

“BEAR SMART” IN BRITISH COLUMBIA:
AN INTERIM ANALYSIS OF EFFECTIVENESS

By

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We accept this Report as conforming
to the required standard

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ABSTRACT

This research project aimed to identify why communities struggle to meet the “Bear Smart” standards and to provide recommendations on how the managing agency can more effectively implement the program. The Ministry of Environment established the “Bear Smart” Community Program 7 years ago, and at the time of this report only one community has met “Bear Smart” community status requirements. This project’s end goal is to identify organizational leadership capacities that effectively reduce conflict with bears and increase public safety. The action research project utilized interviews and focus groups of stakeholders to identify current roadblocks to success and possible solutions. The research findings identified three variables that contributed to the challenges in implementing the “Bear Smart” program for both the Ministry of Environment and municipal governments. It also revealed opportunities for the Ministry of Environment to maintain and improve its position as a public safety leader in wildlife conflict reduction.

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CHAPTER 1: FOCUS AND FRAMING

Introduction

The purpose of this research is to explore human-wildlife conflict through the lens of natural resource conservation, with a specific focus on human-bear conflict reduction. Human-wildlife conflict occurs when wildlife threatens, attacks, injures, or kills humans or livestock, or damages crops or human property. Human-wildlife conflict also occurs when humans intentionally injure or kill wildlife because of actual or perceived threats to their person, family, livestock, or property. In recognition of this problem, the Ministry of Environment in British Columbia (BC) developed the “Bear Smart” Community Program in 2002. This program outlines proactive management strategies aimed at municipalities, commercial businesses, and individuals to reduce human-bear conflict. Several non-governmental organizations are at the time of this research study undertaking the promotion of this program province-wide.

One of the ways the Ministry of Environment can benefit from this qualitative research project is to gain understanding of why there has not been a sustained reduction in human-bear conflicts province-wide after many years of public education. In fact, the Conservation Officer Service’s problem wildlife occurrence reports indicate an increase in home incursions and states of escalated bear behaviour in some communities. This potentially suggests that current bear management protocols and education initiatives may not be effective at reducing these conflicts.

This study examined the lack of a sustained reduction in human-bear conflicts through evidence-informed research for the purpose of continuing organizational efforts in reducing human-bear conflict. To this extent, action research is the methodology of

inquiry that was selected as the more appropriate discipline of inquiry. “By incorporating the perspectives and responses of key stakeholders as an integral part of the research process, a collaborative analysis of the situation provides the basis for deep-seated understandings that lead to effective remedial action” (Stringer, 2007, p. 20). Involving major stakeholders in this research enabled them to explore their experiences and understanding of this problem, and to be involved not only in applying mitigation and prevent measures, but also in formulating them.

According to Davis, Wellwood, and Ciarniello (2002), human-bear conflict has been widely perceived to be the result of “problem bears.” Because of this perception, “problem bears” were translocated or destroyed. The authors described this type of response as indicative of reactive management. According to these authors, “this period of reactive management, injuries inflicted on humans by bears and the subsequent destruction of bears became common and eventually were considered a serious management issue” (Davis et al., 2002, p. 17).

It is this type of reactivity that also confronts administrators within the province of BC. Not only is reactive management very expensive, but also it is ineffective at decreasing the frequency and intensity of future conflicts and, as noted earlier, current bear management protocols may not be effective at reducing human-bear conflicts. These deficiencies, in combination with a shift in the public’s attitudes toward the destruction of bears, resulted in the development of the Ministry of Environment’s “Bear Smart” Community Program in 2002. “The province of BC facilitates this change in attitude by accrediting communities with ‘Bear Smart’ status once a benchmark level of proactive management has been achieved” (Davis et al., 2002, p. 17).

Between the years 1992 and 2008, the Conservation Officer Service’s internal statistics show a 5-year average of 14,639 complaints of conflicts between people and bears. Some of these complaints were resolved by the destruction of 618 black bears and 42 grizzly bears, and the resource-intensive relocation of 126 black bears and 20 grizzly bears. Provincial statistics from the Biodiversity Branch of the Ministry of Environment show that between the years 2000 and 2007, 34 people were injured by black bears and two people were killed.

Attempts have been made at an organizational level to determine a consistent and effective avenue for “Bear Smart” program delivery, with a recent recommendation to amalgamate the Ministry of Environment’s “Bear Smart” program with the British Columbia Conservation Foundation’s Bear Aware program under the total administration of the British Columbia Conservation Foundation. If the foundation’s Board of Directors passes this recommendation, the ministry may consider channeling all “Bear Smart” funding dollars to the foundation for administration, with the stipulation of maintaining control of the “Bear Smart” community official designation evaluation process. This recommendation initiated the opportunity to invite these major stakeholders to participate in this action research project to examine the most effective way to deliver the program, because, as stated by Stringer (2007), “all stakeholders whose lives are affected by the problem under study should be engaged in the processes of investigation” (p. 11).

To date, the Ministry of Environment has only deemed one community in the province as an official “Bear Smart” community, even though many communities have worked diligently to implement the required criteria. This may indicate that the Ministry of Environment needs to evaluate the effectiveness of its recommended proactive

strategies and delivery process. In doing this, I believe there is an opportunity for the province of BC to set a provincial and perhaps national and global precedent for preventing and reducing human-bear conflict.

The main research question in this study was, “What are effective ways to deliver the ‘Bear Smart’ program to BC municipalities?” The sub-questions were: (a) What could the Ministry of Environment do to create long-term, sustainable delivery of the “Bear Smart” program? (b) How are current stakeholders interpreting and implementing the “Bear Smart” program? (c) How can administrators of the “Bear Smart” program improve strategies related to the reduction of human-bear conflict? and (d) How do various stakeholders in these municipalities perceive human-bear conflict?

The Opportunity

This action research project provided the Ministry of Environment with an opportunity to partner in the investigation of the successes and breakdown in processes of the “Bear Smart” Community Program, in the interest of finding effective ways of delivering the program. The spotlight of this research was to shine on the current organizational practices in place used to deliver this program and the current level of municipal receptivity and achievability of the program criteria. This research provided the Ministry of Environment with feedback from municipalities and to ascertain what process and level of support municipalities require from outside organizations in order to create a self-sustaining “Bear Smart” program. The investigation of the successes and challenges faced by the Ministry of Environment, municipal governments, and non-governmental stakeholders provided the opportunity to learn what initiatives and partnerships provided the best chance to successfully implement the program.

Through past and current public education initiatives, the British Columbia Conservation Foundation’s Bear Aware program, the Ministry of Environment’s “Bear Smart” program, and several non-governmental “Bear Smart” organizations have brought the topic of human-bear conflict to province-wide public and political recognition. Due to the recent interest by the Ministry of Environment to merge the “Bear Smart” program under the full administration of the British Columbia Conservation Foundation’s Bear Aware program, this proposed research project was timely.

Significance of the Opportunity

The significance of this opportunity was to explore effective ways to assist and encourage municipalities to adopt the practices involved with becoming a “Bear Smart” community. The purpose of this research was to explore human-wildlife conflict through the lens of natural resource conservation, with a specific focus on human-bear conflict reduction. It is hoped that this endeavour in turn will help to reach the Ministry of Environment’s primary goal of diminishing the rate and intensity of human-bear conflicts, thereby increasing public safety and reducing the unnecessary destruction of bears in the province. Alongside these goals, the opportunity exists to create “Bear Smart” communities within the province that set a provincial, national, and perhaps even a global precedent for sustainable community bear management.

Current research and evaluation of the Bear Aware and “Bear Smart” programs has been mainly quantitative. The Biodiversity Branch of the Ministry of Environment, for example, provides annual statistics based on how many people have been killed and injured by black bears and grizzly bears in the province, and the Conservation Officer Service provides annual statistics of call centre complaints, bears killed, and bears

relocated. The data gathered from this action research project provided information on how to more effectively deliver a “Bear Smart” program that defines the core values and benefits of proactively managing wildlife with regard to human safety and wildlife conservation.

My experience within the industry suggests that the approach of public and municipal education appears to be key to the success of the “Bear Smart” program. This research study collected information from municipal representatives with regard to their understanding and perception of human-bear conflicts and also their perceived role in and interpretation of the “Bear Smart” program. Within the research context of gaining an understanding about the human perception of bear conflicts, action research was utilized as a methodological approach, because it offered the opportunity to engage in systems thinking that “requires a breadth of pre-understanding of the corporate or organizational environment, the conditions of business or service delivery, the structure and dynamics of operating systems and the theoretical underpinnings of such systems” (Coghlan & Brannick, 2007, p. 12).

Historically, various management techniques included daring media coverage of dead bears to reach the hearts and values of the public. The outcome of this method of public education was the amplification of negative community press that could be seen as placing blame on municipal governments for the improper management of wildlife; it also created unconstructive viewpoints of wildlife management agencies in general. For example, feedback from municipal representatives concluded that local governments do not want to be recognized publicly as being solely responsible for the destruction of these animals. Also, the Conservation Officer Service has also expressed concern that negative

media messaging about human-bear conflict may adversely affect the opportunity to develop working partnerships with the municipality. At a pragmatic level, one of the purposes of this research project is to determine an effective approach for educating municipal council and staff so as to gain their support and willingness to implement a proactive “Bear Smart” program. If the current method of delivery of the “Bear Smart” program remains static, many communities may never receive support or sufficient information on how to implement proactive bear management strategies. This research project uncovered invaluable information to significantly increase the number of sustainable “Bear Smart” communities in the province by bringing to light “the importance of an integrated approach at all levels within government and within the programs that exist within government so that we can make more effective use of the resources that are out there” (L. Sundquist, personal communication, September 12, 2009).

Systems Analysis of the Opportunity

There are a number of external systems that influence how the “Bear Smart” Community Program is delivered and administered. Figure 1 identifies the impacts on the “Bear Smart” Community Program.

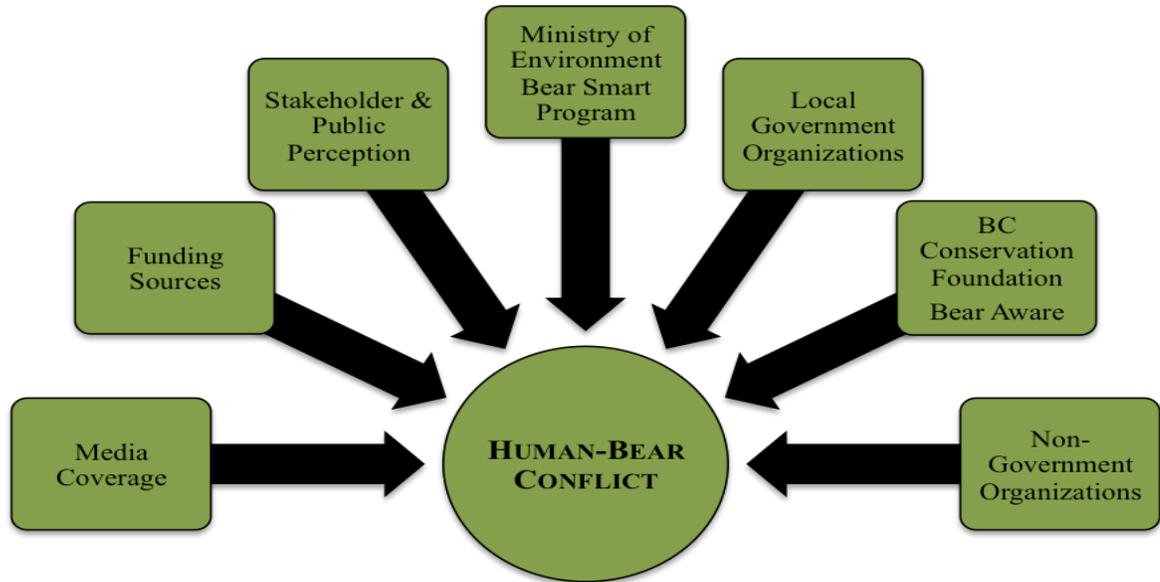


Figure 1. Impacts on reducing human-bear conflict.

The Wildlife Branch of the Ministry of Environment is described as the organization that is “spearheading the delivery of the ‘Bear Smart’ Community Program” (Davis et al., 2002, p. 2). The Ministry of Environment’s Conservation Officer Service Headquarters holds the coordinating and management role of researching funding, developing management strategies, ensuring consistency of program delivery, developing incentive programs, and evaluating community progress. At the community level, the Conservation Officer Service assists with developing bear stewardship committees, providing information and support to implement the “Bear Smart” criteria, and providing additional non-lethal bear management techniques to advanced communities. In addition, the Conservation Officer Service, the Ministry of Environment’s Environmental Protection Division, and the Ministry of Environment’s Stewardship Division collaborate to provide final approval for “Bear Smart” community status designation.

The British Columbia Conservation Foundation is a non-governmental organization that assists with the delivery of the “Bear Smart” Community Program within the auspices of its Bear Aware program. The British Columbia Conservation Foundation is a federally registered charity dedicated to the perpetuation and expansion of fish and wildlife populations through the efficient implementation of projects in the field. The foundation’s key operational role involves management of individual projects in accordance with the specifications provided by the Ministry of Environment.

The Bear Aware program (a strictly educational conflict reduction initiative) is one of the conservation projects operating under the administration of the foundation. The Ministry of Environment is the main financial contributor to the operations of the British Columbia Conservation Foundation’s Bear Aware program. The foundation currently employs one year-round Bear Aware Program Coordinator, who oversees the program provincially, and seasonal community Program Delivery Specialists (PDSs). The number of PDSs has varied from 21 to 7 depending on available funding. This variable staffing provides an inconsistent level of support to interested communities and may result in a community losing its “Bear Smart” specialists partway through its implementation of the program. This non-governmental organization has been attempting to implement the Ministry of Environment’s “Bear Smart” program since 2004 in conjunction with its own Bear Aware program.

