IMPROVING WOLF MANAGEMENT PRACTICES ON RANCHLANDS IN SOUTHWESTERN ALBERTA: AN EVALUATION OF TWO COLLABORATIVE PROCESSES

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(c) William Michael Pym
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ABSTRACT

This report examines the decision processes of two collaborative local initiatives that focused on reducing wolf-livestock conflicts in southwestern Alberta. The objectives of the study are to (1) assess the strengths and weaknesses of each initiative, (2) determine if, and how, such initiatives can build trust among stakeholders, (3) determine if, and how, such initiatives can design and implement effective mechanisms to reduce on the ground conflicts between large carnivores and livestock, and, (4) identify challenges and successes in using the evaluative criteria. The evaluation shows that both collaborative processes succeeded in gathering useful information for decision making and one initiative succeeded in its promotion function. Weaknesses included poor goal definition, lack of clarity in process, unclear stakeholder responsibilities, lack of evaluation and termination policies, and poor external communication. Despite these weaknesses, the results indicate that trust can be built and wolf-livestock conflicts can be addressed through such collaborative initiatives.
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I would like to thank those people that were willing and interested in talking with me about ranching and wolf management in southwestern Alberta. I understand that students have been a common entity in the southern foothills and grazing lands over the years and that people’s time is a limited and precious commodity. I am grateful for all those that graciously invited me into their homes or onto their pastures and patiently answered my questions and talked about their experiences. I hope that my study will provide some insight to support and improve collaborative efforts in southwestern Alberta.

Lastly and most importantly, I would like to thank my family for their unwavering encouragement and support throughout my time at SFU; listening when it was needed, reviewing and editing my work when it was needed, and removing me from my academic world when it was needed.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPROVAL</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF ACRONYMS</td>
<td>ix</td>
</tr>
<tr>
<td>CHAPTER 1: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Study introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Problem introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.3 Efforts to address the problem</td>
<td>2</td>
</tr>
<tr>
<td>1.4 Purpose and objectives</td>
<td>3</td>
</tr>
<tr>
<td>1.5 Outline of research paper</td>
<td>3</td>
</tr>
<tr>
<td>CHAPTER 2: BACKGROUND</td>
<td>5</td>
</tr>
<tr>
<td>2.1 Chapter outline</td>
<td>5</td>
</tr>
<tr>
<td>2.2 An introduction to the problem</td>
<td>5</td>
</tr>
<tr>
<td>2.3 Case studies</td>
<td>12</td>
</tr>
<tr>
<td>2.3.1 Case study 1: Introduction to the CRWP/SACC collaboration</td>
<td>12</td>
</tr>
<tr>
<td>2.3.2 Case study 2: Introduction to OBCAG</td>
<td>14</td>
</tr>
<tr>
<td>2.4 Introduction to the policy/decision process</td>
<td>16</td>
</tr>
<tr>
<td>2.4.1 What are decision processes and why are they needed?</td>
<td>16</td>
</tr>
<tr>
<td>2.5 Collaboration in decision making</td>
<td>18</td>
</tr>
<tr>
<td>2.6 Conceptualized framework for the decision process</td>
<td>19</td>
</tr>
<tr>
<td>2.6.1 Problem Orientation</td>
<td>21</td>
</tr>
<tr>
<td>2.6.2 Social Process mapping</td>
<td>22</td>
</tr>
<tr>
<td>2.6.3 Decision Process mapping</td>
<td>23</td>
</tr>
<tr>
<td>2.6.4 Standpoint Clarification</td>
<td>25</td>
</tr>
<tr>
<td>2.7 Brunner's Tests of the Common Interest</td>
<td>26</td>
</tr>
<tr>
<td>CHAPTER 3: METHODOLOGY</td>
<td>28</td>
</tr>
<tr>
<td>3.1 Chapter outline</td>
<td>28</td>
</tr>
<tr>
<td>3.2 Literature review and background information</td>
<td>28</td>
</tr>
<tr>
<td>3.3 Key informant interviews and criteria</td>
<td>29</td>
</tr>
<tr>
<td>3.4 Interviewing key informants</td>
<td>31</td>
</tr>
<tr>
<td>3.5 Confidentiality and anonymity</td>
<td>32</td>
</tr>
<tr>
<td>3.6 Transcription of interviews</td>
<td>33</td>
</tr>
<tr>
<td>3.7 Analysis and evaluations of respondent responses</td>
<td>34</td>
</tr>
<tr>
<td>3.7.1 Evaluation of the Problem Definition</td>
<td>34</td>
</tr>
<tr>
<td>3.7.2 Evaluation of the Tests for the Common Interest and Decision Functions</td>
<td>34</td>
</tr>
<tr>
<td>CHAPTER 4: RESULTS</td>
<td>39</td>
</tr>
<tr>
<td>4.1 Introduction</td>
<td>39</td>
</tr>
<tr>
<td>4.2 Interview results</td>
<td>39</td>
</tr>
<tr>
<td>4.3 Respondent identifiers</td>
<td>40</td>
</tr>
<tr>
<td>4.4 Frame of reference</td>
<td>41</td>
</tr>
<tr>
<td>4.5 Case study 1: CRWP/SACC</td>
<td>42</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>4.5.1 Problem Orientation</td>
<td>42</td>
</tr>
<tr>
<td>4.5.2 Tests for the Common Interest</td>
<td>46</td>
</tr>
<tr>
<td>4.5.3 Decision Functions</td>
<td>49</td>
</tr>
<tr>
<td>4.5.3.1 Intelligence Function</td>
<td>50</td>
</tr>
<tr>
<td>4.5.3.2 Promotion Function</td>
<td>53</td>
</tr>
<tr>
<td>4.5.3.3 Prescription Function</td>
<td>56</td>
</tr>
<tr>
<td>4.5.3.4 Invocation Function</td>
<td>58</td>
</tr>
<tr>
<td>4.5.3.5 Application Function</td>
<td>60</td>
</tr>
<tr>
<td>4.5.3.6 Termination Function</td>
<td>61</td>
</tr>
<tr>
<td>4.5.3.7 Appraisal Function</td>
<td>62</td>
</tr>
<tr>
<td>4.5.3.8 Criteria for Overall Process</td>
<td>63</td>
</tr>
<tr>
<td>4.6 Case study 2: Oldman Basin Carnivore Advisory Group</td>
<td>65</td>
</tr>
<tr>
<td>4.6.1 Problem Orientation</td>
<td>65</td>
</tr>
<tr>
<td>4.6.2 Tests for the Common Interest</td>
<td>70</td>
</tr>
<tr>
<td>4.6.3 Decision Functions</td>
<td>75</td>
</tr>
<tr>
<td>4.6.3.1 Intelligence Function</td>
<td>76</td>
</tr>
<tr>
<td>4.6.3.2 Promotion Function</td>
<td>80</td>
</tr>
<tr>
<td>4.6.3.3 Prescription Function</td>
<td>84</td>
</tr>
<tr>
<td>4.6.3.4 Invocation Function</td>
<td>87</td>
</tr>
<tr>
<td>4.6.3.5 Application Function</td>
<td>90</td>
</tr>
<tr>
<td>4.6.3.6 Termination Function</td>
<td>92</td>
</tr>
<tr>
<td>4.6.3.7 Appraisal Function</td>
<td>94</td>
</tr>
<tr>
<td>4.6.3.8 Criteria for Overall Process</td>
<td>95</td>
</tr>
<tr>
<td>CHAPTER 5: DISCUSSION AND RECOMMENDATIONS</td>
<td>97</td>
</tr>
<tr>
<td>5.1 Chapter outline</td>
<td>97</td>
</tr>
<tr>
<td>5.2 Case study 1: CRWP/SACC</td>
<td>98</td>
</tr>
<tr>
<td>5.2.1 Problem Orientation</td>
<td>98</td>
</tr>
<tr>
<td>5.2.2 Tests for the Common Interest</td>
<td>101</td>
</tr>
<tr>
<td>5.2.3 Decision Process</td>
<td>102</td>
</tr>
<tr>
<td>5.2.4 Recommendations</td>
<td>106</td>
</tr>
<tr>
<td>5.3 Case study 2: OBCAG</td>
<td>111</td>
</tr>
<tr>
<td>5.3.1 Problem Orientation</td>
<td>112</td>
</tr>
<tr>
<td>5.3.2 Tests for the Common Interest</td>
<td>113</td>
</tr>
<tr>
<td>5.3.3 Decision Process</td>
<td>114</td>
</tr>
<tr>
<td>5.3.4 Recommendations</td>
<td>120</td>
</tr>
<tr>
<td>5.4 Comparing the CRWP/SACC with the OBCAG</td>
<td>129</td>
</tr>
<tr>
<td>5.5 Lessons for designing similar community-based collaborative initiatives</td>
<td>132</td>
</tr>
<tr>
<td>5.5.1 Lessons learned</td>
<td>132</td>
</tr>
<tr>
<td>5.5.2 Building trust among participants</td>
<td>135</td>
</tr>
<tr>
<td>5.5.3 Designing and implementing effective mechanisms</td>
<td>139</td>
</tr>
<tr>
<td>5.6 Benefits and limitations to the research methodology</td>
<td>140</td>
</tr>
<tr>
<td>5.6.1 Using the evaluative framework adapted from Lasswell (1971) and Brunner (2002)</td>
<td>140</td>
</tr>
<tr>
<td>5.6.1.1 Recommendations for further research using the evaluative framework</td>
<td>142</td>
</tr>
<tr>
<td>5.6.2 Conducting similar research in Southern Alberta</td>
<td>145</td>
</tr>
<tr>
<td>5.6.2.1 Recommendations for similar research</td>
<td>147</td>
</tr>
<tr>
<td>5.7 Concluding remarks</td>
<td>148</td>
</tr>
<tr>
<td>APPENDIX 1: COLLABORATIVE INITIATIVES FOCUS MANAGEMENT AREA</td>
<td>150</td>
</tr>
<tr>
<td>APPENDIX 2: CONTEXTUAL FRAMEWORK</td>
<td>151</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 3.1  Examples of how overall criteria ratings were generated from the cumulative individual ratings. .................................................................37
Table 3.2  Examples of how performance ratings were generated for the decision functions.................................................................................38
Table 4.1  Summary of the respondent reference groups interviewed for the CRWP/SACC and OBCAG case studies.................................................40
Table 4.2  Overview of the evaluation results for the CRWP/SACC decision process by criterion categories and decision functions..............................50
Table 4.3  Overview of the evaluation results for the OBCAG decision process by criterion categories and decision functions.......................................76
Table A.3.1 Evaluation results for Brunner’s Tests of the Common Interest for the CRWP/SACC decision process.........................................................161
Table A.3.2 Evaluation Results for Lasswell’s Decision Functions and Overall Process for the CRWP/SACC decision process........................................162
Table A.4.1 Evaluation results for Brunner’s Tests of the Common Interest for the OBCAG decision process.................................................................166
Table A.4.2 Evaluation Results for Lasswell’s Decision Functions and Overall Process for the OBCAG decision process...........................................167
## LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRWP</td>
<td>Central Rockies Wolf Project</td>
</tr>
<tr>
<td>OBCAG</td>
<td>Oldman Basin Carnivore Advisory Group</td>
</tr>
<tr>
<td>SACC</td>
<td>Southern Alberta Conservation Cooperative</td>
</tr>
<tr>
<td>SRD</td>
<td>Alberta Ministry of Sustainable Resource Development</td>
</tr>
</tbody>
</table>
CHAPTER 1: INTRODUCTION

1.1 Study introduction

This study uses the decision process framework and criteria developed by Harold Lasswell and his colleagues (Lasswell 1971; Lasswell and McDougal 1991; Brunner 2002; Clark 2002) to evaluate the decision making processes of two collaborative initiatives that were established to address large carnivore-livestock conflicts on public lands (leased by livestock producers) in southwestern Alberta.

