's place*" (pg 5). This sense of empathy is reflected in the evolution of recreation management frameworks such as VERP and BAL, which attempt to better consider the recreationist experience (see chapter four). Donald (1997) emphasizes the need to study a multitude of factors, such as demographic, cost/benefit and socio-psychological variables, in order to understand why people do or do not participate in environmental activities. Similarly, research addressing indigenous or aboriginal peoples has also been instrumental in this area. For instance, Colfer *et al* (1999) suggest that gender, ethnicity, time and seasonality must all be understood for environmental managers to develop a better rapport with local communities and enhance local participation. Further, this improved understanding may reveal an underutilized resource of valuable knowledge, or sources of non-support, that can contribute to the failing of

project success (Pretty and Shah, 1997). Such an approach was employed by Irwin (1995: 5) in regards to his development of citizen science, by considering “science from the citizen’s side rather than from that of the scientific establishment”, as a way to re-establish the balance between public and formal expertise. He even dedicated a chapter to this idea, entitled “Freeing the Voices.” Similar sentiments towards understanding others seem to be apparent and developing within a diverse group of literatures, including feminist theory, post-modernism, education and patient-focused care, which all could be argued to have arisen in response to a deficiency in understanding, and subsequently not appreciating others. These examples do not constitute an exhaustive list, however they do illustrate that the need for understanding others is a common and critical theme in a variety of social and research initiatives.

5.2 Importance of Leisure to Recreationists

Leisure has and continues to play a critical role in society and our lifestyle. Aristotle made the distinction that leisure is not for mere amusement, relaxation or to be instrumental, it is concerned with things that are intrisically good and that leisure offers freedom from necessity and consequentially it is the foundation of virtue (Goodale and Cooper, 1991). In more recent years, leisure has been defined as a function of activity, time, experience or self-actualization (Csikszentmihalyi and Kleiber, 1991), and as containing elements of enjoyment, personal growth, non-relation to work or duties, freedom of choice, or as a means and ends to itself (Esteve, *et al*, 1999). Even common conceptions of leisure as being separate from work have been challenged with notions of “serious leisure”, where individuals may gain satisfaction and meaning from their work environment (Stebbins, 1998). However, it is the concepts of perceived freedom and intrinsic motivation that have been consistently identified as key factors in achieving or defining a leisure activity (Esteve *et al*, 1999; Iso-Ahola, 1986). Similar ideas have been identified by Driver *et al* (1991) within an extensive review of the benefits of leisure including discussions on health, physical activity, learning, self-actualization and quality of life, among many others. In addition, leisure may provide a sense of achievement, mastery, intellectual development, competence, independence, appreciation and prestige, or to satisfy social needs, love and belonging (see Ragheb, 1996; Beard and Ragheb, 1983; Esteve *et al*, 1999). Moreover, leisure allows an opportunity for achieving control and a temporary escape that is instrumental in coping with stress and for stress recovery (Ulrich *et al*, 1991). All of these benefits provide an explanation for the continual and increased popularity of leisure and recreation in society. Even the busy work schedule, an artifact of the industrial revolution, has given way to an estimated 17% more available free time (40.5 hrs/week) for the American population within the last 20 years, although much of this gain has been consumed by

television (Robinson, 1990). Overall, leisure and the pursuit of leisure should be appreciated as a significant attribute of the individual and especially the recreationist's identity.

5.3 Leisure Constraints

Unfortunately, the pursuit of leisure and recreation is encumbered by a variety of constraints, whether perceived or otherwise. Even available free time, in spite of its gains, is becoming more fragmented or constrained with an increasing number of demands being placed on it (Godbey, 1984). Crawford and Godbey (1987) have put forth a valuable depiction of these constraints within a hierarchical model composed of intrapersonal (e.g. personal motivation), interpersonal (e.g. few friends to participate with) and structural (e.g. lack of money or participation opportunities) forms of constraints. This model continues to be developed and guides a significant portion of current leisure research, even serving as a focal point of critique and discipline reassessment (e.g. Crawford, et. al., 1991; Henderson, 1997). One aspect of this development has been the exploration and validation of the model components. In a study conducted by Kay and Jackson (1991), respondents have suggested that money (53%), time (36%), family commitments (16%), work (13%) and health (12%), among a variety of others, are the constraints most affecting their leisure. These constraints are not unlike those reported to impede participation in conservation, which will be presented later in this chapter. Although this or similar lists have gained support, caution has been raised to not overlook the crucial motivations that underlie items within this list (Samdahl and Jekubovich, 1997) or the possibility of applying the constraints model too strictly (Caroll and Alexandris, 1997). Another aspect of this area of research that has received attention has been to investigate the relative influence of the model components on the expression of a leisure experience. Of the three types of constraints, intrapersonal constraints have been found to be the most important factor determining the pursuit of leisure (Crawford *et al*, 1991; Caroll and Alexandris, 1997), presumably because they are most immediate to the individual. This is evident in the important role of self-esteem and its negative relationship to the perception of intra-personal constraints (Raymore *et al*, 1993), and the importance of personal control and freedom of choice, or the lack there-of, as main determinants and constraints of leisure behaviour (Iso-Ahola, 1989; Caroll and Alexandris, 1997).

One dominant theme that has emerged is the notion of participation in leisure as a consequence of negotiation, thus revealing a process of activity modification, as opposed to participation in the absence of constraints. This activity modification is evident in research reporting that only 11% of respondents discontinue participation as a result of financial constraints, where 57% participated less frequently or found alternate ways to participate, such as through saving money (11%) or finding

cheaper forms of leisure (8%) (Kay and Jackson, 1991). When experiencing time constraints, 71% stated that they cut down their level of participation. In addition, the anticipation of interpersonal or structural constraints, as well as the anticipation of the ability to negotiate the constraint, may result in cognitive dissonance manifested in a decreased desire for participation (Jackson, *et al*, 1993). The desire to participate relates to the other critical factor of the negotiation process - personal motivation. Jackson *et al* (1993: proposition 6) suggest that, "both the initiation and outcome of the negotiation process are dependent on the relative strength of, and interactions between, constraints on participating in an activity and motivations for such participation." Consequently, a higher motivation will likely facilitate larger constraints to be overcome, and vise versa. However, even with all of this support, the nature of the relationship between constraints and participation remains debatable (Caroll and Alexandris, 1997; Jackson, *et al*, 1993). Regardless, it can be argued that leisure being experienced by any individual involved some sort of prior or continued investment of personal resources and opportunity costs in order to overcome or negotiate constraints. Furthermore, a resistance to change current leisure behaviour may be explained, in part, by this prior investment and successful negotiation (Jackson *et al*, 1993).

5.4 Motivation

As mentioned above, personal motivation is intimately linked to any discussion of constraints and the negotiation process. Within the area of motivation research, self-determination theory has received much attention and application (Deci and Ryan, 1985; Green-Demers *et al*, 1997; Seguin *et al*, 1999; Pelletier *et al*, 1999; Pelletier *et al*, 1998; De Young, 1993). Deci and Ryan (1985) have characterized three types of individual motives situated along a continuum of self-determinism, which include intrinsic motivation, extrinsic motivation, and amotivation. Intrinsically motivated, or highly self determined, activities arise from the individual and are performed for the sole pleasure and satisfaction of the activity where participation in the activity is often seen as an end to itself (Deci and Ryan, 1985). Individuals exercise personal choice, interest and freedom.

Extrinsic motivation is comprised of four distinct forms, integrated, identified, introjected and external regulation, listed in decreasing levels of self-determinism. Integrated behaviours are those that arise from an external source, but have been valued to such an extent that it becomes part of the individual's self-concept. Identified behaviour is freely taken because its outcomes are consistent with the goals and values of the individual. Introjected behaviours are those that arise from the internalization of external constraints, such as the presence of fear or guilt and anxiety. External

regulation is the last of the extrinsically derived motivations, and would include behaviours that are controlled by external constraints such as coercion, punishment and many forms of extrinsic rewards.

Finally, amotivation represents the other extreme of the motivation continuum and the lowest levels of self-determinism. Behaviours arising from amotivation have been described as being meaningless or containing feelings of an absence of control, helplessness, and alienation (Pelletier *et al*, 1999). Amotivated individuals are typically unable to see the consequences of their action, which compromises their continued participation.

5.4.1 Trust

Of particular importance to any discussion of amotivation is the case of trust, or distrust as a contributing factor. Trust is a vital aspect of any human social relationship (Slovic, 1993; Busch and Hantusch, 2000), especially between individual(s) and those, or that, which desire joint participation or cooperation. There exist a variety of definitions for trust (Kramer, 1999; Busch and Hantusch, 2000); however, Robinson's (1996:576) definition of "expectations, assumptions, or beliefs about the likelihood that another's future actions will be beneficial, favorable, or at least not detrimental to one's interests" is appropriate to this thesis. This definition could be extended by the notion that "trust needs to be conceptualized as a more complex, multidimensional psychological state that includes affective and motivational components" (Kramer, 1999:571), which effectively ties trust into this discussion on (a)motivation.

Investing in the establishment of trust is a worthwhile endeavor. It arises from a sense of vulnerability, commitment, clear communication, honesty, consistent and predictable behavior, active listening and the sharing of information (Busch and Hantusch, 2000). Arising from these efforts are a number of benefits. For instance, trusting individuals have been found to be more cooperative and accepting of outcomes even when outcomes are unfavorable, as well as more willing to engage in positive behaviours such as contributing their time, assisting others, sharing information or showing necessary restraint (Kramer, 1999; Busch and Hantusch, 2000). Mutual respect, commitment, and accountability contribute to and become part of trusting relationships (Busch and Hantusch, 2000), which likely contribute to trust being necessary for easy communication and a fundamental component of conflict resolution (Slovic, 1993). Establishing trust may facilitate overcoming some of the barriers that impede an individual's willingness to substitute his/her current activity with another one (Iso-Ahola, 1986)

Unfortunately, trust is very fragile and once lost is very slow to redevelop (Slovic, 1993; Kramer 1999; Busch and Hantusch, 2000). Consequences of distrust include an enduring lack of cooperation and decreased acceptance of outcomes (Kramer, 1999). Slovic (1993) suggests that the relationship between trust building and trust destroying processes are asymmetric, where the latter is vastly more significant than those processes that build trust in their influence on overall levels of trust. He explores the notion of asymmetry as a consequence of four elements: 1) negative (trust destroying) events are more visible or noticeable than positive (trust-building events); 2) when events do come to our attention, negative events carry much greater weight than positive events; 3) sources of negative news tend to be seen as more credible than sources of good news; and 4) the tendency of distrust, once initiated, tends to reinforce and perpetuate distrust. In addition, the number of behavioural instances required to disconfirm a negative trait is greater than the number required to disconfirm a positive trait (Slovic, 1993), which speaks to the resilience of distrust. Stankey (1997) and Moore (1995, as cited in Stankey, 1997) identify the ongoing perception regarding the dominance of science and experts, and the lack of role for the public and users as a definite impediment to the development of trust and credibility. Although public trust in both government and private institutions has been declining in recent decades (Kramer, 1999; Senguin *et al*, 1999), Slovic (1993) notes that the importance of (dis)trust as a source of program failure has not been sufficiently recognized or appreciated. Busch and Hantusch (2000) reflect these sentiments, having found that participants often remain unaware of the importance of trust as a powerful factor determining the success of a project.

5.5 Refocusing on Participation in Environmental Initiatives

Up to this point, leisure was presented as both a source of theory to inform participation in general, and as a distinct and critical factor influencing recreationist participation in conservation. Motivation research, as developed from within the leisure-negotiation discussion, provides the underlying principles upon which participation is based, regardless of whether it is towards leisure or conservation. This section returns to the focus of participation towards conservation, by taking advantage of the preceding theory as well as additional literature explicitly addressing public participation in conservation.

5.5.1 Why Individuals Participate in Conservation

One of the most investigated explanations for public willingness to participate in conservation, and the fundamental principle behind education programs and nature interpretation, is the suspected link

between environmental awareness and attitude on individual behaviour. In theory, increased environmental awareness aims to develop a sense of individual responsibility and attachment towards the environment. Fortunately, the level of environmental awareness or interest within the general public continues to be high, as was discussed in chapter three. Similarly, it could be argued that natural area recreationists should possess an even greater level environmental awareness because of the location and environmental intimacy of their leisure. Unfortunately, this high environmental awareness has not broadly translated into an equally high level of participation in conservation initiatives, or has done so inconsistently (Chaiken and Stangor, 1987; Vincent and Fazio, 1992; Green-Demers, *et al*, 1997; Pelletier *et al*, 1998), thereby challenging current conceptions of the link between awareness and behaviour. Even well informed individuals have been found to not exercise environmental behaviours (Seligman, 1985). A variety of factors, such as the source of the message, the recipient, the channel used, the message itself and the broader context or situation all interact in complex ways influencing this awareness to behaviour dynamic (Ajzen, 1992).

Apart from awareness, other motivations have been reported to explain individual participation in conservation. Donald (1997) found that the two most important or extremely important reasons for why people participate in environmental task forces were knowing that the work of the task force was successful (83%) and that the task force was receiving government support and cooperation (62%). Lerner (1994) re-emphasizes the point that individuals are encouraged to participate if they are confident that their thousands of volunteer hours have changed things for the better. She also notes that dissatisfaction with the current condition relative to one's expectations can serve as a catalyst for the formation of advocacy groups. Similarly, Senguin *et al* (1999) identify an increased interest among members of the public to participate in environmental initiatives, which arises from perceived health concerns and distrust towards government. This negative relationship between satisfaction and subsequent environmental behaviours has also found support in research conducted by Pelletier *et al* (1998) and Donald (1997: in reference to individuals responding to a lack of government support). In addition, self-determination theory has also been found to be an excellent predictor of environmental action. (Green-Demers, *et al*, 1997; Senguin *et al*, 1999). In contrast, Donald (1997) found that participants in conservation groups reported that enhancing job/career experience was not considered important (70%), nor was receiving personal recognition for their contribution (75%) or increasing one's community profile (82%). It would seem that the reasons for participating in conservation tend towards a more personal interaction between participants as well as the inherent value of the action, as opposed to what would be more typically thought of, or employed, as motivators (e.g. monetary rewards). As will be discussed below, understanding this

divergence in motivations may have dramatic implications in how recreationists should be encouraged to participate in conservation and how this may be implemented.

5.5.2 Why Individuals Do Not Participate in Conservation

Arguably, many of the constraints that impede an individual's pursuit towards leisure should also be applicable to participation in conservation because both involve the pursuit of non-obligatory, voluntary activities. For example, the absence of environmental behaviours is likely a result of a negotiation process, where an intention, as derived from increased environmental awareness, is attenuated by a variety of factors. Donald (1997) has found that prior time commitments to work (63%), family or personal matters (54%), and other volunteer activities (36%) were mentioned by individuals as significant impediments to their participation in conservation. Similarly, many recreationists surveyed in the case studies mentioned time (18 individuals) and proximity to the park (10 individuals) as constraints to their participation. Even upon approaching individuals for participation in the survey, the majority of recreationists first asked, "how long will the survey take", which revealed their immediate awareness of time as a constraint. One recreationist group recounted being ineligible to participate in Canadian conservation programs because they were American in nationality. Other constraints included involvement in other activities, understanding the task to be too complex, uncertainty to who to talk to, infrequency of visiting the park, desire to focus on their recreation, or a perspective that conservation is not their responsibility. As Mitchell (1997: 161) aptly points out, "…in fairness to environmental and resource agencies, it should be said that many people do not want to become actively involved", where they have other concerns and may be content to rely on managers to fulfill their duty. A few participants in this research reflected this same point (9 individuals). Or as one FCPP staff participant stated,

> "This is very much my own personal viewpoint of society as a whole. They don't, people do not think that they have to think, somebody will do the thinking for them. The responsibility does not lie with them. We are creating generations of people that assume that if something goes wrong, it is somebody else's fault."

However, the constraint that was identified most often within both parks was a lack of knowledge or awareness of what was needed or how they could participate in conservation (33 individuals). As the Killarney Outfitter representative commented,

> "I think it is a lack of basic knowledge. They [recreationists] see the surface. They come down, they see that the forest is still there and what not, and they have really no idea how they as a lay person could come into the park and do anything of significance that would make a positive impact on the park."

It is also important to highlight that leisure as its own distinct activity provides an additional constraint, especially for recreationist participation in conservation. For instance, an individual's motivation for getting involved with environmental issues may lose appeal or significance relative to their pursuit of leisure because of a lack of environmental awareness or perceived responsibility, the loss of control in determining aspects of their participation, or the subjective and intimate nature of leisure preferences beyond just environmental conservation. Addressing recreationist participation in conservation necessitates the recognition of recreationists as a leisure active sub-set of the public, whom have already invested a lot of time, resources, and opportunity costs in order to overcome numerous constraints impeding their pursuit of leisure. As a result, participating in environmental conservation may require, or be perceived to require, an undesirable substitution away from the recreationist's original leisure activity. The intensity of this resistance to substitute leisure activities, such as for participating in this research, became apparent in numerous polite, "no thank you" responses or outright avoidance; however, on two occasions recreationists resisted with verbal hostility. Ultimately, the importance of leisure in society or to recreationists presents a significant constraint impeding participation in conservation.

5.5.2.1 Amotivation

Another important aspect of why individuals may limit their participation in environmental initiatives is the influence of amotivational factors. Pelletier *et al* (1999) has compiled many of the sources of amotivation into three categories. The first, strategy beliefs, based on ideas of perceived control and outcome expectancy, is the belief that an individual's action will be ineffective in producing the desired outcome. The second, capacity beliefs, based on ideas of self-efficacy, refer to the belief of not having the capacity or ability to instill change effectively. The third, effort beliefs, involves the lack of ability or desire to maintain the behaviour or integrate it into an individual's lifestyle. Importantly, it is the ability and expediency at which amotivational factors can hinder current, as well as future, participation opportunities that makes it a formidable consideration. For example, individuals may be unwilling to participate in environmental issues not only because they do not want to participate, but also because they do not expect to be able to participate more (Hendersen, 1997). Also, members of the public have been found to hesitate joining environmental task forces because they believed that the task forces were already successful and that they were not needed, or that the task forces were not successful and that their effort would be lost (Donald, 1997).

Another example can be drawn from some case study recreationists who expressed growing disenchantment with the government because of participant information not being used effectively,

management not being receptive to recreationist contributions or participation projects that are considered to be a waste of time (7 individuals). For instance, one recreationist commented that one of their biggest frustrations is that they report lots of inappropriate behaviour (e.g. dogs off leash), but park managers do not have the time or ability to do anything, which has reduced amount they report. In addition, this decrease in participation may be symptomatic of broader issues where there remains doubt that manager's use of public involvement is honest and complete (English *et al*, 1993 cited in Gregory, 1999). Similarly, Pearce (1993) recognizes that the perceived value or trust in volunteer contributions is lower relative to the trust offered employees because of the absence of control or leverage that a manager has over an employee. Schneider and Winter (1998: 23) suggest that "[i]ronically, visitor management techniques are frequently implemented based on manager expertise and preferences, rather than on visitor preferences", or, "when research does consider visitor input on management, it is frequently somewhat limited in scope and format." Irwin (1995: 131) suggests that the neglect of potentially valuable public knowledge within the decision making process on the grounds of its "supposed irrationality and anecdotal nature" is likely "insulting, provocative, and detrimental to notions of self-identity and citizenship" of concerned citizens. Harrison *et al* (1998) document this distrust and resentment on the part of farmers towards scientists, arising from perceptions of not being taken seriously or being treated only as technicians, which is compounded by resentment on behalf of local residents that farmers have benefited unfairly in their use of the land. This point will be further developed in chapter six.