Municipal governments play the role of adopting and implementing the requirements of the “Bear Smart” program into all related official documents, developing and maintaining a bear-resistant solid waste management system, ensuring “Bear Smart” planning and green space management, and overseeing a community-based ongoing

education program. The underlying factors and issues at play include political and commercial financial sensitivities with respect to the implementation of a bear-resistant solid waste management system, and community development and planning strategies that incorporate “Bear Smart” recommendations.

This research project also investigated the roles and direction of two non-governmental organizations that work with delivering the “Bear Smart” program locally and internationally through their Web sites. The underlying issue with these roles is whether these organizations are delivering the program according to the philosophy of the Ministry of Environment, including political neutrality and bear advocacy. These organizations have their own culture and organizational mandate, yet work in partnership with the Ministry to deliver the “Bear Smart” program. In the environment of the “Bear Smart” program, it may be imperative for all organizations to be on the same page with regard to the delivery method used. Kouzes and Posner (2007) stated: “We expect our leaders to have a sense of direction and a concern for the future of the organization” (p. 23). With that in mind, one of the goals of this study is to determine how the Ministry of Environment can effectively partner with external organizations to deliver the program consistently, thereby increasing municipal motivation and commitment to the program.

Organizational Context

In 2002, due to pressure from a shift in public attitude toward the destruction of wildlife and high bear management costs for the Conservation Officer Service, the Ministry of Environment hired professional biologists to write the “*Bear Smart*” *Community Program: Background Report* (Davis et al., 2002). This document provides proactive management strategies aimed at municipalities to reduce human-bear conflicts.

The “Bear Smart” program specifies six criteria: (a) development of a bear hazard assessment, (b) a conflict management plan, (c) “Bear Smart” bylaws, (d) an ongoing education program, (e) a bear-resistant solid waste management program, and (f) the addition of “Bear Smart” language in all related official community documents, including those for community development and planning. This system provides a holistic approach toward establishing a long-term sustainable municipal-based program but is dependent on dedication and commitment by the municipality to conserve bears and increase public safety, and also the partnership of the Conservation Officer Service and various other stakeholders. When the economic climate permits, the Ministry of Environment offers communities funding opportunities to facilitate the implementation of the required criteria.

The Conservation Officer Service has recently had a significant change in its executive and senior management. In personal conversation with a Sergeant from the Conservation Officer, I learned that both the Executive Director and the Chief Conservation Officer have been tasked by the Minister of Environment with creating an elite natural resource law enforcement agency in Canada. Both the Executive Director and the Chief Conservation Officer have publicly expanded on this concept to say that the Conservation Officer Service is both an elite natural resource law enforcement agency and the lead public safety agency specializing in human-wildlife conflict response and reduction in BC.

The Conservation Officer Service has 127 sworn members, as well as civilian support staff. In support of its stewardship mandate, the Conservation Officer Service partners with inter-ministry working groups and committees to provide enforceability

advice, and service staff also attend public meetings with staff from other divisions to deliver stewardship messages and programs such as the “Bear Smart” Community Program. This agency also represents ministry stewardship interests to people in communities across the province and delivers stewardship messages through contact with resource users, community events, trade shows, and media interaction. The Conservation Officer Service vision is to be a progressive and respected leader in environmental compliance and enforcement, shared stewardship, and public safety (British Columbia Ministry of Environment, n.d.).

Within the past 10 years, the Conservation Officer Service has engaged in a formal partnership with the British Columbia Conservation Foundation to help implement the “Bear Smart” program in the province. There are also a number of individuals and non-governmental organizations throughout the province that are engaged in implementing some or all components of the “Bear Smart” program with varying levels of cooperation from the Conservation Officer Service. These other organizations often have their own belief systems, which may or may not correspond with that of the managing agency. The Conservation Officer Service has little or no influence over these organizations and individuals.

The British Columbia Conservation Foundation’s Bear Aware program is one of the foundation’s many projects, and to assist in the delivery of an effective and defensible program, the foundation’s Board of Directors and program staff have established the BC Bear Aware Board of Directors. The mission of the Bear Aware program is to reduce the number of bear-human conflicts in communities through education, innovation, and cooperation. The Bear Aware campaign uses strategies such as door-to-door canvassing,

public presentations, and media relations to educate commercial and residential property owners on how to effectively manage bear attractants to prevent human-bear conflicts.

The ethical considerations of my role as the executive director of a non-profit society that also partners with the Ministry of Environment to deliver the “Bear Smart” Community Program in the province were that I be able to clearly demonstrate, define, and express when I was working in my role as a “Bear Smart” advocate, and when I switched to the role of researcher. Coghlan and Brannick (2007) warned:

A practical issue you [may] have to deal with is that you may be too close to the issues and the people in the organization and so you have to work more consciously and explicitly at the process of inquiry. (p. 67)

The systems analysis and review of the organizational context identified the impetus to explore effectively ways to deliver the “Bear Smart” program in the province. This research project examined the level of support municipalities require to successfully implement the program and in what capacity the Conservation Officer Service and non-governmental organizations play a role.

The next chapter provides interpretations of key concepts and related research from literature that pertain to the project’s focus. The concepts discussed in the following chapter include (1) partnerships between government and representative authorities, (2) forces that affect the formulation of policy on wildlife management, (3) the leader as designer and steward and, (4) human attitudes, values, and perceptions.

CHAPTER 2: LITERATURE REVIEW

This action research project gave the Ministry of Environment an opportunity to partner in the investigation of the successes and breakdown in processes of the “Bear Smart” Community Program, in the interest of finding effective ways of delivering the program. The spotlight of this research was to shine on the current organizational practices in place used to deliver this program and the current level of municipal receptivity and achievability of the program criteria.

This literature review provided an assessment of current academic discourse that can help to inform the Ministry of Environment of current ideologies and research and also provided a framework for the development of this major project. The information acquired from the research can facilitate the development of strategies to improve the current methods used to deliver the “Bear Smart” Community Program. Data obtained through the action research process of interviews and focus groups identified factors that can lead to an improved “Bear Smart” program and can be used by the Ministry of Environment to further enable inter-organizational partnerships necessary to more effectively deliver the program.

In relation to the effective delivery of the ‘Bear-Smart’ program, the literature review component of this research inquiry provided insights into the following four concepts areas:

1. Partnerships between government and representative authorities
2. Forces that affect the formulation of policy on wildlife management
3. The leader as designer and steward
4. Human attitudes, values, and perspectives.

Partnerships between Government and Representative Authorities

Human-bear conflict is a widespread problem in British Columbia as evidenced by the Conservation Officer Service problem wildlife internal records, placing emphasis on the governing agency and the local governments to develop effective wildlife management strategies and policies. The diverse viewpoints expressed by non-governmental organizations and community or regional interest groups adds to the complexity of developing these management strategies in many regions. Senge (2006) stated that “building relationships across boundaries between different types of organizations is becoming a key strategy for influencing large systems” (p. 310). I opened the scope of my research to examine some of the inter-organizational partnerships and practices in other provinces, states, and countries.

On its Web site, the Ontario Ministry of Natural Resources stated that in 2003, the Nuisance Bear Review Committee was established by the Minister of Natural Resources and charged with reviewing the nuisance bear issue in the province and preparing a report with recommendations (Ontario Ministry of Natural Resources, 2009). This review committee was faced with the challenge of compiling a report that accurately reflected the many forces affecting black bear management in Ontario, including harvest management, population management, population inventory, resolution of human-bear conflicts, and public attitudes and perceptions regarding the causes of nuisance activity (Nuisance Bear Review Committee, 2003). The information from this report was used to develop the “Framework for Enhanced Black Bear Management” in 2009, which outlines the province’s current approach to responsibly managing black bears (Ontario Ministry of Natural Resources, 2009). The Pennsylvania Game Commission (2001) also developed a

“Nuisance Black Bear Management Committee” to provide recommendations for the purpose of developing a similar approach to bear management for the state. In comparison, three biologists were hired by the Ministry of Environment to design the province of British Columbia’s “Bear Smart” Community Program (Davis et al., 2002). The “nuisance bear committees” were hired as researchers and advisors to the central government in Ontario and Pennsylvania, and their regular involvement as partners to the government body is unknown. In BC, the Ministry of Environment is responsible for the management of wildlife, with no formal advisory or review committee in place for the “Bear Smart” program itself.

Large carnivore management takes on a variety of forms and challenges in other countries, with many of them increasingly shifting various levels of responsibility from central government to local government or regional authorities. Forms of decentralization are being used to varying degrees in Norway, Finland, and Sweden. Decentralization occurs when the central government formally relinquishes power to actors or institutions at lower political or administrative levels, with the intent of increasing efficiency, and improving the equity, participation, and transparency of the government to the citizenry (Agrawal & Ribot, 1999; Pomeroy, 2003). The theoretical framework of decentralization developed by Agrawal and Ribot (1999) emphasized that by focusing on the combinations of actors, their powers and accountability to their governing bodies make it possible to identify the degree of decentralization and its effectiveness. Sandström, Pellikka, Ratamäki, and Sande (2009) studied the management regimes of large carnivores in Norway, Finland, and Sweden, and provided the following information to describe the common approaches being used in these countries. Regional Large

Carnivore Committees (RLCCs) are used in these countries as a valuable method for establishing partnerships between inter-governmental representatives and also in some cases with external stakeholders and interest groups. The level of power that the RLCCs have for the purpose of decision-making varies in each country.

At the regional level in Finland, the establishment of RLCCs came from people working in nongovernmental and governmental bodies who attempted to informally increase regional cooperation between parties with conflicting interests. The Ministry of Agriculture and Forestry is responsible for the organization of the establishment of game management plans, which include the official guidelines for Finland’s large carnivore policies. All national management plans for large carnivores encourage the development of RLCCs, stating that regional cooperation between parties with different interests should be increased, and discussion forums should be established in order to form a shared view of large carnivore management on a regional scale. Regardless of official support for the RLCCs in Finland, these committees do not have any power allocated to them by the central government. Their role is consultative with respect to the decision makers at national and regional levels (Sandström et al., 2009).

In Norway, the Ministry of Environment is responsible for wildlife management through legal, budgetary, and decision-making measures, and is also responsible for evaluating large carnivore policy. Before 2004, 17 regional advisory committees existed in Norway that mainly comprised representatives from interest groups and non-governmental organizations. The performance and suitability of these committees were trialed and reduced to eight RLCCs consisting of regional political actors instead of non-governmental organizations appointed by the Ministry of Environment. The main tasks of

these RLCCs in Norway are to adopt a management plan, reduce conflicts, and minimize harm within their region. If a RLCC has not followed national guidelines within its management plan, the national government may intervene and modify the plan. The powers for implementing the Norwegian large carnivore policy are dispersed between governing bodies at both national and regional levels. However, the RLCCs are all accountable to the Ministry of Environment (Sandström et al., 2009).

In Sweden, the “coherent large carnivore policy” was adopted in 2001. The purpose of the policy was to ensure the long-term survival of large predators and to reduce conflicts. RLCCs had been in existence on a voluntary basis in some parts of Sweden, although through the new policy, they were established in all counties where large carnivores were present. The Swedish Environmental Protection Agency has overall responsibility for implementing the large carnivore policy, although a number of tasks have been delegated to County Administrative Boards. Alongside establishing RLCCs, the country of Sweden established a National Large Carnivore Council in 2002, which is linked to the Environmental Protection Agency and made up of members from various organizations. The National Large Carnivore Council and the RLCCs in this country are invited to participate in the work of the council and committees. The RLCCs normally comprise 10-20 representatives and have a broad representation of interests, and according to the large carnivore policy, are an important tool for developing an open and transparent large carnivore policy and assisting the Environmental Protection Agency and the County Administrative Boards with contacts from the different interest groups and local people. The formal power to manage large carnivores is mainly divided between two actors. This decentralization process transferred authority from the Environmental

Protection Agency to lower-level bureaucracy units such as the County Administrative Boards, making them upwardly accountable. The National Large Carnivore Committee and the RLCCs are only advisory bodies; they formally have a limited degree of influence (Sandström & Lindwall, as cited in Sandström, Pellikka, Ratamäki, & Sande, 2009). These authors concluded by stating that decentralization is about finding an appropriate combination of central and local governance, and it is most effective when a strong state can provide enabling legislation. The results of this study show that these countries have not yet perfected these new management approaches owing to the obvious lack of formal downward accountability mechanisms.

Unlike the countries of Finland, Norway, and Sweden, the province of British Columbia does not have a “Continuous Improvement Team” or advisory committee that recommends improvements or enables regular monitoring of the progress and efficacy of their bear-conflict reduction program. Developing strong partnerships across government levels and extending out to external stakeholders and interest groups is an important component of the effective delivery of the “Bear Smart” Community Program. Trends such as “continued growth of people-wildlife problems ... [and] greater public expectations for solutions tailored for their communities” (Decker & Chase, 2001, p. 142) suggest further evolution of stakeholder involvement in wildlife management.

Forces That Affect the Formulation of Policy on Wildlife Management

In the peer-edited article by Peine (2001), four key forces that heavily influence and complicate the efforts to adopt and sustain implementation of effective community policy to mitigate human-bear conflict are brought to light. The four forces are first, the biophysical-behavioural force of bear population dynamics, reproductive ecology, and

habitat utilization; second, the social-structural forces of property rights or consumptive rights over wildlife (hunting) and the tendency of wildlife species to cross property boundary lines, particularly in community settings, resulting in a lack of incentive to exercise long-term stewardship responsibilities (Kellert, 1986); third, the valuational forces, including aesthetic, spiritual, ecological, ethical, and utilitarian values [that] are all represented among constituency groups when community policy concerning nuisance bears is debated and formulated” (Brown & Manfredi, 1987; Kellert, 1980); and fourth, the institutional-regulatory forces including the creation of effective law enforcement systems, stable financial basis for wildlife management, evolution of “public trust,” and a gradual shift of regulatory power from federal to state governments (Kellert & Clark, 1991). Considering the situation in Finland, Norway, and Sweden, the influencing forces identified by Kellert and Clark (1991), and the challenges posed in BC, the capacity to lead through partnership is a critical element.