1.2 Problem introduction

The ranching communities of southwest Alberta have been managing livestock for generations on the grasslands, foothills and lower slopes along the east side of the Rocky Mountains. These areas also provide habitat for a wide range of wildlife species including the gray wolf (*Canis lupus*). As the wolves’ habitat overlaps that used by livestock, wolves are known to occasionally supplement their diet of wild ungulates and other wild species with domesticated animals managed by the ranching community. These depredation events result in economic losses to ranchers not only from the animals that are killed, but also in lower body weights in those animals that are stressed or injured, and in the time and resources necessary to repair fence lines and other structures that are damaged from livestock attempting to get away from their predators (OBCAG 2004). As a consequence, wolves are killed by humans in order to remove the threat of depredation. Often, the wolf population recovers within a few years and the depredation and wolf removal cycle is repeated. This ongoing conflict between ranchers and wolves
has continued despite the development of the Alberta provincial wolf management plan in 1991 (AFWD 1991).

1.3 Efforts to address the problem

Members of the ranching community, government, conservation organizations, and wildlife specialists have attempted to address the problem of wolf-livestock conflict in southwestern Alberta in a variety of ways. Among other efforts, two community-based collaborative initiatives over the past decade focused on reducing conflicts between wolves and human activities on lands outside of protected areas. One of these initiatives was established in 1998 when the Central Rockies Wolf Project (CRWP) began working in this region with the Southern Alberta Conservation Cooperative (SACC) to improve understanding of wolf ecology, ranching practices and ranchers’ concerns, and to test alternative ranching practices and wolf deterrence techniques in order to reduce both depredations by wolves and killing of wolves. The collaboration lasted approximately five years and ended early in 2003. A second collaborative effort was initiated in 2003 when the Alberta government established a multi-stakeholder group known as the Oldman Basin Carnivore Advisory Group (OBCAG) (OBCAG 2004). Although this group was initially established to advise the government on all large carnivore related policies in the region, the group focused its efforts solely on wolves and livestock management (OBCAG 2004). The OBCAG met on an inconsistent basis from its inception in 2003 until the government biologist that was facilitating the group left in 2007. At the time of my research, the OBCAG had not formally disbanded, but had not met for more than a year. Both collaborative initiatives operated in the same general area in southwestern Alberta in the vicinity of the Oldman River. After the CRWP/SACC
collaboration ended one member of SACC continued with wolf research and was eventually contacted to participate on the OBCAG.

1.4 Purpose and objectives

The purpose of my study is to evaluate the strengths and weaknesses of the two aforementioned collaborative initiatives that attempted to address the challenges presented by ranching practices and the existence of large carnivores, specifically wolves, in southwestern Alberta. A recently published book on large carnivore conservation policy (Clark et al. 2005) calls for the evaluation of such small-scale collaborative efforts in order to learn from experience how to sustain large carnivores outside of protected areas. The specific objectives of my study are to:

1. apply Lasswell’s (1971) decision-function criteria and Brunner’s (2002) tests of the common interest to evaluate the two collaborative decision-making processes to determine what elements of the decision processes were functioning to promote or inhibit successful decision making;

2. identify the strengths and weaknesses of the two processes;

3. identify and disseminate lessons for the design of community-based collaborative initiatives for large carnivore conservation in other settings;

4. improve understanding about whether, and if so, how, local collaborative planning initiatives for large carnivore conservation can i) build trust among participants, and ii) design and implement effective mechanisms to reduce on-the-ground conflicts between large carnivores and human activities; and,

5. identify potential challenges and successes in using this evaluative framework for assessing community-based decision making processes.

1.5 Outline of research paper

In Chapter 2, I discuss the problem of wolves and livestock management in more detail and provide more information on the collaborative initiatives that are evaluated in
my study. The chapter continues with a review of literature about decision making processes including a description of the conceptual framework used in this research. In Chapter 3, I present my study methodology. In Chapter 4, I provide the results of my research for each case study. In Chapter 5, I discuss the results and present recommendations for these and other similar community-based collaborative processes. The chapter concludes with a discussion of the benefits and challenges of the research methods used to complete the two case studies, and recommendations for using these methods for similar evaluations.
CHAPTER 2: BACKGROUND

2.1 Chapter outline

The purpose of this chapter is to provide a brief summary of the conditions in southwestern Alberta that have contributed to increased conflicts between wolves and livestock in the last forty years, and to review the history of the two collaborative initiatives evaluated in my research. In the next section I discuss five key factors that have contributed to wolf-livestock conflicts in Alberta. The second section follows up with information on the two collaborative initiatives; the first initiative being the collaboration between CRWP and SACC, and the second initiative being the OBCAG. The third and fourth sections of the chapter present an introduction to decision-making processes and collaborative decision processes. The last section of the chapter provides information on the conceptual framework for decision processes and the tests for the common interest from which the questionnaire and evaluative criteria for this study were drawn.

2.2 An introduction to the problem

Livestock depredation by wolves, along with other large carnivores, is an ongoing concern and struggle for livestock producers in southwestern Alberta (DOW 2008; Gunson 1992). Wolf-livestock conflicts result in economic losses to livestock producers and subsequently in the killing of wolves (DOW 2008; AFWD 1991). Five key factors appear to have contributed to this ongoing conflict between ranching communities and wolves. These factors are: a long history in Alberta of managing wolves as pests; a shift in the last few decades in public perceptions of large carnivores and environmental
conservation; an increase in industrial development and recreation pressure; a challenging economic climate for ranchers; and a recovering wolf population south of the Alberta border. I discuss each of these factors briefly in the following paragraphs.

*A history of wolf management in Alberta*

The modern era of wolf management in Alberta was initiated by European settlers in the 1860's, who killed wolves to reduce competition with humans for the remaining bison and game animals (AFWD 1991). Depredation by wolves on livestock was recorded as early as the late 1870's in the foothills region of southwestern Alberta and by 1899 a wolf bounty was administered by the Western Stock Growers' Association (AFWD 1991; GoA 2002e). Since that time, wolf management in this region has continued to emphasize wolf control, focusing primarily on killing wolves to protect livestock, increase ungulate populations, and reduce the prevalence of disease (rabies) (Gunson 1992; GoA 2002e; Musiani and Paquet 2004). Control methods have included poisoning, trapping, snares, and shooting from the air or ground (GoA 2002e; Musiani and Paquet 2004; AWA 2008). Wolves have been nearly extirpated twice from the province, but their populations have managed to recover due to high reproductive rates and occasional relaxations of large scale wolf control (GoA 2002e; AWA 2007). Since the last province wide cull in the 1950's, the provincial government has attempted to address wolf–livestock conflicts through population studies, disease monitoring, instituting a compensation program for livestock losses, and population control through hunting, trapping, and area-specific removal programs (Gunson 1992; GoA 2002d; GoA 2002e; AWA 2007).
In 1991, the Alberta government prepared a wolf management plan that permits wolves to be killed to improve declining ungulate populations and to reduce livestock depredation (AFWD 1991). Furthermore, wolves can be killed by landowners if they are within eight kilometers of a residence, on grazing lands, or considered “problem animals” (AFWD 1991). The plan also permits the hunting of wolves without a permit nine months of the year (AFWD 1991). In contrast, the wolf management plan also discusses the importance of the wolf travel corridor along the eastern slopes of the Rocky Mountains and providing support to the recovering wolf population south of the Alberta border. The plan states a population target of 50 wolves in the Oldman Basin drainage area in southern Alberta; the general area in which CRWP/SACC and OBCAG operated.

Although the plan provides recommendations for reducing the predation of wolves on livestock and reducing or reversing ungulate population declines, such as alternative land management and livestock management practices, the province has relied and continues to rely largely on wolf removal as its primary management alternative (AFWD 1991; AWA March 2008; AWA June 2008). Despite being prepared nearly 20 years ago, this wolf management plan continues to provide management direction today.

*Shift in public perceptions*

Perceptions of wolves have been slowly improving in many sectors of the public in Canada and the US although distinct and opposing attitudes towards these carnivores still exist (Boitani 1995, 9; Gilbert 1995, 14; Minta et al. 1999; GoA 2002e; Musiani and Paquet 2004; AWA 2008). The Alberta provincial wolf management plan acknowledges this change in perceptions by drawing particular attention to a report from the 1907 wolf bounty program which includes statements such as “wolves and coyotes cause a loss to
settlers," "the best and most successful manner of capturing or destroying them will no
doubt prove of interest," and "poisoning is a very common, as well as successful, way of
destroying these pests" (AFWD 1991, 87-88). The shift in public perceptions can be seen
in: the establishment of conservation based organizations such as Defenders of Wildlife,
the Alberta Wilderness Association, and the Federation of Alberta Naturalists; the
establishment of many new protected areas; the enactment of legislation protecting the
environment and species such as the Endangered Species Act (16 U.S.C. § 1531 et seq.)
in the US and the Species At Risk Act (S.C. 2002, c. 29) in Canada; and the publication of
environmentally focused writing such as Silent Spring (Carson 1960), Never Cry Wolf
(Mowat 1965) and academic research studies (Boitani 1995; Clark et al. 1996; Primm and
Clark 1996; Musiani et al. 2003).

The perceptions of wolves are generally less positive amongst the populations of
the rural ranchlands of southwestern Alberta and in northwestern US where livestock
production is important economically and culturally (Musiani and Pacquet 2004; Musiani
et al. 2005). Wolves in these areas feed on all ungulate species including livestock and
therefore livestock producers experience economic losses as a result of wolf predation on
livestock (Musiani and Pacquet 2004; Musiani et al. 2005).

*Increase in development, resource extraction and recreation pressure*

The grasslands, foothills and eastern slopes of the Rocky Mountains in
southwestern Alberta are slowly losing their relatively pristine nature as industrial
exploration and operations (forestry, oil and gas, coal mining, and power production),
population growth and settlement, and recreational use continue to expand (AWA 2002;
As development and related infrastructure further expands into these areas, wildlife and livestock are forced to compete for habitat and survival in smaller and increasingly fragmented areas of land. A study completed by Silvatech Consulting Ltd. estimates that recreation, oil and gas development, human settlement, and transportation infrastructure will account for more than 86 percent of anticipated expansion in the Chief Mountain area of southwestern Alberta over the next 50 years (SCL 2008). The Chief Mountain area described in this study consists of Cardston County, the Municipal District of Pincher Creek, the Kainai and Piikani First Nations reserves and Waterton National Park and is located in the southern portion of the OBCAG management area (SCL 2008). The same study also estimates that livestock populations in this region are expected to grow over the next 50 years including 94,000 more cattle (SCL 2008). As human use of the habitat for wolves and livestock along the east side of the Rocky Mountains continues and increases, wolf-livestock interactions are also likely to increase (Wearmouth 2009).

**Challenging economic climate**

Challenging market conditions likely reduce the tolerance of ranchers for livestock losses to predators. Following the discovery of a cow with Bovine Spongiform Encephalopathy (BSE) in 2003, the United States, along with 33 other countries, immediately closed its borders to Canadian beef (Le Roy et al. 2006). Although the border was re-opened to some forms of beef products the following year, Canadian beef exports to the United States in 2008 remained below the level experienced prior to the first BSE discovery and subsequent export bans (USDA FAS 2008). Losses to the Canadian cattle industry related to BSE from 2003 to 2005 alone are estimated at just over four billion dollars (Le Roy et al. 2006). A report by the USDA in 2008 suggests
that weak market conditions are challenging the profitability of cattle farms and new costs associated with Canadian policies and regulations are adding to the difficult market conditions (Le Roy et al. 2006; USDA FAS 2008).