5.6 Strategies for Increasing Individual Participation

To increase individual participation, as is advocated through this thesis, there is a need to investigate various strategies that would achieve this goal. Strategies to encourage increased participation are as plentiful as the diverse set of perspectives and research interests from which they arise. For instance, some researchers address public participation at the scale of legislation, policy or management (e.g. Mitchell, 1997; Owen 1998), or look towards education as a means to increase public participation. Others, including De Young (1993), put forth a review of behavioural change strategies including information, positive motivational and coercive motivational techniques as an alternate depiction. In keeping with the literature presented in this chapter the constraint negotiation process will be used as the guiding framework for this section.

5.6.1 Constraint Reduction

In theory, the reduction of perceived or actual constraints impeding participation can shift the balance of negotiation towards increased levels of participation. However, the removal of constraints

depends on the nature and origin of the constraint. For instance, improved program design can facilitate participation and remove inefficiencies of a system; or, if lack of knowledge is a problem, then education may prove to be an effective alternative. Many of these fall within the structural variety of constraints. Similarly, interpersonal constraints, such as not being able to find others to share in an activity, can possibly be alleviated through the development of programs, which coordinate individuals of common interest (e.g. sports teams). This is in contrast to intra-personal constraints that are internal to the individual and can only be influenced indirectly by an external agency, where the nature and efficacy of this influence is uncertain, such was the case with education and environmental behaviour. As a result, constraint reduction on an intra-personal level is more appropriately discussed in terms of individual motivation and the second strategy to be presented. In many circumstances, unless there exists the authority or ability to remove constraints[3], it stands to reason that constraints are not necessarily reduced but rather displaced or assumed by others, such as by those parties wanting to increase another individual's participation. Although, from the perspective of the primary individual(s), the constraints have, for all intents and purposes, been reduced.

Two main strategies emerged from the case study research that could best be characterized as constraint reduction: improved participation program design and education. The first strategy, improved program design, includes notions such as improved efficiency of participation and information collection, increased variety of opportunities, ability to involve more participants, making it fun, convenient, and directing programs towards the abilities of various groups (20 individuals). For instance, one KPP manager had mentioned taking advantage of the existing skill base and expertise of the public (e.g. using their editing skills for public documents), similar to what they already do with respect to naturalist group involvement. In this way, recreationists that practice photography, as an example, may find a way to contribute their skills to the conservation of the park. This last example also relates to designing the program in such a way that it could be readily adapted to the recreational activities of the public, which improves its convenience. Another design element is to consider the timing of program availability, such as in which season to conduct a program, or when to approach recreationists during the course of their activities in the park (8 individuals) and how often. One "Friend of FCPP" commented,

[3] Given the involvement of certain parties as cause or enforcers of constraints, these same parties may have the ability to remove the constraints altogether if the context that facilitated the rise of the constraint is also amenable to its removal (e.g. Government tax cuts, perceived non-real constraints, too high expectations).

> "I think this goes more into what we are finding as a group that it is really easy to get people out for a big one-day thing. It is not as easy to get people out for ongoing types of things. But so far, I don't know if it is our approach or whatever. I also don't know if the type of thing that we are doing as a group…it sort of appeals to just the average use of the park or not. These are actually questions that we are dealing with as a Society as well as how to get more people involved supporting what we are doing and all those sorts of things."

The Park Watch program being re-developed by the Friends of FCPP and the discussions surrounding it was the only opportunity found within the case studies where this notion of program design in relation to constraints was an explicit theme. This program is envisioned to use volunteers to provide information (gathering and reporting) to the Park Learning Center, and is to be explicitly designed to have limited overburden or administration. Another important aspect of the design of this program is the education of volunteers regarding the limits of their authority as to not challenge the authority of park managers, thus avoiding the creation of alternate constraints.

The second strategy, education, was the most mentioned strategy by research participants to increase the participation of recreationists in the conservation of parks and protected areas (44 individuals), particularly to address the constraint of awareness. They also specifically identified the education of children (16 individuals), opportunities to participate (14 individuals), the consequences of recreational activities (9 individuals), the importance and rationale for participation as well as the need to provide a clear and concise outline of the participation program (11 individuals). Similarly, improved outreach in the form of signage, postings, advertising among others (18 individuals), and encouraging recreationists to communicate with each other (6 individuals) were also mentioned. Even programs of questionable effectiveness for conservation are rationalized as an effective means of educating, raising awareness and generating support.

5.6.2 Motivation Enhancement

In addition to constraint reduction, motivation enhancement strategies provide a means for increasing an individual's level of participation. Intrapersonal constraints have been reported to be the most crucial element influencing an individual's level and type of participation in an activity, and it is because of their internal qualities that they are intimately linked with this strategy and general motivation theory. If an individual can become more motivated then their desire to engage and overcome constraints is also increased. As may become apparent, there are significantly fewer references directed specifically to leisure or recreationists in this section. This is because the bulk of supporting research to be presented arising from a well-established body of literature addressing

motivation in a more generally applied fashion. However, the concepts developed within this section are shared between both leisure and environmental behaviours.

5.6.2.1 Self-Determinism as a Strategy for Behavioural Change

Self-Determinism theory, as developed by Deci and Ryan (1985), has garnered support from and has been applied by a number of researchers. One reason for this attention is self-determinism's potential to instill long-term behavioural change (Pelletier *et al*, 1998; Green-Demers *et al*, 1997; de Young, 1993), which is vital for the pursuit of sustainability. In addition, it serves as a buffer allowing more difficult behaviours, such as those burdened by constraints, to be overcome or even selected (Green-Demers *et al*, 1997; de Young, 1993). Green-Demers *et al* (1997) found that self-determinism became an increasingly valuable factor determining the pursuit of behaviours associated with increases in task difficulty, as opposed to easier tasks where its influence was not as discernable. Importantly, self-determinism provides clear linkages between predictable antecedents such as a sense of competence, belonging, value, preserved autonomy and a locus of control and eventual outcomes. This in turn offers strategies to facilitate or maintain the development of certain behaviours by acting on these antecedents (Deci and Ryan, 1985; Pelletier *et al*, 1998). As Pelletier *et al* (1998: 442) state, genuine involvement of others as well as "support for one's autonomy and the provision of constructive feedback [regarding an individual's competency] have been consistently associated with increases in self determination." Interestingly, these antecedents of self-determinism are the same or very similar to the benefits arising from a leisure experience (e.g. sense of competence) - perhaps leading towards a positive feedback loop that reinforces the pursuit of leisure. Similarly, Friedman (1987) recounts the Hawthorne Experiment of the 1920's that found that changes in social conditions, as opposed to physical conditions, resulted in higher output and increased worker satisfaction. He further states, "Harvard scientists made the 'epochal' discovery that workers are human beings who respond favorably when they are treated with consideration and respect" (Freidmann, 1987: 204). Lee (1993) challenges the importance of this effect, seeing it as inadvertently caused by the experimenter since participants appreciated and wanted the extra attention. However, even his critique seems to support the notions of self-determination since there was a favorable response to being involved and considered to have something to contribute, regardless of experimenter intention.

Self-determination theory and research also provides insight into the role of rewards or extrinsic incentives for encouraging behaviours. As mentioned in the previous chapter, rewards are effective in instilling prompt behavioural change; however, sustained behavioural change is contingent on the

continual and costly receipt of rewards. Moreover, the value of the reward to the individual may depreciate over time thus requiring an even greater investment in the reward system in order to maintain certain behaviours (Searle, 1991). Pitmann and Heller (1987) suggest that extrinsically motivated activities tend to inspire the minimal effort necessary for participants to still obtain the reward (e.g. art decreased in creativity and effort with the receipt of rewards). In contrast, behaviours arising from self-determined or intrinsically derived reasons are expected to be more durable and creative, even in the absence of external incentives or reinforcements (Senuin *et al*, 1999; Pelletier *et al*, 1998; Green-Demers *et al*, 1997; de Young, 1993). Interestingly, it was found that the provision of an extrinsic reward, whether to enhance or initiate a behaviour, would replace any original self determined motivations by those of an extrinsic source (Pitmann and Heller, 1987; Enzle and Anderson, 1993). However, where rewards based on money or similar notions clearly follow from the previous discussion, verbal rewards or praise, and such things as skill acquisition have been found to increase rather than decrease intrinsic motivation or self-determination (Searle, 1991; Pitman and Heller, 1987; Deci, 1985). Consequently, the conceptualization and value of rewards is broadened by ideas of self-determination thus offering a more durable reward alternative for behavioural change than provided by traditional forms of rewards (e.g. money).

Is there evidence to encourage park managers to incorporate aspects of motivation theory and self-determination as a way to increase recreationist participation in conservation? Multiple responses that emerged from the surveys and interviews suggest that these ideas are an important aspect of recreationist involvement, including positive reinforcement (or feedback) in context of recreationist competence, as well as effort efficacy and relevance to conservation (17 individuals). For instance, it was important to recreationists that the conservation project had a purpose, would make a difference and that they could see a tangible result. One recreationist stated that he/she would donate more money if they knew exactly where it would be spent. If managers revealed that they needed recreationist assistance (6 individuals), invited them to participate (5 individuals), and gave recreationists an opportunity to participate (8 individuals), that would also create a favorable environment for participation. Similarly, it was suggested that direct involvement in conservation programs (i.e. hands on, getting hands dirty) was a necessary way to foster a sense of attachment (7 individuals), awareness and understanding (7 individuals), as well as satisfaction and pride in recreationist contributions (5 individuals). This direct involvement would also include opportunities to meet the park superintendent or park ranger, and even work along side these individuals as a means to foster the relationship between management and the public. As one KPP interpreter remarked,

> "When we get families that come here year after year, that know the staff by name and give us hugs when they get here. We have seen their kids grow up. We are sent mail sometimes in the winter about pictures that they have took of us. It is more of a sense of family with those people, because they come here year after year and are keenly interested in being involved in conservation efforts and doing what they can to conserve Killarney."

Park managers seem to be very appreciative of recreationist efforts. As was discussed in chapter three, recreationist involvement in wildlife inventories was thought to be generating valuable information which is expected to improve with time, and to be enabling managers to achieve many activities that would otherwise not be possible without their assistance. It was also thought by a few case study participants that without recreationist assistance, even in just complying with the rules and regulations, the park environment would be in far worse condition. Almost everyone that was approached to participate in the research interviews was very positive in their view of recreationist, or public, participation in conservation, and cited comment cards, attendance in programs, personal communications as evidence. Managers for both parks have demonstrated this appreciation in the form of post-activity barbecues, handing out park crests, or responding with a "thank you" when recreationists call in information. One KPP manager stated,

> "We put on a barbecue afterwards [spring clean-up event]. It is a nice chance to mingle and take your park hat off and become just one of the guys who has been shoveling and sweating. But also at a certain point in the social festivities afterwards, you put that park hat back on and you get up and thank the people who participated, and tell them how important it was for them to be interested and be involved the way they are. I think that is something that is overlooked. I don't think that we do enough of it. I think that it is easy to forget, but you have to make that effort and that is part of the investment. It doesn't take much to say thank you, and you get a whole lot back."

This discussion of motivation enhancement, including the role of self-determination and its derivatives, as well as the notions of trust and amotivation as a way to enhance recreationist participation implicitly recognizes that there exists a personal relationship between manager and recreationist. This point should not be disregarded as obvious. Richard and Burns (1998) identify relationship building as a key characteristic of success. As was previously discussed, intra-personal constraints are the most formidable impediments to the cooperation and participation of others, within which motivation theory is intimately linked. It is only through the explicit identification of this relationship that managers are able to proactively emphasize and foster it, whether it is to increase compliance with rules and regulations or to encourage voluntary public participation in a variety of conservation initiatives. Examples of how this can be achieved include an earlier

discussion of managers working and sweating along side of recreationists, as well as the suggestion of “meet the park ranger days”. Similarly, Friedmann (1987: 187) stated that one aspect of social learning in “small groups takes place primarily through face-to-face relations, or dialogue. But dialogue requires interpersonal skills, such as the art of listening, the ability to trust others and make oneself vulnerable to them, a willingness to suspend rank and material power and a responsiveness to others needs. These and related skills of dialogue can be acquired, at least in rudimentary form, through appropriate training.” Alternatively, the adoption of basic motivation principles such as appreciation, locus of control, and competence within programs and everyday interactions can also develop this relationship. As a result, a fifth recommendation can be presented.

> Recommendation: Recreationists should be engaged within the context of a relationship, which emphasizes openness or honesty, trust, appreciation and personal interaction.

However, such an approach to develop the relationship between recreationists and managers needs to be tempered by two important concerns. First, managers may not be able to interact with the public on a regular basis given staff and time constraints, although this would only be a concern impeding additional efforts to interact with the public and not current interaction opportunities (e.g. during the enforcement of rules). Second, the fostering of such a relationship may “blur” the line between management and the public. A KPP interpreter made this point clear when he/she recalled a recent visit from a recreationist that had become very familiar with park staff and felt free to enter their private residence without invitation. Other concerns may be a feeling that developing a familiarity between recreationists and park staff may undermine the authority of park employees. These points will be developed in chapter six.

5.6.2.2 Amotivation

An integral, albeit understudied (Pelletier *et al,* 1999), component of any behavioural change strategy has to be the minimization of those factors that undermine existing or potential motivations, thus contributing to a state of amotivation. It is likely that the absence of the reasons (or antecedents) enticing individuals to initiate or continue participation would compromise or at least not reinforce an individual’s motivation to participate. For instance, a lack of social interaction or personal control, the inability to instill real change, whether perceived or otherwise, as well as no feedback on effort efficacy may take away from the development of self-determination or enhanced motivation. Alternately, managers need to avoid situations in which they compromise the trust of the public. For instance, one KPP recreationist commented,

> "I was annoyed that I was charged with trespassing. I had a permit for an interior site, but the kids were tired so we looked for a closer site, but could not find one. I thought it was okay to find a clearing and camp as long as you left it the way you found it, but obviously not, even though the kids were too tired to continue. The warden told me that the park rangers told them we were there. The rangers should have told us to move when they saw us the night before. I feel they did this so they could charge me to make some money, $70.00. If they want honest people like me to use the park, at least they could do the same (be honest)."

In spite of this example, there are instances that reveal the avoidance of amotivation factors remains a consideration of some participants of this research. The most salient example addresses the motivation that the public wants to feel needed and to legitimately contribute to the conservation of the park, and whether projects of questionable effectiveness are worthwhile. One KPP interpreter commented,

> "…the dilemma or the question that I often ask, 'do you make up things that really don't need to be done so that people feel like they are doing something in order to get them involved and active,' I don't know. We do our butterfly count, do we do a second butterfly count that is not the official one for the National Butterfly Association, but is still important in terms of inventory and stuff, just to get people out there and feeling like they are doing something? How effective is that? These are things that I have pondered and don't really have an opinion on them at this point."

5.6.3 Iso-Ahola's Substitution

Although it is not a strategy in the same sense as constraint reduction or motivation enhancement, insight into the potential dynamics and contextual influences of the negotiation process can be gained from Iso-Ahola's (1986) discussion on leisure substitution. In this case, a parallel is drawn between the concepts of participation, as an engagement in an activity separate from the current activity, and leisure substitution. More conceptual than an investigative framework, Iso-Ahola puts forth a number of postulates, derivatives, and corollaries that influence the substitution process. In spite of the basic principle that the current leisure activity is no longer available and needing to be replaced by an alternate leisure activity, Iso-Ahola's theory of substitutability has a direct application for enhancing participation in conservation or evaluating current management practice. For example, postulate one and its subsequent components deal with developing a favorable environment in which to manifest constraint reduction and motivation enhancement strategies, so that individuals may be more inclined, or at least not disinclined, to participate in an alternate activity. This is supported by English *et al*, (1993) who note a greater emphasis on the process of how decisions are made, rather than a concern for the outcome. Some of these considerations include maintained autonomy, equity and early communication, which are not unlike recommendations derived from community

participation initiatives. Iso-Ahola's second postulate highlights the influence of the activity attributes in the substitution process, revealing a theme of substituting activities of equal or improved value. In the case of leisure, the notion of value can be derived from leisure's importance in the lives of individuals.

5.7 Conclusion

This chapter serves a number of purposes in exploring the relationship between recreationists and their participation in conservation initiatives. First of all, it offers a plausible explanation for the lack of recreationist participation in conservation, by bringing to the forefront the importance of leisure as an additional constraint. Alternatively, an understanding of motivation and the role of amotivation, as significant and potentially long-term influences to participation, were presented. In exploring "why" certain behaviours are adopted, opportunities of "how" to increase recreationist participation become more evident. Both constraint reduction and motivation enhancement strategies offer a means to increase participation in a way that is sensitive to the individual. In particular, education that addresses awareness constraints, program design and the ideas of self-determination were highlighted.

Can a conservation initiative provide a suitable component of recreationist leisure activities? The antecedents to self-determined motivation may dramatically influence the expression and the longevity of favorable environmental behaviours. It stands to reason that the less participation in conservation is perceived to be in competition with leisure, the more probable that any latent willingness on behalf of recreationists to participate may be expressed. Alternately, leisure experiences present an opportunity to enhance participation if recreationists are encouraged to make the connection between their assisting conservation and the long-term existence of their leisure opportunities – a point that was expressed in the wilderness code of ethics of the Alpine Club of Canada discussed in chapter three. Similarly, if participation itself can offer some form of leisure benefits, in the same vein as the notion of "serious leisure", then participation in conservation might indeed be able to compete with non-conservation activities for recreationist attention. It seems reasonable to suggest that investigating aspects of what recreationists already do through their leisure to the benefit of the environment would be an effective way of reducing perceived constraints and capitalize on existing motivations. Once again, this leads directly into ideas of self-determination and associative motivation theory. Appreciating what recreationists already do and what they had to invest in order to participate, respecting their potential knowledge and abilities, and thereby instilling ideas of competence, belonging and value, preserving autonomy and the locus of control because

participation is on their terms should yield greater support and participation. This, and the line of reasoning preceding, is the conceptual foundation supporting recreation sensitive conservation as developed by Porter *et al* (2000) and implicitly within much of Citizen Science developed by Irwin (1995). For instance Irwin (1995: 2) states, "social development has reached a stage where a rethink of the linkage between science and everyday life is urgently needed." Jamieson (1998:191) continues by identifying the need for "simple and compelling stories that show us how to practically participate in creating the future in our daily lives, and how to engage in ongoing dialogue with others about how our everyday actions help to produce global realities." From this the sixth recommendation is developed:

> Recommendation: Increased research should be devoted to investigating and exploring what recreationists already do in their everyday activities within the park that can or do contribute to the conservation of the environment.

Unfortunately, opportunities to take advantage of this type of social research are being overlooked. For instance, leisure constraints, motivation and self-determination theories have received much attention in their respective disciplines and hold promise as a strategy to instill enduring public behavioural change within the parks. However, the efforts to apply or even understand the benefits derived from these theories remains minimal within resource management.

During the course of this research, park managers, interpreters, staff, and naturalists were not limited in their ability to express appreciation and thanks for public contributions to conservation, in spite of also having many concerns. Both case studies elicit input from the public, albeit passively in most circumstances, in the form of comment cards, bulletin boards, or concerns reports. However, any expression of appreciation and confidence in the public was limited to the participants of conservation programs, which represent a small subset of the general public. Moreover, managers often accepted public information, perhaps passed it around the office for review, but then offered negligible amounts of feedback to the public regarding the value of these contributions or how the information was used, apart from any feedback that was offered during the initial contact. Even the offering of crests, such as is done in KPP, although well intended, may compromise any existent self-determined motivation, depending on how much the crest is valued or associated with the purpose of the activity. Similarly, programs directed towards educating the public about rules, regulations and compliance primarily pursue the two least self-determined forms of extrinsic motivation - external regulated and introjected. The implications of this are environmental behaviours that are contingent on the existence of an authority group or ongoing exposure to these motivation stimuli, which reduces the practice of these behaviours and their longevity beyond the

park boundaries and is potentially expensive. Alternatively, education as a general topic is often identified as the primary means to encourage public participation in conservation. However, it is not sufficient to state that more education is necessary without providing a detailed discussion of what would be contained in the education message. For instance, an education program could highlight management appreciation and recreationist competence in conservation initiatives, all the while contributing to an individual's self-determined motivation. Similarly, it provides an opportunity to develop a positive message within recreation management practice and education, where the lack thereof was the basis of a critique developed in the previous chapter. Two recommendations can be developed from these ideas.