The Leader as Designer and Steward

Expanding land uses, consumptive rights over wildlife (hunting), bear population dynamics, habitat utilization, and the diverse attitudes and values of constituency groups all influence the efforts of delivering and sustaining human-bear conflict reduction strategies (Kellert & Clark, 1991). These elements unveil the evident need for leaders to be not only designers of effective conflict management strategies and strong partnerships, but also stewards of wildlife and their habitats. Senge (2006) stated that stewardship is about serving a larger purpose, “a commitment that brings a shift from attachment to a personal ‘vision’ to becoming a steward of the vision” (p. 338).

The following narrative by Senge (2006) brings the importance of the leader as “designer” to light. The story begins by asking, “If people imagine their organization as an ocean liner and themselves as leaders, what is their role?” (p. 321). Most people answered that their role would be “the captain” or “the navigator, setting the direction,” or “the engineer down below stoking the fire,” or “the social director, making sure everybody’s enrolled, involved, and communicating” (p. 321), but the one role that eclipses all these important leadership roles is the designer of the ship. To connect the relevance of this story, the Ministry of Environment is the designer not only of the “Bear Smart” program plan, but also of a “living system” of relationships and partnerships that collectively work toward the large undertaking of reducing human-bear conflicts province-wide. It takes committed people, partnerships, and shared visions to bring this common goal to fruition. Kouzes and Posner (2007) addressed commitment by stating, “People commit to causes, not plans. They are committing to something much bigger, something much more compelling than goals and milestones on a piece of paper” (p. 122). Senge (2006) added that “a shared vision is not an idea. It is, rather, a force in people’s hearts, a force of impressive power. Few, if any, forces in human affairs are as powerful as shared vision” (p. 192). The Conservation Officer Service is the first responder to human-wildlife conflicts in the province, providing stewardship and public safety services in collaboration with communities (British Columbia Ministry of Environment, n.d.). This leadership role as stewards of wildlife plays an integral part in the development and effective delivery of the “Bear Smart” program. Senge (2006) stated that stewardship is about “doing what is right for the whole” (p. 338). The author confirmed that “the clarity and persuasiveness of their ideas, the depth of their

commitment, and the extent of their openness to continually learn more” (p. 339) distinguishes an outstanding leader as steward. “Truly effective leaders come to a shared appreciation of the power of holding a vision and concurrently looking deeply and honestly at current reality” (p. 340). This is the creative tension principle. Senge used the following examples to explain the principle:

Socrates felt it was necessary to create a tension in the mind, so that individuals could rise from the bondage of myths and half truths ... so must we ... create the kind of tension in society that will help men rise from the dark depths of prejudice and racism. While Dr. King is famous for his “dream” of equality, his leadership, like Gandhi’s before him, was grounded in helping people see current reality, “to dramatize the present situation” as he put it. He knew that the juxtaposition of the two, the dream and the present reality, was the real force for change. (p. 340)

Human Attitudes, Values, and Perceptions

Human-wildlife conflict in urban areas are linked to the increased availability of anthropogenic food attractants, which highlights the need to understand the basis for resident behaviour and perception in relation to human-bear conflict situations. The attitudes and perceptions of the wildlife management agencies and their individual officers also need to be taken into account, to gain the whole perspective of the personal dynamics involved with effectively delivering the “Bear Smart” program.

There is a growing diversity of opinion among urban residents about what constitutes an acceptable response to urban bear conflicts. Mitigation strategies that have traditionally involved lethal removal or attempts to alter the behaviour of conflict bears may be inappropriate or difficult to apply in certain urban situations (Conover, 2002). This can, in part, be due to the highly publicized nature of conflict incidents and the diversity of opinion among urban residents about what constitutes an acceptable response (Whittaker, Vaske, & Manfreda, 2006).

I decided to open up the scope of my research from human-bear conflicts to human-wildlife conflicts to see if I could identify a common thread of information that would assist in fine-tuning my knowledge of people’s perceptions of bears, to assist with the effective delivery of the “Bear Smart” program. Stakeholders provide a difficult task to wildlife managers owing to their often-divided attitudes. Fulton, Manfredo, and Lipscomb (1996) used the exploratory factor analysis (EFA) model of research to identify major issues involved in wildlife management decisions. They found there are two distinct wildlife value orientations. The “wildlife existence” orientation includes bequest and existence, recreational wildlife experience, wildlife education, and residential wildlife experience. The second orientation, labelled “wildlife rights and use,” includes the fishing and anti-fishing dimension, the hunting and anti-hunting value, wildlife rights, and wildlife use concept. There has been a change in attitude, as many studies are showing that a higher number of people are participating in non-consumptive wildlife recreation, as opposed to hunting and trapping. Management actions aimed at conflict bears include lethal and non-lethal controls that may be expensive to implement, result in negative public opinion, and have questionable efficacy.

Conover (2002) stated that attacks on humans by bears, cougars, wolves, alligators, and sharks have proliferated over the past few decades, driving many experts to conduct research on this phenomenon. Human population increase contributes to an ever-decreasing amount of wildlife areas, more people are recreating outdoors, raising the level of potential encounters, and predator populations are expanding. A century ago, people shot predators on sight, leaving the latter very wary of humans. These animals avoided areas of human habitation and fled as soon as a human was spotted. Many

predators have now learned that humans make useful neighbours, providing food usually in the form of handouts, garbage, and pet foods. Some predators have now moved into areas of human habitation in pursuit of deer and small mammals that have also made people’s backyards their home.

CHAPTER 3: CONDUCT OF ACTION RESEARCH PROJECT

Research Approach

This action research project addressed the question, “What are effective ways to deliver the ‘Bear Smart’ Community Program to British Columbia municipalities?” The sub-questions were: (a) What could the Ministry of Environment do to create long-term sustainable delivery of the “Bear Smart” program? (b) How are current stakeholders interpreting and implementing the “Bear Smart” program? (c) How can administrators of the “Bear Smart” program improve strategies related to the reduction of human-bear conflict? and (d) How do various stakeholders in these municipalities perceive human-bear conflict?

The primary purpose of this research is to hear the voices of the stakeholders and participants that work in the field of human-bear conflict management to enhance the ability of the Ministry of Environment to effectively deliver the “Bear Smart” program in the province. Included in this chapter are details of the action research approach, the participant selection process, the research methods and tools employed, how the research was conducted and data analyzed, and the ethical considerations encountered.

The Action Research Approach

Action research methodology is well suited to this research project due to its collaborative approach to inquiry and its emphasis on building on current successes and positive working relationships. Action research as a qualitative tradition of inquiry is focused on “understanding the ways that stakeholders – the different people concerned with the issue – perceive, interpret, and respond to events related to the issue investigated” (Stringer, 2007, p. 19). As defined by Stringer (2007), action research is “a

systematic approach to investigation that enables people to find effective solutions to problems they confront in their everyday lives” (p. 1).

The “Bear Smart” program was born out of a public shift in attitude towards the unnecessary destruction of bears in the urban and rural interface (Davis et al., 2002). By providing the Ministry of Environment and other participants the opportunity to participate in this action research project they have the opportunity to help generate solutions to create a more effective process for mitigating human-bear conflicts in the province. Determining common agreement and understanding of the objectives of the “Bear Smart” program is imperative, as noted in the following comment by the Regional Manager for the South Coast Region:

We are looking to have safe communities. We are looking to as much as possible reduce the impact upon the natural environment and wildlife within the natural environment. We want to make sure that the community itself understands what the issues are, that they aren't fearful or living in fear but that they have the information necessary to make informed decisions. (L. Sundquist, personal communication, September 12, 2009)

This study utilized the following action research methods: in-person, one-on-one interviews; focus groups, which are essentially face-to-face interviews in a group setting; and phone interviews. The data generated from the interviews provided an understanding of why certain components of the “Bear Smart” program are presenting challenges and, in some cases a break down in process and what needs to occur to achieve a more effective delivery of the program.

Project Participants

The invitation to participate in this project was selective and the key stakeholders invited were determined by the project sponsor and myself and are listed below. Palys and Atchison (2008) suggested participants should be invited “because of their relevance

to the phenomenon of interest to the researcher” (p. 161). Stringer (2007) stated that qualitative and action research studies use a process called purposeful sampling to consciously select people on the basis of a particular set of attributes. Seven one-one interviews were conducted for the purpose of this action research project. Two of these interviews included the Chief Conservation Officer and the South Coast Regional Operations Manager for the Conservation Officer Service. It was decided in discussion with the project sponsor, that these two participants would provide adequate information to represent the Conservation Officer Service for the purpose of this study. The Large Carnivore Specialist of the Environmental Stewardship Division of the Ministry of Environment was interviewed offering experience and scientific insight to the effective delivery and maintenance of the program. The Environmental Protection Division representative chosen by the project sponsor did not respond to the invitation due to being on annual leave.

The attributes of this sample group are the influence of continued development and delivery of the “Bear Smart” program. These participants fall into the dimension of homogeneity that Palys and Atchison (2008) described “as a similarity among all units or elements being studied” (p. 108). The Executive Director of the British Columbia Conservation Foundation declined the opportunity to be interviewed after review of the interview questions. Through personal communications by e-mail, this invitee expressed the inability to answer any of the questions regarding the “Bear Smart” program, adding that it would not be fair to the research project. A phone interview was subsequently conducted with the British Columbia Conservation Foundation’s Bear Aware Program

Coordinator representing one of the two non-governmental organizations targeted for this study.

Initially, I considered interviewing one representative from each non-governmental organization but upon discussion with my project sponsor it was decided that due to the disparate nature and provincial profile of the two non-governmental organizations chosen for study, a focus group interview would provide a better understanding of the North Shore Black Bear Society’s goals and objectives. Also, in conversation with the project sponsor it was decided to include a phone interview with the three authors of the *“Bear Smart” Community Program: Background Report* (Davis et al., 2002). The authors were hired by the Ministry of Environment in 2002 to develop a program that clearly outlines fundamental principles designed to guide stakeholders in the direction of establishing sustainable “Bear Smart” communities. It was decided that their contributions would be a major benefit to this project. This was completed in a phone conference format using a speakerphone for recording purposes.

Three focus group interviews were also conducted with municipal representatives of the District of Ucluelet and the City of Port Alberni. Both of these communities have been working to implement the “Bear Smart” program for several years and have experienced unique challenges and various levels of success. The District of Squamish was cordially invited but unable to convene due to staff annual summer leave. Only three participants were able to attend the District of Ucluelet focus group study on the arranged day of the interview; in attendance were the Chief Administration Officer, the Building/Bylaw Officer, and the Assistant Planner. Five municipal representatives of the

City of Port Alberni attended the focus group interview, including the City Clerk, the Bylaw Officer, the City Planner, and two Council members.

The municipal participants are heterogeneous in nature complementing the focus group interview with diverse expertise in solid waste management, development and planning, developing community of practice, and financial logistics. These participants were selected because they all directly affect or have an effect on the problem or issue of interest. All research participants received a personal invitation via telephone and a formal follow-up invitation via e-mail. Participants were provided the interview questions one week prior to their interviews and all participants returned completed informed consent forms to me for the purpose of this research process. The informed consent forms and all interview materials are kept in the security of a locked office cabinet and a password-protected computer. Respect for individual privacy and confidentiality is a main priority.

Research Methods and Tools

Research Tools

The action research methods used to collect data included one-on-one face-to-face interviews (see Appendix A), phone interviews (see Appendix B), and focus groups (see Appendix C). The one-on-one face-to-face interviews were conducted with the Ministry of Environment and the Conservation Officer Service participants, and the phone interviews were conducted with the British Columbia Conservation Foundation Program Coordinator and the authors of the “*Bear Smart*” *Community Program: Background Report* (Davis et al., 2002). This interviewing process offered the opportunity for

participants to describe to the interviewer situations in their own words and perspectives (Stringer, 2007).

The objective of this action research project was to collect information from the interviews and focus groups that uncover events and key experiences of the major stakeholders. As Stringer (2007) wrote, “by unpacking these events we can learn the features of that experience that make them so meaningful, and in the process we extend our understanding of the way the issues affect their lives” (p. 103). This in turn helps the learner-researcher to “clarify and understand the nature of the events and activities they are investigating” (Stringer, 2007, p. 95). Glesne (2006) confirmed that the purpose of the interviews is to “elicit data needed to gain understanding of the phenomenon in question and contribute different perspectives on the issue” (p. 36).

The research questions were mainly designed to explore how each participant believed they were contributing to the effective delivery of the program and reveal any successes, challenges and failures incurred by the current method of “Bear Smart” program delivery strategies. Analysis of the data revealed a much higher number of challenges were expressed than successes, with the challenges mainly honing in on funding constraints and lack of guidance on behalf of the governing agency. These are further discussed in the Study Findings section in chapter 4. Results of the literature review reveal that personal values heavily influence the development of strategies and policies involved with reducing human-bear conflict. Some of the interview questions invoked strong emotions that were mainly centered around ceaseless personal efforts to help the program succeed.