Wolf population recovery in the United States

Wolves have been legally protected in the United States since being listed under the federal Endangered Species Act as an endangered species in 1974 (USFWS 2009). Recovery efforts in 1995 and 1996 resulted in relocation of 66 wolves from Canada to wilderness areas in the western US to help the recovery of the once abundant species (GoA 2002; DoW 2008). The recovery efforts have been relatively successful and wolf numbers have climbed to approximately 1500 in the northwestern US with the majority spread over Idaho, Wyoming, Wisconsin, and Montana (DoW 2008; USFWS 2009). The increase in numbers of wolves just south of the Canadian border not only provides population support for wolves in Alberta, but may reduce the available territory for those wolves in Alberta that may also have otherwise migrated south (GoA 2002b). Therefore, the frequency of wolf-livestock conflicts in Alberta may eventually reflect this increase in wolf numbers in the US.

On April 2, 2009, the US federal government removed wolves from their federal protected status with the exception of the state of Wyoming as the US Fish and Wildlife Service considered that state’s laws and wolf management plan to be insufficient to sustain wolf populations (ENS 2009; Robbins 2009; USFWSb 2009). On August 5, 2010 the US federal government reinstated the endangered status of the grey wolf in Montana and Idaho (USFWS 2010). At this point in time, then, it is difficult to say how wolf populations south of the border will affect the livestock producers of southwestern
Alberta in the years to come. However, it is very unlikely that wolves will be extirpated from the northwestern U.S. as they have been in the past, and this relatively elevated population is likely to continue to influence wolf presence in Alberta’s ranchlands.

The status of wolves in Canada and in Alberta

The total number of grey wolves in Canada is estimated at between 50,000 and 60,000 animals, and they inhabit between 80 and 90 percent of their original range (AFWD 1991; IWC 2009b; EC 2010). The Committee on the Status of Endangered Wildlife in Canada last assessed the status of wolves in Alberta (northern grey wolf; *Canus lupus occidentalis*) and British Columbia (southern grey wolf; *Canus lupus nubilus*) in 1999 and determined both populations to be ‘Not at Risk’ (GoC 2009a; 2009b).

The population of wolves in Alberta is estimated to be approximately 4000 to 4200 and increasing, however the source for this estimate provides no support for these numbers, nor the increasing trend (IWC 2009b). The provincial wolf management plan prepared in 1991 states that wolves in Alberta occupied as much as 60 percent of the province at that time (AFWD 1991). More recent information on wolf populations was not available from the provincial government at the time of my research, however the 1991 plan estimates that the provincial wolf population at that time ranged from “a late-winter low of 3500 to an early-summer high of about 5500 following the birth of pups” (AFWD, pg xi; 1991), with an average annual midwinter population of 4200, based on studies conducted from 1975 to 1985 (GoA 2002b; Gunson 1992). The management plan also states that a population assessment of wolves was completed in 1982 in the area of the Oldman River in southwestern Alberta and the investigators concluded “the liberal
hunting and shooting regulations contributed significantly to the low population” (AFWD, pg 30; 1991).

2.3 Case studies

Over the past decade, two collaborative decision making initiatives in southwestern Alberta have devoted time and resources to work with the members of the ranching community, the provincial government, and Parks Canada, to conduct research to improve understanding of wolf ecology and wolf-livestock interactions, and to identify alternative management practices that may assist in reducing wolf-livestock conflicts. The first initiative began in 1998 with an informal research collaboration between the Central Rockies Wolf Project (CRWP) and the Southern Alberta Conservation Cooperative (SACC). The second initiative began in 2003 when the province’s Ministry of Sustainable Resource Development (SRD) formally established a multi-stakeholder advisory group to assist the province in wolf management decisions in southwestern Alberta. I describe each of the collaborative processes below in more detail.

2.3.1 Case study 1: Introduction to the CRWP/SACC collaboration

The first initiative was a collaborative venture between the CRWP and SACC that began in 1998 and ended in 2003. During their collaboration the members of CRWP and SACC devoted time and resources to gather information on wolf ecology and to work with members of the ranching community and government. Research activities included trapping and collaring wolves and conducting experiments to test alternative avoidance techniques aimed at deterring wolves and reducing wolf-livestock conflicts. I provide a brief description of each of the participating organizations below.
The CRWP was established in 1987 as a research division of the charitable organization called Wolf Awareness Incorporated (P&W 2008). The goals of Wolf Awareness Incorporated, and subsequently the CRWP, were: to establish a wolf conservation committee to support healthy wolf populations in the Rocky Mountain National Parks and in surrounding lands in BC and Alberta; to provide educational programs that promote an awareness of the need for wolf conservation; to provide people an opportunity to be involved in wolf recovery through a sponsorship program; and to work with the ranching community in southwestern Alberta to develop a wolf conservation strategy that is reflective of their cultural needs (P&W 2008). The Parks Canada website for Kootenay National Park states that “the CRWP worked with governments, communities and landowners to help resolve conflicts in land use that affects wolves” (PC 2009). The overarching goal of the CRWP was, as suggested by their title, to support a healthy population of wolves in the Central Rocky Mountains (P&W 2008; PC 2009).

SACC was formed in 1998 as an extension of CRWP to distinguish the research and communication efforts of the biologists working with the ranching community and provincial government staff from the ‘wolf-friendly’ reputation of the CRWP. The main goals identified by SACC were: to compile and synthesize information on ranching-large carnivore conflicts in Alberta, Montana, Wyoming, and Idaho; to improve understanding of land use by large carnivores in relation to domestic cattle; to work with ranchers to evaluate depredation avoidance techniques for reducing livestock-large carnivore conflicts; to evaluate and implement improvements in the livestock compensation program; and, to design and conduct programs to inform people about practical
approaches to conservation at the private-public land interface (Kaminski et al. 2003). The funding for the CRWP/SACC collaboration was administered through the CRWP organization. In research proposals SACC was identified as a subgroup of the CRWP, because of the charitable status of CRWP and Wolf Awareness Incorporated.

I refer to the collaboration between CRWP and SACC as the ‘CRWP/SACC’ process for the remainder of this report.

2.3.2 Case study 2: Introduction to OBCAG

The second initiative, known as the Oldman Basin Carnivore Advisory Group (OBCAG), was established in the summer of 2003 (OBCAG 2004) and met on an intermittent schedule until 2007. At the time of start of my research (fall 2008), OBCAG had not met for more than a year, but participants still expected the group to reconvene at some point in the future.

The OBCAG was “established by the Alberta Department of Sustainable Resource Development (SRD), to provide input and advice on the management of large carnivores in the Oldman Basin area” (OBCAG 2004). The Oldman Basin area is located in southwestern Alberta in the Oldman River watershed. The OBCAG management area is outlined in Appendix 1 and spans more than 9 provincial government wildlife management units (OBCAG 2005). The Year 2 Progress Report prepared by the OBCAG states the boundaries of the OBCAG focus area are defined by the international border between Montana and Alberta to the south, the provincial border shared with British Columbia to the west, Highway 2 to the east and the Highwood River and Pekisko drainages to the north.
In 1998 a draft document titled *Oldman Basin Wolf Strategy* was written by the area biologist at the time, Richard Quinlan, and this strategy identified the need for the “implementation of a multi-stakeholder advisory group endorsed by the Minister to review wolf management in the area” (OBCAG 2004). Despite the recommendation in the 1998 draft strategy, the push to form the group did not come until 2003 following a three year period of ‘significant’ livestock depredation and a broad concern over the use of poisons as a wolf control strategy (OBCAG 2004).

The OBCAG Terms of Reference states the group has the following general roles: to promote cooperation in large carnivore management and conservation; to provide a means for effective local representation and participation; to identify potential carnivore management principles, goals and actions; to develop and manage a model work plan for the achievement of carnivore management goals (including budgeting and funding support development); and to report to and provide recommendations to the SRD, towards creating a local carnivore management framework (OBCAG 2004). The OBCAG is made up of stakeholders representing conservation groups such as Defenders of Wildlife and the Federation of Alberta Naturalists; representatives of the beef industry including livestock producers (ranchers) and the Alberta Beef producers; the Alberta Trapper’s Association; wildlife biologists; municipalities represented by the Municipal District of Ranchlands (No. 66); and the SRD (OBCAG 2004). The advisory group’s decision-making authority is limited to the advice and recommendations they provide to the SRD and the process that leads up to those decisions (OBCAG 2004; OBCAG 2005). The group does not have the authority to make and implement policy decisions on behalf of the SRD (OBCAG 2004; OBCAG 2005). Resources were provided by the provincial
government and stakeholder groups in the form of time dedicated by group members and funding provided by the government, the Defenders of Wildlife Canada, and the Alberta Beef Producers (OBCAG 2004).

The group suffered a setback in 2007 when the provincial area biologist and OBCAG facilitator left her position for employment outside of Alberta. Although someone filled her position as the provincial area biologist, the role of OBCAG facilitator was not been taken up and at the time of my research the group had not reconvened. As of January 2009 the group had not convened in more than 18 months; however it had not been formally disbanded and the provincial government was still acting on approved strategies recommended by the group.

2.4 Introduction to the policy/decision process

My research focuses on evaluating the decision processes of the two collaborative initiatives described above. In order to conduct this type of research it is necessary to understand the processes that people or groups go through when they make decisions. It is also necessary to understand how to evaluate such processes.

2.4.1 What are decision processes and why are they needed?

As conceived of by Harold Lasswell and other policy scientists, a decision process is the cumulative interaction between groups or individuals who are attempting to make choices, typically to resolve conflicts or perceived problems (Clark 2002). Through these processes, operating under the rules and norms of various institutions, people attempt to solve problems in order to make themselves better off than they were before (Clark 2002). The maximization postulate as presented by Lasswell (1971, 16) states that
“living forms are predisposed to complete acts in ways that are perceived to leave the actor better off than if he had completed them differently.”

In the management of natural resources the problems people face are particularly challenging as another set of variables that need to be considered is introduced in the form of the physical environment in which people interact (Clark 2002; Mitchell 2002). The complexity of many natural resource management problems has led some people to refer to them as ‘wicked’ or ‘messy’ (Mitchell 2002). Resource managers face the daunting task of addressing both technical and human challenges (Clark 2002). Technical or scientific information is often incomplete and the scope of the policy issue frequently involves various (and changing) landscapes, land uses and wildlife habitats which interrelate to confound the policy problem (Clark 2002; Mitchell 2002). The uncertainty that faces managers challenges their ability to make effective decisions.

The human dimension is often the most overlooked component of natural resource decision making (Clark 2002). To maximize their well being people manipulate their environments and they cooperate with and manipulate other people to achieve various goals based on their expectations and values (Clark et al. 2000). Because stakeholders come from unique backgrounds and can have different sets of values and perspectives, the solutions they prefer can differ from those of other stakeholders and can differ from those that are in the best interest of society (Clark 2002). Strategies (solutions) can fail to achieve the desired goals when these social differences are not considered or incorporated into decision making (Frame et al. 2004; Gunton and Day 2006; Davis 2008). Before sound decisions can be made, all relevant components of resource problems need to be identified and understood, all social parameters need to be acknowledged and addressed,
and resource managers and stakeholders need to understand and consider the various facets of the decision process framework (Lasswell 1971; Clark 2002).