> Recommendation: Increased effort should be made to incorporate social research and its accompanying theory into the development of all government programs, such as those guiding public participation.

> Recommendation: Elements of social science, such as found in the motivation, leisure and environmental behaviour literatures, should be incorporated within the development of park programs and the messages they promote, particularly in relation to education and interpretation.

Chapter 6. Implementation: Redefining the Role of Park Managers

Thus far, the thesis has provided a rationale to why greater attention should be given to recreationist participation in conservation, a review and critique of management practice as it relates to recreationist involvement, and an examination of leisure and motivation theory as a means to increase participation. However, much of this previous discussion was directed to answering "what" and "why" sorts of questions, where the "how", as a means of implementation still remains to be understood. This chapter continues the primarily literature-based discussion initiated in chapter five towards addressing the third objective of opportunities for recreationists to participate in conservation, by identifying park managers as the primary agents of implementation. In doing so, the manager's role is re-defined within the framework of leadership, and management constraints are recognized.

6.1 Resource Managers as Recipients of this Research

As with any research, there is a need to be clear of the audience for whom the research is intended, especially in discussions of implementation. Initially the focus of this research emphasized the recreationist and in many respects this focus is maintained; however, it became apparent that park managers or individuals that frequently interact with recreationists, such as volunteer coordinators, conservation officers and people in similar positions should be the primary recipients of this research. These positions and the individuals within them are strategically the most appropriate agents to facilitate and enhance recreationist participation. In order to support this perspective, this section highlights why park managers, in particular, are an appropriate audience, as well as provide a review of recent trends in the leadership literature as a potentially valuable framework from which to understand the role of the park manager.

6.1.1 Issue of Scale

The issue of scale, i.e. at what level to act, is a fundamental consideration for any call for action. This is especially evident in the tension within the resource management, public participation and sustainability literatures as they attempt to explore the appropriate scale for various ideas. For instance, 'think global, act local' is an often-presented mantra within discussions of sustainability. In regards to this research, the scale or focus to be explored is the interface between manager and recreationist. This interface is a critical, although not exclusive, juncture through which policies are communicated or enforced, recreationist impact is managed, attitudes and ethics emerge, and

participation is facilitated. In addition, much of the information being discussed during the course of this thesis is on an individual, personal level as facilitated by the interface between managers and recreationists. Moreover, this research pursues the role of recreationists who are defined by their presence in parks and protected areas.

6.1.2 Operating within the Current Management System

The current resource management system cannot evade its many critics. Much of the fodder for such criticism arises from the exposure of resource management's inability to adequately incorporate public opinion or its ability to protect the environment, having been their own cause to conflict and a source of failure (Holling, 1995; Bavington, 1998; Nielsen and Vedsmand, 1999). Bavington (1998: 2) further develops this idea within a discussion of the iatrogenic effect of resource management, arguing that the management system itself is the cause to the sickness currently identified within the environment. A related example emerged from the case studies, where one Calgary Field Naturalist member commented on the coincidence between park management building a fence to protect an area in the park for the nesting herons and the timing that this species had vacated the area. Alternatively, Holling and Meffe's (1995) management pathology describes a shift in focus towards the efficiency of control, as opposed to the original management purpose of resource conservation. Gilbert (1988) states that the very nature of ecosystems necessitates broad, cooperative and integrated approaches to management, where single agencies, institutional efforts, or political jurisdictions are not sufficient. Westely (1995) suggests - planning-led models of management are effective in mobilizing resources and tend to consist of well-defined processes and structures. However, they may lead to "premature closure [of the issue] to avoid political scrutiny" as well as possess a limited capacity to mobilize the citizenry because of public cynicism, lack of energy and unwillingness to participate. This top-down model also establishes standards, which are appropriate for its members; unfortunately, it often imposes the same set of standards on members of the public, including recreationists, thus stifling many potential forms of contribution.

Recognizing that such positions exist and leaving a more detailed critique to other researchers, one important question remains - so why then endorse a flawed management model given these reactions and interests in an alternate system of resource protection? The answer to the preceding question lies in the recognition or acceptance that the current system of resource management and its existing structure does have many redeeming attributes, which leave room for improvement as opposed to necessitating radical change.

One positive aspect of the current system is that park managers still serve an essential role in activities such as coordinating public involvement and conducting scientific research. For instance, public participation initiatives have found guidance and coordination to be essential components influencing project success and participant satisfaction. Donald (1997) reported that the lack of volunteer management or the absence of a coordinator was noted as constraint by 40% of their respondents. Yarwood and Edwards (1995) support this finding as they identify a coordinator or liaison as an integral component of Neighborhood Watch Programs. Similarly, within the case studies the absence of management availability was identified as a concern or even as a constraint to recreationist participation (5 individuals). Importantly, the coordinator may provide the necessary leadership to facilitate relationship building, the sharing of common values and knowledge, or to enhance communication between participants (Richard and Burns, 1998). They may also establish clarity of structure, where participants can easily envision the extent of their involvement. This may be particularly important for recreationists, who are likely separate from other recreationists because of the nature of their leisure experience (e.g. solitude) and the pursuit of their activities (e.g. interior camping). In addition, such coordination may enhance project success, or be perceived to do so, where the expectation of success and making a "real contribution" is an important factor motivating individuals towards participation (see chapter five). Park managers, because of their central role and opportunity to involve the public, can perform this critical function and are still actively looked upon to do so by the public and their superiors.

Park managers and the management system *are* currently necessary, although it has been argued that the system perpetuates itself by creating this need (Bavington, 1998). However, protection of the environment has no immediate alternative that would be sufficient to fill the void left by the removal of the existing management system. Managers are employed, ideally, for their expertise and qualifications, which enable them to accomplish a variety of important tasks such as facility design, wildlife monitoring and recreation impact management. There are grounds to acknowledge the accomplishments and abilities of park managers. Arising from this, managers gain or earn the image of expert or 'role model' among members of the public, where their actions are validated by legitimate and/or perceived authority. Although faith, or trust in the abilities or authority of government agencies continues to be challenged, it could be safely argued that park managers are still sought for their expertise and leadership, which is often accompanied by the burden of expectations and responsibility. For instance, a residual effect of this reputation may be an inability or lack of effort to envision responsibility or opportunities to participation in conservation beyond those identified by park managers. An important concern is that such amnesia is artificial and

fostered by the management system. Societal and environmental change is inevitable, as is change in the role of natural park managers. Consequently, it seems prudent for managers to proactively redefine their role and to engage the broader system in which they operate. Their current reputation and observed role in society provides just such an opportunity to be proactive and maintain their ability to guide conservation initiatives.

Unfortunately, the same interface that enables park managers to perform this coordination or guiding role also makes them vulnerable to creating impediments and to compromising future recreationist willingness to participate in conservation. For instance, any perception of insincerity regarding a manager's use of or efforts to facilitate public participation in resource management, whether legitimate or otherwise, may destroy the trust between these two parties (see chapter five). The absence of this trust only hinders the participation process, and unfortunately takes a long time to re-develop. Similarly, if the public lack confidence that their effort will effect change, they will be less inclined or amotivated to commit their energy. Consequently, the interface between park managers and recreationists not only creates opportunities that are favorable to enhance participation; it also exposes managers to circumstances that may jeopardize the quality of their relationship with recreationists. Recognizing no other recourse but to engage this situation, managers must become aware of the bias towards negative outcome, develop appropriate coping mechanisms (e.g. a willingness to admit to mistakes and a need to improve), enter with open and honest intentions, and accept this risk.

6.2 Managers as Leaders

Kotter (1990) presents an intriguing and valuable conceptual discussion regarding the differences between the role of managers and leaders. He argues that leadership and management are two different, but complementary systems of action. Specifically, management is about coping with complexity, whereas leadership is about coping with change (Kotter, 1990). He supports his position by outlining a variety of comparisons between these two concepts. For instance, he suggests that one *manages* complexity through planning and budgeting; whereas *leading* to constructive change is accomplished by setting a direction of vision. Management develops the capacity to achieve its plan by organizing and staffing; whereas, leadership serves in aligning people in accordance to the vision which, in turn, fosters empowerment in a way that organizing rarely does. Finally, management ensures plan accomplishment by controlling and problem solving (e.g. monitoring), whereas leadership pursues motivation and inspiration as a means to accomplish the vision. The more that the environment is characterized by change, the more that leaders need to motivate the public (Kotter,

1990). Although Lee (1993) does not discuss manager-leader differences, he does recognize the characteristic organizing and coordination function of management. As a result, the title “manager” may maintain historical significance, but loses its ability to describe the role of the individuals employed for environmental conservation and to engage the public.

Kotter (1990) proposes four attributes in which good leaders motivate others. The first is the ability to express a vision in a way that stresses the values of the audience. The second is to regularly involve people in deciding how to achieve the organizations vision and giving a sense of control. The third is to provide coaching, feedback, and role modeling as a means to enhance their self-esteem. The fourth is to recognize and reward success, giving others a sense of accomplishment but also making others feel like they belong. Successfully motivating others ensures [or at least increases the probability] that they will have the energy to overcome greater obstacles (Kotter, 1990), where leadership has been further defined as influencing or motivating others to perform voluntarily above minimum requirements (Bass, 1990; Shamir *et al*, 1993). This concept of leadership is particularly important for this thesis since participating in conservation is entirely a voluntary effort, in contrast to positions of employment. In addition, and as will become apparent in the following paragraphs, the consequences of leadership are intimately linked to the notions of sustainability and motivation already developed.

6.2.1 Transformative and Charismatic Leadership

The general discussion of leadership has found recent and substantial development in the area of transformative leadership. Individuals displaying this form of leadership are able to inspire others to accomplish great things, linking self-interest with respect to needs, values, preferences, and aspirations of collective interests (Bass, 1990; Shamir *et al*, 1993). There exist four ways to achieve this influence (Bass and Steidlmeier, 1999; Bass, 1990). The first is to provide *intellectual stimulation*, and a willingness and ability to demonstrate and teach alternate ways of viewing issues. The second is to practice *individualized consideration* by paying close attention to individual differences, demonstrating concern, offering support, and understanding the needs of others, as was the premise of chapter four. The third is to provide *inspirational motivation*, such as true empowerment and self-actualization. Finally, and more a personal attribute than a learned skill, is the idea that transformative leaders possess *charisma* or *idealized influence* with their audiences. One major advantage of being a transformative leader is that these individuals garner high ratings of support and commitment from others that are also willing to exert extra effort (Bass, 1990; Shamir *et al*, 1993). An similar list is provided by Shamir *et al* (1993) which includes: increasing the intrinsic

valence [desirability] of effort so that one recognizes that in making an effort they are making a moral statement; increasing effort-accomplishment expectancies, such as by addressing needs for achievement, a sense of belonging, recognition, self-esteem, efficacy, a feeling of control over one's life, and the ability to live up to one's ideals; increasing the intrinsic valence of goal accomplishment by presenting it in terms of their values and motivations; instilling faith in a better future; and creating personal commitment on the part of the leader. Charismatic or transformative leadership "is seen as giving meaningfulness to work by infusing work with moral purpose and commitment, rather than by affecting the task environment of followers, or by offering material incentives and the threat of punishment" (Shamir *et al,* 1993: 213).

How is any of this discussion different from more traditional forms of leadership? Bass (1990) presents the idea of transactions or exchanges between manager and employees as the basis of traditional leadership models. Rewards, incentives and other similar forms of recognition are often part of these exchanges. Bass (1990) further suggests that this form of traditional leadership, in many instances, is a prescription for mediocrity since it does not inspire individuals to invest more effort than is required. Shamir *et al,* (1993) provide a comparative review of traditional versus charismatic leadership types (Table 6.1), which summarizes many of these ideas.

Table 6.1. Summary of the Motivational Effects of Traditional and Charismatic Leadership Processes (Adopted from Shamir *et al,* 1993: 222).

Motivational Charismatic Component Processes	Traditional Leadership Processes	Charismatic Leadership
Intrinsic value of behaviour	Making the task more interesting, varied, enjoyable, challenging, as in job enrichment	Linking behaviour to follower's self-concepts, internalized values and cherished identities
Behavior-Accomplishment expectancy	Coaching; training; providing material, instrumental and emotional support; clarifying goals	Increasing general self-efficacy (through increasing self-worth and communicating confidence and high expectations). Emphasizing collective efficacy
Intrinsic value of goal accomplishment	Setting goals, increasing task identity, providing feedback	Linking goals to the past and the present and to values in a framework of a "mission" which serves as a basis for identification
Accomplishment-Reward expectancies	Establishing clear performance evaluation and tying rewards to performance	Generating faith by connecting behaviours and goals to a "dream" or a utopian idea vision of a better future
Valence of Extrinsic Rewards	Taken into consideration in rewarding performance	Not addressed

Shamir *et al,* (1993) continue their discussion by proposing a set of conditions within which charismatic leadership is more likely to emerge. First, the objective must be a relevant concern of

others, and consistent with their values and identities. Second, charismatic leadership may be more relevant in conditions that do not favor the type of leadership that is based on extrinsic rewards and punishment. Third, it is appropriate for when the performance goals cannot be easily specified or measured, or there is a lack of situational cues, constraints, and reinforcers to guide behaviour and provide incentives for specific performance. Finally, charismatic leadership is more appropriate, although not limited, to exceptional conditions that require greater commitment. This notion of organizational and contextual influence on the emergence and effectiveness of charismatic leadership was later advanced by Shamir and Howell (1999) within fifteen propositions, of which four are presented in Table 6.2.

Table 6.2 Selected Propositions of the Organizational and Contextual Influences for the Emergence and Effectiveness of Charismatic Leadership (Shamir and Howell, 1999)

Proposition 1	Charismatic leaders are more likely to emerge under conditions of turbulence and crisis than under conditions of stability and continuity. However, crisis is neither sufficient nor a necessary condition for the emergence of charismatic leaders
Proposition 6	Charismatic leadership is more likely to emerge and be effective when the tasks of organizational members are challenging and complex, and require individual and group initiative, responsibility, creativity and intense effort.
Proposition 10	Charismatic leadership is more likely to emerge and be effective in adaptive than in non-adaptive organizational cultures
Proposition 14	Charismatic leadership at higher organizational levels will rely on image building, articulation of strategic vision, rhetorical skills and symbolic activities to produce charismatic effects on followers, while charismatic leadership at lower organizational levels will rely on personal role modeling, building a collective identity within the team, and conveying confidence in followers' capabilities.

These four propositions were selected because they highlight many of the ideas that have been discussed throughout this thesis. For instance, proposition one relates to ideas developed later in this chapter in regards to a potential lack of need for change because of a comfort with the current system (i.e. no crisis), yet suggests that charismatic leadership may still emerge and be effective. Proposition six links the thesis ideas which endorse increased recreationist responsibility, and the high levels of dedication that will be necessary to achieve sustainability. The relevance of proposition ten becomes apparent in the discussions presented in chapter three in regards to adaptive management, an ideal for environmental management systems, being better served by the existence of charismatic leadership. Finally, proposition fourteen describes the role of charismatic leadership at a level that is appropriate for park managers; it also discusses notions of role-modeling (or being involved) and instilling confidence in others. These ideas are very similar to previously developed recommendations for an improved personal relationship between park managers and recreationists, and ideas of self-determination and motivation.

In addition to these propositions, additional links between the ideas of charismatic or transformative leadership and the theory developed in earlier chapters should be readily apparent. For instance, notions of self-esteem and competence were also discussed as the antecedents to self-determinism, as was regularly involving others to foster a sense of self-control. The need to be consistent with another's values and motivations relates to the suggestion of being sensitive to the recreationist as individuals and their pursuit for leisure. In addition, there is identification within the motivation literature presented in chapter five for the diminished role for extrinsic rewards in motivating individuals, which is appropriate for the time and budget limited context of park management. Importantly, there exist many applications to sustainability including the need for shared interest, long term commitment, extra effort, and faith in a better future. In addition, the urgency to become more sustainable may be considered an appropriate exceptional condition to facilitate the development of this form of leadership. Consequently, another recommendation emerges:

> Recommendation: Resource managers should proactively redefine their role to incorporate and emphasize aspects of leadership.

In terms of the changing role of managers, Lee (1993) presented a comparable call or conceptual development of an identity shift in his discussion outlining an alternate role for experts as teachers. Notions of transactive planning, social learning and increasing support for adaptive management create a favorable context in which the public or recreationists are able to constructively contribute to environmental management. Similarly, this recommendation has already been partially addressed in terms of "persuasive" communication theory (see Manfredo, 1992). However, this concept seem subtly different than what this research is advocating on the grounds of developing an honest belief in the value of recreationists as a contributor to conservation, as opposed to using motivation leverage-points to coercively persuade or encourage participation. Moreover, this research discusses participation beyond just compliance, to include broader participation activities such as natural area stewardship. Unfortunately, the recent discovery of the "persuasion" literature makes it difficult to accurately assess similarities and differences between it and this thesis.

This previous point brings to the forefront a need for understanding where leadership approaches generate their own concerns, operationally and ethically. In regards to operational functions, visionary-led collaborations, akin to charismatic leadership and the last of the three forms of collaborations presented by Westely (1995) and reviewed by Stankey (1997), are often stimulated by, and built upon, charismatic individuals. This form of collaboration is capable of gaining attention and mobilizing resources into action. When coupled with intense personal involvement and

commitment, such collaborations are capable of lending groups special capacity to instill change. However, while strong at issue definition, visionary-led collaborations are “notoriously bad” at developing the institutional structures to complete the task. Ironically, the qualities of independence and creativity that define such groups tend to operate to their detriment when it comes to developing structure and routinized processes. Visionary-led collaborations might possess limited technical or scientific understanding of the underlying issues, leading to the purposeful or inadvertent dismissal of knowledge on the grounds that they “don’t understand the facts.” However if visionary-led collaborations, such as charismatic leaders provide, can be developed to balance the existing bias towards planning-led management, then a complementary system may be possible that is better able to advance an ideal in an operationally secure manner.

Alternately, the notion of one group being able to influence or even ‘transform’ another with respect to needs, values, and preferences, gives rise to many serious ethical concerns. This is particularly true when interacting with others on a deeply personal level as is described in charismatic leadership, or implicit in the idea of self-determinism. It would not be difficult to identify a number of charismatic leaders who have abused their power to the misfortune of others. Bass and Steidlmeier (1999) address this issue in discriminating between authentic transformational leadership built upon strong moral foundations, versus pseudo-authentic transformational leadership, which tends towards deception, manipulation and abuse. However, knowing how they differ does not necessarily reduce the likelihood of undesirable forms of leadership from developing. Ironically, many of the reasons why charismatic leadership is effective is because of its sensitivity to and understanding of others, but this is what also makes this style of leadership potentially dangerous.

As a means to determine the ethics of leadership and leaders, Bass and Steidlmeier (1999) outline six criteria as components of moral analysis, which include conscience and intention of the leader, the degree of freedom offered to participants, the ends sought, means employed as well as the eventual consequences of the action in terms of equity. If applied to the case of sustainability as the over-riding objective of this research, there seems to be wide spread agreement that the notion of sustainability, which explicitly argues for and provides a framework for ethical practice, is of itself an ethical and valuable endeavor. It will only be through a process of shared vision, the acceptance of alternate perspectives and open and honest discourse that this or any concern of coercion and abuse will be alleviated. Moreover, the goal is not to perpetuate the leadership, but to pursue the goal of sustainability for the benefit of everyone. If this concern can be appropriately addressed, charismatic and transformative leadership concepts provide a surprisingly valuable framework that

links and operationalizes the ideas of understanding other, motivation and sustainability theory in a way that has direct implications for redefining the role of individuals with responsibility, or in this application, of park managers. In addition, the same moral critique could be applied to traditional transactional forms of leadership, which are also grounded in a world-view of self-interest (Bass and Steidlmeier, 1999). Ultimately, Bass and Steidlmeier, 1999 recognize that both transformational and transactional approaches comprise the best of leadership.