Palys and Atchison (2008) described the focus group as an opportunity to place opinions “‘on the table’ where differences between perspectives can be highlighted and negotiated” (p. 159). They continued: “It is also an opportunity to witness extensive interaction on a topic within a relatively limited timeframe” (p. 159). Three focus groups were conducted. Two focus groups included stakeholders from municipalities and one focus group was conducted with a non-governmental organization. Approaching both the individual interviews and the focus groups with several constructive appreciative questions increased the probability that the resulting data captured what people most cared about. Cooperrider, Stavros, and Whitney (2003) confirmed that the incorporated aspects of appreciative inquiry helped to determine what is already working. The first question posed to all participants was, “How does your leadership contribute to the effective delivery on the ‘Bear Smart’ program?” This question was productive in that it enabled participants to valiantly discuss their personal contributions and inject their beliefs on how the program should be operating. Watkins and Mohr (2001) discussed the principle of simultaneity:

As we seek to understand a situation by gathering data, the first question we ask is fateful. The organization will turn its energy in the direction of that first question. Careful, thoughtful, and informed choice of topic is important, as it defines the scope of the inquiry, providing the framework for subsequent interviews and data collection. (p. 61)

Reliability and Validity

Enthusiasm and interest in the subject of research may cause some researchers to overlook the rigorous and systematic processes that establish trustworthiness of the data collection and the data analyses processes (Stringer, 2007). Trustworthiness, veracity, and validity of the data utilized for this action research project was established by using the process of triangulation. A diverse range of participants provided multiple perspectives to

the problem under investigation and different methods were also used for gathering data such as one-one interviews, phone interviews and focus groups. The purpose for methods triangulation is not “the simple combination of different kinds of data, but the attempt to relate them so as to counteract the threats to validity identified in each” (Berg, 1995, p. 5). This research project also utilized “member checking,” which provided the participants the opportunity to review the data transcription derived from the interview process, to enable verification of their perspectives and experiences, and also to deal with emotions and feelings (Stringer, 2007).

Research Procedures

This research project engaged qualitative action research methods. The interview processes were very labour intense and required added expense and travel time to complete. All questions were reviewed by the project sponsor and developed with mindful intent to flesh out information resulting in solutions to the main research question. Each participant received an invitation letter that outlined the objective of the research and included all the formalities involved with participating in the research project. The participants also received a letter of informed consent alongside the interview questions one week in advance of the interviews.

Individual Interviews

I began the data collection process for this major project by conducting seven individual interviews. The Conservation Officer Service participants were interviewed first, followed by the Large Carnivore Specialist from the Ministry of Environment. The same interview questions were used for all the interviews and focus groups. The secure setting of the individual interviews provided a climate where participants were

comfortable disclosing their personal stories although the presence of the audio recorder appeared to cause the participants to be cautious of words and inflection. The project sponsor assisted with arranging the phone interview with the British Columbia Conservation Foundation participant, as there was some confusion in establishing the appropriate person to represent the organization for the purpose of this study. The phone interview with the authors of the *“Bear Smart” Community Program: Background Report* (Davis et al., 2002) was conducted by speakerphone in a private office at the warden’s station in Pacific Rim National Park Reserve. “The opportunity to learn about what you cannot see and to explore alternative explanations of what you do see is the special strength of interviewing in qualitative inquiry” (Glesne, 2006, p. 81).

Focus Group Interviews

The focus group interviews with the municipalities and non-governmental organizations were performed last as they were the most arduous to organize. The provocative open-ended questions enabled a flow of invaluable information on how the current delivery methods of the “Bear Smart” program have impacted the partnerships between these organizations and the governing agency of the program. The literature review identified that specific events can trigger an expression of personal values or valuational forces that can significantly influence change in policy and procedures (Kellert & Clark, 1991). Palys and Atchison (2008) stated: “The focus group setting places opinions on the table where differences between perspectives can be highlighted and negotiated” (p. 159).

In the focus group interviews, my role changed to become somewhat of a moderator, establishing ground rules, redirecting questions while maintaining a positive,

safe environment for dialogue. Glesne (2006) pointed out that discussion in focus group interviews “depends on interaction between the group, stimulated by the interview question(s)” (p. 103). Having in-depth knowledge of the “Bear Smart” program enabled me to provide clarity and prevent any confusion about the origin of the questions during the interviews. Palys and Atchison (2008) stated:

The interaction of interviewer and respondent offers benefits that can enhance the quality of the data gathered. The interviewer can ensure that the appropriate person completes the interview, can clarify immediately any confusion about particular questions and can encourage verbally stingy respondents to embellish further. (p. 157)

Palys and Atchison (2008) went on to articulate that “the rapport that’s built may have longer-term benefits for researchers engaging in longitudinal research, since respondents may be more willing to participate in panel studies involving repeated interviews” (p. 157). Numerous participants shared their personal appreciation for this research project by emphasizing the need for the Ministry of Environment to examine the current state and effectiveness of the program.

Data Analysis

There are many diverse approaches to analyzing qualitative data that result in concepts and ideas that enable stake-holding participants to understand more clearly the nature of what has been determined to be problematic. “Interpretation is a clarification of meaning. Understanding is the process of interpreting, knowing, and comprehending the meaning that is felt, intended, and expressed by another” (Denzin, 1989, p. 120). Stringer (2007) reminded researchers that the analysis should be appropriate to the problem at hand and that the major task is to identify the significant features that make up the experience and perception of the stakeholders involved. The researcher and those involved in data analysis must harness their own understandings, intuitions, or

interpretations and “focus on the meanings that are inherent in the world of the participants” (Stringer, 2007, p. 99).

Two major data analysis processes provided the means to distilling the data received. The first is a categorizing and coding and the second is selecting the key experiences. Both of these techniques were utilized. The procedures for categorizing and coding involved, reviewing the collected data, unitizing the data, categorizing and coding, identifying themes, organizing a category system, and developing a report framework. In additions the application of the *verbatim principle* was also used to outline the terms and concepts drawn from the words of the participant themselves. Stringer (2007) stated that by using this principle, researchers are “more likely to capture the meanings inherent in people’s experience” (p. 99).

The reason for analyzing key experiences is “to focus on events that seem to have a marked impact of the experience of major stake-holders (Stringer, 2007). Denzin (1989) talked of moments of crisis, or turning-point experiences that have a significant impact on people, resulting in the “light-bulb” or “aha” experience that provide people with greater clarity. The data analysis for this major project was based on the framework of reviewing the data, categorizing and color coding, and identifying the key experiences for each participant as outlined by Stringer (2007). Themes emerged when the lists were compared to identify experiences and features of experience that were common to the group of participants. Miles and Huberman (as cited in Stringer, 2007) described displaying data as “an organized assembly of information that permits conclusion drawing and action taking” (p. 103). This form of data interpretation was heavily used for this action research project. Glesne (2006) indicated that the “coding, categorizing, and

theme-searching process is not as mechanical as it may appear” (p. 154). This statement proved true; it took time to reveal new insights and new connections from what had been learned.

Ethical Issues

The Ministry of Environment will benefit from this research by potentially identifying a more fluent and effective system for the delivery of the “Bear Smart” program in the province. The guiding principles of the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada [Tri-Council], 1998), pursuant to Section B of the Royal Roads University (RRU) *Research Ethics Policy* (RRU, 2007), were used to frame the ethical consideration involved with this action research project.

In working with the general public, local and provincial politicians, and municipal staff, I have experienced a wide range of the human values system with respect to conserving wildlife that regularly pose ethical considerations. The ethical considerations surrounding wildlife conservation or preservation with respect to human safety and property damage are evident. Funding resources also poses ethical concern in wildlife conservation in that many hunting organizations fund wildlife conservation groups. Due to the political sensitivities around bear hunting and bear conflict reduction, this learner-researcher must be aware of research ethics.

Informed Consent

Glesne (2006) confirmed that informed consent is applicable when participants may be exposed to physical or emotional risk. The Tri-Council (1998) stated that consent

is not required from organizations such as corporations or governments for research about their institutions. However, individuals who are approached to participate in a research project about their organization have the right to give free and informed consent. For the purpose of this research project, all participants were informed regarding the views of the organization’s authorities, and of the possible consequences of participation.

The informed consent form included the following statement: by signing this form all focus group and interview participants will commit to a process that will stay confidential and anonymous. At the same time, focus group participants need to be aware that the researcher cannot guarantee the confidential and anonymous commitment by all. Information will be recorded in hand-written format and audio recording and, where appropriate, summarized in an anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individuals unless specific agreement has been obtained beforehand.

All documentation will be kept strictly confidential. Specific details of the processes that were used to secure informed consent and respect individual privacy and confidentiality were stated as following on the informed consent form: all documents and audio recordings collected will be stored on my password protected computer and hardcopies will be stored in a locked cabinet. All raw data and transcripts will be retained in a secure password-protected site, for a period of 6 months after the publication of the report. After this time, the data will be destroyed.

Respect for Human Dignity

The principle or respect for human dignity is relevant to protect the individual values of the people involved. The people that work or volunteer in the field of human-

bear conflict reduction all have unique personal values and respect for the lives of bears. Personal interest in the program can be driven by compassion and concern for the bears and human safety or simply to improve personal competencies in the work field. These principles need to remain holistic in their approach.

The Tri-Council (1998) stated that “respect for human dignity entails high ethical obligations toward vulnerable persons – to those whose diminished competence and/or decision making capacity making them vulnerable” (p. i.4). The charged emotions evoked by opposing beliefs and values regarding the management of conflict bears and the ongoing strife between interested parties created vulnerability during the interview process. Glesne (2006) demonstrated the importance of retaining privacy and respect by keeping focus of discussion on the general topic as opposed to particular individuals. The Tri-Council Policy (1998) stated:

The standards of privacy and confidentiality protect the access, control and dissemination of personal information. In doing so, such standards help to protect mental or psychological integrity. They are thus consonant with values underlying respect for privacy, confidentiality and anonymity. (p. 1.5)

The informed consent forms (see Appendixes D and E) were used to respect privacy, and all data were secured in locked storage.

Respect for Justice

The tenet of respect for justice and inclusiveness is very important for maintaining the quality of independent research protocols from a proactive standpoint. It maintains high quality of research and the ability to foresee any potential problems.

There shall be no segment of the population ... unfairly burdened with the harms of research. It thus imposes particular obligations toward individuals who are vulnerable and unable to protect their own interests to ensure that they are not exploited for the advancement of knowledge. (Tri-Council, 1998, p. i.6)

To ensure inclusiveness, all municipal staff and municipal council members were able to participate in my focus groups, and all staff and managers of the Conservation Officer Service and British Columbia Conservation Foundation had the opportunity to participate in the interviews.

Balancing Harms and Benefits

The Tri-Council (1998) stated: “The analysis, balance and distribution of harms and benefits are critical to the ethics of human research. Modern research ethics, for instance, require a favourable harms-benefits balance – that is, that the foreseeable harms should not outweigh benefits” (p. 16). This research is designed to facilitate ways to improve the effective delivery of the “Bear Smart” program and the data concluded pertinent information that can benefit the organizational efficacy for this purpose.

Minimizing Harm

With regard to minimizing harm, the Tri-Council (1998) stated: “This principle directly related to harms-benefits analysis is non-maleficence, or the duty to avoid, prevent or minimize harms to others” (p. 1.6). Coghlan and Brannick (2007) stated that action research can have political consequences and the authors discuss two ways that researchers can avoid doing harm. The authors suggested that “the establishment of an ethical code for action researchers, and the extent to which the collaboration and negotiation occurs so that the participants own the findings as much as the researcher” (p. 78). Walker and Haslett (2002) revealed that ethical questions can be posed around cyclical activities of planning, action, and reflection.

Maximizing Benefit

Another principle related to the harms and benefits of research is beneficence. The benefits of this research would potentially lead to increased public safety and reduce the amount of bears being unnecessarily destroyed. This research holds the potential to maximize the performance of the Ministry of Environment’s “Bear Smart” program to facilitate these positive end results.

CHAPTER 4: ACTION RESEARCH PROJECT RESULTS AND CONCLUSIONS

Study Findings

The purpose of this action research project is to address the question, “What are effective ways to deliver the ‘Bear Smart’ program to BC municipalities?” The interview questions were designed to determine (a) what the Ministry of Environment could do to create long-term sustainable delivery of the “Bear Smart” program, (b) how current stakeholders are interpreting and implementing the “Bear Smart” program established by the Ministry of Environment, (c) how administrators of the “Bear Smart” program can improve strategies related to the reduction of human-bear conflict, and (d) how various stakeholders in these municipalities perceive human-bear conflict.

Many individuals, non-government organizations, and municipal governments are working towards successful implementation of this provincially owned program. Various levels of achievement have been recognized across the province to date, as well as clearly identified challenges and break down in process. In light of this, the findings from this research project come at a critical time in the formative years of the program and can be viewed as an interim analysis to assist with continuous improvement.

This section identifies the major themes that emerged from the analysis of data collected. Each theme is examined in detail and supported with excerpts from the interviews and focus groups as well as relevant literature. When analyzing the data collected, while there were a number of patterns that emerged, the majority of these were captured in three major themes. These major themes are (a) the need for consistent and effective Conservation Officer Service Leadership, (b) the need for a unified approach to

delivery and implementation of the initiative, and (c) the need for a shared vision among stakeholders.

The Need for Consistent and Effective Conservation Officer Service Leadership

A number of respondents indicated a need for organizational and personal leadership at all levels of the Conservation Officer Service, from the chief to the community-based field officers. This theme speaks to the need for consistent, effective leadership and provides information to support two of the research questions: (a) What could the Ministry of Environment do to create long-term sustainable delivery of the “Bear Smart” program? and (b) How can administrators of the “Bear Smart” program improve strategies related to the reduction of human-bear conflicts? Their leadership or lack thereof was cited as a reason behind both the successes and the failures of the program.

Many stakeholders and a senior Conservation Officer Service leader identified lack of Conservation Officer Service leadership when asked the question: “What has been the top five successes, challenges and failures with preventing and mitigating human-bear conflicts in BC communities?” The following comments are from interview and focus group participants:

From my perspective, the province needs to provide the foundation for these communities to start giving the “Bear Smart” program. That’s where I think to me, things are falling down; you have everybody trying to reinvent the wheel, with and without expertise, and it’s a waste of energy.

I reviewed the [“Bear Smart”] assessment that was done with this fellow from the province. Seven months later, nothing! I gave him a call and said, How are we doing? The response was “I don’t know, it’s at the province.” I walked away from that thinking, “Okay, I guess I don’t need to worry about “Bear Smart” anymore; that program is done for me. I’ll move on. I’ve got other things too, I have tons of things to do.” I really don’t want to stick with that sentiment, because I know people in the community care about the program, and we certainly care about it within the organization, but with that kind of response from that guy, I don’t

know why I’m bothering. I certainly don’t have to bother on the provincial side anymore; that was certainly the answer. We are done with the province, whatever happens with this program.