2.5 Collaboration in decision making

Collaboration simply refers to the cooperation among various entities working towards a common end. Applying this to decision making infers that there is some level of cooperation involved in making decisions. Collaboration comes in many forms as decision processes differ in people, place, problems and purpose (Gunton and Day 2006). Processes can either be initiated locally through community-based, grass roots efforts (Wondolleck and Yaffee 2001) or they can be initiated by government agencies employing varying levels of stakeholder participation and responsibility. Arnstein (1969) recognizes eight levels of stakeholder participation that range from what she calls manipulation (non participation) to citizen control (highest degree of citizen power). She equates the eight levels to rungs of a ladder with the manipulation level of citizen participation at the lowest rung and citizen control signifying the top rung. The first two rungs of the ladder are equivalent to non-participation (manipulation and therapy), the middle three are considered tokenism (informing, consultation and placation) while the top three equate to varying degrees of citizen power (partnership, delegated power, and citizen power) (Arnstein 1969). Brown (1996) also discusses a ‘spectrum’ or ‘continuum’ of public participation in consensus based land use planning and identifies eight levels of participation. These eight levels of participation (inform, educate, gather information, consult on reactions, define issues, test ideas, seek consensus, delegate) range from ‘informing’ to ‘consulting’ to ‘negotiating’ with expectations, commitment
and influence from stakeholders increasing from the informing level of participation to the delegating level of participation.

Collaborative stakeholder processes have grown in popularity and in use (Beierle 2002; Innes et al. 2007) as a means to address the 'wicked' resource management problems mentioned previously. Evaluative studies of the processes and outcomes of collaborative stakeholder processes have identified the following potential benefits and limitations. Potential benefits of collaborative processes include: more effective solutions and implementation as a result of greater community inclusion (Innes and Booher 1999; Coffey 2005; Gunton and Day 2006; Davis 2008); improved relationships (social capital) (Gunton and Day 2006); and creation of new, innovative, ideas or solutions (Davis 2008). The primary limitations of these processes have been identified as: stakeholder processes may sacrifice the quality of decisions; they only work well if stakeholders are willing to participate and government relinquishes authority (Gunton and Day 2006); there is a high cost in time and resources; power imbalances (negotiating skills, wealth) may cause problems (Frame et al. 2004; Gunton and Day 2006; Davis 2008); and, there is the potential for poor representation of community interests leading to the realization of special interests at the expense of the common interest (Frame et al. 2004; Gunton and Day 2006; Davis 2008).

2.6 Conceptualized framework for the decision process

Social scientists such as Harold Lasswell, Susan Clark and Ronald Brunner have written extensively about natural resource problems and the necessary elements of successful decision making (Lasswell 1970; Lasswell 1971; Brunner 1991; Clark 1991; Clark et al. 1996; Primm and Clark 1996; Brunner and Clark 1997; Clark 2000; Brunner
Generally, these scholars have identified that effective decision making requires: an understanding and integration of the social context of a problem, an understanding of decision processes; and a comprehensive understanding of the problems being addressed (Clark 2002). Clark (2002) also identifies the clarification of one’s own standpoint as a key element of problem solving and policy analysis.

It is important to understand that decision making in natural resource management is a dynamic process in which problems need to be redefined from time to time; the social dynamics need to be monitored as people and their values may change as they obtain new and different life experiences; and the decision processes used need to be reviewed and evaluated to identify deficiencies in existing processes and to ensure learning so that long term goals will be achieved.

In order to address the complexity of the policy process Lasswell and his colleagues developed an analytic framework for understanding and improving decision making. This framework encompasses and integrates each of the components identified above: standpoint clarification, social process, decision process and problem definition (Lasswell 1971; Clark 2002). Clark (2002) and Lasswell (1971) describe the framework as a ‘map’ of the policy process, providing specific language and context to decision making. Clark (2002, 9) further comments that the framework is a “practical means of organizing our thinking, our knowledge, and our problem-solving efforts.”

The three components of successful decision making – problem orientation, social process mapping, and decision process mapping – as well as personal standpoint clarification, are discussed in more detail in the following sections.
2.6.1 Problem Orientation

Decision makers often focus on developing solutions without gathering all of the information necessary to comprehensively understand the problems they face (Clark 2002). Without understanding why a certain state of affairs is actually a problem and what the causal factors are for that problem, developing effective solutions is a very difficult task that is unlikely to be successful (Clark 2002). Lasswell (1971), reiterated by Clark (2002), identifies five tasks that should be undertaken in order to develop a comprehensive understanding of the problems that resource managers hope to solve. These five tasks of problem orientation are: 'clarifying goals'; 'describing trends'; 'analyzing conditions'; 'projecting developments'; and, 'inventing, evaluating, and selecting alternatives' (Lasswell 1971, 39). A full description of these tasks is provided in Appendix 2 and a brief summary is provided here.

1. **Clarifying goals**: Identify stakeholder values and goals to identify goals for mutual benefit and a clear path for achieving those goals (Clark 2002).

2. **Describing trends**: Identify the changes that have and continue to occur in people’s values, perspectives, institutions and the environment. Determine whether these changes are bringing participants closer to or further away from their goals (Clark 2002).

3. **Analyzing conditions**: Identify and evaluate the factors affecting observed trends (Clark 2002).

4. **Projecting developments**: Determine whether past or existing policy alternatives are likely to achieve, or bring a community closer to, stated goals in the future (Clark 2002).

5. **Inventing, evaluating and selecting alternatives**: Develop strategies reflective of the information garnered through the four previous tasks to solve problems and achieve stated goals (Clark 2002). These strategies should be analyzed to determine the potential outcomes and effects in the short to long term timeframe and one or more alternatives should be selected and implemented (Clark 2002).
2.6.2 Social Process mapping

Problems arise as people with different values, perspectives and beliefs interact with one another and their environments in order to maximize their own well-being (Lasswell 1971). Clark further states that problems and solutions are manifestations of the social process (Clark 2002). So, despite a solid technical understanding of the environment and the institutions surrounding a perceived problem, it will be difficult to develop an effective solution to that problem until the social context has been explored, or ‘mapped’ (Clark 2002). Despite the recognition of the social process as an important component of policy problems, the human dimension is often neglected as the majority of time and resources are typically employed to analyze the physical environment or resource that is in dispute. Policy scientists like Lasswell and Clark refer to the analysis of the human dimension of policy problems as ‘social process mapping’. The social process map, or framework, consists of seven components: participants; perspectives; situations; base values; strategies; outcomes; and effects (Lasswell 1971, 24). A full description of these categories is provided in Appendix 2 and a brief summary is provided here.

1. Participants: the people that have an interest in the problem (Lasswell 1971; Clark 2002).

2. Perspectives: the demands, expectations and identities of the participants (Lasswell 1971; Clark 2002).

3. Situations: the places, times, rules, and level of crisis under which participants interact to solve problems through decision processes (Lasswell 1971; Clark 2002).

4. Base values (eight): such as power or wealth can be used, gained or lost while participants attempt to attain additional values through a decision process (Lasswell 1971; Clark 2002).
5. **Strategies**: participants can use four types of strategies (diplomacy, ideology, economic, military) to add to their base values through a decision process (Clark 2002).

6. **Outcomes**: the “changes in the distribution of values” among participants (Clark 2002, Table 3.1, 34).

7. **Effects**: the cumulative differences in society from various policy processes that help to change institutions and societal values (Clark 2002).

### 2.6.3 Decision Process mapping

Decision making and the processes that people and resource managers go through to form decisions have been studied extensively by social scientists. A model for decision processes was first proposed by Harold Lasswell in the 1950's (Lasswell 1971; Clark 2002; Jann and Wegrich 2006). This model provides a basic but useful framework that breaks down decision making into seven distinct stages or, as Lasswell refers to them, functions: *Intelligence, Promotion, Prescription, Invocation, Application, Termination,* and *Appraisal* (Lasswell 1971; Clark 2002; Jann and Wegrich 2006). Another way to view these functions and to understand how they fit into decision making is to consider them in terms of pre-decision (intelligence and promotion), decision (prescription) and post-decision (invocation, application, termination and appraisal) phases (Clark 2002). Decision process mapping is the analysis of the process in terms of each of the functions. Lasswell developed evaluative criteria for each of the decision functions and for the overall decision process to provide a detailed account of beneficial factors for developing effective policy (Clark et al. 2000). A full description of the decision functions is provided in Appendix 2 and a brief summary is provided here. The criteria for each function can be found in Lasswell (1971, 85-97) and in my evaluation template and results in Appendices 3 and 4.
Pre-decision

1. **Intelligence Function**: Problems are recognized, information is gathered to help define these problems and to debate and develop alternative strategies for solving them (Clark 2002).

2. **Promotion Function**: Stakeholders put forward various solutions and debate the best course of action (Clark 2002).

Decision

3. **Prescription Function**: Strategies are adopted with clear details for contingencies and enforcement (Clark 2002).

Post-Decision

4. **Invocation Function**: The strategies from the prescription phase are set into motion and the rules of implementation and enforcement are clarified (Clark 2002).

5. **Application Function**: any disputes over the implementation of prescriptions and the responsible authority are resolved (Clark 2002).

6. **Termination Function**: policies or process are terminated (Clark 2002).

7. **Appraisal Function**: the process and policies developed and implemented are evaluated to determine how well they function to achieve desired results (Clark 2002).

Benefits and criticisms of Lasswell's decision process model have both been identified. The main benefit of this decision framework is that it provides a basic guide for considering the important elements of decision making and the actors involved with each function (Jann and Wegrich 2006). Decision makers can improve their decision making ability by understanding and 'mapping' each of these functions. The relevance of Lasswell's model is exemplified in the fact that many more recent models continue to use a modified version of his model and that his work and this model continue to be discussed in the policy literature today.

Criticisms of Lasswell's process model suggest that: the framework reflects an overly simplistic perspective of the policy process; the framework's linear format and distinct stages do not acknowledge the interconnectedness within and between ongoing
policy cycles; the framework lacks 'causal factors' for moving from one stage of the process to the next; and the framework depicts a clear cut process while real-world processes lack definition in the start and end to policies as well as their 'entangled' stages (Jann and Wegrich 2006).

Auer (2007) provides the following arguments to counter these criticisms. Lasswell's decision process model was not intended to be used in isolation from other 'cognitive mapping tools' (e.g. social process mapping and problem orientation) (Auer 2007). Lasswell and his colleagues did not assume that the functions were isolated from one another, as demonstrated by Lasswell's earlier work of 1956 where Lasswell recognized the potential for a cyclical process as well as interdependence among decision functions (Auer 2007, 544). Auer also disputes the idea that the decision process should identify causal factors, suggesting instead that causal factors emerge as a result of the decision process through the interactions amongst the numerous variables in different contexts, and not from predetermined 'universal principles' (Auer 2007).

2.6.4 Standpoint Clarification

It is important for all stakeholders and resource managers to understand and clarify their personal standpoint or situation in relation to a policy process. Each person involved in a decision making process should realize and express their personal biases (organizational associations, vocational, epistemological, and parochial), interests, and base values. This holds true for process facilitators, participants and evaluators. Clarification of each stakeholder's standpoint will aid the group in determining a 'common ground' and assist other stakeholders in understanding their interests, concerns, and goals (Clark 2002, 111). It is also important for facilitators to acknowledge and
express their standpoints with stakeholders as their standpoints will affect how a process will be carried out and even possibly how and what decisions are identified and implemented. Ultimately understanding stakeholder and process manager standpoints will permit all people involved to focus on building solutions that support the common interest.

2.7 Brunner’s Tests of the Common Interest

Common interests are interests that “are widely shared within a community” (Brunner 2002, 8; Clark 2002, 13). In contrast, special interests are the interests of individuals or groups that benefit a select few over the rest of the community. Clark (2002, 13) provides the example of safe drinking water as a common interest of communities.