6.3 Steps Towards Implementation

6.3.1 Incremental versus Radical Change

The notion of radical versus incremental change is an important strategic consideration. This thesis should be identified as incremental in its approach, for two reasons. The first is that the ideas being presented do not have the profile that is capable of garnering the necessary public or institutional support, in both quantity and intensity, to instill radical change, in spite of advocating a fairly radical position relative to current ways of thought and management practice. Although there is a general willingness or desire to increase recreationist participation in conservation, as was revealed through the case studies, the drive or urgency for change does not exist as it would for other social movements (e.g. pursuit of equity and justice). As Westley (1995) states, "[c]risis is needed to shake such conclusive ideologies and organization, for systems closed to adaptation." There is no crisis for recreationist participation. Similarly, Lee (1993) recognizes a "competency trap" where perceptions of success reduce the need and willingness to seek learning and improvement – "if it ain't broke, don't fix it". Ultimately, there is likely an underlying comfort or acceptance with the current resource management system, and a resistance or fear to leave the current system for one where the broader implications remain unknown. Consequently, incremental change allows for small changes that are more easily adopted and envisioned, especially within a conservative society and environmental management system.

This incremental approach is not necessarily a detriment to the development of this thesis since it allows the ideas to benefit from the strengths of the current system and research context. For instance, it capitalizes on park managers' current role and identity in society, as representatives of the environment and as "experts", to enact the ideas presented in this thesis, as was discussed earlier in this chapter. In addition, there are a variety of ideas, trends and philosophical perspectives in literature that provide a valuable context in which to situate and develop this research. In particular, the fields of environmental behaviour (discussed ongoing exploration of how to garner long-term participation and support), motivation, leisure constraints, indigenous knowledge (provided rationale

and perspective), and charismatic leadership (an alternate perspective and redefining participant roles), provide necessary supporting evidence.

Recognizing that such a list of supporting research will evolve as ideas develop and literature is found, it is important to highlight a few specific examples. For instance, the rise and prominence of social research, and its implications for current resource/recreation management practice continues to be an important trend (Knopf, 1989; Graham, 1990; Machlis, 1995; Manning 1996). These same researchers, among many other researchers, recognize the need for more social research in resource management – whether it is to improve the recreational experience, encourage compliance with regulations, or improve public participation as this thesis advocates. Similarly, Stankey, Hendee and Clark (1975) recognized the importance of social research when it came to *effectively* involving the public in decision making. Alternatively, management frameworks such as the Benefits Approach to Leisure (Driver and Bruns, 1999) reveal a shift from a reference point of mitigating negative impact to a perspective of optimizing positive outcomes, which is conceptually similar to the intentions of this research. In addition, Irwin (1995) presents similar challenges to science and management in his advocacy for an alternate conception of public involvement. Such a perspective was advocated by McFarlane and Boxall (1997) who also called for increased recognition and appreciation for recreationist participation in conservation.

6.3.2 Barriers to Implementation

A blind focus on just the supportive context would be unwise where there needs to be a concerted effort to understand the variety of barriers that will inevitably impede the development and implementation of these research ideas. This section reviews the role of structural constraints and normative barriers as impediments to change. Within normative barriers, notions such as an unwillingness to accept system weakness, re-distribution of power and change are briefly reviewed. These ideas, with an additional discussion to the case of indigenous peoples, set the context for the need to gain management support for ideas such as through affirmation of management effort. Finally, the question of whether these ideas should be institutionalized or not are explored with special reference to the role of education systems for park managers.

6.3.2.1 Structural Constraints

Within chapter five a lack of awareness of opportunities to participate in the conservation of parks and protected areas was the most commonly identified constraint. Not surprisingly, the public's identification of this constraint was consistent with case study managers' position of making minimal

efforts of outreach in order to involve the public, relying on word of mouth, non-discreet postings, trickle-down interest, responding to phone calls and other forms of unsolicited participation, beyond advertising for major events. There may be multiple reasons why this may occur; however, an important and not often admitted or expressed explanation to this lack of effort may be that park managers simply do not have the capacity to accommodate higher levels of public involvement. A lack of time (6 individuals), money (12 individuals) and staffing (15 individuals) emerged from participant responses as major impediments to increasing recreationist participation and the pursuit of other management initiatives. Managers for both parks openly admitted that they would be overwhelmed and do not have the available resources to accommodate public interest if they were to advertise opportunities for public participation, a point that will be developed later in this section.

Moreover, increasing public participation in resource management, particularly under the current model of participation, which includes high standards of scientific rigor or coordination, also creates a number of additional difficulties or concerns of its own. The most basic concern is that it often slows the decision making process, relative to previous decision mechanisms, because of the logistics of gaining agreement on desired futures or actual time spent coordinating participants and meetings (Krumpe and McCool 1997), as well as allowing increased opportunity for the manifestation of conflict (Owen, 1998). For instance, when involving the public, managers will have to mediate internal conflict between participants over values, goals and strategies, as well as the difficulties associated with group evolution or membership (Lerner, 1994; Penrose *et al* 1998). Attempts to establish equity among participants can be interpreted as a bias against those that stand to lose their "previous economic and political advantage" (Owen, 1998), adding an extra burden to an already constrained management system. Penrose *et al* (1998), having undergone an extensive public participation process in British Columbia with CORE (Commission on Resources and Environment), also outlined twenty-four recommendations that would be necessary to improve the success of their participation initiative, all of which arose from difficulties that they encountered. Common themes within these recommendations include the necessity for more time, infrastructure and training of participants or process facilitators, where each theme potentially increases the burden of public participation for resource managers. As one KPP manager stated,

> “If at this park, if we are going to increase the level of involvement of recreationists in the management of the resource, we either have to get funding to do that or we would have to take funding out of something and reorganize. Some of those things, like water treatment, sewage, we just can't take money out of those things or related things.”

Moreover, vital arguments suggesting long-term advantages as a result of the public involvement process may be of little solace to management agencies that just do not have the immediate capacity to accommodate such forms of participation.

To the credit of recreationists and the broader public, case study participants were aware of these and other concerns. For instance, some recognized that the ability to control or coordinate participants is a time consuming and onerous task, where participation programs have to be well-designed prior to initiation. Or, managers may have other priorities preventing them from increasing recreationist involvement, such as health, safety, and infrastructure, where there is concern that public involvement may disrupt the pursuit of these priorities since the public may be unable to see the broader picture.

In addition, there exist a number of hidden costs (e.g. time, money, writing reports, letters, planning) associated with public participation. These additional costs are often not taken into account, but invariably arise in any public participation initiative, such as writing letters to the Environment Minister explaining proposed public participation initiatives, which is a task that can only be performed by the senior park manager. This last point was further developed by a KPP manager in a discussion of the "negative work" associated with many public involvement projects. The manager explained the need for a clear cost-benefit ratio before accepting any project, and stated that recreationist groups can come with lots of money, but there still needs to be staff supervision, a formal planning process, quality assurance and some forethought of long term maintenance. Many of these activities are either not considered in the original proposal, or can only be performed by park staff. In addition, there exists the real potential of fixing up or removing poorly conducted projects, where there is no legal recourse available for work performed by the public, creating additional concerns about liability that are of lessened concern when involving contractors. Similarly, managers for both parks, a KPP naturalist as well as the extra informants expressed a concern that periodically public involvement could be to the detriment of environmental protection in spite of possessing "good" or "conservation minded" intentions. For instance, one KPP manager stated,

> "Sometimes people ask to do things, sometimes they want to do things that we don't want done. Time to time we tell folks no. So maybe in the backcountry wilderness area they want to build docks for portage, but in a wilderness area we really don't want that done. And from time to time we get groups that come back and tell you that they have built docks at the end of portages."

Similarly, a KPP Naturalist commented,

> "We have a group of mountain bikers at the "Y" [YMCA] and they are teaching responsible biking, but they have a program, so the bikes go out no matter what the weather is. They just don't understand what I am trying to say to them that maybe they shouldn't ride when everything is very soft, like when the ground has just thawed. And they are doing an incredible amount of damage."

Or, a Friend of FCPP identified,

> "And some of the things that people do, they just don't realize that it is negative. They think that they are leaving hay out for deer, or putting salt-licks out for deer that they are…or really birdfeeders. They are doing it out of… that they generally like wildlife and they think that they are helping without realizing that they are making it more difficult."

In any of these circumstances, there is the possibility and critical concern that managers may need to invest additional resources either to "fix" or accommodate these participation activities. Ironically, managers are also not immune to similar inappropriate, although well-intentioned, actions, as was discussed earlier in this chapter. In spite of these occurrences, park manager's responsibility to manage the resource, with the assistance of current research and training, re-affirm their ability to provide guidance for recreationist participation.

In the context of the discussion provided in this and the previous chapters, it is important to highlight an inherent paradox in the current conception of management-led conservation. On one side, educating the public with the intention of improving their environmental ethic remains a dominant management strategy and an important role of parks and protected areas. The success of this effort is evident, in part, by the public willingness and interest to participate in the conservation of parks and protected areas. In addition, there is ongoing encouragement, particularly from the existent management systems, for park management to facilitate the expression of this ethic within the participation programs that they provide, for reasons discussed in chapter four. However, it is probable that park management, in these case studies and more generally, do not have the capacity to support this facilitation role in part as a result of limitations in budgets, staff numbers or expertise. Moreover, the systems by which they facilitate this participation are often time-consuming, complicated, and laborious, or at least perceived to be. Therein lies the paradox, where the dominant system that should champion conservation is incapable of facilitating the environmental ethic it intends to develop within the public. The consequences of allowing such a paradox to persist may be the creation of a public who may become disenchanted with conservation or the resource management system, depending on whether they make an effort to distinguish between the two. This

in turn may instill long term sentiments of amotivation in the *very group* that expresses a willingness to participate and should be involved in the broader conservation agenda. As "Friends of" groups, or similar organizations may have arisen out of such a tension for increased public involvement, they are also incapable of satisfying the public's willingness to participate unless they also receive greater support, such as funding.

Incorporating the notions of sustainability, the conservation agenda should not or cannot afford to turn away willing participants because of these structural constraints created within the current resource management system. An important set of questions becomes apparent. What is the goal of education? What do park managers expect, or rather want to achieve by educating the public? It is not sufficient to suggest that the public should just support resource management actions, politically and financially. This is because it is unlikely that resource management agencies are capable of achieving national sustainability without the support and involvement of the public. In addition, as was discovered in the case studies, a critical way to foster an environmental ethic and generate support for conservation was through the "hands on" involvement of the public, where distal involvement through political support, and the like, would not be sufficient. Consequently, the tenth recommendation emerges from this discussion:

> Recommendation: There needs to be an alternate conception of conservation which is not limited by the constraints of management, yet allows park managers an opportunity to provide guidance and expertise.

6.3.2.2 Normative Barriers

Unfortunately, this last recommendation likely incites or challenges a more formidable set of barriers than those of the structural variety: normative barriers as current patterns of behaviour, values and beliefs. Stankey (1997: 12) states that normative constraints arise from "fundamental beliefs such as the role of experts and science, the locus of power and control, and the nature of knowledge. Although normatively based constraints are often informal, their influence is profound and highly resistant to change." In particular, the notion of learning embodies an acceptance of limitations and a stimulus for change. Michael (1995: 470) states, "[l]earning which mostly upsets beliefs and habits is hardly likely to be embraced easily and enthusiastically, even though there is growing and sometimes powerful recognition of the need for change."

As Bavington (1998) emphasizes, resource management agencies may be unable to accept their limitations or weaknesses. Similarly, Wilkinson (1992) suggests that many institutions have outlived their intended missions, objectives and in some cases, their usefulness. Cortner *et al* (1996) extend

this point by proposing that institutions for natural resource management, research, policy, and education may be the most significant barriers to the adoption of alternate approaches. Moreover, "[t]he existence of such agencies [environment ministries] gave many governments and their citizens the false impression that these bodies were by themselves able to protect and enhance the environmental resource base" (Brundtland, 1987: 10). Unfortunately, management agencies "hide errors that naturally arise in a complex, unpredictable world. To persist in acting out this myth guarantees that no learning can occur" (Michael, 1995: 478). As Mitchell (1997) mentions, acknowledging failure and the fear of bruised egos and tarnished reputations is not a particular strength of humanity.

6.3.2.2.1 Fear of Change and Loss of Power

Friedmann (1987) aptly warns that anyone, including organizations, naturally avoid processes such as re-education and restructuring which tend to be "painful" to its participants, unless the envisioned alternatives are even less appealing. He further discusses society's tendency "to discount the pain of the present while magnifying in the mind the pain of future changes" and ability to foster a belief in the temporary nature of current difficulties (pg 215). A component of this pain arises from the fear of losing power and a reluctance to distribute it (Westely, 1995; Nielsen and Vedsmand, 1999). The notion of power presents multiple dimensions, whether it be in terms of actual decision making authority, or as Irwin (1995: 132) suggests the possibility "that untrained members of the public can contribute challenges attempts to protect the privileged position of science." This latter point presents a fundamental challenge to the authority of science and its use by resource managers, where resistance should be expected. However, Stankey (1997: 13) offers an alternate perspective, suggesting that the perception of "loss of power" is not true since it more accurately represents "the re-establishment of the appropriate power relationships between government and the society it serves."

6.3.2.2.2 Discounting the Value of Public Contributions

Existing power relations and rationalization for avoiding change are maintained by and are apparent within the rhetoric used by scientists and park management, such as efforts to discount the value of public contributions and the use of the resultant perception to justify their exclusion from participation. For instance, Irwin (1995) asserts that the "science-centered worldview" demands that citizens move to science, and that any ensuing problems are seen to result from public ignorance, irrationality, and a lack of understanding and acceptance, as opposed to seeing science as an equal contributor to the problem. For instance, managers may view meetings that lead to confrontation and

the public becoming leery or distrustful of agency-led initiatives as evidence to "prove the rule", without looking at their role in a poorly conducted meeting. Alternatively, the citizen's role is diminished to participating in decisions that have often already been made, and then offering their continued support, where "little attempt to build upon the citizens' knowledges and epistemologies" (Irwin, 1995: 136).

The use of this rhetoric is also somewhat apparent from within the case studies, although greatly dampened by the recognized value of contributions facilitated by "Friends of" organizations and other participation programs. For instance, managers, "Friends of", education and interpretative staff (7 individuals) expressed a discomfort with recreationist contributions. Or as one KPP manager stated,

> "Sometimes the things that you want to do are not available for the volunteer segment or the degree of sophistication of doing the work. You need specialized skills, and I am thinking of some of the resource inventories I have done in another park and in battling wildfires."

For the most part, this may be valid; however, managers do not know that the public does not possess these skills. The simple education results from the case study surveys reveal a potentially well-educated group of recreationists from which to draw. Is it really that managers do not want to, or can, spend the effort and time trying to find this public skill, or as one FCPP education staff aptly identifies in relation to public comments, the difficulties associated with separating the "wheat from the chaff." In addition, there seems to be a tendency to quickly conclude that the inactive public majority is uninterested in conservation (or more interested in other activities) rather than asking the question of whether they are just not interested in the opportunities that are provided by park management. In many circumstances the public, including recreationists, are discounted even before there is effort to envision or investigate alternate ways of participating and contributing. It is important to investigate a more accurate cause to the lack of public participation or recreationist involvement prior to making these or similar assumptions.

Similarly, the journey for increased valuation of local knowledge in resource management has not been easy and continues to encounter numerous difficulties. Native Americans and their contributions have often been discounted, marginalized and ignored in terms of policy development and land management consultations, with the underlying assumption that their opinion is either not worth knowing or anecdotal and unsubstantiated (Richardson, 1993; Johannes, 1993; Nakashima, 1993). A similar position can be made in reference to many farmers who also suffer from a poor

image of having destroyed the environment, and from opinions, often urban in origin, that there is no good farmer in environmental conservation (Harrison, et. al., 1998). In addition, local knowledge presents a lack of technical compatibility with the conventional scientific method paradigm. Stankey (1997) suggests that many scientists find it difficult to admit that indigenous knowledge is authentic or is relevant or useful. Unfortunately, these ideological constraints limit the ability to take advantage of the many positive aspects of indigenous knowledge. What is needed is a set of new concepts, values, methods and behaviours in order to improve cooperation between local people and existing management systems (Colfer, et.al., 1999; Pimbert and Pretty, 1995).

6.3.3 Affirmation of Management Effort

No different than what was argued to enhance recreationist and public participation, park managers also need reassurance and positive reinforcement on the efficacy of their efforts, since being a manager does not make them inhuman, nor does it shield them from being influenced by the ideas of self-determination. In many circumstances this rather obvious point is unfortunately overlooked by discussions of responsibility and role expectations, or may even be perpetuated by managers themselves, and hidden under the guise of "monitoring." Recognizing that individuals are not eager to acknowledge error or surmount the difficulties of change, it is critical to develop a belief (or motivation) in the cause (Friedmann, 1987). In addition, there might be clear disincentives in circumstances where evaluating the "success" of an initiative is problematic (Lee, 1993). Moreover, as Lurigio and Rosenbaum (1994: 147) note, without internal support for agency programs, these programs "risk failure due to apathy, frustration, resentment, perceived inequity, fear of change and other factors that militate against…successful implementation." Or as Michael (1995) states, there is a need to create an atmosphere that acknowledges the vulnerability of learning and provides constructive support to alleviate the discomfort.

Consequently, if management needs confirmation that its efforts and investment in public participation is worthwhile, then there is a need to have milestones along the way. Unfortunately, the ideas being argued in this thesis are not necessarily going to yield immediate results or clear indicators because they involve changes in behaviours, attitudes and relationships of all those involved, recreationists and park managers alike. Morgan (1997) addresses a comparable concern in identifying indicators for capacity development - comparable in the sense that this thesis is essentially an advocacy for building recreationist capacity to contribute to conservation. For instance, Morgan argues that "capacity development is about complex learning, adaptation and attitudinal change at the individual, group and organizational levels " as well as at the scale of

society (pg 4). In addition, notions of power, control, risk and uncertainty are considered, as well the harnessing of "social energy." Morgan further suggests that capacity indicators should focus more on process and behavioural change as opposed to conventional 'inputs-outputs-outcomes-impact' typologies. Such indicators would recognize the following characteristics (pg 9):

- Include improvements in or additions to physical and human capital such as knowledge, infrastructure and staff skills
- Refer to changes in human behavior such as new skills attitudes, values and relationships
- Embed these new learnings and abilities within a collective unit; and
- These new behaviors remain in some form even when particular individuals leave or certain organizations are disbanded.

Although such a monitoring program is needed, there already exist a number of opportunities from which managers can and do gain affirmation in their efforts. For instance, much of this reinforcement can be inferred from the high public participation, interest and enjoyment in their provided conservation programs, or as one FCPP education staff commented,

> "I find that in my experience that as soon as you start explaining, even to the general public, the reason behind park regulations for example, its like you can see a light bulb turn on."

A "Friend of KPP" member reflected similar sentiments,

> "With the new can-bottle ban we are educating the people to why we don't do that. You can leave your garbage behind, it is just not acceptable. You can't dig trenches around your tent anymore when it rains. These things are catching on. People know why. It is the same thing as recycling boxes. Why are people hooked on recycling boxes, it is because of education. You don't need to fill up our landfills with extra garbage. I think that education definitely works."

These notions of affirmation and monitoring are critical, whether it is to justify budgetary expenditures, or something much more personal such as to maintain the motivation and a belief in their efforts. If managers are to implement the ideas of this thesis, no matter how "amphorphous and vague" they may be, they require similar forms of affirmation and appreciation of their competency and efforts, as was argued for recreationists. However, a simple willingness to see and accept such reassurance, such as the case study results reveal, may be all that is needed before investing and developing additional elaborate monitoring programs.