The province does this a lot where they launch a program and they walk away, and they have no bite behind what they are asking you to do.

I am still at a loss to know who at the province has this program. What ministry has this program? What minister cares about this program, and what staff people are carrying this program?

Senior Conservation Officer Service leaders and Ministry of Wildlife Managers identified the need for Conservation Officer Service leadership in both the sustainable delivery and improvement of the program. When the question, “if you had complete control over your organization with the goal of reducing human-bear conflict, what would you do?” two Ministry of Environment interviewees commented:

It may not be official; he may not officially be on the committee [Community Bear Stewardship Committee], but from what I’ve been hearing and seeing for the last 4 weeks, I get the sense that the Conservation Officers, particularly in the smaller areas, they are the community partners just like the local police, the local paramedics, and the local firefighters.

If I was senior government, one of the things I would do would be to take back some of the control, not the delivery so much but the content and control of the staffing and resourcing for Bear Aware; I would bring that home. To my mind it is too arm’s length, and there are some consequences with the personalities that are engaged.

Another senior Conservation Officer leader made the following comment when asked the research question: if you had complete control over your organization with the end goal of reducing human-bear conflicts in mind, what would you do:

In a number of areas where we got started with the “Bear Smart” program, the Conservation Officer Service worked with community groups to provide support. We had to overcome the lack of trust before we could really move ahead and make the progress we needed to make.

These study findings identify that numerous stakeholders believe the Conservation Officer Service is not providing an adequate level of leadership with regard

to the effective delivery and implementation of the “Bear Smart” program. In analyzing the data from the Conservation Officer Service leaders, there is recognition that the service plays a large role in both initiating and supporting the effective delivery of the program. This information points to a disconnect between the Conservation Officer Service leadership and what is actually happening in the communities.

These study findings also identify that stakeholders believe the Conservation Officer Service should take back control and ownership of the program and be recognized as the leading agency in the province. The respondents revealed that the Conservation Officer Service is the appropriate agency for fostering and maintaining trust in the community with regard to managing and guiding the program. Additionally, these comments show that if trust is not maintained either implicitly or earned, it will not survive if there is evidence to the contrary.

The Need for a Unified Approach to Deliver and Implement the Initiative

Analysis of the data revealed that the lack of unified approach in the delivery and implementation of the “Bear Smart” program resulted in (a) confusion of shared responsibility, (b) misalignment of resources, (c) lack of clarity and direction, (d) disorganized program structure, and most importantly, (e) a lack of shared vision. Senge (2006) stated that when most people are asked what they do for a living, they describe the tasks they perform every day, not the *purpose* of the greater venture in which they take part. Senge continued: “When people focus only on their position, they have little sense of responsibility for the results produced when all positions interact. Moreover, when results are disappointing, it can be very difficult to know why” (p. 19). The required

“Bear Smart” management documents are a good example of where a lack of unified approach occurs within the program.

Respondents provided comment that in many cases these documents are unusable by the intended audiences namely; the municipal governments. The lack of a unified approach also showed as negatively affecting the quality of partnerships at all levels resulting in immobilization of the program in many cases. As evidenced by the comments below, numerous respondents felt a significant lack of interaction between key stakeholders before and during implementation of the program, which resulted in recommendations to make dramatic changes to the current delivery process. This theme connects to the research questions: (a) What could the Ministry of Environment do to create long-term sustainable delivery of the “Bear Smart” program? (b) How are current stakeholders interpreting and implementing the “Bear Smart” program established by the Ministry of Environment? and (c) How can administrators of the “Bear Smart” program improve strategies related to the reduction of human-bear conflict?

The comments collected from local government and non-government participants clearly identified inconsistency and tension within the current delivery system. When asked the following interview question: “What has been the top five successes, challenges, and failures with preventing and mitigating human-bear conflicts in BC communities?” Interview and focus group participants commented:

These documents, depending on who has written them, vary widely, and the kinds of recommendations they make vary widely depending on the personality of the author and their belief systems. There should be some review across the province when we are making these kinds of recommendations, and have some standards set to them.

One of the comments I have about the Bear Hazard Assessment and the Human-Bear Management Plan is that they are so long and so repetitive. It would be a

more useful document if it could be a condensed version, more of a reference guide without all that information.

Council received the management plan, but I don’t know if they went through it diligently. We don’t know, do we? That’s why we have to try and keep their feet in the fire to make them read it.

I don’t understand who is the board that evaluates the Bear Hazard Assessments and passes them, and who decides whether they are effective enough.

Local government respondents identified a lack of unified approach between the Ministry of Environment (Conservation Officer Service) and municipal government officials in the delivery and effective implementation of the program. In response to the same interview question raised above: two of the interviewees commented:

When you are dealing with local governments, a lot of programs are either with the Ministry of Community Services or the Union of British Columbia Municipalities, and those are two entities that are very good at communicating with local government. We talk all the time; a week doesn’t go by when we are not talking with somebody in those two spots. Maybe one of those guys should have this program as opposed to where it is. If it’s not something that is going to work through the Conservation Officer Service, then don’t put it there.

When the province has launched programs through the Union of British Columbia Municipalities, which is one of the ways the province launches programs, they go really, really well. They need to look at that process for more of what they do, instead of just being gone all of a sudden.

A senior Conservation Officer leader made the following comment that directly relates to the need for a unified approach between the provincial government (Conservation Officer Service) and the municipal government. The following response connects to the research questions of creating a long-term sustainable delivery program and improvement strategies to reduce human-bear conflict. When asked the interview question, “If you had complete control over your organization with the end goal of reducing human-bear conflicts in mind, what would you do?” one interviewee said:

I think we need to come to grips with the tension that exists between the provincial government level and the municipal government level around attractant

management and whose responsibility is it to manage. We need to come much closer to an alignment where it is recognized that this is an integrated approach at all levels within government and within the programs that exist within government, so that we can make more effective use of the resources that are out there.

One of the biologists responsible for the creation of the “Bear Smart” initiative provided the following comment that speaks to a lack of unified approach in implementing the program even within the Conservation Officer Service. For reasons not identified in the data Conservation Officers may be short circuiting transformational change to a “Bear Smart” community with their response to human-bear conflict. Officers remove one of the incentives for behavioural change by removing the conflict animals. The following comment was in response to the interview question: “What has been the top five successes, challenges, and failures with preventing and mitigating human-bear conflicts in BC communities?”:

The biggest challenge is that we are looking at a system that has been set up by the government of BC. From early on they have looked after bear problems, call them and the bear is gone. So now we are asking people to shift with that system still there. Making that transition is difficult. Finding a way to shift from the old, outdated system to a more forward thinking system will take some major thought.

The Conservation Officer Service’s willingness to allow the official “Bear Smart” to be used by non-government organizations with little or no screening has created confusion about ownership and title of the program in the province. The following stakeholders indicated a need for the Conservation Officer Service to adopt a unified approach in determining the most effective way to establish sustainable delivery of the program. The following comments also connect to the research question: “How are current stakeholders interpreting and implementing the ‘Bear Smart’ program established by the Ministry of Environment?”

This [similar names for different programs promoted by the same non-governmental organization] was creating some problems, because communities were getting confused between Bear Aware and “Bear Smart.” They didn’t understand what each program was. Was it one program or more than one program? So there was a labeling problem that this was creating. So, in 2006 there was a direct agreement with the Ministry that Bear Aware would encapsulate the “Bear Smart” program directly into the delivery of our program.

We need an effectively managed program where people work together and are not dictated to. Not, you are not getting a program, because I don’t like your attitude.

Bear Aware and “Bear Smart” initiatives were launched without a solid foundation. It always seems to me to be working from day one ad hoc; there is a disconnect between science and other professions as well as a disconnect in expert knowledge and opinions in the development of the program.

The above quotes identified concerns with the usability of the bear management documents, inconsistent communications with the Conservation Officer Service, and mixed messaging to both the public and municipalities from the Conservation Officer Service namely; promoting innovative proactive measures while still practicing reactive bear management focused on removing the conflict animals. These concerns demonstrate a lack of unified approach to implementing the program.

The Need for a Shared Vision among Stakeholders

The ardent and passionate responses received revealed that many stakeholders held personal values for the program and were motivated to reduce human-bear conflicts. As will, however, be seen below, the study findings showed that many participants had dissimilar vision on how this should happen. These diverse viewpoints between stakeholders have created a tension with regard to their roles and responsibilities and is an impediment to progress in many cases. One senior Conservation Officer commented on the importance of engaging communities in the decision-making process while other respondents felt their expertise was not welcomed into the development of the program. This theme connects to the research questions: (a) What could the Ministry of

Environment do to create long-term sustainable delivery of the “Bear Smart” program?
and (b) How are current stakeholders interpreting and implementing the “Bear Smart” program established by the Ministry of Environment?

In response to the interview question: “What has been the top five successes, challenges, and failures with preventing and mitigating human-bear conflicts in BC communities?” interviewees provided the following comments:

We have to identify what our common goal is in terms of objectives, and not drill down as much into the details of the “Bear Smart” program per se, but come to a common agreement and understanding of what the objectives are, what are we hoping to achieve. We are looking to have safe communities; we are looking to as much as possible reduce the impact upon the natural environment and wildlife within that natural environment. We want to make sure that the community itself understands what the issues are, that they aren’t fearful, but that they have the information necessary to make informed decisions.

If there are viable options available for non-lethal bear management on a case-specific basis, then I expect that to happen first. From a leadership perspective, that continuity of thought or that alignment of thought between my office and the field officers has to be really, really clear. From a leadership perspective, I will support whatever the field officers need to do, but I will ask questions if I don’t think it’s right, and that is leadership.

A number of participants described the inconsistent nature of the current program delivery methods being used in the province. While having the program operating independently in communities may be viewed as a success, the lack of common objective, program monitoring, and shared vision, as evidenced by the data collected in this study, risk the long-term sustainability of the program. Three other research participants provided the following comments:

The absolute bottom line in marching out to deliver this program is to make sure that the people that are going out there know what they are doing, and that they are well trained and they are not left to flail along and make it up as they go along, which is what I see is happening.

We have never, ever been consulted about anything. We have never been asked for advice and never been included in anything that ever happened.

The biggest success has been the local committee taking hold of that capacity in the community to facilitate the education and gathering up like-minded individuals to go at a really serious topic in town, and to have that collaborative relationship with the district, and also working with the private sector as well, to get over some of these challenges. That is the biggest success, because it definitely is less responsibility on the district to resource the staff.

These comments above show a lack of inclusion of some of the important stakeholders in the continued development of a shared vision, recognition by managers that shared vision is critical to success and acknowledgement that cooperative visionary approach is seen as successful within a municipality. These all point to the need for an inclusive ongoing development of a shared vision both locally and provincially. Senge (2006) stated:

Visions that are truly shared take time to emerge. They grow as a by-product of interactions of individual visions. Experience suggests that visions that are genuinely shared require ongoing conversation where individuals not only feel free to express their dreams but learn how to listen to each others’ dreams. Out of this listening, new insights into what is possible gradually emerge. (p. 202)

Study Conclusions

The combined findings of the individual interviews and focus group discussions have revealed information that enabled the researcher to arrive at the following conclusions. These conclusions are based in the collective opinions of the research participants and are grounded in evidenced-based literature.

The Need for Consistent and Effective Conservation Officer Service Leadership

The first conclusion is the need for consistent and effective leadership on behalf of the managing agency (Conservation Officer Service). The Conservation Officer Service are present within communities and seen as front line contact for the Ministry of Environment. Because they are the primary responding agency they are seen as experts and stewards in the field of wildlife management. The “Bear Smart” program is designed

to bring about change in how conflict bears are managed with the intended goal of shifting from reactive lethal management to proactive management. Senge (2006) advised that maintaining focus on what is being conserved while making change is important:

Leaders, individually and collectively, work to bring about a different order of things. Their focus is invariably on the new, on what is trying to emerge. I believe one of the reasons a deep sense of purpose is so important for leaders is that it also provides an anchor. While pursuing what is new and emergent, they are also stewards for something they intend to conserve. (p. 335)

Stakeholders want more guidance and direction from the lead agency to successfully implement the program and are willing to partner with the province to create an effective and sustainable human-bear conflict reduction program. The Conservation Officer Service public documents as well as the statements of senior Conservation Officer leaders provided in this research process show that they recognize their role as leaders yet this lead role is not always being translated to stakeholders in the communities.

This likely points to a disconnect within the Conservation Officer Service where community level field officers may be missing the necessary skills, direction, or resource allocation to fulfill their roles as leaders. The research findings do not conclusively identify where this disconnect exists between the stated role of the Conservation Officer Service and the actual engagement in that role.

The Need for a Unified Approach to Deliver and Implement the Initiative

The second conclusion is that stakeholders want consistent unified messaging, action and support from all other stakeholders. Stakeholders also recognize that a unified approach is critical to the success of the program. The current lack of unified approach has resulted in confusion with roles and responsibilities and may result in a lack of

motivation on the part of municipal governments. One of the components of the program likely impacted by a lack of unified approach was shown by the data to be the bear management documents. The required management documents are often inconsistent and confusing and there is no unified mechanism in place to evaluate or improve either the format or content requirements.

The Need for a Shared Vision among Stakeholders

The third conclusion is the need to for the Ministry of Environment to build a shared vision that unifies the program at all levels and sends a consistent and effective message to the general populace. Stakeholders showed that they want to be involved at all levels yet felt there was no proactive outreach, consistent direction or sense of enthusiasm from the leading agency. This research project is timely in that it has captured the weak links and inconsistencies that are surfacing since the program was initiated in 2002. The complexities involved with the implementation of the program require support and guidance from the Conservation Officer Service to successfully accomplish. Many of the stakeholders appear to be shifting from genuine commitment to the program to a reduced sense of compliance and mechanical application of the set standards risking long-term sustainability.