Brunner’s tests of the common interest identify whether a community is adequately represented in a decision process and in the policies developed and implemented through that process, and whether the decision process is functioning in the common interest (Brunner 2002). The three tests, practical, substantive, and procedural, determine whether all relevant stakeholders are involved or sufficiently represented in the process and whether those representatives are responsible to the decision group and their constituents (Brunner 2002). The practical test asks whether the participants involved are representative of the broad community and whether these participants are responsible to that community (Brunner 2002). The substantive test asks whether the broad community interests are represented by the process and the policies that are developed and implemented (Brunner 2002). The procedural test asks whether the policies developed remain adequate over time and whether they are adapted to fit changing...
circumstances and changing community interests (Brunner 2002). If one or more groups of stakeholders are not adequately represented throughout the decision process the policy outcomes are likely to generate conflict and are likely to be difficult and costly to implement and uphold as one or more groups challenge those decisions (Brunner 2002).
CHAPTER 3: METHODOLOGY

3.1 Chapter outline

The methodology for my case study research is outlined below. I begin by describing the literature I reviewed and the background information I obtained. Then I discuss key informant interviewing and the evaluative criteria and interview format I used. Finally, I describe the actual interview process, how I transcribed the interviews, and my analysis of interview responses.

3.2 Literature review and background information

I began my research project with a review of the available literature on large carnivore management in Alberta and North America; and more specifically the literature available on the two collaborative projects discussed in Chapter 2. I contacted and spoke with large carnivore specialists, ranchers and people familiar with both collaborative initiatives to supplement the limited written information I was able to uncover. The literature on resource management in Alberta was primarily obtained from provincial SRD websites on the internet. I found additional background information on the CRWP/SACC process through internet searches that returned symposium contributions, panel discussions and summaries (Kaminski et al. 2003; WWC 2003). I obtained two summary reports for the OBCAG process from the Alberta provincial government library (OBCAG 2004; OBCAG 2005). After garnering a basic understanding of the natural resource management conditions in Alberta and the two decision processes I was targeting for my study, I shifted my literature review to decision making and evaluating decision making processes. My sources of information for decision making and
evaluation are primarily the published works of Lasswell (1971), Clark (2002) and Brunner (2002). The evaluative criteria that I use for my case studies come directly from Lasswell (1971) (reiterated by Clark (2002) and Brunner (2002)).

3.3 Key informant interviews and criteria

Introduction

Key informant interviews are discussions with people who are especially knowledgeable about a particular topic or problem (USAID 1996; Babbie 2001). The interviews are ‘loosely structured’ as the timing and wording of questions are subject to change based on the flow of discussions (USAID 1996; Sofaer 1999; Babbie 2001). The USAID Center for International Development states that key informant interviews are generally used to: evaluate programs or processes and make recommendations to improve those programs; identify opinions, behavior and motivations; and, identify underlying themes to direct more specific and quantitative research (USAID 1996; Elmendorf and Luloff 2001).

The benefits to using key informant interviews include: providing an opportunity to uncover more descriptive and unexpected information that may have been missed using a closed-ended questionnaire (Babbie 2001; Elmendorf and Luloff 2001); improving response rates to different questions; providing the opportunity to clarify responses (Babbie 2001); and providing an opportunity to evaluate more complex situations where clarity (probing questions) and further definition will likely be needed for a comprehensive understanding and evaluation.
The challenges to using key informant interviews include: the potential to create interviewer bias in respondents based on their interactions with the interviewer, including the way questions are asked and the reactions of the interviewer to particular responses; the potential for respondents to not answer the question in the manner anticipated; and, the potential to misinterpret respondent responses (USAID 1996; Babbie 2001).

**Evaluative criteria**

The evaluative criteria that I use in these two studies were adapted from Brunner’s tests of the common interest (Brunner 2002) and from Lasswell’s models of problem orientation and decision-making (Lasswell 1971). A comprehensive list of criteria, along with the detailed results of my evaluations, is provided in Appendices 3 and 4. The interview questions I developed from these criteria are provided in Appendix 5.

As discussed in the previous chapter, Brunner’s tests of the common interest include a procedural test, a substantive test and a practical test. Questions were prepared to generate respondent views on whether the decision processes met these tests. For example, one of two questions that were asked for the Procedural Test was, “are effective participants representative of the community as a whole?”

Lasswell’s problem definition framework identifies five tasks (goals, trends, conditions, projections and alternatives) to be undertaken in order to properly orient to and resolve problems. Respondents were asked to provide their views on these five parameters for each collaborative process.

Lasswell’s model of the decision-making process consists of seven distinct phases or ‘functions,’ and Lasswell developed criteria to evaluate each decision function and the overall decision process. One criterion for the intelligence function, for example, asks...
whether information that is gathered is reliable. Therefore, to elicit information from respondents regarding the quality and reliability of information one question in the interview was, “How does the group check to make sure that the information it uses is correct or accurate?” Similarly, two criteria for the overall process consider whether the process was efficient in the use of resources (monetary and non-monetary). The corresponding interview question asked, “What about resource efficiency of the project.”

**Interview**

My key informant interview protocol consisted of 64 primary questions supported by additional probing questions in an open-ended format. My interview format can be described as a compromise between Patton’s (2002) standardized open-ended interview and his interview guide approach. Patton describes standardized open-ended interviews as having a pre-determined and organized list of open-ended questions. The compromise comes from the fact that the wording and order of my questions were not ‘set in stone’ and I was able to stray from the format.

**3.4 Interviewing key informants**

I began the process of finding key informants by retaining the services of a person, a project liaison, who was familiar with both of the collaborative processes and the people involved. This liaison provided background information about the two collaborative initiatives, introduced me and my project to potential respondents, provided contact information for these respondents, and provided suggestions to improve the wording and content of the questionnaire.

I contacted the potential respondents following this introduction to: introduce
myself; provide additional information as requested; determine if individuals were interested and willing to participate in the study; and establish an interview schedule. The key informants that I identified for my case studies were people who I believed would have a good understanding of, experience with, or a particular interest in one or both of the collaborative processes.

I conducted interviews with respondents in Ontario, Alberta, and British Columbia. I traveled to Alberta on four occasions to conduct the majority of interviews. I corresponded with other respondents by phone and email if I was not able to meet and speak with them in person.

For those respondents that were familiar with both processes the interview questions were either asked for both processes during the same interview, or separate interviews were requested for each process, depending on the available time. Where people from the same household were interviewed together, the responses that were received from those people were combined into a single set of interview responses because in all such cases it was clear that the responses from the same household represented a shared viewpoint.

At the start of the research project I recorded interviews using a hand held digital recorder and handwritten notes. Unfortunately I experienced technical problems with the digital recorder for six interviews; I later found out that the recorder was defective. I incorporated two additional hand held tape recorders to help record the remaining interviews.

3.5 Confidentiality and anonymity

Before each interview I assured respondents that their identities would be kept
confidential, and I asked them to choose how they wanted to be referred to in this study. They were provided the following categories to choose from: ‘A rancher’; ‘A local community member’; ‘A member of the Oldman Basin Advisory Council’; ‘A leader for the project’; ‘A wildlife biologist or other scientist’; ‘An employee, member, or affiliate of your specific company or organization’; ‘An employee, member, or affiliate of a type of company or organization (e.g. “commercial business”; “environmental organization”; or “federal agency”); ‘An anonymous participant’; or ‘Other’. Initially the intent was to use these designations to identify the responses of individuals in each case study. However, some respondents asked for a level of anonymity that could not be provided if I disclosed the specific affiliations of participants in all instances (due to the low number of respondents in the study as a whole). Therefore, I do not disclose the associated positions or titles of the quoted respondents in all instances.

3.6 Transcription of interviews

I transcribed the interviews as soon as possible following the interviews. In some instances I transcribed interviews the same day; for other interviews transcription occurred weeks later. Where audio recordings of interviews were in such poor condition that I was unable to transcribe the interviews, I used my hand written notes from the interviews to complete the analysis. Where replacement interviews were granted, I used my handwritten notes from the initial interviews to supplement the replacement transcripts.
3.7 Analysis and evaluations of respondent responses

The interview evaluations were based on my interpretations of the respondent answers and statements relating to each decision process. There were three parts to the evaluations: Problem Definition; Tests of the Common Interest; and Decision Functions.

3.7.1 Evaluation of the Problem Definition

For the Problem Definition section of each case study I analyzed respondent responses to generate a general, collective, summary of the goals, trends, conditions, projections and evaluation of alternatives for each process. My summaries of the problem definitions for each case study represent my perception of the goals, trends, conditions, projections and evaluation of alternatives based on the responses I received from the respondents from each case study.

3.7.2 Evaluation of the Tests for the Common Interest and Decision Functions

For the remaining two sections of each case study, the Tests for the Common Interest and the Decision Functions, instead of providing summaries I analyzed and compared respondent responses to the criteria adapted from Lasswell (1971) and Brunner (2002). My analysis for these sections of the evaluations generated results that were in the form of ratings that identified whether specific criteria were 'met' or 'not met'.

Generating ratings from individual interviews

I analyzed individual interviews to generate one of seven possible ratings: 'met', 'not met', 'not applicable' (N/A), 'not asked' (N.ask), 'unknown' (Unkn), not answered (N.ans), and 'not recorded' (N.rec). If, in my judgment, the responses of an individual
respondent supported a particular criterion then I applied a 'met' rating to that criterion for that respondent. If a respondent’s responses indicated that a particular criterion was not met, then I applied a rating of ‘not met’ to that criterion for that respondent.

I did not ask each respondent every question due to either time constraints or the fact that some respondents were not privy to certain information regarding the decision processes. Therefore not all criteria were evaluated for every interview, and some responses were rated as 'not applicable' (NA) or ‘not asked’ (N.Ask). In other circumstances the informants may not have known an answer and therefore the response was marked as ‘unknown’ (Unkn). For questions that were asked but not answered in a manner that reflected the intent of a particular criterion, the response was rated as ‘not answered’ (N.Ans). Lastly, due to equipment difficulties, one interview was not recorded and six interviews had such poor audio quality that at least a portion of the interviews were not transcribable. Where interview questions were not recorded either in handwritten notes or the audio recordings, the responses for those criteria were rated as ‘not recorded’ (N.Rec). Each criterion for each decision process received one of these ratings for each respondent based on my interpretation of that respondent’s responses.

Five interviews were completed a second time in an attempt to supplement information from previous interviews. One reason for doing this was the poor audio quality and the second reason was that I wanted to ask early respondents further questions about the decision processes based on responses received from subsequent respondents.

Generating overall criteria ratings from individual ratings

I assigned an overall rating to each criterion based on a 'clear' majority from the 'met' and 'not met' ratings garnered from individual respondent responses for that
criterion. I use the term 'clear' to mean that there was a difference of two or more between the number of ratings of 'met' and 'not met'. For example, if my interpretation of four interviews rated a particular criterion as 'met' and my interpretation of one interview rated that same criterion as 'not met' than I applied an overall 'met' rating to that criterion as there was a 'clear' majority among the respondents who believed the criterion had been met. Table 3.1 provides examples of the calculation of various overall ratings. Conversely, if my interpretation of six interviews rated a criterion as 'not met' and my interpretation of four interviews rated the same criterion as 'met', than I applied an overall 'not met' rating to that criterion as there was a 'clear' majority among respondents who believed the criterion had not been met. In circumstances where there was not a clear majority I applied a 'mixed response' rating. One such circumstance was when the numbers of 'met' and 'not met' ratings were the same for a particular criterion. A second circumstance was when there was only a difference of one between the number of 'met' ratings and the number of 'not met' ratings for a particular criterion. In this last example, although there would be a majority rating of either 'met' or 'not met', this would be due to having an odd number of ratings from the interviews and not necessarily from a 'clear' majority opinion about that criterion one way or the other. I applied one exception to the above rating method. In circumstances where only one rating was generated from all interviews for one criterion, the single rating was applied as the overall rating for that criterion. In other words the minimum difference of two between the 'met' and 'not met' ratings did not apply for those circumstances. For example, if my interpretation of one interview rated a criterion as 'met' and interpretations of other
interviews resulted in no other ratings for that criterion that criterion received an overall rating of ‘met’.