6.3.4 Institutional Memory

The time required for a shift in philosophy and culture, as advocated within this thesis, will undoubtedly be long. Roberg (1994) estimates, in the context of community policing, ten years is

needed to instill the necessary shift and to develop the proper foundation from which to support community policing programs. The redefinition of the park manager role and their surrounding context should not be expected to change any sooner.

Unfortunately, the ability of the institution and its membership to endure this period of time, particularly when such a shift may be unpleasant poses an impediment to long term implementation of these ideas. Hof and Lime (1997) point out that without institutional "teeth" many researchers may not consider these ideas seriously. Even if this were to be overcome there would still be the need for "constant reinoculation" of the management organization with the details and rationale behind alternate systems of thought or operation. A lack of mechanisms to ensure institutional memory or incentives to engage in such activities, as well as high personnel turnover suggests that the institutional memory for such ideas may be short lived. Moreover, "[t]he roots of such constraints are grounded largely in the educational and socialization processes through which natural resource professionals are trained and acculturated" (Stankey, 1997: 12). These points speak to the importance of the transfer of knowledge between individuals, as well as the development or reorientation of more concrete forms of memory, such as in teaching curricula.

Is there a need to institutionalize these ideas in order to ensure their survival? The answer is not clear. On the one hand, the ideas presented are ideological, systemic and personal, such that institutionalization may not be able to accommodate or maintain enough flexibility. Alternatively, in order for these ideas to be really effective they have to be believed and trusted, not imposed upon through laws and legislation. For instance, early efforts to increase public participation in resource management, as forced by legislative changes, instilled a sense of duty and perhaps resentment on behalf of an already overburdened managerial group (Nilsen and Tayler, 1997; Krumpe and McCool, 1997; Stankey, 1997). This outcome is not unlike what was discussed in chapter five in regards to extrinsic motivation leading to short-term, mediocre effort, as well as the longer lasting detrimental effects of amotivation. Eventually, this amotivation may be manifest as insincere use of recreationist contributions, which if perceived by recreationists, would perpetuate a system of distrust and amotivation that this thesis is arguing against. On the other hand, leaving this up to the discretion of individuals who may be unaware of the ideas presented, resistant to change, or preoccupied with current ways of operation will likewise fail the initiative. A more tangible and effective system is needed to mediate the slow process of changing a system that is grounded in a long history of practice and ideology.

The likely answer to this situation lies in a system of education of both recreationists and resource managers. Although many of the concerns about education are still relevant here (e.g. discrepancy between awareness and action), the initial impediment to this research remains an awareness and understanding of its content (i.e. normative barriers). Likewise, managers continue to be acculturated in accordance to the current system, through professional training and practice. It is this training and practice along with similar mechanisms that facilitate this acculturation and also provide strategic points for the infusion of these research ideas, which leads to the final recommendation:

> Recommendation: Systems of education and training for future and existing resource managers should devote greater attention to the products of social research within their core curriculum.

This recommendation brings to the forefront a critical consideration. The public must not be encouraged to generate expectations, or hopes of participation, that are greater than the abilities of the management system to accommodate, particularly while management is making an effort to respond. A divergence between expectations and limited opportunities will likely result in increased conflict, disappointment and amotivation of the public, thereby compromising the entire intent of the effort. This concern is not assisted by the probability that the rise of expectations for participation is probably much faster than the abilities of an institution to change its ideologies and operation. Perhaps through a process of open and honest dialogue about expectations and subsequent limitations this concern could be minimized. Alternately, if the management system requires inspiration or ongoing inoculation, whether by public activism or the provision of examples, then a frustrated or willing public may be an effective means for change. Where a cynical perspective may argue that activism may be the only way to influence an inherently conservative government, the idea of proactively building capacity and education provides a more appropriate way to implement these ideas. Those individuals, or managers, that are educated within such a system should become better informed and able to implement and refine these ideas through a process of public education, subsequent interactions and the development of examples.

6.4 Conclusion

The dominant theme of this chapter was that managers should continue to serve an essential role in environmental protection and as facilitators to enhance recreationist participation in conservation. However, this was qualified by suggesting that their role needs to be redefined or expanded from that of manager to include aspects of leadership. The ‘management’ of people maintains a model of authoritarian rule that is much less appropriate given the reality of increased public involvement which is ideally based on open, honest and equitable dialogue. Alternatively, leadership provides a

favorable relationship model that still appreciates authority, and is able to inspire and motivate the public, including recreationists, to do more for conservation. Moreover, parks and protected area managers have a responsibility to take a leadership role, which may better serve the sustainability and conservation agenda because of the inability to manage uncertainty and 'know' the proper course of action. Although management remains necessary to deal with the complexities of park operations (e.g. mitigate negative impacts, coordinate research efforts, budgets, marketing etc.), leadership provides a more suitable way to relate to the public and to foster the capacity for responding to change.

There is no expectation that resource managers become charismatic or transformative leaders as described in this chapter. Readers must realize that possessing charisma is only one aspect of charismatic leadership, where the others include intellectual stimulation, individualized consideration and inspirational motivation. Put simply, the provision of challenging opportunities or opportunities to learn, respect and empathy, as well as offering appreciation and recognition of competency, as was also discussed in the previous chapters, are all tangible and implementable aspects of charismatic leadership.

Rises in the importance and use of social research, public participation, and indigenous knowledge within resource management, in conjunction with trends in the motivation, leisure, sustainability literatures establish a favorable context for park managers to act as the primary agents of implementation. This must be tempered with an understanding of both the structural and normative barriers that managers must operate within, prior to imposing external expectations on how they should behave or involve recreationists in conservation. However, an important paradox emerged where park managers may be unable to accommodate the improved environmental ethic that they seek as part of their education mandate, and which is expressed in a public desire to participate in conservation. The interaction between these opportunities and barriers will likely yield slow, incremental, changes within the current management system. The ability to endure and continue the development and adoption of this research relies on the ability of researchers and park managers to garner the necessary affirmation that it is a worthwhile endeavor. In addition, focussing on the systems by which future park managers and anyone involved in resource management are educated can facilitate the appropriate change. In this way future managers are exposed to alternate ways of thinking during the formative stages of their career when they may be more open and capable of instilling greater influencing of change within the larger resource management system.

Chapter 7. Synthesis and Conclusions

This research was guided by the question of how to enhance the role of recreationists in the conservation of parks and protected areas. In addressing this question it first established within chapter three that recreationists do and can play a valuable role in resource management. This was supported by existing literature and research findings within the two case studies. This position provided the basis for critiquing current recreation management and public participation approaches in regards to their ability to accommodate recreationist participation. Two major criticisms were identified from this discussion. They included a lack of consideration in current management practice for recreationists as individuals, and as participants in leisure activities. Social research literature and accompanying theory allowed an important and often overlooked personal perspective from which these criticisms could be addressed. Finally, park managers and the system in which they operate were reviewed to clarify the intended audience and to identify managers as the primary agents of implementation. As this line of reasoning unfolded throughout the chapters, a variety of specific recommendations and research contributions also emerged. This chapter will review and emphasize these ideas as a means of concluding this research.

7.1 Recommendations

A vital aspect of any implementation strategy is the provision of a set of recommendations from which researchers, managers and recreationists may be able to focus, develop and implement these research ideas. A total of eleven recommendations had emerged from this research, which can be arranged in the categories of: opportunities for recreationist participation, redefining the relationship between park manager and recreationist, and exploring the role of social research (Table 7.1). The following discussion will briefly identify the important linkages and conceptual progression among these recommendations.

Table 7.1. Research Recommendations

Exploring Opportunities for Recreationist Participation

Recommendation: Opportunities for recreationists to participate in the conservation of parks and protected areas should be made more accessible, either singularly or as part of a range of opportunities. (Chapter 4, pg 65)

Recommendation: There needs to be an alternate conception of conservation which is not limited by the constraints of management, yet allows park managers an opportunity to provide guidance and expertise. (Chapter 6, pg 101)

Recommendation: More research needs to be devoted to exploring and documenting the range of opportunities in which recreationists already do or could contribute to the conservation of parks and protected areas. (Chapter 3, pg 42)

Recommendation: Increased research should be devoted to investigating and exploring what recreationists, or the public, already do in their everyday activities within the park that can or do contribute to the conservation of the environment (Chapter 5, pg 85)

Recommendation: Unsolicited public participation should be explicitly recognized as a significant contributor to the conservation management of Parks and Protected Areas. Once recognized, unsolicited participation should be proactively incorporated into strategies for public participation. (Chapter 4, pg 61)

Exploring the Role of Social Research

Recommendation: Increased effort should be made to incorporate social research and its accompanying theory into the development of all government programs, such as those guiding public participation. (Chapter 5, pg 86)

Recommendation: Elements of social research, such as found in the motivation, leisure and environmental behaviour literatures, should be incorporated within the development of park programs and the messages they promote, particularly in relation to education and interpretation. (Chapter 5, pg 86)

Recommendation: Systems of education and training for future and existing resource managers should devote greater attention to the products of social research within their core curriculum (Chapter 6, pg 107).

Redefining the Relationship between Manager and Recreationist

Recommendation: Resource managers should proactively redefine their role to incorporate and emphasize aspects of leadership. (Chapter 6, pg 94)

Recommendation: Recreationists should be engaged within the context of a relationship, which emphasizes openness or honesty, trust, appreciation and personal interaction. (Chapter 5, pg 82)

Recommendation: Park managers should encourage or facilitate recreationists to assume greater responsibility for and participate in the conservation of parks and protected areas. (Chapter 3, pg 47)

It was argued that existing opportunities for the public, and recreationists, to participate in the conservation of parks and protected areas are restrictive and cater to few members of the public. Neglecting to involve or even address this in-active public majority overlooks a valuable resource to assist conservation management efforts, and compromises the success of achieving the broader sustainability agenda. This point is embodied within the first recommendation, which calls for more accessible and inclusive public participation opportunities. However, the paradox identified in chapter six highlights the inability of the current management system to accommodate any more participants, which creates a formidable impediment to increasing any level of public participation. One option would be to work within the current management system with the opportunities that it provides, and call for more finances and staff. Although an obvious recommendation, more funding is unlikely to occur given the current political and economic climate of parks and protected areas. It is this same political climate that has placed parks and protected area management in their current state of financial and staffing hardship. Consequently, there is a need to conceive of alternate ways to participate in conservation that are not limited by management constraints and are able to complement the contributions of current management conservation programs. What would this alternate conception of conservation look like? A comprehensive list of opportunities in which recreationists could or already do participate in conservation, as may be found in the undocumented anecdotes of managers and recreationists is needed. The development of such a list could provide a variety of advantages. Notions of experiential and indigenous knowledge are important areas, or perspectives, that can be used to generate this list. These perspectives allow for the recognition of recreationists' current abilities and what they already do in their everyday lives as a way to contribute to the conservation of parks and protected areas. This latter idea is important for three reasons. First, in exploring what recreationists already do for conservation, managers can avoid the creation of additional constraints and burdens arising from changing recreationist behaviours, or posing conservation to be in competition with current leisure activities. Second, the idea that recreationists already perform these activities reduces the burden on managers to invest many resources for their facilitation, thus addressing the management constraint paradox. Finally, it enables managers an opportunity to appreciate what recreationists already do for conservation, which likely has long-term implications for fostering appropriate behaviours by exercising the antecedents of self-determination. One such activity is the role of unsolicited participation in the conservation of parks and protected areas. This is a significant and valuable component of park management that needs to be further recognized. It is only through this recognition that managers are able to proactively and more effectively incorporate this form of contribution into public participation and conservation programs.

A variety of social research literatures including leisure, motivation and environmental behaviour offer valuable insights into understanding others and strategies to enhance recreationist participation. In many circumstances, the existing management infrastructure and procedures of operation are able to facilitate and take advantage of aspects of social research. For instance, appreciation of unsolicited participation can be expressed as messages within current education and interpretative programs; or staff could be encouraged to find ways to provide feedback to those recreationists who offer their input. In addition, incorporating these research ideas into curriculum can introduce these ideas during the formative stages of prospective managers. This latter point is a strategically important implementation consideration, particularly since park managers were identified as the key recipients to enact this research.

The identification and support of park managers as key recipients takes advantage of their position and reputation in regards to the public. However, this support was qualified with the recommendation that park managers should proactively shift their role from being exclusively managers to also emphasize aspects of leadership. In this way, park managers would better engage and interact with the social system in which they are embedded. Moreover, the strengths of leadership are appropriate for dealing with the uncertainties and importance of environmental issues and sustainability, and demonstrate consistency with the principles of motivation and self-determinism. These ideas lead to a re-defining of the relationship between park managers and recreationists from one based in control, such as “management” implies, to one of sharing and trust. A part of this new relationship would be the re-establishment of appropriate levels and distributions of responsibility for both recreationists and park managers. Such a shift in relationships and responsibility also addresses the management constraint paradox by distributing the burden of conservation to include recreationists and their everyday actions within the park. The ability to recognize and appreciate these everyday actions may be found by entertaining the belief that humans, including recreationists, can interact positively with nature, researchers and park managers may be better able to envision ways in which recreationists can participate in the conservation of parks and protected areas, beyond just the current management-led opportunities.

Much of this latter discussion, as well as chapters four, five, and six lend themselves to the development of a possible twelve recommendation which calls for park agencies to become more reflexive and make concerted efforts to better understand what changes are necessary to better accommodate public and recreationist participation. Such a process would likely not be comfortable,

as it would require critical examination of current modes of practice, institutions and ideologies. It should also be recognized that part of this process would also entail a recognition and development of aspects of the current management system that remain beneficial to achieving the conservation agenda. Importantly, improvement and true learning or adaptation cannot be achieved unless there are mechanisms and willingness to partake in such a reflexive endeavor. This would be the basis of true adaptive management and social learning.

7.1.1 Prioritization of Recommendations

These recommendations represent the ideal for implementing this research, and are intimately linked and dependent on one another. However, they differ in how much they emphasize conceptual versus practical components, as well as the types of possible outcomes, and their rate of development. For instance, reconceptualizing human relationships with nature is much more abstract and long-term than documenting the range of unsolicited participation contributions. Consequently, these recommendations need to be prioritized based on both the relative importance and ease of implementation. The primary reason for determining this prioritization arises from the realization that there is an inherent or trained resistance to change without evidence or other forms of "proof" and validation. As was discussed in the previous chapter, it is also necessary to have the affirmation that effort dedicated to implementing these research ideas will be worthwhile. In addition, this evidence, by way of examples, would provide the necessary basis of investigation and practice, which is critical at the formative stages of these research ideas. As a result, the recommendations involving the exploration and documentation of opportunities, in which recreationists already do or could contribute to the conservation of parks and protected areas, including everyday activities and unsolicited forms of public participation should be addressed initially. The pursuit or inventory of this information can be incorporated into fairly simple methods of inquiry such as topic directed surveys and interviews, and conducted by any form of researcher (e.g. university students), who can be fairly independent from the constraints of park management. At the same time, or shortly after, effort can be devoted to incorporating aspects of social research into the design of public participation and education programs, the results of which can feed back into the inventory of participation opportunities. However, this set of recommendations is more involved in terms of planning and implementation, and also requires the explicit participation of park managers. In addition, there is a concern about generating interest within the public for participating without the management system being capable of, or willing, to accommodate increased recreationist involvement. Consequently, the results of these previous recommendations need to be incorporated into the training curriculum of prospective managers in order to facilitate favorable managerial

attitudes and institutional context in which to respond and develop these ideas. However, institutional and attitudinal change such as this remains a slow process. A reflexive process within park agencies would likely improve the rate and quality of this change. More important than the ordered implementation of any single recommendation, since many should be enacted concurrently, is the need to understand how they may influence and depend on each other.

On three occasions these research ideas have been presented or discussed within recreation and resource management conferences, which have only generated minimal interest and support. Potential reasons for this occurrence, apart from presentation style and quality, may include an audience preoccupation with alternate types of resource management practice and research (e.g. recreation crowding, carrying capacity, visitor preferences, marketing, demographic trends etc), the use of technologies and other research methods (e.g. geographic information systems), and an inherent resistance of the system and its participants to challenge or critique itself. In some circumstances, these research ideas were thought of as common sense and perhaps discounted in the wake of "flashier" research endeavors. Given the discussion of barriers presented in the previous chapter, this resistance comes as little surprise. However, what needs to occur for these ideas to gain credence and support, as inferred from a few audience questions, is for a researcher to champion and test this conceptual foundation, and demonstrate the advantages of enhanced recreationist participation in terms of finances or conservation program success. The notion of champion emerged within the case studies, where a single individual was often highlighted as key to the success and drive to recreationist participation programs (5 individuals), followed by an expressed concern about what would happen if those individuals were to leave. This research needs a similar advocate.

7.2 Research Objectives

Three objectives were outlined in chapter one in order to guide the investigation of the case studies and the broader implications of this research. They included:

1) document the present perceptions regarding the value of recreationists as a resource for conservation,
2) document the opportunities available for recreationists to participate in parks and protected areas conservation and the extent in which they are presently involved, and
3) explore opportunities in which recreationists could better contribute to parks and protected area conservation.

Chapter three responded to this first objective by exploring the value of recreationist participation in conservation. Research results revealed a strong consensus among the participants, including park managers, who stated that recreationists provide a valuable resource for conservation. However,

concerns were expressed in regards to the costs associated with facilitating public participation, as well as the potential conflict between recreationist participation, albeit well-intentioned, and management conservation goals. In spite of these concerns, support for recreationist participation remained favorable.

Chapter four responded to the second objective with a review of current management practice and management-provided public participation opportunities, in addition to the opportunities revealed through the case studies. A wide variety of very well attended opportunities were found where recreationists could participate in the conservation of parks and protected areas. However, these opportunities were critiqued to be restrictive and unable to generate broader levels of support from less active members of the public or accommodate current latent levels of interest, such as discussed in the paradox of management led participation opportunities.

Chapter five responded to the final objective by using social research literature, including leisure, motivation, and environmental behaviour, as well as the role of leadership in chapter six, as a way to explore how recreationist participation in conservation could be enhanced. Participant responses provided strong support for the use of this social research perspective (e.g. citing the importance of appreciation). In addition, chapter three discussed the notion of experiential knowledge, using the comparable situation of indigenous knowledge systems, as an alternate perspective to explore opportunities in which recreationists could participate in the conservation of parks and protected areas.

Interestingly, objectives one and two, pursued within chapters three and four, took advantage of an ability to integrate both theory and case study results. Alternatively, an exploration of opportunities to enhance recreationist participation within chapters five and six required the use and development of a primarily theoretical and conceptual discussion. This sets the stage to not only elaborate on the case study results, but it also establishes a theoretical context or argument that could more greatly benefit from further research and empirical testing.

In addition to addressing the three objectives, a variety of other contributions also emerged in the development of this thesis, which included:

- Advancing leisure constraints and motivation research beyond theory refinement, by operationalizing this research within an exploration of how recreationists can be encouraged to

participate in conservation. In doing so, this research provides supporting evidence for increased levels of social research in park management.

- Building upon current trends in environmental behaviour research to employ self-determination as a means to ensure quality and long-term participation of the public. This is particularly important in the context of sustainability.
- Explicitly linking local and indigenous knowledge systems with that of recreationist knowledge, by drawing on their experiences and lessons learned in realizing potential and overcoming the impediments of incorporating alternate systems of knowledge in resource management.
- Reaffirming the role of resource managers as facilitators of conservation and public participation by developing the idea of leadership. In addition, providing an important and relevant area where leadership research can develop. This addresses the researcher's call to develop and find applications for leadership research.
- Establishing links between a variety of different literatures that seem to have minimally informed each other, in spite of addressing theoretically and conceptually similar areas. Important links include: the principles of sustainability and the nature of environmental issues with the role of leadership; the outcomes of self-determined behaviours and achieving sustainability; and leisure constraints and motivation theory and their influence on public participation.
- The use of all these literatures in the context of recreation and resource management, which provides an ideal context from which they can be explored.