Vision, purpose, and core values are integral components of developing a shared vision, as described by Senge (2006). Vision frames the picture of what the future stakeholders seek to create, the purpose adds a distinctive source of value to the program, one that is translated at all levels, and the core values of integrity, equal opportunity, openness, and honesty need to be consistent with the mission along the path to achieving the vision.

Visions that are truly shared take time to emerge. They grow as by-products of interactions of individual visions. Experience suggests that visions that are genuinely shared require ongoing conversation where individuals not only feel free to express their dreams but learn how to listen to each others’ dreams. Out of this listening, new insights into what is possible gradually emerge. (Senge, 2006, p. 202)

Scope and Limitations of the Research

A number of limitations to the research are identified in this section. The methods used for data collection could have affected the validity of the findings and subsequently the conclusions.

Reliability of Interview and Focus Group Data

The interview process gave participants the opportunity to provide their opinions and perspective on the current delivery and implementation process of the “Bear Smart” program in the province. The data collected provided insight and information but does not produce quantifiable data. The reliability and validity of the data were addressed by utilizing multiple data sources (triangulation) and identifying key informants and collaborators (Palys & Atchison, 2008).

Validity of data was also facilitated through a process of member checks. Interview transcriptions were returned to the participants for personal validation of what was said and/or how it was interpreted captured their knowledge or opinion well. The people who were interviewed and focus group participants were people that demonstrated passion and motivation for reducing human-bear conflict in the province. The participants were from a diverse range of professions such as government and non-government positions and also local interest group volunteers. Although this group of participants provided a diverse range of input, there was lack of representation from the interior and northern regions of the province.

Learner-Researcher Bias

The interview and focus group questions were developed by the learner-researcher with assistance from leadership study peers and a variety of people working in the field of human-bear conflict reductions. Throughout the process of interview and focus group data collection and analyses, the learner-researcher remained conscious of personal bias due to personal interest in the subject matter. The initial draft of my findings and conclusion contained elements of subjectivity and was corrected by the project supervisor.

Regional Considerations of Data Collected

With the exception of interviews conducted with some provincial organizations, most focus groups, some interviews and anecdotal evidence were obtained only from the south coast region of BC only. This may not have provided a representative sample of bear-human conflict management in BC for the following reasons. The Conservation Officer Service throughout this region falls under the same manager and would receive somewhat consistent strategic direction on managing and mitigating conflict. This direction may not be consistent with the strategic direction provided to officers in the northern and interior regions of BC.

The south coast region has little or no conflict with grizzly bears in urban areas; nor has it had human fatalities attributed to bears in recent history. This likely influences public, local, and government perception of the risk associated with human-bear conflict. This perception is likely different in the northern and interior regions due to the presence of grizzly bears with their heightened aggression and multiple fatalities caused by bears every year.

As the research progressed it became obvious that some of the interview questions were not producing useable data and were not relevant to the research question. For example, “how do you perceive the term human-bear conflict?” The research question was very broad and requires strategies outside of the scope of leadership considerations for example funding needs and biological research. As a result I have only addressed the leadership strategies and competencies that would increase the effectiveness of the program. Finally much of the research on organizational leadership does not take into account the intricacies and vagaries of dealing with wild animals. Bears inject an unpredictable element into the practicalities and emotions of organizational leadership.

CHAPTER 5: RESEARCH IMPLICATIONS

Study Recommendations

This research project has identified that changes are needed for the Ministry of Environment to improve the effective delivery of the “Bear Smart” Community Program in the province. This chapter provides recommendations that will enhance the current program when adopted and implemented. The Conservation Officer Service has the ability to impact all areas and all levels of the “Bear Smart” program by guiding and encouraging the alignment of individual visions and organizational needs. This research revealed the details of the programs strengths, weaknesses, and opportunities, all of which have been discussed in previous sections. The concepts on which the program was founded are intrinsically sound and viable although; it is in their application that the challenges arose, resulting in weaknesses that currently undermine the program. These weaknesses can be solved once recognized and accepted by all stakeholders.

I have identified eight recommendations that I consider will best serve the Ministry of Environment in its efforts to improve the effectiveness of the “Bear Smart” Community Program and to reduce human-bear conflict across the province:

1. Develop a Continuous Improvement Team.
2. Improve the leadership role of the Conservation Officer Service to be consistent and effective.
3. Develop “Bear Smart” package templates for municipal governments.
4. Effectively Manage the “Bear Smart” Official Mark.
5. Provide “Bear Smart” training for the Conservation Officer Service.

6. Re-examine the efficacy of the required “Bear Smart” management documents.
7. Develop municipal incentive strategies.
8. Build relationships with community-based champions.

Recommendation One: Develop a Continuous Improvement Team

The first recommendation from the result of my research is the development of a Continuous Improvement Team (CIT). The purpose of this group is to continuously evaluate the implementation of the program on a provincial scale and identify successes and opportunities for improvement. The team could also evaluate effectiveness of the standards set for the six criteria aimed at municipal governments, namely (1) prepare a bear hazard assessment, (2) prepare a human-bear conflict management plan, (3) revise planning and decision-making documents, (4) implement an ongoing education program, (5) develop a bear-resistant municipal solid waste management system, and (6) implement “Bear Smart” bylaws. The CIT could also recommend improvements to those standards based on feedback from the communities and stakeholders, as well as new scientific and management information.

The group would review the field evaluation of an individual communities application for “Bear Smart” status and would act as a watchdog to ensure a consistent approach to addressing deficiencies in the community’s application and also to ensure a fair and transparent process of awarding status. This group would review funding applications and make recommendations to the ministry on funding allocation.

I recommend that the CIT act as a problem-solving body and strategic planning and review body, “to exponentially increase its effectiveness and credibility” (Anderson,

2006, p. 308). For the purpose of this report, I recommend the following professions be considered for the team: skilled bear biologists specializing in conflict behaviour; expert engineers in planning and project management in oil and gas, infrastructure, land development, and environmental projects; compliance and enforcement experts; municipal waste management experts; and social scientists with expertise in human behavioural education and modification. It must be recognized that there is dual benefit to the development of a CIT, as “the members engage in doing the work of solving internal organizational issues, leveraging unused opportunities, and building the organization they develop other leader-skills through the team experience” (Anderson, 2006, p. 305). The appointment of a professional facilitator/mediator will be required to ensure the effectiveness of the group and that any recommendation is both balanced and obtained by consensus.

Recommendation Two: Improve the Leadership Role of the Conservation Officer Service to Be Consistent and Effective

The second recommendation is for the Ministry of Environment to take the leadership role of one of the most important programs in the province that has the vision of being “a progressive and respected leader in environmental compliance and enforcement, shared stewardship and public safety” (British Columbia Ministry of Environment, n.d., p. 5).¹

Three sub-recommendations within this section pertain to the leadership role. First, the Conservation Officer Service could develop a promotion plan representing the “Bear Smart” program and deliver it to people in communities throughout the province to

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authenticate their commitment to promoting stewardship programs and messages through Conservation Officer Service activities. This initiative can be delivered via contact with resource users, community events, trade shows and media interaction as indicated in the *Conservation Officer Service: Program Plan* (British Columbia Ministry of Environment, n.d.).

Second, I recommend that the Conservation Officers hold the position of liaison for delivering “Bear Smart” information to inter-ministry working groups and committees and attend public meetings with staff from other divisions to deliver stewardship messages and program as indicated in their program plan.

Third, I recommend that the Ministry of Environment develop a “Communities Bear Conflict Reduction Charter” similar to the Climate Action Charter by the Ministry of Community and Rural Development and encourage participation in the charter by the municipalities in partnership with the Union of British Columbia Municipalities. This charter would serve as both a contract and a shared mission statement between the Ministry of Environment and the municipal government.

Recommendation Three: Develop “Bear Smart” Package Templates for Municipal Governments

It is recommended that the Ministry of Environment could develop a package of templates for bear hazard assessments, conflict management plans, official community plans, relevant bylaws and waste management contracts. These templates could both insure a standard application of the “Bear Smart” criteria and significantly reduce municipal cost and staff time to develop these documents. With specific emphasis on the solid waste management component, I recommend that the Ministry of Environment

could amend authorizations granted under the Environmental Management Act (2003) that govern the waste management regime for communities that have shown commitment to the program. This amendment could require “Bear Smart” waste management, removing the onus and conflict from the municipality when negotiating with waste management contractors. Also, the province could set peer-reviewed criteria for the construction and maintenance of bear-resistant residential and commercial waste containers to facilitate consistency with implementation of waste containment systems that are proven bear-resistant.

Recommendation Four: Effectively Manage the “Bear Smart” Official Mark

Many stakeholders see the Ministry of Environment and more specifically the Conservation Officer Service as having abdicated responsibility for implementing the program and providing ongoing support to interested municipalities. A number of non-government organizations have stepped into this vacuum and are providing guidance to communities with little or no oversight from the managing agency. This has resulted in inconsistent messaging and turf wars between non-government organizations and individual contractors for both funding resources, program ownership within the communities to the exclusion of others and information hoarding. Other jurisdictions within North America and possibly internationally are confused as to who is actually leading the “Bear Smart” program in British Columbia.

The Conservation Officer Service identifies itself as the lead public safety agency specializing in human-wildlife conflict reduction. Consequently, it needs to take a public and consistent leadership role. The “Bear Smart” name is protected as a “prohibited official mark” pursuant to Section 9(1)(n)(iii) of the *Trade-marks Act*. R.S., c. T-10, s. 1.

This protection legally prohibits the name from being adopted by any type of business as a trademark or otherwise. The province’s willingness to allow “Bear Smart” to be used by non-governmental organizations with little or no vetting leads to public and municipal confusion and often messaging that is inconsistent with that of the Conservation Officer Service.

I recommend that any non-government agency purporting to represent or implement the “Bear Smart” program should have a partnership with the Conservation Officer Service with a clear and formalized understanding of roles, responsibilities, and messaging. This is necessary to ensure that all agencies involved in the “Bear Smart” community have a *shared vision*, a common message, and a common goal. The Conservation Officer Service in consultation with stakeholders should set this shared vision, messaging and goal.

There currently exists confusion in the public and with stakeholders as to what the ministries conflict reduction program is called, who administers it and what its components are – i.e., “Bear Smart” versus Bear Aware. I recommend that the Ministry of Environment brings all of the programs and initiatives under one common name and maintains control over that name to ensure consistent messaging to the public and stakeholders. This could be one of the ways to reduce public confusion.

Recommendation Five: Provide “Bear Smart” Training for the Conservation Officer Service

Numerous municipal stakeholders identified the need for a higher level of involvement from the Conservation Officer Service during the implementation of the program. This lack of consistent involvement and commitment on behalf of the

governing agency has created tension between the two levels of government in many cases. I recommend the Conservation Officer Service provides consistent training, direction and mentoring to its officers to enable effective delivery of the “Bear Smart” program to stakeholder and municipal governments as an outreach conflict reduction strategy as indicated in their program plan.

Conservation Officers both geographically and morally are ideally situated within the community to build relationships with stakeholders and to build and facilitate the teams necessary to create program sustainability. This task is often left to the individual officer’s level of initiative, interest and ability. The community-level officer is the first point of contact for the Ministry and is the ground level leader for the Ministry; therefore, consistent direction, training, and support to involved officers and a meaningful allocation of staff resources to the program could be beneficial. Officers with demonstrated aptitude for these competencies could be assigned as community “Bear Smart” liaisons and trained and resourced appropriately.

Recommendation Six: Examine the Efficacy of the Required Bear Management

Documents

It became apparent during the course of researching this project that the criteria for the bear hazard assessments and conflict management plans as laid out in the “*Bear Smart*” *Community Program: Background Report* (Davis et al., 2002) were written by biologists for biologists and in most cases do not address the needs of the intended audiences – i.e., municipal governments. While they do contain the information necessary for local governments to reduce conflict they are unnecessarily complicated and contain considerable information of little or no relevance to that audience. This

complication and the high level of scientific detail create documents that are very difficult for city planners to glean the necessary information from.

I recommend that the Continual Improvement Team advise specific improvements with feedback from the municipalities and non-government organizations. It seems obvious that these documents must be made more user-friendly and accessible to municipal government audiences. This would likely have the added benefit of significantly reducing the cost of the documents as much of the data collection would no longer be required and the documents could be authored by people outside of the scientific experience who still have expertise in bear conflict behaviour and municipal governance.

One of the other evident truths is that these documents are much more usable if they are designed in full collaboration with the municipality, the Conservation Officer Service, and other stakeholders. This collaboration needs to be ongoing and meaningful throughout the development of the documents. This approach has the added benefit of increasing and maintaining municipal buy-in to the program.

Recommendation Seven: Develop Municipal Incentive Strategies

“Bear Smart” status can be a difficult and lengthy process to obtain. I recommend that there should be interim incentives to maintain municipal buy-in and progress. This should not be seen as attaining certain levels of “Bear Smart,” because this may encourage complacency or “plateau-ing” but rather as encouragement for forward progress. These incentives could include acknowledgement by provincial government in public forums such as media releases or Union of British Columbia Municipalities conferences ,and it could also include increased or modified Conservation Officer Service

response to conflict animals or increased funding allocations for ongoing “Bear Smart” initiatives, such as (a) educational materials, (b) bear-resistant waste containers, and (c) human-bear conflict monitoring systems within the community.

Once a community has attained “Bear Smart” status, the policy and procedure of the Conservation Officer Service pertaining to increased levels of service and non-lethal response should be implemented and the response plan outlined in the procedure could be developed with the community but not implemented prior to obtaining status. This would give the community full knowledge of one of the tangible rewards and increase buy-in.