Table 3.1 Examples of how overall criteria ratings were generated from the cumulative individual ratings.

<table>
<thead>
<tr>
<th>Overall Rating</th>
<th>Criteria</th>
<th>Respondent Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>11. Are intelligence activities focused on the key aspects of the problem, guided by adequate problem orientation?</td>
<td>Met: 6, Not Met: 3</td>
</tr>
<tr>
<td>Not Met</td>
<td>24. Are the views of the weak or neglected incorporated through direct participation or other means of solicitation?</td>
<td>Met: 1, Not Met: 5</td>
</tr>
<tr>
<td>Met</td>
<td>51. Are the data used in evaluation dependable?</td>
<td>Met: 1, Not Met: 0</td>
</tr>
<tr>
<td>Mixed response</td>
<td>39. Do initiatives impose the minimum deprivation necessary to be effective?</td>
<td>Met: 6, Not Met: 6</td>
</tr>
<tr>
<td>Mixed response</td>
<td>34. Are justifiable complaints by the less-powerful encouraged and are actions taken in response?</td>
<td>Met: 3, Not Met: 4</td>
</tr>
</tbody>
</table>

Generating process performance ratings

I identified performance ratings for each of the Tests for the Common interest and for each of the Decision Functions for each case study based on the number of criteria for each test and function that were ‘met’ and ‘not met’. Each test and function received one of five possible ratings: ‘fully met’, ‘mostly met’, ‘somewhat met’, ‘partially met’, and ‘not met’.

- A ‘fully met’ rating signified that all criteria for the test or function were met.
- A ‘mostly met’ rating signified that more than two-thirds of the criteria were ‘met’.
- A ‘somewhat met’ rating signified that between one third and two-thirds of the criteria were ‘met’.
- A ‘partially met’ rating signified that less than one third of the criteria were ‘met’.
- A ‘not met’ rating signified that none of the criteria were met.

Examples of how performance ratings were generated are provided in the following table.
Table 3.2 Examples of how performance ratings were generated for the decision functions.

<table>
<thead>
<tr>
<th>Performance Rating</th>
<th>Decision Functions</th>
<th>Criteria Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>'Met'</td>
</tr>
<tr>
<td>Fully Met</td>
<td>Intelligence</td>
<td>16</td>
</tr>
<tr>
<td>Mostly Met</td>
<td>Promotion</td>
<td>8</td>
</tr>
<tr>
<td>Somewhat Met</td>
<td>Prescription</td>
<td>3</td>
</tr>
<tr>
<td>Partially Met</td>
<td>Application</td>
<td>1</td>
</tr>
<tr>
<td>Not Met</td>
<td>Appraisal</td>
<td>0</td>
</tr>
</tbody>
</table>
CHAPTER 4: RESULTS

4.1 Introduction

The CRWP/SACC and OBCAG processes are evaluated in this chapter using the methodology presented in Chapter 3. I begin by describing the interviews I conducted and explaining how I reference the people that I interviewed. I then discuss my frame of reference, or the perspective from which I interviewed participants and evaluated the two studies. Lastly, I present the results and evaluation for each of the two case studies. Within each case study the results are divided into Problem Orientation, Tests of the Common Interest, and Decision Functions. Tables listing the response ratings for each criterion are included for each case study as Appendices 3 (CRWP/SACC) and 4 (OBCAG).

4.2 Interview results

I contacted a total of 23 key informants ('respondents') for interviews; 21 people agreed to be interviewed, two people declined to participate and one person did not provide consent for the use of their interview in my study. Four of the respondents were interviewed using questions directed at both collaborative decision processes (CRWP/SACC and OBCAG). A combined total of 24 interview evaluations were completed for the two case studies; nine were completed for the CRWP/SACC decision making process; 15 were completed for the OBCAG decision making process. A breakdown of the respondent affiliations for my two case studies is provided below in Table 4.1. Five of the nine respondents for the CRWP/SACC process evaluation were either members of the decision group or worked directly with the group in its research.
Similarly, 9 of the 15 respondents for the OBCAG process evaluation were members of the advisory group.

Table 4.1 Summary of the respondent reference groups interviewed for the CRWP/SACC and OBCAG case studies

<table>
<thead>
<tr>
<th>Reference Groups</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CRWP/SACC&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>A rancher</td>
<td>3</td>
</tr>
<tr>
<td>A local community member</td>
<td>0</td>
</tr>
<tr>
<td>A member of the Oldman Basin Carnivore Advisory Council</td>
<td>0</td>
</tr>
<tr>
<td>A leader for the project</td>
<td>2</td>
</tr>
<tr>
<td>A wildlife biologist or other scientist</td>
<td>3</td>
</tr>
<tr>
<td>An employee, member, or affiliate of your specific company or other organization</td>
<td>0</td>
</tr>
<tr>
<td>An employee, member, or affiliate of a type of company or organization (e.g. &quot;commercial business&quot;; &quot;environmental organization&quot;; or &quot;federal agency&quot;)</td>
<td>1</td>
</tr>
<tr>
<td>An anonymous participant</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
</tr>
</tbody>
</table>

<sup>1</sup> One respondent identified two reference groups to be referred to as.

<sup>2</sup> Four respondents identified two reference groups to be referred to as and two individuals did not indicate an affiliation with a reference group.

In completing my informant interviews I encountered technical problems with my recording equipment that resulted in five recordings that were of poor quality, where some portion of the interviews could not be transcribed or analyzed, and one interview that was not recorded. Although notes were taken during these interviews, much of the detail from interviews was not captured by handwritten notes. I contacted the six respondents to complete a second interview. Four respondents were interviewed a second time. Two respondents declined a second interview stating that time was a factor in not participating in a second interview.

4.3 Respondent identifiers

Throughout the remainder of this report I quote various respondents to support my evaluation results, suggestions and conclusions. In order to keep the respondent identities
confidential I use identifiers to replace respondent names. The identifiers are in the form of ‘R1’, the ‘R’ referring to the term ‘Respondent’ and the number referring to a specific informant. Identifiers for my studies range from R1 through R24, although not all respondents have been quoted.

4.4 Frame of reference

Before providing the results of my study it is important to identify my personal frame of reference, who I am and where I come from, as well as identify how my personal point of view may have influenced my interpretation of the results as well as my discussion in the next chapter.

I grew up in a small town in Ontario, in a county that boasts of its beef producing industry, but I am not the product of a ranching family nor do I have any farming experience. I have an undergraduate degree in biology and a degree in education with specializations in biology, environmental science and outdoor education. I have worked as a planner for the Ontario government and I am employed as a project manager for an environmental consulting firm in southern British Columbia. Prior to the start of my research I had been to southern Alberta several times, but I knew little of ranching or of the conflict between livestock producers and wolves.

With my professional experience I am familiar with government processes and I am a firm believer in transparency in process, complete information for making decisions, and in providing all stakeholders a real opportunity to participate in decision-making.

I understand, and I think it is important for people reading this report to also understand, that my personal frame of reference (my personal experiences and interests)
has likely had some level of influence on respondents during interviews and that it has probably influenced my interpretations of respondent responses. I was cognizant of my perspective and potential biases prior to and during my research and analysis and I made a sincere effort to evaluate the processes objectively, with respect for the respondent comments and responses in the contexts that they were given.

4.5 Case study 1: CRWP/SACC

4.5.1 Problem Orientation

Goals

Respondents indicated that the primary goal of CRWP/SACC was to work with local ranchers and improve understanding of wolf-livestock interactions in order to reduce the killing of wolves and obtain a more stable and viable wolf population in southwestern Alberta. R19 recalled the group’s goal was “to reduce conflict between wolves and ranchers in southern Alberta...we really tried to focus on the co-existence component, we really felt that there was a way for ranchers to do business in southern Alberta and wolves to exist there, and not just exist there but fulfill their role.” R5 described the group’s goal as “...the belief that wolves have a place in SW Alberta and as did ranching... knowing that wolves can impact the ranching community and that certain individuals are hit fairly hard at times, that we would try to figure out some way of achieving a balance where wolves aren’t wiped out willy nilly...” R4 stated the main goals of the group were “to gather knowledge about wolf predation on livestock and also to help the ranchers practically.”
To achieve this goal the group focused their efforts on gathering information on wolf biology, wolf-livestock interactions, and mitigative management practices. They also spoke with ranchers to learn about and address their concerns. R19 said the group tried to “learn more about what motivates wolves to kill cattle and how we may prevent that, or at least reduce losses…”

Trends

Respondents identified three main trends that were apparent prior to the start of the work by CRWP/SACC. These trends involved wolf populations, ranching practices, and human sentiment towards large carnivores. According to respondents, the typical pattern of wolf management in the region was that wolf numbers would be allowed to increase until depredation events reached a level that was not acceptable to the ranching community and then the wolf population would be indiscriminately reduced without specific attention paid to those packs or individuals responsible for the depredations. Following the reduction, there would be a general lag time until the wolf populations recovered and depredation began again. R9 stated that “it’s good politics because it gets the pressure off our … to go shoot up a bunch of wolves and wait two to three months before the problem starts all over again”. Two respondents also commented that the wolf population at the time was growing in southwestern Alberta. R19 stated that “wolves recovering in the Yellowstone region and in Montana and Idaho were a source population for southern Alberta wolves. So there were more wolves coming in.” R18 stated that “wolves weren’t a real problem until the late 1990’s.”

Respondents indicated that ranching practices have changed little over the years with the exception of a select few individuals or operations.
Respondents suggested that the urban public has grown to accept and respect large carnivores and there is a growing interest in preserving these animals and the natural environments they inhabit. One respondent (R9) commented that “we set aside large areas to be protected as wilderness and national parks… but they are not effective places for housing this complement of ungulates and carnivores that now preoccupy people’s vision of what they want from public lands.”

Conditions

Respondents identified four conditions underlying the trends mentioned above before and during the CRWP/SACC initiative. Respondents stated that the government was in the practice of reducing the wolf population in response to depredation. Two respondents also referred to the provincial government’s ‘liberal’ wolf management policies outlined in the 1991 provincial wolf management plan. R5 stated “there is the regulations to factor, the hunting regulations are even more liberal you know, no limit, virtually no season, well they can shoot them right to… June 15 and … any land owner can shoot a wolf.” R22 similarly commented that “wolves can be shot on sight, by any rancher for any reason, at any time on or within 8 km of their ownings.”

Wolf-livestock conflicts were common as grazing lands, wild prey habitats, and wolf habitats overlap along the east slopes of the Rocky Mountains in southwestern Alberta. R22 commented “there’s not a place in this whole region where wolf territories are not overlain by cattle leases.”

Ranching is a way of life that has been passed down from past generations and livestock management practices have changed little over the years.
Lastly, the loss of livestock to depredation is an economic loss for livestock managers. Respondents said that compensation from the provincial government was only 75 percent of the value of the animal at the time of depredation and even that value was considered too low as other costs were not accounted for such as property damage and injured and stressed animals.