7.3 Recreationist Participation

Since this research is exploratory, there was an intention to emphasize a conceptual discussion, as opposed to outlining specific details. Krumpe and McCool (1997) suggest that providing details may create more disagreement than agreement because it makes explicit the effects on one's interest, thereby losing its general applicability and acceptance. The goal is not be to establish a "cookbook" approach outlining solutions to problems, but to illustrate a general target for a particular situation. Holling and Meffe (1996: 334) further advocate the importance of conceptual rather than prescriptive approaches for conservation, "if for no other reason than the systems with which we work are idiosyncratic and endlessly varied. No single, detailed prescription can be of much use for more than a single system." What distinguishes this approach from previous participation opportunities or research recommendations is that this thesis encourages the building of a capacity for enhanced participation, as opposed to presenting specific program designs or examples. Similar to the notions of human and cultural capital discussed in an earlier chapter, this capacity refers to the abilities and potentials of people to develop participation opportunities in a variety of circumstances in the longer-term. The source of this capacity would be founded in an improved relationship between recreationist and manager based on mutual trust, respect, and appreciation, as to draw upon the previous discussion of self-determinism. It seems unlikely that notions of trust, respect and appreciation can be forced or designed into any program; however, there are factors that can enhance their development. Open dialogue, idea exploration and the production of supporting evidence can contribute to understanding and belief in these factors. Consequently, this thesis endorses a process

or evolution of improvement, and in doing so describes a system of drivers as opposed to participation end-states, where more appropriate or context specific examples will evolve through more research and field experience.

It is recognized that the current participation opportunities, critiqued in chapter four, remain effective for some segment of the population and for managers. However, this thesis provides a means to also address the rest of the population through an improved understanding of other, and by considering notions of constraints and motivation. For recreationists specifically, this may mean providing opportunities that do not force individuals to greatly compromise their leisure activity and to appreciate their knowledge, experience, and willingness to assist conservation efforts. To find out what recreationists do through their everyday actions that would be beneficial to the environment and build on these. Notions of accessibility and appreciation should become an integral element or consideration of any participation program as opposed to being a distinct program of itself. With this in mind, it is difficult to define what this research suggests in the way of recreationist participation; however it does broaden the range of possible opportunities beyond the programs currently being provided by park management. In particular, it explicitly recognizes that everyday actions or existing recreational behaviour can also contribute to conservation and endorses an increased responsibility on the part of recreationists to become better environmental stewards. Ultimately, there is an intention to foster an improved relationship between humans and the environment.

With this said, there is still a need to provide tangible examples for how this research may be envisioned in practice, two of which will be illustrated here. The first is to critically examine and capitalize on existing participation programs that embody many of the elements of this research. For instance, Christmas Bird Counts, Park Watch Programs, Stewardship Programs which, after an initial period of confirming qualifications, allow participants an opportunity to contribute through their recreation (e.g. bird watching), thereby producing valuable information for management. Other examples include fish creel surveys and report-a-poacher programs. It is important to recognize that the success of these programs may be because they facilitate the expression of an environmentally supportive ethic by making participation easier or more accessible to the public (reducing constraints), and well as contributing to participant motivations and desire to contribute. The second example is more reflective. The importance of appreciation barbecues and similar activities are increasingly recognized (Anonymous, 1996) and should not be underestimated. However, the same results can be achieved in much less elaborate ways. Where park managers are quick to reprimand or “educate” the public when they see depreciative behaviour, how often do they outwardly thank

someone for expressing a favorable conservation ethic, such as picking up garbage? What can be gained by rectifying this imbalance?

7.4 The Final Message

During the course of this research, a number of literatures and case study results were brought together in order to address this call to action and advance learning. Using the imagery of learning as "a gradual ascent toward confidence punctuated by the slippery panic of disappointments" (Lee, 1993: 110), it must be recognized and accepted that learning is difficult and likely uncomfortable, but still necessary. Where "ecosystem management is inherently a long-term activity, organizations must make it an explicit priority to learn how to remain learners" (Michael, 1995: 483). Lee (1993) identifies two areas of needed learning in order to achieve sustainability: a need to better understand the relationships between humans and nature, as well as the relationships between people. This thesis addresses both of these.

As this research perspective of public participation has not received much development or application, its broader implications remain unknown. As Westely (1995: 404) suggests, "[a] lot of 'intelligence' is lost from systems that are not willing to listen." In spite of responses seeming favorable to these ideas, there remains uncertainty as to what extent park managers will actually endorse and use this research. This opinion arises from interactions with managers and researchers in a variety of case study and academic contexts that reveal an apparent focus towards refining and improving the current "management" paradigm, and a lack of need or desire to call upon the public for assistance beyond cooperation. However, this thesis presents an argument advocating an enhanced role of recreationist involvement in the conservation of parks and protected areas, along with practical ways of implementation. Moreover, it challenges the perception of an environmentally apathetic public by identifying a latent recreationist desire to participate in conservation, whose expression is most likely attenuated by the current management system and the types of participation opportunities provided. Although this thesis directs most of the comments and recommendations towards park managers, there should be recognition that academics and recreationists also serve as important audiences to not only develop these ideas but to assist park managers in their implementation.

The final message is simple, but not simplistic. Elements of trust, respect, and appreciation, along with the fostering of individual responsibility and an ability to critically examine the current systems of operation provide the greatest opportunities to enhance meaningful and effective public

participation. Moreover, conservation does not have to be, or cannot be, complicated or demanding. Although, these ideas have the ability to transcend this research and find many other applications, natural area recreationists, park managers, parks and protected areas and the broader sustainability agenda create an ideal context in which they can be implemented and explored for the betterment of the environment. It is this collation of this information within the context of resource and recreation management that makes this research unique and valuable.

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Appendix A: Interview and Survey Questions

Case Study Interviews with Park Managers and Relevant Agency Representatives

Instructions:
This research is directed towards investigating the role of the recreationist as a positive influence in environmental conservation. You were selected because of your experience and involvement in the recreationist-conservation relationship within <insert case study location> and the possibility of you contributing a unique interpretation and perspective to this inherently interdisciplinary issue. Please answer each question to the best of your ability. For those questions that provide a selection of scaled responses (e.g. disagree…agree), identify your choice by underlining it. *If you choose not to respond to a question, please indicate so with a "no response".*

Definitions:

Parks and Protected Areas: An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, and managed through legal or other effective means (IUCN)

Park Managers: Those individuals entrusted with the responsibility and authority to oversee and implement the mandate of environmental conservation and recreation within parks and protected areas. Such individuals would be employed by the park and involved in aspects of policy development and/or park operations.

Recreation and Leisure Activity: A freely chosen activity performed for self-determined reasons such as personal pleasure and enjoyment. In the context of this research, only those activities that take place in parks and protected areas should be considered.

Recreationists: Those individuals performing recreational and leisure activities in park or protected areas

Conservation: The maintenance of biophysical resources, considering floral, faunal and geological diversity, with the allowance of appropriate human use and environmental change. It would also include activities or contributions that assist environmental managers in their pursuit to realize the official mandate of parks and protected areas to ensure environmental protection as well as recreational opportunities.

Participation: The process and consequence of voluntarily involving oneself or contributing.

Opportunities

1. Are you aware of any opportunities, developed by park management and park related agencies, that enable recreationist participation in the conservation of this park? Yes, No (If yes, please list them and continue to question 2. If no, go to question 7)

2. In your opinion, do the current opportunities for recreationists to participate in environmental conservation of this park appeal to: no recreationists, few recreationists, some recreationists, many recreationists, all recreationists. (Briefly explain)

3. In your opinion, the number of opportunities available for recreationists to participate in environmental conservation of this park is sufficient to respond to their desire to participate: strongly disagree, disagree, agree, strongly agree (Briefly explain)

4. In your opinion, these opportunities lead to a quality participation experience for the recreationist: strongly disagree, disagree, agree, strongly agree (Briefly explain)

5. In your opinion, how effective is the participation of recreationists in contributing to the conservation of this park: very ineffective, ineffective, effective, very effective. (Briefly explain)

6. Do you believe that most recreationists are satisfied with the level in which they participate in the conservation of this park? Yes, No (Briefly explain)

Development

7. Do you believe that recreationists are willing to increase their level of participation in the conservation of parks and protected areas? Yes, No (Briefly explain)

8. Do you believe that park management and park related agencies should increase the participation of recreationists in the conservation of parks and protected areas? Yes, No (Briefly explain) (If you have responded "no" to both questions 7 and 8, go to question 12)

9. Please identify ways in which recreationist participation in environmental conservation can be improved (key words, phrases).

10. In your opinion, how difficult would it be for park managers to increase recreationist participation in the conservation of parks and protected areas: very difficult, difficult, easy, very easy. (Briefly explain)

11. For park management and park related agencies, participation of recreationists in the conservation of parks and protected areas should be: very low priority, low priority, medium priority, high priority, very high priority. (Briefly explain)

Perceptions

12. Environmental protection and recreation are goals of provincial, state and federal parks, among other protected areas. In your opinion, are these two goals: strongly incompatible, somewhat incompatible, somewhat compatible, highly compatible. (Briefly explain)

13. In your opinion, the idea that recreationists *and* their leisure activities can be beneficial to the environmental conservation of parks and protected areas is: not valid, somewhat not valid, somewhat valid, valid (Briefly Explain)

Optional

14. If you were conducting this research, would there be any additional questions that you think should have been asked. If so, what would that be and how would you answer it?

Survey ID# _____

Recreationist Survey Questions

Location: _____ Time:_____

Main Purpose of Participant Visit: _____

Opportunities

1. Are you aware of any opportunities, developed by park management and park related agencies, that allow you to participate in the conservation of this park? Yes, No (If yes, please list these efforts in the space provided and continue to question 2. If no, go to question 7)

   _____

   _____

   _____

   _____

   _____

   _____

2. In your opinion, the current opportunities for recreationists to participate in environmental conservation in this park appeal to:

   No recreationists | Few recreationists | Some recreationists | Many recreationists | All recreationists

3. Are you satisfied with the number of opportunities available for you to participate in the environmental conservation of this park? Yes, No (Please explain)

   _____

   _____

   _____

   _____

   _____

   _____

4. Is the quality and type of these opportunities for participation satisfactory to you? Yes, No (Please explain).

   _____

   _____

   _____

   _____

5. In your opinion, how effective is your participation in contributing the conservation of this park:

   Very ineffective | Ineffective | Effective | Very effective

6. In general, are you satisfied with your level of participation in the conservation of this park? Yes, No (Please explain)

_____

_____

_____

_____

_____

_____

Development

7. Would you be willing to increase your level of participation in the conservation of parks and protected areas? Yes, No (Briefly explain)

_____

_____

_____

_____

_____

_____

8. Do you believe that park management and park related agencies should increase recreationist participation in the conservation of parks and protected areas? Yes, No (Briefly explain) (If you have responded "no" to both questions 7 and 8, go to question 12)

_____

_____

_____

_____

_____

_____

9. With key words or phrases, please suggest ways to improve your participation in environmental conservation.

_____

_____

_____

_____

_____

_____

10. In your opinion, would it be difficult for park managers to increase your level of participation in the conservation of parks and protected areas:
    Very difficult Difficult Easy Very easy

    Why?
    _____
    _____
    _____
    _____
    _____
    _____

11. For park management and park related agencies, participation of recreationists in the conservation of parks and protected areas should be:
    Very low priority Low priority Medium priority High priority Very high priority

Perceptions

12. Environmental protection and recreation are goals of provincial, state and federal parks, among other protected areas. In your opinion, are these two goals:
    Strongly incompatible Somewhat incompatible Somewhat compatible Highly compatible

13. In your opinion, the idea that recreationists *and* their leisure activities can be beneficial to the environmental conservation of parks and protected areas is:
    Not valid Somewhat not valid Somewhat valid Valid

Visitation

14. Is this your *first visit* to this park? Yes, No

15. To the best of your knowledge, in what year did you first visit this park?
    _____

16. In the last 12 months, how many visits have you made to this park?
    _____

17. On average, how long has each visit been? (e.g. hours, days or weeks)
    _____

18. Would you consider the last 12 months to be typical of how often you have visited this park since your first visit? Yes, No. (If no, please explain)
    _____

General Information

19. Male or Female (circle you answer)

20. Please indicate your highest level of education: (circle your answer)
- Secondary (high) school graduation certificate or equivalent
- Trades certificate or diploma
- Other non-university certificate or diploma
- University certificate or diploma *below* bachelor level
- Bachelor's degree(s) (eg. B.A. B.Sc. LL.B.)
- University certificate or diploma *above* bachelor level
- Master's degree(s) (e.g. M.A. M.Sc. M.Ed)
- Degree in medicine, dentistry, veterinary medicine or optometry
- Earned doctorate (e.g. PhD. D.Sc, D.Ed)

21. What is the year of your birth? _____

Optional

22. If you were conducting this survey, would there be any additional questions that you think should have been asked. If so, what would that be and how would you answer it?

    _____

    _____

    _____

Appendix B: Recreationist Survey Results

Note: The unknown category indicates the number of individuals that had not responded to the question, or their responses were illegible or were confusing. In order to test properly completed responses, the Kolmogorov-Smirnov Statistic did not include the "unknown" category within any of its calculations. Statistically significant results are indicated by shaded cell for the D value.

Question 1. Are you aware of any opportunities, developed by park management and park related agencies, that allow you to participate in the conservation of this park? Yes, No (If yes, please list these efforts in the space provided and continue to question 2. If no, go to question 7)

Data for this were used to generate the response frequency matrix.

Question 2. In your opinion, the current opportunities for recreationists to participate in environmental conservation in this park appeal to: No recreationists; Few recreationists; Some recreationists; Many recreationists; All recreationists

Frequencies

	No	Few	Some	Many	All	Unknown
KPP	0	2	13	34	0	0
FCPP	0	6	18	22	7	27

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
No	0	0	0	0	0	0	0
Few	2	6	2	6	0.040816327	0.113207547	0.072391221
Some	13	18	15	24	0.306122449	0.452830189	0.14670774
Many	34	22	49	46	1	0.867924528	0.132075472
All	0	7	49	53	1	1	0

D	K	Dcrit
0.14670774	1.35810152	0.269151216

Question 3. Are you satisfied with the number of opportunities available for you to participate in the environmental conservation of this park? Yes, No

Frequencies

	Do Not Know	Yes	No	Unknown
KPP	2	37	9	1
FCPP	0	21	5	54

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Do Not Know	2	0	2	0	0.041666667	0	0.041666667
Yes	37	21	39	21	0.8125	0.807692308	0.004807692
No	9	5	48	26	1	1	0

D	K	Dcrit
0.041666667	1.35810152	0.330705031

Question 4. Is the quality and type of these opportunities for participation satisfactory to you? Yes, No (Please explain).

No results were obtained for this question because it was removed from the survey, and made optional.

Question 5. In your opinion, how effective is your participation in contributing the conservation of this park: Very ineffective; Ineffective; Effective; Very effective

Frequencies

	Very Ineffective	Ineffective	center	effective	very effective	unknown
KPP	0	3	4	33	7	2
FCPP	3	5	3	33	5	31

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Very Ineffective	0	3	0	3	0	0.06122449	0.06122449
Ineffective	3	5	3	8	0.063829787	0.163265306	0.099435519
center	4	3	7	11	0.14893617	0.224489796	0.075553626
effective	33	33	40	44	0.85106383	0.897959184	0.046895354
very effective	7	5	47	49	1	1	0

D	K	Dcrit
0.099435519	1.35810152	0.277281492

Question 6. In general, are you satisfied with your level of participation in the conservation of this park? Yes, No (Please explain)

No results were obtained for this question because it was removed from the survey, and made optional.

Question 7. Would you be willing to increase your level of participation in the conservation of parks and protected areas? Yes, No (Briefly explain)

Frequencies

	Yes	No
KPP	40	9
FCPP	59	16
Total	99	25

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Yes	40	59	40	59	0.816326531	0.786666667	0.029659864
No	9	16	49	75	1	1	

D	K	Dcrit
0.02965986	1.35810152	0.249467747

Question 8. Do you believe that park management and park related agencies should increase recreationist participation in the conservation of parks and protected areas? Yes, No (Briefly explain)

Frequencies

	No	Yes
KPP (n=45)	7	38
FCPP (n=70)	14	56
Total	21	94

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
No	7	14	7	14	0.142857143	0.186666667	0.043809524
Yes	38	56	45	70	0.918367347	0.933333333	0.014965986

D	K	Dcrit
0.04380952	1.35810152	0.259493138

Question 9. With key words or phrases, please suggest ways to improve your participation in environmental conservation.

Data obtained from this question contributed to the response frequency matrix.

Question 10. In your opinion, would it be difficult for park managers to increase your level of participation in the conservation of parks and protected areas: Very difficult; Difficult; Easy; Very easy

Frequencies

	Very Difficult	Difficult	Easy	Very Easy	Unknown
KPP	2	7	30	9	1
FCPP	3	10	28	0	39

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Very Difficult	2	3	2	3	0.041666667	0.073170732	0.031504065
Difficult	7	10	9	13	0.1875	0.317073171	0.129573171
Easy	30	28	39	41	0.8125	1	0.1875
Very Easy	9	0	48	41	1	1	0

D	K	Dcrit
0.1875	1.35810152	0.288811639

Question 11. For park management and park related agencies, participation of recreationists in the conservation of parks and protected areas should be: Very low priority; Low priority; Medium priority; High priority; Very high priority.

Frequencies

	Don't Know	Very Low	Low	Medium	High	Very High	Unknown
KPP	1	0	0	9	21	17	1
FCPP	0	0	1	17	39	10	13

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1/n1	F2/n2	d
Don't Know	1	0	0.020833333	0	0.020833333
Very low	1	0	0.020833333	0	0.020833333
Low	1	1	0.020833333	0.014925373	0.00590796
Medium	10	18	0.208333333	0.268656716	0.060323383
High	31	57	0.645833333	0.850746269	0.204912935
Very High	48	67	1	1	0

D	K	Dcrit
0.20491294	1.358101516	0.25681662

Question 12. Environmental protection and recreation are goals of provincial, state and federal parks, among other protected areas. In your opinion, are these two goals: Strongly incompatible; Somewhat incompatible; Somewhat compatible; Strongly compatible

Frequencies

	Strongly Incompatible	Somewhat Incompatible	Center	Somewhat Compatible	Strongly Compatible	Unknown
KPP	0	8	3	28	10	0
FCPP	4	4	0	50	18	4

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Strongly Incompatible	0	4	0	4	0	0.052631579	0.052631579
Somewhat Incompatible	8	4	8	8	0.163265306	0.105263158	0.058002148
Center	3	0	11	8	0.224489796	0.105263158	0.119226638
Somewhat Compatible	28	50	39	58	0.795918367	0.763157895	0.032760473
Strongly Compatible	10	18	49	76	1	1	0

D	K	Dcrit
0.11922664	1.35810152	0.248818349

Question 13. In your opinion, the idea that recreationists and their leisure activities can be beneficial to the environmental conservation of parks and protected areas is: Not valid; Somewhat not valid; Somewhat valid; Valid

Frequencies

	Don't Know	Not Valid	Somewhat not Valid	Somewhat Valid	Valid	Unknown
KPP	3	2	9	17	16	2
FCPP	0	2	5	37	31	5

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Don't Know	3	0	3	0	0.063829787	0	0.063829787
Not Valid	2	2	5	2	0.106382979	0.026666667	0.079716312
Somewhat not Valid	9	5	14	7	0.29787234	0.093333333	0.204539007
Somewhat Valid	17	37	31	44	0.659574468	0.586666667	0.072907801
Valid	16	31	47	75	1	1	0

D	K	Dcrit
0.204539007	1.35810152	0.25265773

Question 14. Is this your first visit to this park? Yes, No

Frequencies

	Yes	No	Unknown
KPP	14	34	1
FCPP	5	73	2

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Yes	14	5	14	5	0.291666667	0.064102564	0.227564103
No	34	73	48	78	1	1	0

D	K	Dcrit
0.227564103	1.35810152	0.249143515

Question 15. To the best of your knowledge, in what year did you first visit this park?