The second recommendation in this section is that emphasis could be placed on a community’s global responsibility to affect environmental change at a local level. Public safety should also be emphasized but not limited to reducing the threat to human life. Conflict bears cause considerable damage to public and private property; they also create a feeling of insecurity in a community. Most communities do not tolerate human vandalism and mischief nor do they tolerate human behaviour that reduces the sense of security with their citizens. These communities work diligently to prevent these human misbehaviours without question. They could be encouraged to apply the same values and principles to proactively preventing bear misbehaviour. Local governments could be encouraged to be responsible for both their environmental footprint and the safety and security of their citizens.

Recommendation Eight: Build Relationships with Community-based Champions

Champions for reducing human-bear conflict often arise in communities as a result of a dramatic resolution to a human-bear conflict. These individuals or groups have potential and drive to affect change within their community and they must be nurtured

and supported by the Conservation Officer Service. Often these champions have an unrealistic and uninformed understanding of human-bear conflict. I recommend that the Conservation Officers could encourage these champions to increase their knowledge and skills in human-bear conflict and education, facilitation and community relations. Champions should not be confused with educators. Champions will require the ability to convince municipalities, cultivate stakeholders, and resolve conflicts, as well as provide education. If an interested person or party begins to work contrary to the shared vision of the Conservation Officer Service and its municipal and non-governmental partners, the Conservation Officer Service and municipal partners should not engage those parties in any way.

Organizational Implications

The goal of the project was to identify recommendations for a more effective way to deliver the “Bear Smart” program to BC municipalities. The proposed eight recommendations resulted from the synthesis of the findings of the literature review, the interview results, and the focus group results. These recommendations mainly reinforce many of the planned services already located within the *Conservation Officer Service: Program Plan* (British Columbia Ministry of Environment, n.d.) that are not being applied to the “Bear Smart” program, with a few exceptions. Implementation of the recommendation that have been suggested in this research project will require additional time, resources and commitment to the “Bear Smart” program. As an external researcher with no in-depth knowledge of the internal bureaucracy of the provincial government, I cannot accurately speak to the resourcing implications.

Implications of Developing a Continuous Improvement Team

The implications of developing a Continuous Improvement Team (CIT) will potentially engender several challenges. The first challenge would be the selection process of its members and what criterion would be used for the process. Anderson (2006) recommended that before this model is launched, due consideration be given to “ensuring that a competent organization-development professional or trained, experienced leader is given formal responsibility and authority to implement the model” (p. 297). If the province takes this avenue, there would be a financial cost implication for this service that would need to be considered. The second concern would be a consistent meeting place for the team, which would depend on the CIT members’ community of residence. This “Bear Smart” program is not a geographically static program, which may limit the frequency of meeting times and incur related travel costs. The concern for a consistent meeting place may be a significant factor in the decision-making process for the selection of its members. The other implication would be the decision-making process regarding the roles of the CIT with respect to their power to make decisions, power to implement and ensure compliance (Agrawal & Ribot, 1999), and planning for organizational strategy and change.

Implications of Improving the Leadership Role of the Conservation Officer Service to Be Consistent and Effective

The implication of this recommendation may be an increased demand on the Conservation Officer’s time dedicated to “Bear Smart” initiatives, which may potentially reduce time spent on duties and responsibilities elsewhere. The one thing that I learned working in partnership with the Conservation Officers in communities that are working

towards “Bear Smart” status is that Officers spend a significant amount of time reactively managing bears. The cost of shifting to a more proactive management regime should be weighed against the cost of reactive management to effectively determine the implications of staff time allocation. The leadership development component will be an ongoing long-term objective for the Conservation Officer Service.

Implications of Developing “Bear Smart” Package Templates for Municipalities

The Conservation Officer Service has the responsibility to demonstrate leadership in this recommendation. The developing of templates for the Bear Hazard Assessments, Conflict Management Plans, Official Community Plans, and other related bear management documents will require the assistance of the newly developed CIT, or if not in place, Conservation Officer Service staff time to resource relevant information for the purpose of assembling the templates and bear-resistant container standards. If these templates are developed in a peer-review format, there should be minor implications to diverse opinions.

Implications of Managing the “Bear Smart” Official Mark

The “Bear Smart” name is protected as a “prohibited official mark” pursuant to the *Trade-marks Act*. This enables the Ministry of Environment to set rules and regulations associated with the usage of the name with regard to consistency of messaging and promotional protocols. The implication associated with setting rules and regulations is the loss of partners that may not want to conform to the rules and regulations for ensuring alignment of programming.

Implications of Examining the Efficacy of the “Bear Smart” Management Documents

These documents were not intended to be constructed as research documents, with all due respect to the necessity of the science information. They are intended to create the potential for change on a local government level, and to date have not proven their effectiveness. The implication of this recommendation would be that biological contractors feel their livelihood is threatened and strongly oppose this recommendation based on their interest in the science component. It must be understood that the authors of these documents are not being scrutinized, but the effectiveness at the municipal level is being examined.

Implications for Future Research

Expanding the scope of the interviews and focus groups to include representation from the general populace would provide valuable data that could inform the Ministry of Environment’s future restructuring of the program. Analysis of this data will lead to more insights that would enhance understanding of whether the program has impacted change within the mindset of the people who are the target audience of the whole program. Obtaining this information could significantly help the Ministry of Environment examine the efficacy of the specific “Bear Smart” requirements set forth within the program, namely (a) “Bear Smart” public education, (b) municipal land-use management, and (c) municipal solid waste management policies and agreements.

Reaching individuals with diverse values for wildlife holds many challenges. The literature review brought to light the many elements that contribute to the complex subject of human-bear conflict reduction programs, namely (a) decentralization of decision-making within governments; (b) the social-structural element of rights and

privileges to use and control wildlife resources; (c) the human element of spiritual, ecological, ethical, and utilitarian values; and (d) the institutional-regulatory element of effective law enforcement systems (Kellert & Clark, 1991). A question that needs to be answered is, To what extent is the “Bear Smart” program creating the intended change at the level of the general populace? Future research would have to evaluate this phenomenon.

Should the recommendations of this research project be implemented, future research may see the need to conduct focus groups to examine the usefulness of the Continuous Improvement Team. Wheatley (1999) articulated that most organizations fear change. They use standard approaches to organizational change derived from engineered thinking such as reductionism to diagnose the problem in hopes of finding a simple, singular cause for the problems. Wheatley stated the first great gift is to “work with the *whole of a system*, even as we work with the individual parts or isolated problems” (p. 139). She went on to say:

Mostly we don’t take time to notice the dynamics that are moving in the whole system, creating effects everywhere. As good engineers, we’ve been trained to identify the problem part and replace it. But a systems sensibility quickly explains why this repair approach most often fails. Individual behaviours co-evolve as individuals interact with system dynamics. If we want to change individual or local behaviours, we have to inquire into individual behaviour to learn about the whole. (p. 142)

CHAPTER 6: LESSONS LEARNED

This action research project was a great experience for me and has certainly increased my personal competencies. Stringer (2007) stated that the primary purpose of action research is “to provide the means for people to engage in systematic inquiry and investigation to ‘design’ an appropriate way of accomplishing a desired goal and to evaluate its effectiveness” (p. 6). The stakeholders who were invited were very willing to participate, and many went out of their way to accommodate time and space for the interviews. They were genuinely appreciative of the opportunity to explore their experiences and understanding of the program and to be involved in the process of formulating ways to increase the effectiveness of the program. In the end, I am very proud of the work we have all contributed to the formation of this document.

Managing Political Relationships

Stringer (2007) described the importance of establishing “a stance that is perceived as legitimate and nonthreatening by all major stake holding groups” (p. 49). Having had the personal experience of working with the majority of stakeholders interviewed for the purpose of this project, I was cognizant of the positive and negative interpersonal relationships between them. There were detectable personality conflicts and a looming sense of competitiveness among some of the stakeholder groups, although keeping focus on the purpose of the research diffused these uncomfortable moments. I found it very difficult to be the researcher of this project owing to the individual relationships I had with some of the participants, and some of the critical comments and allegations people made against each other stretched my ethical concerns.

I took on the advice of keeping myself open to the process and focused on the practical issues that people were facing. As Killen and Murphy (2003) pointed out, “conflict exists because some core element of trust, beliefs, authority, or passion is being challenged” (p. 1). The research did uncover this to be true and provided me the opportunity to work hard at finding the one thread that could mend everyone together to create a shared vision. One of the most beneficial components of this leadership program was learning the Myer-Briggs Type Indicator. While it may take the rest of my life to pin down how to consistently and effectively use this tool, it was beneficial to recognize my own preference for the source of energy, taking in of information, decision-making, and lifestyle, making an invaluable contribution to my respecting each person involved with my major project for his or her beliefs and ideology.

Recognizing My Sponsor’s Contribution

My sponsor was very supportive both emotionally and intellectually, and was timely in providing the majority of information I needed to complete this project. The most beneficial character traits of my sponsor were his listening abilities and adeptness at seeing the positive side to most situations. He voluntarily sent me peer-reviewed literature that pertained to the subject and was a pleasure to work with throughout the project.

Allowing for the Needed Time

One of the most difficult aspects of this project was conjuring up the time to keep my research project on a steady course. The most time-consuming part was the data collection and interview transcriptions. I believed it was imperative to obtain a diverse

range of input from the stakeholders, so I completed five interviews and three focus groups, each lasting approximately 1.5 hours.

The province was unable to provide the staff resources to assist with transcribing the interviews, so I purchased MacSpeech Dictate, which at first seemed helpful, but in the end, the inaccuracy of voice recognition caused me to return to typing. The positive side to personally transcribing the interviews was the opportunity to hear the words over and over again, providing the chance to capture themes as they unfolded. I clearly did not have a good handle on time with regard to data collection and its related processes, which I will certainly be more emphatic about in future projects. I remember the leadership professors during residency adamantly postulating to be aware of the amount of time that it will take to unravel the interviews; consequently, I now have a newfound respect for their words of wisdom.

Concluding Remarks

Canada’s history would indicate that the original pioneers settling here were faced with large carnivores that generated enormous fear. The solution was to destroy the animal. This mindset forms the basis of the Conservation Officer Service’s historical response. Canada continued to attract more and more settlers, very few of whom had previous experience of co-existence with such large carnivores. Western culture through religion and agriculture promotes a mindset of dominion over animals both domestic and wild. This mindset continues to this day with even so-called defenders of wildlife seeing themselves as above the ecosystem, not part of it. Historically, this mindset has led humans to protect certain animals – i.e., livestock – and destroy those that threaten themselves or the protected animals. This behaviour is common with many animals as

well. This mindset followed the first European settlers to Canada and has persisted as part of the culture ever since. A cultural trend has been growing over the past 40 years for individuals to abdicate their personal responsibility for both the effects of their actions and the solutions to the problems caused by those actions. This cultural trend is prevalent throughout Western civilizations and has impacted on how individuals manage their own conflict with wildlife. Most people expect somebody else to solve their problems – in this case, conflict with bears.

Evidence shows that the “effects” are the obvious symptoms that indicate there is a problem, and that the “cause” is the underlying system that is most responsible for generating the symptoms, and which if recognized, could lead to changes, producing lasting improvement (Senge, 2006). The results of this study indicate that the absence of a “shared vision” is the “cause” responsible for generating the symptoms (human-bear conflicts). Millions of dollars and much time and effort have been expended in addressing the symptoms or “effects” of the problem, while simultaneously creating new forms of tension and disharmony within the management agencies. The “cause” of human-bear conflict is at the root of the human value system, with the effect or symptom becoming evident at the point of interaction between humans and bears (conflict).

Taking this analysis one step further, I would suggest that it is not enough to say that people care about bears, or that municipalities need to take on the responsibility. I would also suggest that representatives from within the provincial government harness the powers that are already there out in these communities and become leaders as stewards in the province. Egan (1985) most aptly stated some basics of a theory of transformative leadership by describing clearly what a Transformational Leader does:

Transformational Leaders are shapers of values, creator, interpreters of institutional purpose, exemplars, makers of meaning, pathfinders, and molders of organizational culture. They are persistent and consistent. Their vision is so compelling that they know what they want from every interaction. Their visions don't blind others, but empower them. Such leaders have a deep sense of the purpose for the system and a long-range strategic sense and these provide a sense of overall direction. They also know what kind of culture, in terms of beliefs, values, and norms, the system must develop [if] it is to achieve that purpose. By stimulating, modeling, advocating, innovating, and motivating, they mold this culture, to the degree that this is possible, to meet both internal and environmental needs. (p. 204)

This research study has shown that there is enormous willingness and commitment province-wide among the general population, municipalities, non-government organizations, professional bear managers, and Ministry of Environment and Conservation Officer Service personnel to address the issues identified. Pooling these combined powers can help to achieve the intended vision of effectively reducing human-bear conflict in the province.

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APPENDIX A: LETTER OF INVITATION – FACE-TO-FACE INTERVIEWS

Date:

Dear Prospective Participant:

This letter is to invite you to be part of a research project that I am conducting. This project is part of the requirement for a Master’s Degree in the Master of Arts in Leadership at Royal Roads University. My name is Crystal McMillan and my credentials with Royal Roads University can be established by calling Gerry Nixon at Royal Roads University. I am looking to conduct these interviews between June 1 – June 15, 2009.

The objective of my research project is to determine the most effective way to deliver the Bear Smart program to BC Municipalities in effort to reduce human-bear conflict within our province and to establish a global precedent in the field of human-bear conflict management. This project is being sponsored by Mike Badry, Wildlife Conflict Prevention Coordinator for the Ministry of Environment. I am looking for the Chief of the Conservation Officer, several COS Field Supervisors and Field Officers, select representatives of the Environmental Protection Division and Stewardship Division to participate in an interview process to discuss effective ways of delivering the Bear Smart program. Engaging a diverse combination of participants will enhance the results of the research; therefore, I will also interview specific representatives of the BC Conservation Foundation, two separate south coast non-profit organizations and conduct focus group interviews with three BC Municipalities.