**Projections**

Respondents felt that without intervention the cull and depredation cycle would continue indefinitely. Respondents generally believed that the efforts of the research group would reduce wolf-livestock conflicts and encourage more tolerable practices towards wolves by the ranching community but that the changes would not be realized for years if not decades. R9 commented “I don’t think we’d be near as far along at this point in time today had we not started together back in 2000,” while R5 disagreed saying “I don’t know that wolf management even ten years later in the province of Alberta is all that more enlightened.“

**Alternatives**

Respondents identified three primary strategies that CRWP/SACC focused on in order to address and improve wolf management practices in southwestern Alberta. One strategy included communicating with members of the ranching community and government to improve rapport (with CRWP/SACC) and gather local knowledge of wolves and livestock management practices. One respondent (R5) described CRWP/SACC’s efforts with the community saying they, “went down and talked to people about what the issues were and asked people what techniques they were using and
just from what they knew and what they could do, and ... what the wolf numbers were, the population and distribution." A second strategy was to trap, collar and track wolves to improve their understanding of wolves in southwestern Alberta and how they interacted with livestock. The group’s third strategy was to research alternative management strategies and the group focused on fladry experiments in this research. Fladry involves hanging flagging on fence lines such that the flagging is free to move in the wind. The motion of the flagging along the fence line deters wildlife such as wolves from approaching and crossing the flagged fence line. Commenting on alternative management strategies, R19 stated that CRWP/SACC “landed on fladry as being, a really good one to test, very innovative, but there was also discussion of shock collars ... but fladry was the one, and also management right, from the human end if the ranchers could manage their cattle in a certain way then there would be less risk.”

4.5.2 Tests for the Common Interest

Based on interview responses, the CRWP/SACC’s decision process did not meet the criteria for the procedural test, fully met the criteria for the substantive test and did not meet the criteria for the practical test.

**Procedural Test**

<table>
<thead>
<tr>
<th>Not Met</th>
<th>Are the effective participants representative of the community as a whole?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Met</td>
<td>Are the effective participants responsible and accountable to the community?</td>
</tr>
</tbody>
</table>

The practical test asks “were the participants involved representative of the broad community and were they responsible to that community?”

CRWP/SACC’s membership was limited to seven individuals that were biologists, wildlife researchers, and one business person. The group did not have
representation in its decision making from the ranching community, governments (provincial, local, First Nations) or interest groups (hunters and recreationists). Respondents indicated that although group members actively communicated with the ranching community the group was not necessarily accountable to the community for their actions.

**Substantive Test**

<table>
<thead>
<tr>
<th>Met</th>
<th>Are the expectations of the group and its members warranted by the evidence available?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>Are the value demands compatible with more comprehensive goals?</td>
</tr>
<tr>
<td>Not Met</td>
<td>Have participants who are representative of the community as a whole signed off on the policy?</td>
</tr>
</tbody>
</table>

The substantive test asks "were the interests of the broad community represented in the process and in the policies that were developed and implemented?"

Respondents believed that CRWP/SACC’s expectations of reducing wolf-livestock conflicts were reasonable. R5 believed “that it had the potential to improve...I thought it was a worthy goal.” Respondents felt that reducing these conflicts would benefit the ranching community and wolves. However, respondents believed that the ranching community considered the CRWP/SACC research group to be an environmental, ‘wolf-loving’, association and therefore some were suspicious of the work the group was conducting. R18 suggested that the ranching community’s view of CRWP/SACC’s efforts was “about 50/50” and further commented that, “I don’t want to see the wolves destroyed and I don’t want to see the wolves destroying my livestock either...my neighbour shoots them if he sees them....each person will do their own thing.” The group’s limited representation from government and community meant that support for the CRWP/SACC group’s efforts was limited to the select individuals from the ranching community that chose to speak and work with the group. R19 recalled that,
some ranchers liked, and were interested in, what the research group had to offer and were willing to try the group’s approach, but most weren’t willing to try the group’s approach.

Practical Test

<table>
<thead>
<tr>
<th>Not Met</th>
<th>Is participation still representative and responsible over time, and if not is the process adapted accordingly?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Met</td>
<td>Do the outcomes continue to be compatible with more comprehensive goals and supported by the community over time, and if not, is the process adapted accordingly?</td>
</tr>
</tbody>
</table>

The procedural test asks “did the policies remain adequate over time and were they adapted to fit changing circumstances and changing community interests?”

CRWP/SACC’s membership did not change to accommodate other groups or interests over the course of the group’s five years. Group members continued to meet and communicate with particular ranchers but aside from those ranchers that chose to work with the group, the group’s membership was not representative of the general ranching community in the region, nor did the group’s membership expand to include other groups or government. R19 commented, “I think not having government involvement and real commitment made a huge difference.”

The group’s efforts could be considered to be compatible with the broad community interests as the group’s intentions were to improve understanding of wolf and livestock interactions and reduce the occurrence of wolf—livestock conflicts. Although one rancher suggested that only half of the ranching community would be supportive of the group’s efforts, another respondent mentioned that the only ranchers that were interested in what CRWP/SACC had to offer were the ones that worked with the research group. The CRWP/SACC group members noted that one of the fladry experiments raised concerns by neighbouring ranchers over ongoing depredation on their properties as a
perceived consequence of the fladry experiment. Following the end of the project the local ranchers requested support from CRWP/SACC to kill wolves in the immediate area. Although some members of the research group, following thoughtful deliberation, were willing to support the ranchers in this way, two group members were not supportive of CRWP/SACC’s involvement in killing wolves. As a result, the CRWP/SACC members were not involved and did not provide support to the ranchers to kill wolves and this outcome was perceived as not being compatible with the interests of the ranching community. A second fladry experiment was conducted the following winter on a ranch further north and one respondent noted that there were fewer surrounding land owners. So the CRWP/SACC efforts were adapted in this circumstance as they moved their research to another, perhaps more suitable area. However, some might view the lack of support to help kill depredating wolves as a lack of adaptation from CRWP/SACC to address the ranchers’ concerns, especially when one of the objectives of CRWP/SACC was to improve communication and build rapport with the ranching community.

4.5.3 Decision Functions

Of the 66 criteria for the specific decision functions and overall process, CRWP/SACC’s decision process met a total of 27 criteria, failed to meet 24 criteria, responses were mixed for nine criteria, and responses were not received for six of the criteria. Overall CRWP/SACC’s decision process performed well for the intelligence and invocation functions but did not perform well for the other five decision functions. A summary of the results is provided in the following table (Table 4.2) and the results are described in more detail in the following subsections.
Table 4.2 Overview of the evaluation results for the CRWP/SACC decision process by criterion categories and decision functions

<table>
<thead>
<tr>
<th>CRWP/SACC</th>
<th>Decision Process results (Met, Not Met, Mixed, Not assessed, and Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall Evaluation Conclusion</td>
</tr>
<tr>
<td>Intelligence Function</td>
<td>Largely Met</td>
</tr>
<tr>
<td>Promotion Function</td>
<td>Partially Met</td>
</tr>
<tr>
<td>Prescription Function</td>
<td>Moderately Met</td>
</tr>
<tr>
<td>Invocation Function</td>
<td>Largely Met</td>
</tr>
<tr>
<td>Application Function</td>
<td>Partially Met</td>
</tr>
<tr>
<td>Termination Function</td>
<td>Partially Met</td>
</tr>
<tr>
<td>Appraisal Function</td>
<td>Not Met</td>
</tr>
<tr>
<td>Overall Criteria</td>
<td>Moderately Met</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5.3.1 Intelligence Function

- Is the information gathered for decision making accurate? Can it be relied upon?
- Are estimates given of the credibility of information and the uncertainty involved?
- Are the best sources of information used?
- Can the sources be relied upon to supply realistic statements of information?
- Are appropriate methods and competence mobilized and used when needed or indicated to gather information?
- Is the information accurately transmitted from the sources to recipients?
- Do recipients acknowledge the credibility and realism of the sources of information?
- Is information obtained for all relevant components of the problem, and the context of the problem?
- Is information obtained from all appropriate sources and all affected people?
- Are estimates made of the benefits, costs and risks of each of the alternatives investigated?
- Are intelligence activities focused on the key aspects of the problem, guided by adequate problem orientation?
- What proportion of outputs are related to problems perceived to be important by insiders versus other people affected or interested?
- Are new objectives and strategies that are realistic taken to gathering intelligence?
- Are new objectives and strategies compared with older objectives and strategies?
- To whom is intelligence communicated?
- Is anyone excluded from access to intelligence and is the exclusion justified?
The CRWP/SACC’s process performed exceptionally well in the intelligence function. Respondent responses suggest the group’s decision process met 14 of the 16 criteria for this function. Respondent responses were mixed for one criterion and responses were not received for one criterion.

**Strengths**

The majority of respondents believed the group considered information from all relevant sources (government, ranchers, past research and past experience) and for all relevant components of the problem (goals, trends, conditions, etc). The majority of respondents, however, identified one incident that showed that the members of CRWP/SACC did not fully understand each other’s values and interests and this led to conflict over the involvement of CRWP/SACC’s in the killing of wolves following the fladry experiment. Respondents further noted that, as a result, two of the members of CRWP/SACC made the decision that the research group would not get involved with killing wolves. R19 commented that “the response from a couple members from our group said let’s go down there and kill some wolves and *** said ‘I don’t think so, I don’t think we’re doing that’.”

The majority of respondents also believed that the group was knowledgeable and accountable and provided accurate information for the purposes of making decisions. One respondent, however, identified an example of an instance where they felt that a member of CRWP provided misleading information in regards to the location of a wolf denning area. The respondent recalled “there were some problems there with some of the information that was given to me... they weren’t giving it to me straight...it was just deception.”
The group directed their efforts toward the key elements influencing wolf-livestock interactions with the anticipated outcomes of their efforts to benefit community interests. All respondents agreed that the group was open to considering various research methods and that the researchers were willing to share information with anyone who was interested, but that information was not regularly disseminated. R19 mentioned the options that the group considered saying “we talked about a whole variety of things we could test, we landed on fladry as being a really good one to test…but there was also discussion of shock collars… and also management (speaking of livestock management practices).” When asked about access to information R18 believed, “they would have told me if they were around, they just were never around.” This rancher felt that a better process for sharing information was needed saying, “I can’t help you guys, or anyone else, if there is no sharing of information...somewhere to share my information to say when I’ve seen tracks or falling, or hoofing, or whatever.”

Weaknesses

Two respondents stated the benefits and costs of the group’s efforts were well understood. However, most of the respondents involved with the CRWP/SACC failed to acknowledge the potential costs of the group’s research in terms of the actual and perceived affects of the fladry experiment research on nearby landowners in the form of depredation. One respondent, a biologist and a member of the research group, suggested that the depredation on neighbouring ranches was expected and required to validate the research by showing that, despite a lack of depredation on the experimental property, that wolves were still in the area and killing livestock. This same respondent also suggested the level of depredation on the neighbouring properties had not increased as a result of
the fladry experiment. R4 stated, “the fact that wolves would kill livestock on a neighbouring property to me was always a given.” I suspect that had the CRWP/SACC group better understood or discussed the potential perceived costs, that the group would have identified how they would address the potential costs to, and concerns of, the ranchers in the area. One respondent R19 suggested that “had we known that going in we wouldn’t have done it, or we would have done it warning him ‘look this is what is going to happen, we don’t have enough resources to protect everyone.’” Instead conflict arose between members of the research group on how to address the wolf depredation concerns and whether the CRWP/SACC should be involved in the killing of wolves after ranchers complained about the wolf depredation on neighbouring ranches. One respondent suggested that it was the government’s responsibility to remove problem wolves and to provide compensation and that it was the government that had not fulfilled their role.

4.5.3.2 Promotion Function

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<tbody>
<tr>
<td>• Is there general cooperation in obtaining intelligence?</td>
<td>• Are all reasonable alternatives brought to the attention of decision makers?</td>
<td>• Are proposed alternatives assessed and justified in terms of value indulgences or deprivations?</td>
<td>• Are proposed alternatives broadly supported?</td>
<td>• Is the debate about alternatives bipolar?</td>
</tr>
<tr>
<td>• Is there coercion in the debate about alternatives?</td>
<td>• Do the alternatives proposed reflect the full range of community interests?</td>
<td>• Are the views of the weak or neglected incorporated through direct participation or other means of solicitation?</td>
<td>• Is thorough debate of all views encouraged before proposals are adopted or entrenched?</td>
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</table>

The CRWP/SACC’s process performed poorly in the promotion function. Respondent responses suggest the group’s decision process met two of the nine criteria and failed to meet four of the criteria. Responses were mixed for three of the criteria.
**Strengths**

Respondents suggested that the research group was open to all potential strategies for completing their research and outreach program. Respondent responses indicated that the group generally worked well together and individuals were encouraged to voice their opinions and debate options and alternatives. R4 stated that, “we discussed until we reached consensus on how to use the budget or what to do.” However, R5 commented that debate only occurred part of the time as one member of the research group would allocate resources to projects and other items that were not discussed nor approved by the other research group members.