Frequency

	50's or earlier	60's	70's	80's	90's	95's	00's	Unknown
KPP	0	2	3	11	5	12	11	5
FCPP	1	2	16	33	6	12	3	7

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
50's or earlier	0	1	0	1	0	0.01369863	0.01369863
60's	2	2	2	3	0.045454545	0.04109589	0.004358655
70's	3	16	5	19	0.113636364	0.260273973	0.146637609
80's	11	33	16	52	0.363636364	0.712328767	0.348692403
90's	5	6	21	58	0.477272727	0.794520548	0.317247821
95's	12	12	33	70	0.75	0.95890411	0.20890411
00's	11	3	44	73	1	1	0

D	K	Dcrit
0.348692403	1.35810152	0.259201433

Question 16. In the last 12 months, how many visits have you made to this park?

Frequency

	< 5	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 99	> 100	Unknown
KPP	32	0	1	0	0	0	0	0	16
FCPP	16	7	10	10	3	1	9	20	4

Kolmogorov-Smirnov Statistic
Was not performed because the data obtained were dramatically different between the parks.

Question 17. On average, how long has each visit been? (e.g. hours, days or weeks)

Frequency (Hours, including total unknown)

	1 hour	2 hrs (incl 1.5 hrs)	3 hours	4 hours	5 hours	Unknown
KPP	0	0	3	1	0	4
FCPP	21	44	5	1	3	6

Frequency (Days)

	1 day	2 days	3 days	4 days	5 days	6 days	7 days	8 days	10 days	14 days	21 days
KPP	2	5	4	8	4	3	3	2	6	3	1
FCPP	0	0	0	0	0	0	0	0	0	0	0

Kolmogorov-Smirnov Statistic
Was not performed because the data obtained were dramatically different between the parks.

Question 18. Would you consider the last 12 months to be typical of how often you have visited this park since your first visit? Yes, No. (If no, please explain)

	Yes	No	Unknown
KPP	29	4	16
FCPP	47	23	10

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Yes	29	47	29	47	0.878787879	0.671428571	0.207359307
No	4	23	33	70	1	1	0

D	K	Dcrit
0.207359307	1.35810152	0.286777357

Question 19. Male or Female (circle you answer)

Frequencies

	Male	Female	Unknown
KPP	29	19	1
FCPP	45	31	4

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Male	29	45	29	45	0.604166667	0.592105263	0.012061404
Female	19	31	48	76	1	1	0

D	K	Dcrit
0.012061404	1.35810152	0.250389241

Question 20. Education distribution of recreationists surveyed for Killarney Provincial Park and Fish Creek Provincial Park

Frequencies

	Earned Doctorate	Medicine	Masters	University Above Bachelor	Bachelor	University Below Bachelor	Other non-university	Trades	Secondary High School	Unknown
KPP	1	3	12	4	11	1	5	4	7	1
FCPP	1	2	2	4	22	6	7	12	18	6

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
Earned Doctorate	1	1	1	1	0.020833333	0.013513514	0.00731982
Medicine	3	2	4	3	0.083333333	0.040540541	0.042792793
Masters	12	2	16	5	0.333333333	0.067567568	0.265765766
University Above Bachelor	4	4	20	9	0.416666667	0.121621622	0.295045045
Bachelor	11	22	31	31	0.645833333	0.418918919	0.226914414
University Below Bachelor	1	6	32	37	0.666666667	0.5	0.166666667
Other non-university	5	7	37	44	0.770833333	0.594594595	0.176238739
Trades	4	12	41	56	0.854166667	0.756756757	0.09740991
Secondary High School	7	18	48	74	1	1	0

D	K	Dcrit
0.29504505	1.35810152	0.251695627

Question 21. What is the year of your birth

Frequencies

	20's	30's	40's	50's	60's	70's	80's	Unknown
KPP	1	5	8	16	13	2	2	2
FCPP	2	7	8	17	15	14	11	6

Kolmogorov-Smirnov Statistic

	KPP	FCPP	F1	F2	F1/n1	F2/n2	d
20's	1	2	1	2	0.021276596	0.027027027	0.005750431
30's	5	7	6	9	0.127659574	0.121621622	0.006037953
40's	8	8	14	17	0.29787234	0.22972973	0.068142611
50's	16	17	30	34	0.638297872	0.459459459	0.178838413
60's	13	15	43	49	0.914893617	0.662162162	0.252731455
70's	2	14	45	63	0.957446809	0.851351351	0.106095457
80's	2	11	47	74	1	1	0

D	K	Dcrit
0.252731455	1.35810152	0.253314548

This result suggests that the two parks are different enough to not support pooling of data

Appendix C: Response Frequency Matrix

Compilation of all identified themes and subthemes, along with the frequency of which participant group had mentioned that theme, within the surveys or the interviews for Killarney Provincial Park and Fish Creek Provincial Park.

	FCPP Surveys (80)	KPP Surveys (49)	**Total for Surveys**	Friends of FCPP (2)	Friends of KPP (1)	FCPP Managers (2)	KPP Managers (2)	FCPP Education Staff (1)	KPP Interpretive Staff (1)	FCPP Naturalists (2)	KPP Naturalists (1)	KPP Outfitters (1)	Extra Informants (3)	**Total For Interviews**	**Grand Total**
Opportunities for Participation in Conservation (shopping list)															
Participation in Programs/Volunteering															
Volunteering in General	1		1										2	2	3
Weed removal "Purge the Spurge"	1		1	1		1				1				3	4
Reclamation			0	1				1						2	2
Wildlife education/intepretative programs	1		1				1			1				2	3
Garbage Clean-up/Spring Clean-up	6	1	7		1		2				1			4	11
Archaeological Digs	1		1											0	1
Monitoring Surveys (loon, Butterfly, CBC)		2	2				2		1		1			4	6
Adopt a Lake			0		1		2		1		1			5	5
Campsite Host		1	1											0	1
Junior Rangers (Rocky Mountain National Park)(get kids involved)			0										1	1	1
Citizen Science			0										1	1	1
Stewardship programs (For small areas that have no staff)			0			1	1							2	2
Partnerships/Joining Groups															
Friends of the Park		5	5	1		2	2	1		1		1		8	13
Universities and Colleges (build privies, research)			0				1							1	1
Snowmobile Association (groom ski trails)			0				1							1	1
Nature Groups (CWS, CFNS, Sudbury Naturalists)			0				1				1			2	2
Girl Guides/Boy Scouts			0			1		1						2	2
Industry (e.g. Canadian Cattle Commission)			0	1										1	1

School Groups (rehabilitating gravel pits)			0				1							1	1
Recreational Groups	2		2			1						1		2	4
Participating/Influencing or Enabling Management															
Ad hoc groups and steering committees/Resource Advisory Committees/Public Involvement and Collaboration/Planning and Management/Management Plan Review and Consultation, Voice in management/development	1		1			1							2	3	4
Public Protest			0							1				1	1
Provide Political Will for Conservation Initiatives		2	2										1	1	3
Communicate with Park Staff about concerns (phone calls, writing letters)		2	2			2	1							3	5
Contribute money (through permits, user fees, pay fees)		3	3										2	2	5
Laws and Legislation															
Follow or Compliance with Rules and Regulations	1	11	12				1							1	13
Stay on Paths (don't make new ones)	13	8	21											0	21
Specific Rules (e.g. Don't use soap in water; Not using bottles and cans in interior)		10	10				1							1	11
Camp on Designated Spots		1	1											0	1
Reporting "Bandits"	1		1											0	1
Educating others/asking others/Self-Policing (educating about the rules and regulations etc).	2	4	6	2		1	1	1	1					6	12
Awareness of the environment and its dangers			0				1	1						2	2
Flora and Fauna															
No picking, feeding or encouraging animals (e.g. bears)	6	7	13				1							1	14
Do not disturb/harass animals	6	7	13							1				1	14
Safely kept food		2	2				1							1	3
Drive slower			0				1							1	1
Leave natural food for animals (e.g. don't eat all of the berries)		1	1											0	1
Limiting Impact on Resource															
Garbage Removal/Recycling/Reusing															
Clean up garbage (pack it in/pack it out)	13	22	35	1			1							2	37
Clean up others (leave campsite cleaner than found it)	5	14	19		1					1				2	21
Recycling (cans/bottles, or add paper)		8	8											0	8
No littering	11	4	15											0	15

Remove paint on rocks		1	1											0	1
Appropriate disposal (including grey water)	4	6	10											0	10
Low Impact Recreation /Use human powered technology		2	2											0	2
Leave Everything as you found it (no Trace Camping, Leave no Trace)	4	10	14											0	14
Leave everything alone		3	3											0	3
Use biodegradable soaps		1	1											0	1
Catch and Release Fishing	1	1	2										1	1	3
Related to Fires															
Bring Wood from elsewhere or buy it		8	8											0	8
Burn only deadfall		1	1											0	1
Bring burnable stuff		2	2											0	2
Fire in fire pits	1	1	2											0	2
Smaller Fires		1	1											0	1
Make sure fire is out		1	1											0	1
Not picking deadfall/cutting trees		4	4											0	4
Use propane stoves		1	1											0	1
Miscellaneous															
Watering the grass around park	1		1											0	1
Planting native grasses/trees (naturalization)	1		1				1							1	2
Respect the Park	1	1	2											0	2
Take Photos of park	1		1											0	1
Donate Trees	1		1											0	1
Trail Maintenance/maintenance general	4	2	6							1				1	7
Strategies to Increase Participation															
Education															
Education in general (increase awareness, understanding, learning)	14	24	38	2	1	1		1		1				6	44
Of consequences of their activities (single and cummulative impact etc)	1	4	5	2	1		1							4	9
Of Children (Intergenerational tactic)	3	11	14	1									1	2	16
Improved Outreach (signage/posting/advertising/interpretive information, publicity, magazines)	6	9	15	2	1									3	18
Through using and exploring the park		1	1		1				1					2	3
Encourage public to talk to eachother, or encouraging by example	3	1	4	1			1	1						3	7

Explain the Importance and Rationale for Participation (provide examples)(it makes sense)	3	3	6	1				1						2	8
Educate Opportunities to Participate	7	3	10	1		1	1		1					4	14
Clear and concise outline of programs (Vision and purpose)	3	5	8					1		1			1	3	11
Involving and educating communities	2		2											0	2
Increase awareness of broader environmental issues	2		2	1						1				2	4
Tours and Demonstrations		1	1											0	1
Expand and increase the Environmental Ethic			0										1	1	1
Timing of Education or Information Offered (Before or after trip)			0		1		1							2	2
Educate of Rules and Regulations	1	3	4				1							1	5
Present a more positive message (of what you can do)		2	2	1										1	3
Provide an opportunity to learn	3		3						1					1	4
Educate on the role of managers			0				1							1	1
Engaging the Public															
Talk to them/Ask/Invite to Participate	2	2	4	1										1	5
For Participation	1		1											0	1
For Ideas (ties into knowledge)	1	2	3	1		1	1			1				4	7
Enforcement/Regular Patrols/heavy fines/mandatory recyling	3	1	4											0	4
Refocus their Energy and enthusiasm to conservation programs more consistent to management			0			1	1							2	2
Train staff appropriately		1	1				1							1	2
Take Advantage of Skill and Knowledge Base	2	2	4				1	1						2	6
Approach Public Properly		1	1											0	1
Be fair in administering rules	1	1	2											0	2
Provide necessary support, infrastructure, personnel	1		1	2		1								3	4
Trust/Open communication		2	2											0	2
Verbal support is sometimes not enough (need tangible support)			0	1										1	1
More Facilities (Recycling, garbage etc)		3	3											0	3
Greater presence of staff and managers		1	1											0	1
If given an opportunity (available programs etc)	2	5	7				1							1	8
Motivation															
Use and involvement to develop sense of (hands on, hands dirty)		2	2	1						1				2	4
Appreciation			0		1		1							2	2

Attachment/sense of Ownership	1	2	3			2			1			1		4	7
Protective		2	2		1	1			1					3	5
Sense of Responsibility		1	1						1					1	2
To create awareness and understanding	2		2	1			2	1	1					5	7
Satisfaction/Pride (feel like they are accomplishing things)		1	1	1	1	1			1					4	5
Meet the superintendent/ranger day/engage and work along side with management	1		1						1					1	2
Feedback (positive reinforcement doing a good job)															
Competence/Efficacy/Relevance (project has purpose; tangible result)(If it would make a difference, valuable)	4	10	14					1	1				1	3	17
Legitimately use public information/government takes them seriously	1	4	5				1		1					2	7
Appreciate their efforts (say thank you; BBQ's)	1		1		1	1	1		1		1			5	6
Reward system (e.g crests)		1	1		1		2							3	4
Sense of Pride (that they have done a good job, in their work)		1	1					1	1		1			3	4
If park management needed them	3	2	5										1	1	6
If know where the money is going.		1	1											0	1
Connecting it to something that excites or bothers them (that they feel needs change)			0			2				1				3	3
Avoid disillusionment with make work projects			0						1					1	1
Design and structure of the Program (types, size, participant orientation (age, ability, families), fun social environment, convenient, readily adapted to recreation, educational)	6	7	13	1	1	1	1	1	1	1				7	20
Consider Repeat Visitors with programs		2	2											0	2
More programs		1	1											0	1
Timing of program (winter, summer, front end, if they knew earlier etc)		4	4	1		1	1		1					4	8
Consider Constraints Generally	2	4	6					1						1	7
Partnerships with other organizations	2	1	3	1		2	2			1	1	1		8	11
Improved Financial Capitilization Method		2	2										1	1	3
Systems Approach to Enhancing Participation			0										1	1	1
Involve Recreationist Participation/Willingness to Increase Participation															
Supportive			0			1								1	1
Recreationists Responsibility Because they use the park	12	6	18											0	18

To have stake in their future	1	1	2											0	2
Increased Number of Recreationists (cummulative impact)		5	5											0	5
For their children or future generations	2	5	7											0	7
Because of an affinity for the park (close by, family ties, love and enjoyment)	9	14	23	1				1	1			1	1	5	28
Don't want to hike in garbage	1		1											0	1
Assist Park Management (from the increase recreationist participation node)	1	5	6	1			1							2	8
To empower the public (to counter the idea for a police state)			0	1										1	1
More effective than enforcement			0						1					1	1
If they are involved won't contribute to problems		3	3											0	3
Already have or do participate in similar programs		2	2											0	2
Shared Responsibility			0			1								1	1
Can always do more		3	3									1		1	4
Perspective of Managers															
As evident in recreationists taking the initiative and phoning			0			1	1	1						3	3
As evident in not being opposed to increasing financial donations/fees			0										1	1	1
As evident in attendance to programs and program growth/repeat visitors			0	1	1	2	2	1	1					8	8
As evident in gut feeling			0				1							1	1
Recreationists to redeem reputation			0	1		1								2	2
Suspect that not meeting the demand for participation			0	1	1	2	2		1					7	7
To Garner Political Clout, Support Conservation Efforts			0				1							1	1
Return on small investment / cost effective			0			1		1						2	2
Synergy between management and recreationist participation			0			1								1	1
Large resource base to draw from			0			1								1	1
Continued Involvement/don't decrease it			0			1							1	2	2
Non-supportive															
Not their Responsibility (paying money for this, up to others to look after themselves, other recreationist, up to management - who have the funds, serving the public)	5	1	6							1	1		1	3	9
Management Doing a good enough job/knowledgable and capable		2	2					1					1	2	4
No if it means loss of access	2		2											0	2

Participating as much as they want/Enough Opportunities/Do enough already	2	5	7							1	1			2	9
Constraints to Participation															
Time	9	9	18		1	1		1						3	21
Involved in other activities	2		2								1			1	3
Complexity of task (depends on the task)	2	1	3											0	3
Opportunity does not appeal to them			0					1		1				2	2
Ongoing activities may be problematic			0	1				1						2	2
Awareness/knowledge/never thought about it/what is needed/not motivated if don't know how	19	14	33	1		1		1				1		4	37
Management could be more active in pushing conservation initiatives /participating in conservation initiatives		1	1							1				1	2
Too much other information			0		1									1	1
Don't know who to talk to at the park/how to get a hold of staff/lack of management presence	2		2	1				1		1				3	5
Proximity	2	8	10			1								1	11
Don't come to park that often	2		2											0	2
Only so much you can ask of recreationists (same people, burnout, personal costs - money, gas)	1	1	2										1	1	3
Negative view of management general/Lack of Fairness with enforcement	1	2	3											0	3
Participation not being used effectively/disenchantment with government/Management do not listen or are not receptive/some projects are a waste of time/tokenism	5	2	7	1						1				2	9
Stubbornness	1		1											0	1
Independence (do not want to be part of a group)		2	2											0	2
Not come to park to work, focus on their recreation	1	3	4						1		1			2	6
Not enough staff or participants to coordinate			0	1	1									2	2
No programs available		2	2			1								1	3
Supporting infrastructure (physical space and supervisory people)			0	1							1			2	2
Internal support (finances, political)			0			1								1	1
Within the recreationist's abilities (knowledge, physical)		2	2											0	2
Management Concerns															
Management Constraints															

Time			0		1	1	2	1			1			6	6
Budget/Need for funding		5	5		1	2	1			1	1	1		7	12
Staffing (not enough, already committed to other projects)		6	6	1	1	2	2	1	1	1				9	15
Stressed			0							1				1	1
Limited capacity/resources in general to accommodate (that's why no advertising)			0			2	1			1				4	4
Hidden costs (time, money, writing reports, letters, planning)			0				1							1	1
Limited space in programs			0				1	1	1					3	3
Ability to enact conservation management or enforce, reach or contact the recreationist (access)/interaction	1	1	2	1			1			1				3	5
Other priorities (such as health, safety, sewage etc).		1	1			1	1							2	3
Internal resistance or attitude/not want to interact with public. uncomfortable/not want volunteers replace paid positions/lack of political will		1	1	1		1	1	1	1	1				6	7
Programs have to be well designed prior to initiation			0				1							1	1
Blurring the line of authority and public			0						1					1	1
No legal recourse with public on work, such as with contractors (liability).			0				1							1	1
Loss of control of priorities			0			1	1							2	2
"Negative Work" Cost/Benefit ratio			0			1	1							2	2
Management in state of flux			0	1		1								2	2
Improper actions although they are conservation minded (misguided efforts of conservation) subversion of the conservation agenda			0			1	1						2	4	4
Need for accurate Information/training or expertise/lack of skills in the public			0	1			2	1			1			5	5
Expressed Uncertainty or Unknown of what else Recreationists can do/Concerned about quality or value of recreation contributions			0	1		1		1					1	4	4
Recreationists can't do more than follow rules and regulations			0										1	1	1
Ability to control or coordinate everyone (more difficult outside of a formal program)/onerous task leading to burnout			0	1				1			1			3	3
Difficulty to see broader picture (recreationist just one aspect of conservation)		1	1			1								1	2
Friends Groups															
Limited time, money and staff			0	1	1									2	2
Concerned of too much is being placed on the friends group			0	1										1	1

Do not want to overstep bounds of authority			0	2										2	2
Maybe not increase it, but definitely do not decrease it			0										1	1	1
Compatibility															
Yes they are:			0							1		1	1	3	3
Have to become compatible or find solution		4	4											0	4
Can't keep people out of these areas		1	1											0	1
Public needs to use these areas, have to use the park in order to understand		6	6		1		1							2	8
Same goal (between recreation and protection)		2	2									1		1	3
Recreation provides economic rationale and support for protected areas		3	3						1					1	4
No they are not:															
Ultimately they are not		4	4					1						1	5
Too much pressure and encroachment			0								1			1	1
Even responsible recreation poses problems			0								1			1	1
Can't help it more than by minimizing your own impact		6	6					1		1				2	8
Compromise between yes and no:															
If everyone are Involved in Conservation and protection		3	3						1					1	4
Better than Alternatives	2	2	4										1	1	5
With proper education, awareness and ethic	1	5	6	1			1	1	1					4	10
If follow rules and restrictions		1	1											0	1
If managed properly (enforcement, regulation, zoning)		4	4			1							1	2	6
Within use limits, levels and intensity	1	6	7	2	1				1					4	11
With participation in appropriate programs			0				1							1	1
In proper activities and technologies (low impact)		13	13	2		1					1			4	17
In appropriate locations		1	1	1	1	1	1			1				5	6
New type of relationship of symbiosis		1	1											0	1
If recreationists minimize impact		2	2				1							1	3
Friends Groups															
Produce public information packages			0				1							1	1
Organize and operate programs (Spring Cleanup and Campsite Rehab, Purge the Spurge, Park Watch)			0	2	1	2	2	1	1	1				10	10
Direct Resource Management Projects (inventories)			0			1								1	1
Partnerships with friends			0				1			2	1	1		5	5