This letter is to formally invite you and seek your acceptance to participate. Interviews will be held at a mutually agreeable time and will last approximately one to two hours in duration. The interviews will be a one-on-one face-to-face format and will be held at the location of your choice. Information will be recorded in a hand-written and audio-recorded format, and where appropriate summarized, in anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless your specific agreement has been obtained beforehand. All documentation will be kept strictly confidential. After data analysis I would like to return for a second consultation to verify your verbal contributions before proceeding to the next stage of research.

Your participation would be voluntary and you will have the right to withdraw at any time in the study by reporting to me. All interview materials will not be used should you choose to withdraw without prejudice. Your choice to participate will not affect any employment or advancement opportunities. If you choose not to participate in this research project this information will also be kept confidential. In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts in Leadership, I will also be sharing my research findings with the Ministry of Environment for planning purposes. A copy of the final report will be published. A copy will be housed at Royal Roads University, available online through UMI/Proquest and the

These Canada portal and will be publicly accessible. Access and distribution will be unrestricted.

I have been working in the field of human-bear conflict reduction for the past six years and will know some of the participants; however, there will be no conflict of interest as I will not be in a position where any of the participants are either reporting to me or able to influence my work in this field. As a researcher, I view my relationship with you as a research participant. It is my goal to foster an open, supportive, and trusting forum where all participants feel comfortable sharing their thoughts.

This is a unique opportunity for you to share your thoughts and needs with respect to effectively developing an effective Bear Smart program within the Province of BC. You have the potential to influence the future strategic direction for leadership development of this program for our province and become a model for other provinces and countries to follow. Your participation and support is very much appreciated!

If you would like to learn more about my research, please call me at XXX-XXX-XXXX or email XXXXXXXXXXXX. As well, if you have any concerns about the validity of this research, please contact Gerry Nixon, Director of the School of Leadership Studies at Royal Roads University at XXX-XXX-XXXX.

Thank you,

Crystal McMillan

APPENDIX B: LETTER OF INVITATION – FACE-TO-FACE PHONE INTERVIEWS

Date:

Dear Prospective Participant:

This letter is to invite you to be part of a research project that I am conducting. This project is part of the requirement for a Master’s Degree in the Master of Arts in Leadership at Royal Roads University. My name is Crystal McMillan and my credentials with Royal Roads University can be established by calling Gerry Nixon at Royal Roads University. I am looking to conduct these interviews between June 1 – June 15, 2009.

The objective of my research project is to determine the most effective way to deliver the Bear Smart program to BC Municipalities in effort to reduce human-bear conflict within our province and to establish a global precedent in the field of human-bear conflict management. This project is being sponsored by Mike Badry, Wildlife Conflict Prevention Coordinator for the Ministry of Environment. I am looking for the Chief of the Conservation Officer, several COS Field Supervisors and Field Officers, select representatives of the Environmental Protection Division and Stewardship Division to participate in an interview process to discuss effective ways of delivering the Bear Smart program. Engaging a diverse combination of participants will enhance the results of the research; therefore, I will also interview specific representatives of the BC Conservation Foundation, two separate south coast non-profit organizations and conduct focus group interviews with three BC Municipalities.

This letter is to formally invite you and seek your acceptance to participate. Interviews will be held at a mutually agreeable time and will last approximately one to two hours in duration. The interviews will be a one-on-one phone interview format. Information will be recorded in a hand-written and audio-recorded format, and where appropriate summarized, in anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless your specific agreement has been obtained beforehand. All documentation will be kept strictly confidential. After data analysis I would like to return for a second consultation to verify your verbal contributions before proceeding to the next stage of research.

Your participation would be voluntary and you will have the right to withdraw at any time in the study by reporting to me. All interview materials will not be used should you choose to withdraw without prejudice. Your choice to participate will not affect any employment or advancement opportunities. If you choose not to participate in this research project this information will also be kept confidential. In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts in Leadership, I will also be sharing my research findings with the Ministry of Environment for planning purposes. A copy of the final report will be published. A copy will be housed at Royal Roads University, available online through UMI/Proquest and the Theses Canada portal and will be publicly accessible. Access and distribution will be unrestricted.

I have been working in the field of human-bear conflict reduction for the past six years and will know some of the participants; however, there will be no conflict of interest as I will not be in a position where any of the participants are either reporting to me or able to influence my work in this field. As a researcher, I view my relationship with you as a research participant. It is my goal to foster an open, supportive, and trusting forum where all participants feel comfortable sharing their thoughts.

This is a unique opportunity for you to share your thoughts and needs with respect to effectively developing an effective Bear Smart program within the Province of BC. You have the potential to influence the future strategic direction for leadership development of this program for our province and become a model for other provinces and countries to follow. Your participation and support is very much appreciated!

If you would like to learn more about my research, please call me at XXX-XXX-XXXX or email XXXXXXXXXXX. As well, if you have any concerns about the validity of this research, please contact Gerry Nixon, Director of the School of Leadership Studies at Royal Roads University at XXX-XXX-XXXX.

Thank you,

Crystal McMillan

APPENDIX C: LETTER OF INVITATION – FOCUS GROUPS

Date:

Dear Prospective Participants:

This letter is to invite you to be part of a research project that I am conducting. This project is part of the requirement for a Master’s Degree in the Master of Arts in Leadership at Royal Roads University. My name is Crystal McMillan and my credentials with Royal Roads University can be established by calling Gerry Nixon at Royal Roads University. I am looking to conduct these interviews between June 1 – June 15, 2009.

The objective of my research project is to determine the most effective way to deliver the Bear Smart program to BC Municipalities in effort to reduce human-bear conflict within our province and to establish a global precedent in the field of human-bear conflict management. This project is being sponsored by Mike Badry, Wildlife Conflict Prevention Coordinator of the Ministry of Environment. Engaging a diverse combination of participants will enhance the results of the research; therefore, I would like to target staff and Council of select communities to participate.

The purpose of this letter is to formally invite you and seek your acceptance to participate. The focus groups will be held at the municipal office with lunch provided and will last approximately one to two hours in duration and consist of six to ten employees. Information will be recorded in a hand-written and audio-recorded format, and where appropriate summarized, in anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless your specific agreement has been obtained beforehand. All documentation will be kept strictly confidential. After data analysis I would like to return for a second consultation to verify your verbal contributions before proceeding to the next stage of research.

Your participation would be voluntary and you will have the right to withdraw at any time in the study. All interview materials will not be used should you choose to withdraw without prejudice. Your choice to participate will not affect any employment or advancement opportunities. If you choose not to participate in this research project this information will also be kept confidential. In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts in Leadership, I will also be sharing my research findings with the Ministry of Environment for planning purposes. A copy of the final report will be published. A copy will be housed at Royal Roads University, available online through UMI/Proquest and the Theses Canada portal and will be publicly accessible. Access and distribution will be unrestricted.

I have been working in the field of human-bear conflict reduction for the past six years and will know some of the participants; however, there will be no conflict of interest as I will not be in a position where any of the participants are either reporting to me or able to influence my work in this field. As a researcher, I view my relationship with you as a

research participant It is my goal to foster an open, supportive, and trusting forum where all participants feel comfortable sharing their thoughts.

This is a unique opportunity for you to share your thoughts and needs with respect to effectively developing an effective Bear Smart program within the Province of BC. You have the potential to influence the future strategic direction for leadership development of this program for our province and become a model for other provinces and countries to follow. Your participation and support is very much appreciated!

If you would like to learn more about my research, please call me at XXX-XXX-XXXX or email XXXXXXXXXXX. As well, if you have any concerns about the validity of this research, please contact Gerry Nixon, Director of the School of Leadership Studies at Royal Roads University at XXX-XXX-XXXX.

Thank you,

Crystal McMillan

APPENDIX D: PARTICIPANT CONSENT FORM – INTERVIEWS

My name is Crystal McMillan, and this research project is part of the requirement for the Master of Arts in Leadership program at Royal Roads University. My credentials with Royal Roads University can be established by telephoning Gerry Nixon, Director of the School of Leadership Studies at Royal Roads University at XXX-XXX-XXXX.

This document constitutes an agreement to participate in my research project, the objective of which is to find the most effective way to deliver the Bear Smart program to BC Municipalities. The research you will be participating in consists of a one-one face-to-face interview that will take approximately one to two hours of your time. The interview will focus on successes, challenges and partnerships involved with developing an effective Bear Smart program. The interview questions will be sent to you one week in advance of the actual sessions so that you have time to prepare, or if you wish, withdraw from participating. I will be working together with Mike Badry, Wildlife Conflict Prevention Coordinator for the Ministry of Environment whom is my sponsor for this project.

In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts in Leadership, I will also be sharing my research findings with the Ministry of Environment management team. By signing this form, all interview participants will commit to a process that will stay confidential and anonymous. At the same time, interview participants need to be aware that the researcher cannot guarantee the confidential and anonymous commitment by all. Information will be recorded in hand-written format and audio recording and, where appropriate, summarized in an anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential.

A copy of the final report will be published. A copy will be housed at Royal Roads University, available online and will be publicly accessible. Access and distribution will be unrestricted.

All documentation and audio recordings collected will be stored on my password protected computer and hardcopies will be stored in a locked cabinet. I will retain the raw data and transcripts for a period of six months after the publication of the report. After this time the data will be destroyed.

You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice by reporting to me. All interview materials will not be used should you choose to withdraw. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

I have worked in the field of human-bear conflict reduction for the past six years as an executive director of a non-profit organization and a supervisor with the Bear Aware program; however, there will be no conflict of interest as I will not be in a position where any of the participants are either reporting to me or working directly with me, or able to influence my work in this field. As a researcher, I view my relationship with you as a research participant as one of peers and colleagues. It is my goal to foster an open, supportive, and trusting forum where all participants feel comfortable sharing their thoughts. It is for these reasons that there will not be a conflict of interest in this project.

By signing this letter, you give free and informed consent to participate in this project.

Name: (Please Print): _____

Signed: _____

Date: _____

By signing on the following line, you give free and informed consent to be cited in the final major project report.

Name: (Please Print): _____

Signed: _____

Date: _____

APPENDIX E: PARTICIPANT CONSENT FORM – FOCUS GROUPS

My name is Crystal McMillan, and this research project is part of the requirement for the Master of Arts in Leadership program at Royal Roads University. My credentials with Royal Roads University can be established by telephoning Gerry Nixon, Director of the School of Leadership Studies at Royal Roads University at XXX-XXX-XXXX.

This document constitutes an agreement to participate in my research project, the objective of which is to find the most effective way to deliver the next stage of the Bear Smart program to BC Municipalities. The research you will be participating in consists of a focus group that will take approximately one to two hours of your time. The session will focus on successes, challenges and partnerships involved with developing an effective Bear Smart program. The focus group questions will be sent to you one week in advance of the actual sessions so that you have time to prepare, or if you wish, withdraw from participating. I will be working together with Mike Badry, Wildlife Conflict Prevention Coordinator for the Ministry of Environment whom is my sponsor for this project.

In addition to submitting my final report to Royal Roads University in partial fulfillment for a Master of Arts in Leadership, I will also be sharing my research findings with the Ministry of Environment management team. By signing this form, all focus group participants will commit to a process that will stay confidential and anonymous. At the same time, focus group participants need to be aware that the researcher cannot guarantee the confidential and anonymous commitment by all. Information will be recorded in hand-written format and audio recording and, where appropriate, summarized in an anonymous format, in the body of the final report. At no time will any specific comments be attributed to any individual unless specific agreement has been obtained beforehand. All documentation will be kept strictly confidential.

A copy of the final report will be published. A copy will be housed at Royal Roads University, available online and will be publicly accessible. Access and distribution will be unrestricted.

All documentation and audio recordings collected will be stored on my password protected computer and hardcopies will be stored in a locked cabinet. I will retain the raw data and transcripts for a period of six months after the publication of the report. After this time the data will be destroyed.

You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice. All interview materials will not be used should you choose to withdraw. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

I have worked in the field of human-bear conflict reduction for the past six years as an executive director of a non-profit organization and a supervisor with the Bear Aware

program; however, there will be no conflict of interest as I will not be in a position where any of the participants are either reporting to me or working directly with me, or able to influence my work in this field. As a researcher, I view my relationship with you as a research participant as one of peers and colleagues. It is my goal to foster an open, supportive, and trusting forum where all participants feel comfortable sharing their thoughts. It is for these reasons that there will not be a conflict of interest in this project.

By signing this letter, you give free and informed consent to participate in this project.

Name: (Please Print): _____

Signed: _____

Date: _____

By signing on the following line, you give free and informed consent to be cited in the final major project report.

Name: (Please Print): _____

Signed: _____

Date: _____

APPENDIX F: INTERVIEW QUESTIONS

To begin the one to two hour interview there will be an introduction, explanation of the purpose along with how the interview will be conducted. Below are the questions that may be asked during the interview:

1. How does your leadership contribute to the effective delivery of the Bear Smart program in the province?
2. What has been the top five successes, challenges and failures with preventing and mitigating human-bear conflicts in BC communities?
3. If you had complete control over your organization with the end goal of reducing human-bear conflicts in mind, what would you do?
4. What would be the most valuable partnerships in this process and what would you expect from them?
5. What does leadership mean to you?
6. How do you perceive the term human-bear conflict?

APPENDIX G: FOCUS GROUP QUESTIONS

To begin the one to two hour interview there will be an introduction, explanation of the purpose along with how the interview will be conducted. Below are the questions that may be asked during the interview:

1. How does your leadership contribute to an effective Bear Smart program within your community?
2. What has been the top five successes, challenges and failures with preventing and mitigating human-bear conflicts in your community?
3. If you had complete control over your organization with the end goal of reducing human-bear conflicts in mind, what would you do?
4. What would be the most valuable partnerships in this process and what would you expect from them?
5. What does leadership mean to you?
6. How do you perceive the term human-bear conflict?