Would like to do more			0		1		1							2	2
Doing a lot			0	1					1					2	2
Consultation and promotion of park conservation			0	2	1	2	2		1					8	8
Raise Funds/obtain grants (otherwise not available)			0	2		2	1					1		6	6
Manpower			0			1				1				2	2
Looked favorably upon/Supported/collection of talented individuals (by management and public)			0			2	1							3	3
Much public interest for participation is directed towards them/dependency on them			0			2	2			1				5	5
New source of ideas			0			1								1	1
Perception of Parks and Protected Areas and of Management Practice															
For Protection/Preservation	1	1	2			2								2	4
For Education and Learning		2	2			1								1	3
Mixed understanding between Rural and Urban Parks; Federal and Provincial	1		1	1		1								2	3
For recreation/heath/therapeutic. Equal access use/are supposed to be used.	3	2	5	1		2								3	8
Depends on Values			0	1										1	1
Wilderness park should not have amenities (showers, comfort station)(worried about the type of people that would attract)		6	6						1					1	7
Parks should be clean and orderly			0					1						1	1
Should not be run as a business/profit driven		2	2											0	2
Symbiotic relationship with parks		1	1											0	1
A place to engage wildlife (no powerboats)		2	2											0	2
Introduce Public to Nature/Wilderness, make it accessible			0			1	1							2	2
Feel safe in park	1		1											0	1
Supportive of Management			0											0	0
Management has good ideas and is doing a good job	1	3	4											0	4
Management takes care of the park (big things, more sophisticated conservation)	1	2	3											0	3
Content with Management if gets to recreate	1		1											0	1
Staff are friendly/Enjoy interacting with them		2	2											0	2

Perception of Others															
Favorable															
Most recreationists are Considerate of the Park, protect the resource, are conservation minded	3	14	17										1	1	18
Latent interest in the park			0			1			1					2	2
The public is receptive to information			0	1										1	1
Doubt that they are out there to destroy or litter etc			0				1			1				2	2
Urban Park People more respectful	1		1											0	1
Public's environmental ethic is improving			0	1										1	1
Children very environmentally aware			0	1										1	1
Suggests that local people have greater interest in park			0	1										1	1
People are proud to be environmentally conscience			0		1									1	1
Unfavorable															
Identify Problematic User Groups (bikers, hunters, motorized vehicles, motor boats, horses, teenagers)	3	1	4							1	1		1	3	7
Some people still performing poor behaviour, that is why need to manage		1	1						1					1	2
Lack of understanding among recreationists of role of natural areas			0	1										1	1
People just don't think about conservation and their participation (wrapped up in own activity)			0	1	1			1	1	1	1		1	7	7
Recreationist Knowledge															
Suggestions															
For planning and management (setting standards)			0				1							1	1
Enable Management to extend their ability to see alternatives/different perspective			0			1	2							3	3
New Programs (e.g. Catch and Release fishing)			0										1	1	1
Critiquing Management practice (how to improve it)			0	1			1			1				3	3
Information Source															
"Eyes and Ears", Issue Identification	1		1		1	1	1	1				1		5	6
Detailed log of wildlife and other aspects of the park			0							1		1		2	2
Reference Guides to natural areas			0							2				2	2
Participation in programs (Park Watch)			0	1		1		1						3	3
Population monitoring			0							1	1			2	2

In dispersed areas, with little management presence			0			1								1	1
Animal Sighting Wildlife Board/Share Information with other Recreationists		1	1		1			1		1				3	4
Injured wildlife			0			1		1						2	2
Expertise and education (e.g. half of friends are PhD's, or involved in various fields)			0				1			1	1			3	3
Trail Maintenance Workshops			0							1				1	1
Effectiveness of Effort \ Efficacy															
Effort is effective in meeting objectives															
Generating information (e.g. good data-set)/Confidence in Effort/Effort is valuable			0	2			2	2			2	2		10	10
High participation in programs/attendance or interest			0	1	1	1	2		1					6	6
Comments Passed around and considered			0		1		1							2	2
Couldn't manage without their participation in rule compliance/Management Knowledge is useless if recreationists not on side		1	1			1	1						1	3	4
Without assistance many management activities would not be done (e.g. surveys)			0				1			1	1			3	3
Education efforts are working (programs, word of mouth, seeing behavioural changes; develop understanding)			0		1		1	1			1			4	4
Secured area as natural as opposed to alternative uses			0										1	1	1
If everyone is doing it (conditional statement)		1	1	1	1				1					3	4
With knowledge and awareness		1	1											0	1
Every little bit helps		2	2											0	2
Will evolve and probably improve with time, popularity and opportunity (has potential: dataset, support for their activities, eagerness to participate)			0		1		1							2	2
Don't know, but not making it worse		6	6				1	1						2	8
Effort is not effective in meeting objectives			0	1						2				3	3
Not contributing much to the overall park and what is needed/not as effective as management efforts			0		1									1	1
Not effective if not part of organized effort or group		1	1			1							1	2	3
Not making enough effort		1	1											0	1
Recreationists not being involved enough, so effort is ineffective			0	1		1								2	2

Is there a more effective altenative than Enforcement			0						1					1	1
Compromising management objectives (e.g. Herony)			0							1				1	1
Objectives change to rationalize effectiveness (educational, raise awareness, generates support)			0	2		1			1	1				5	5
Key Individuals															
Identification of specific key individuals			0	2		2		1						5	5
Wonder what will happen without those individuals			0	2										2	2
Need People with the right attitude, dedicated, keen, and training for program success			0			1	1							2	2
Need a coordinator of volunteer activities			0		1									1	1
Engaging the public on site, front desk, on phone (provide information, opportunities etc)			0				1							1	1
Efforts to Reach the Public															
Messages regarding the Types of effort															
How to keep campsite clean/Take only picture, leave only footprints			0		1		1							2	2
Bear etiquette			0				1							1	1
Participation on Management Plan			0	1		1	1							3	3
Methods															
Visitor Center (front desk)			0		1									1	1
Community Presentations			0	1										1	1
Interpretative Programs			0				1		1					2	2
Through permit system/registration			0			1	1							2	2
Signs/signage			0	1	1									2	2
Before and after their activity when return equipment			0									1		1	1
Partnerships with Universities			0				1							1	1
Newspapers, Announcements, Park Tabloid, Postings		1	1			1	1							2	3
PSA (public service announcements)			0	1										1	1
Television			0	1										1	1
Bulletin board for locating wildlife in park			0		1		1							2	2
No extra efforts			0			1								1	1
Limited advertise participation opportunities to public (would get overwhelmed). Depend on passive, word of mouth distribution of message, trickle-down interest, non-discreet postings.			0		1	2								3	3

Responding to phone calls (Try to advertise or direct to Friends (but still not actively), provide a volunteer application)			0			1								1	1
Environmental Ethic															
Dedication to the park			0	1										1	1
Concerned that park is being worn out			0	1										1	1
Public want to help (even if misguided)			0				1							1	1
Recreationists carry a code of ethics			0				1							1	1
Purpose of education is to instill a sense of environmental ethic			0		1									1	1
Surveys Results			0										1	1	1
Camping as a way of life		1	1											0	1
Get bothered when driving car		1	1											0	1
Drives them nuts when see garbage on side of road		1	1											0	1
Love for Nature		2	2				1							1	3
Felt comfortable the first day in the park		1	1											0	1
Different ethic in wilderness park		2	2											0	2
Shift in ethics in recent while/Improved or increasing awareness		2	2					1						1	3

Appendix D: Research Letters

Introduction letter to Case Study: Senior Park Manager (including consent forms)
Introduction letter to Case Study: Other Park Management Administrators (including consent forms)
Letter for Participant Feedback
Consent form for Quotation
Request for Information
Letter for Transcript Review

Introduction letter to Case Study: Senior Park Manager
Street Address, Town/City, Country, Postal Code

Dear <insert name>,

I am a graduate student in the department of Environment and Resource Studies at the University of Waterloo conducting research on the role of recreationists in conservation, under the supervision of Dr. Stephen Murphy. The motivation behind this study is an attempt to reconcile a commonly held perspective regarding the incompatibility of environmental protection and recreational opportunities, by exploring the alternate perspective of a positive relationship between recreation and environmental protection. Three objectives will be pursued: 1) document the present perceptions regarding the value of recreationists as a resource for conservation, 2) document the opportunities available for recreationists to participate in parks and protected areas conservation and the extent in which they are presently involved, and 3) explore opportunities in which recreationists could better contribute to parks and protected area management.

I feel that you can provide an essential perspective that will contribute to a thorough and diverse exploration of this topic. In addition, <insert park name> is an ideal study location in that it supports a wide variety of recreational activities and contextual situations, in which to further investigate the role of recreationists in conservation. Your involvement in this research is entirely voluntary, where you have the option to withdraw your participation or not respond to a question, at any moment without penalty. Your identity will remain anonymous, however the name of the park will be presented within this research. All information will be maintained as confidential, and will always be kept in a secured environment that is accessible too only myself. If you agree to participate, you will be asked to dedicate 1 hour to an interview, which will be audio-taped pending your permission. A copy of all interview notes will be returned, prior to their use in analysis and reporting, for your review and approval. In addition to the interview, this research proposes to conduct a survey of park recreationists and a review of materials that document manager/recreationist interactions, perspectives and policy. Although these latter two activities do not specifically require any more of your time, they will need your consent. Your participation will be greatly appreciated, and I will gladly discuss ways in which this research can be developed to better serve your needs.

Please contact me if you have any questions, concerns, or require elaboration of any aspect of this research. If after this, you still have any questions about this study, or would like additional information to assist you in reaching a decision about participation, please feel free to contact me again, or my supervisor, Stephen Murphy at (519) 888-4567, Ext. 5616 (email: sd2murph@fes.uwaterloo.ca). As with all University of Waterloo projects involving human participants, this project has been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. Should you have any additional questions that I or my supervisor may not be able to answer, please contact Dr. Susan Sykes in the office of Research Ethics at 888-4567, Ext. 6005.

Thank you for your time and consideration.
Sincerely,

James Porter
MES Candidate University of Waterloo
Email: je2porte@fes.uwaterloo.ca
Telephone: (519) 745-6436

The following information is a reiteration of the conditions for participation. Please read each section carefully. If you do not agree with any part of the following statements, *delete* them, as you feel appropriate. In order to indicate your consent, email the edited copy of this letter to **both** James Porter (je2porte@fes.uwaterloo.ca) and his supervisor Stephen Murphy (sd2murph@fes.uwaterloo.ca).

Consent Form for Case Study Participation

I, **<insert name>**, agree to participate in the Case Study being conducted by James Porter of the Department of Environment Resource Studies at the University of Waterloo. I have made the decision based on the information I have received in the information letter, and have had an opportunity to ask questions and receive any additional details I wanted regarding the study. As a participant, I realize that I will be asked to take part in a 1 hour interview. All information, which I provide, will be held in confidence and I will not be identified in the thesis, report or publication. I understand that I may withdraw this consent at any time. I also understand that this project has been reviewed by and received clearance through the Office of Research Ethics at the University of Waterloo and that I may contact this office if I have any concerns or questions about my participation in this study.

Consent for Tape Recording of Interview

I, **<insert name>**, also consent to allow James Porter to tape record our phone interview for the purposes of future review and reference. I realize that I can with withdraw my consent, if at any time when I feel that this activity is no longer appropriate or desirable.

Consent Form for Case Study Research within the Park

I, **<insert name>**, also consent to allow James Porter to review and audit a number of documents determined appropriate by myself, in regards to the objectives of this research project. Further, I realize that I can with withdraw my consent, if at any time allowing this activity is not longer appropriate or desirable.

With full knowledge of the intended methods and document content, I also consent to allow James Porter to conduct a survey of the recreationists that utilize this park, of which I am responsible. Further, I realize that I can with withdraw my consent, if at any time allowing this activity is not longer appropriate or desirable.

Introduction letter to Case Study: Other Park Management Administrators
Street Address, Town/City, Country, Postal Code

Dear <insert name>,

I am a graduate student in the department of Environment and Resource Studies at the University of Waterloo conducting research on the role of recreationists in conservation, under the supervision of Dr. Stephen Murphy. The motivation behind this study is an attempt to reconcile a commonly held perspective regarding the incompatibility of environmental protection and recreational opportunities, by exploring the alternate perspective of a positive relationship between recreation and environmental protection. Three objectives will be pursued: 1) document the present perceptions regarding the value of recreationists as a resource for conservation, 2) document the opportunities available for recreationists to participate in parks and protected areas conservation and the extent in which they are presently involved, and 3) explore opportunities in which recreationists could better contribute to parks and protected area management.

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Please contact me if you have any questions, concerns, or require elaboration of any aspect of this research. If after this, you still have any questions about this study, or would like additional information to assist you in reaching a decision about participation, please feel free to contact me again, or my supervisor, Stephen Murphy at (519) 888-4567, Ext. 5616 (email: sd2murph@fes.uwaterloo.ca). As with all University of Waterloo projects involving human participants, this project has been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. Should you have any additional questions that I or my supervisor may not be able to answer, please contact Dr. Susan Sykes in the office of Research Ethics at 888-4567, Ext. 6005.

Thank you for your time and consideration.
Sincerely,

James Porter
MES Candidate University of Waterloo
Email: je2porte@fes.uwaterloo.ca
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Consent Form for Case Study Participation

I, **<insert name>**, agree to participate in the Case Study being conducted by James Porter of the Department of Environment Resource Studies at the University of Waterloo. I have made the decision based on the information I have received in the information letter, and have had an opportunity to ask questions and receive any additional details I wanted regarding the study. As a participant, I realize that I will be asked to take part in a 1 hour interview. All information, which I provide, will be held in confidence and I will not be identified in the thesis, report or publication. I understand that in sending my consent to Stephen Murphy, that he is also obligated and willing to maintain my anonymity and information in confidence. I understand that I may withdraw this consent at any time. I also understand that this project has been reviewed by and received clearance through the Office of Research Ethics at the University of Waterloo and that I may contact this office if I have any concerns or questions about my participation in this study.

Consent for Tape Recording of Interview

I, **<insert name>**, also consent to allow James Porter to tape record our phone interview for the purposes of future review and reference. I realize that I can with withdraw my consent, if at any time when I feel that this activity is no longer appropriate or desirable.

Letter for Participant Feedback <note: this letter will be adapted towards the end of the project>

Dear, <participant>

I write this letter to inform you that the research, conducted by myself regarding the role of recreationists in conservation, is finally reaching its final stages towards completion. It was a long journey, but it presented many pleasing surprises and allowed the generation of much discussion. It was an opportunity for me to interact with individuals such as yourself, and benefit from the wealth of experience that everyone was able to share. Your participation was an integral component to the success of this project. Most importantly, I hope that you enjoyed your involvement and learned as much as I did. I am really appreciative of your participation in this research. Thank you very much. If you have any questions, requests or concerns, please do not hesitate to contact me.

Attached with this letter is a copy of this projects executive summary, final results and conclusions. In addition, I also highlight how your participation contributed to this research.

Sincerely,

James Porter
MES Candidate, University of Waterloo
Email: je2porte@fes.uwaterloo.ca
Telephone: (519) 745-6436

Consent Form for Quotation

The following information pertains to providing consent to be quoted. This is to ensure that the information being reported is acceptable to you in both detail and context for its use. Please read each section carefully. If you do not agree with any part of the following statements, *delete* them, as you feel appropriate. In order to indicate your consent, email the edited copy of this letter to **both** James Porter (je2porte@fes.uwaterloo.ca) and his supervisor Stephen Murphy (sd2murph@fes.uwaterloo.ca).

Consent for Quotation <after they have participated>
As part of the conditions for my original acceptance to participate, was the provision of anonymity and confidentiality regarding any information that I provide in the course of this research. I understand that it may be desirable, by the researcher, to report some pieces of information in their original form and context (i.e. quotation). I also am fully aware that the conditions of anonymity and confidentiality take precedence, and that I am free to refuse any request to be quoted. I recognize that the statement(s) at issue, and the context or purpose for their use, include: <"insert statement"> <insert a brief context and purpose for their use>

Request for information

Dear <insert name>,

I am a graduate student in the department of Environment and Resource Studies at the University of Waterloo conducting research on the role of recreationists in conservation, under the supervision of Dr. Stephen Murphy. The motivation behind this study is an attempt to reconcile a commonly held perspective regarding the incompatibility of environmental protection and recreational opportunities, by exploring the alternate perspective of a positive relationship between recreation and environmental protection. Three objectives will be pursued: 1) document the present perceptions regarding the value of recreationists as a resource for conservation, 2) document the opportunities available for recreationists to participate in parks and protected areas conservation and the extent in which they are presently involved, and 3) explore opportunities in which recreationists could better contribute to parks and protected area management.

Many of these research ideas, and the supporting theory, are in practice through your professional activities. <insert description of activity>. Consequently, I am contacting you in order to determine if you would be willing to provide information, statistics, or documentation that could be used within this research. <insert specific request as tailored to the particular company>. Your participation will be greatly appreciated. Anonymity and confidentiality are preliminary conditions for participation; however, this can be waived upon your request, in order to publicly recognize your contribution.

If you have questions, please contact me using the information at the end of this letter, or my supervisor, Stephen Murphy at (519) 888-4567, Ext. 5616 (email: sd2murph@fes.uwaterloo.ca). As with all University of Waterloo projects involving human participants, this project has been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. Should you have any additional questions about your participation in the study, that I or my supervisor may not be able to answer, please contact Dr. Susan Sykes in the office of Research Ethics at 888-4567, Ext. 6005.

Sincerely,

James Porter
MES Candidate, University of Waterloo
Email: je2porte@fes.uwaterloo.ca
Telephone: (519) 745-6436

Letters: For confirmation of transcript information

Hello,

First of all, I would really like to thank you for your participation in my research. As more information continues to come in, some interesting patterns are beginning to develop. This email is not a request for more participation, since you have contributed more than enough; however, I am contacting you again to provide an opportunity for you to review the transcript of our interview discussions (attached email). This is for your own confidence and to ensure that the transcript is an accurate representation of what you intend your position to be (i.e. no mistyped or misunderstood terms).

Please include any revisions you would wish to be made in a return email, such as if there are any words or sentences that you would not want to be considered in this research, or would wish to elaborate. You are completely free not to do any of these tasks, including reviewing the transcript if you trust in my abilities as a transcriber. If no revisions are necessary, please reply with confirmation that I can proceed.

In addition, as a condition of your original acceptance to participate, your identity will be maintained confidential with the use of an alias where appropriate in order to identify specific quotes in the text. However, if you choose that this precaution is not necessary and are willing to be identified with your statements please let me know.

One theme that came out in many conversations was the issue of opinions and statements taken out of context, which is something both of us would really like to avoid. So, if you would prefer, any quotes that are going to be used for those of you who consent for me to use your real name, I will contact you again with the specific quote and its context for your final approval.

If you have any other concerns, comments or questions, let me know. The results so far are very informative and not controversial, so many of the precautions may seem unnecessary after your review of the transcripts. However, I wish to accurately represent your position and improve confidence in this research. Getting the information is really just the middle, and much more needs to be done. But its fun and I will undoubtedly have something to say in the end.

Take Care and Thank you once again

James Porter
MES Candidate
University of Waterloo