**Weaknesses**

The group’s limited representation may have prevented general and specific concerns from the community from being considered during the decision making process. Several respondents indicated that the group’s efforts were likely not reflective of the broad community interests. R6 commented that, “locally there wasn’t much support, but in Calgary there was a lot of support,” while another respondent (R18), a rancher, stated “I don’t want to see the wolves destroyed and I don’t want to see the wolves destroying my livestock either.” The specific distinction between the people in Calgary, or the ‘urban public’, and the ranching community or ‘rural population’ was used by three respondents, who suggested that large carnivores are more favoured by urban populations as they are not the ones that have to deal with the problems of depredation. Furthermore, the costs and time needed to address concerns over depredations make dealing with wolves less tolerable to members of the ranching community. R4 suggested that the ranching community is growing older and ranchers do not have the resources or the
interest to conduct alternative livestock management strategies or more hands on management. Respondents (both ranchers and CRWP/SACC members) also suggested, despite the limited representation from the ranching community, that the group’s efforts were aimed at reducing wolf-livestock conflicts in general and more specifically they helped two ranchers with depredation problems by setting up fladry on their ranches.

In at least one instance the CRWP/SACC members failed to adequately consider the value indulgences and deprivations of one of their fladry studies. In this instance, neighbouring ranchers complained that the fladry was responsible for wolves depredating on livestock on neighbouring ranches. Despite requests from the ranchers for help to kill the wolves, the decision from the group was not to provide support to the ranchers. Respondent responses indicated that this decision, not representative of all CRWP/SACC members’ interests, was based on an interest to preserve wolves and not considerate of potential impacts to social values. In general, respondent responses did not indicate that social values (indulgences and deprivations) were considered when the group identified and implemented proposals, whereas costs of resources and the potential benefits of the fladry study on reducing depredation and improving understanding of wolves, were considered. Yet one of the group’s objectives was to communicate, work and build rapport with members of the ranching community, which would suggest that CRWP/SACC members were interested in the social values important to the ranching community.

Three respondents noted that some decisions were made without debate or approval by consensus. R9 commented “with (another CRWP/SACC member) going around us on things and it didn’t help us.” R5 commented that although CRWP/SACC
were making group decisions, one member would make financial decisions and would commit resources for field work not directly related to the group’s stated objectives without group discussion or approval.

4.5.3.3 Prescription Function

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<td>•</td>
<td>Do those affected or interested generally consider decisions to be lawful and enforceable?</td>
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<td>•</td>
<td>Are decisions for which there is general support promptly made and implemented?</td>
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<td>•</td>
<td>Are decisions for which there will not be continuing support avoided?</td>
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<td>•</td>
<td>Before proposed decisions are made, are they brought to the attention of groups beyond those most immediately interested?</td>
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<td>•</td>
<td>Do prescriptions include norms, contingencies, sanctions and assets?</td>
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<td>•</td>
<td>Do decisions further the common interest rather than special interests, and balance inclusive and exclusive interests?</td>
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<td>•</td>
<td>Are decisions appropriate for all potential situations?</td>
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<td>•</td>
<td>Do sanctions exist?</td>
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The CRWP/SACC’s process performed moderately well in the prescription function. Respondent responses suggest the group’s decision process met three of the eight criteria for the prescription function and failed to meet four of the criteria. Responses were mixed for one of the criteria.

**Strengths**

Respondent responses suggested that the research group was successful at making and implementing decisions both on the ground and at the table when immediate decisions or longer term debate and consideration were warranted. R19 explained that decisions were made “very quickly in some cases, it would depend on what decision it was, what was the magnitude of the implications of the decision, how much resources we would need, human resources and others…discuss and where issues came up we would openly discuss them and ruminate on them and come to some resolution.”
The group's goals, objectives and efforts were directed at improving wolf-livestock conflicts and therefore towards the benefit of the overall broader community. Respondents identified two occasions where ranchers contacted the CRWP/SACC for help to address depredation problems on their ranches. In these two instances the CRWP/SACC implemented the two fladry experiments. R19 stated that “So we also worked with another rancher...he was so pleased, it worked so well. He was convinced that’s what kept him from having depredation...and others just weren’t prepared to jump on board.”

Respondents stated that local ranchers expressed discontent with the outcomes of one fladry experiment as they believed that wolves denning on the property of the fladry experiment were killing livestock on neighbouring ranches. The members of CRWP/SACC did not conduct similar research in the same area, choosing to conduct a secondary fladry experiment in a different location, with fewer ranches.

*Weaknesses*

The group's efforts faced challenges stemming from the fact that many of their decisions (prescriptions) were not enforceable and they lacked sanctions and adequate specifications of contingencies.

The group failed to incorporate and inform all interested or potentially affected individuals or groups about the decisions and projects the group was implementing. Two respondents mentioned that people outside of the CRWP/SACC group were notified of their research work and fladry experiments but that not all potentially affected people were contacted. R19 stated that “it was really a networking kind of approach rather than a broad sweep of the community, so yes there would have been people that we missed.”
R5 explained that communicating with all potentially affected people would be difficult stating, “Not all the neighbours, there were certain people we talked to, that’s part of the problem with working down in that area that there are so many land owners.”

In at least one instance, local ranchers were upset with the outcomes of one research project. Although one of the respondents stated they anticipated impacts to the neighbouring ranches, they had not identified alternatives or contingencies to address or avoid these impacts if they were encountered. Another respondent (R19) did not anticipate the depredation on the neighbouring ranchers and stated that “if we had known that (the depredation on neighbouring ranches) going in we wouldn’t have done it...so yeah, there were some logistical things that thinking about how we would set it up that we might have done it differently.”

4.5.3.4 Invocation Function

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<td></td>
<td>• Are justifiable complaints by the less-powerful encouraged and are actions taken in response?</td>
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<td>• Are all of the decisions carried out and carried out consistently?</td>
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<td>• Are the decisions applied fairly whenever the specified contingencies exist?</td>
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<td>• Are expedient processes applied where circumstances call for quick action?</td>
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<td></td>
<td>• Are more deliberative processes applied where circumstances do not require quick action?</td>
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<td>• Do initiatives impose the minimum deprivation necessary to be effective?</td>
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The CRWP/SACC’s process performed moderately well in the invocation function. Respondent responses suggest the group’s decision process met three of the six criteria for the invocation function and failed to meet one of the criteria. Responses were mixed for one of the criteria and responses were not received for one of the criteria.
**Strengths**

Respondent responses indicated that the group’s decisions were predominantly well thought out and debated and group members were also capable of making quick decisions when necessary. R19 commented that “we discussed, we ruminated, and then we’d make a decision” and also at other times “very quickly in some cases, it depended on what the decision was… the magnitude of the implications of the decision.”

Decisions were implemented fairly consistently although the departure of two research members, including one of the founders of SACC in 2000, made implementation of CRWP/SACC’s decisions more difficult as more time was needed to complete the field work. R5 commented that “when (a CRWP/SACC member) left in 2000… there was no other field help… we were always constrained by time, but the reality is when you’re out there largely by yourself things do fall by the wayside.”

**Weaknesses**

Respondents’ responses indicated that the group’s actions imposed unnecessary hardship for ranchers due to one of the fladry research projects as neighbouring ranchers complained of depredation on their properties as a result of wolves coming from the experimental property. However, R4 (a biologist), felt the depredation was simply a continuance of regular wolf activity as seen in other years while another respondent suggested that the hardship experienced by the ranchers from depredation was the provincial government’s responsibility as it is responsible for wolf management and wolf control. The group did not actively seek feedback from the public or government although respondents believed the group would have been open to feedback.
4.5.3.5 Application Function

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<tbody>
<tr>
<td>• Is performance supervised and reviewed and nonconformity with prescriptions rectified?</td>
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<tr>
<td>• Is there any discrimination in application?</td>
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<tr>
<td>• Are third parties participants mobilized in order to neutralize special interests?</td>
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The CRWP/SACC’s process performed moderately well in the application function. Respondent responses suggested the group’s decision process met one of the criteria and failed to meet one of the criteria for the application function. Results were mixed for one criterion. Few people were asked the questions corresponding to these criteria as the questions were mainly addressed to those involved in decision making. Also, only two responses were tape recorded for two of the criteria due to the technical failure of the recording equipment used for this study.

Strengths

Eight respondents stated that neighbouring ranchers, not involved in the group’s research, voiced their concerns and discontent over the depredation occurring on neighbouring properties following completion of one of the group’s fladry experiments. This expression of concern by third parties resulted in the CRWP/SACC members discussing the possibility of CRWP/SACC helping the ranchers by killing the wolves. Thus, the group at least considered this claim about the implementation of its prescription. Unfortunately other, and possibly special interests, within the CRWP/SACC membership were not confronted through additional third party participation.

Weaknesses

Respondents felt that the group’s performance was not well supervised and that there were differences in how decisions were made and problems with how information
was collected. Respondents commented that although decisions were generally made through group discussions, some decisions were made by one group member in particular on more than one occasion without discussion or approval by the research group. Despite these discrepancies in how decisions were made or implemented the research group did not act to correct the perceived problems.

One respondent identified a specific occasion where a problem was encountered with information that was provided by CRWP staff that was necessary to complete field work. The respondent suggested that the incorrect information was not a mistake but purposely misleading. The respondent further commented that this misleading information was associated with a disagreement on proper research protocols and followed critical comments provided to CRWP staff (by the respondent) previously. This respondent further commented, “I was the only one willing to step forward and say... the project is suffering as a consequence...” The respondent stated that new information was provided after the confrontation with the CRWP staff, and the field work resumed with success.

4.5.3.6 Termination Function

| Met | • Are obsolete programs promptly terminated when they are no longer justified? |
| Met | • Are the facts used in judging whether to terminate dependable and comprehensive? |
| Not Met | • Are termination policies dependable and comprehensive? |
| No Response | • Is a balance maintained between expediting or inhibiting change? |
| No Response | • Are valid losses arising from termination compensated? |
| No Response | • Is compensation denied where strong coercive opposition to policy is likely to continue? |
| No Response | • Are windfall advantages arising from termination expropriated? |

The CRWP/SACC’s process performed moderately well for the criteria that were assessed in the termination function. Respondent responses suggest the group’s decision
process met two of the seven criteria for the termination function and failed one of the
criteria. Results were not obtained for four criteria.

*Strengths*

Despite the fact that the majority of respondents did not comment on clear
timelines for terminating projects, one respondent, R4, commented that the fladry
experiment had a two year timeframe. Further comments from R4 suggested that the
group was successful in terminating the fladry experiment following the completion of
this anticipated timeframe. These comments also suggest that the reason for ending the
fladry experiment was clear and understandable.

*Weaknesses*

The research group operated without termination policies for the strategies that
they identified and implemented and for the group itself. R19 offered that “we didn’t
really say this is going to be a five year, or four or three or two, we just felt that we could
ride the wave as long as we could to make a difference as much as we could...these things
often become very opportunistic.”

**4.5.3.7 Appraisal Function**

| Not Met | • Are appraisal policies and criteria generally agreed upon? |
| Not Met | • Are the data used in evaluation dependable? |
| Not Met | • Are the explanatory analyses relevant and explicit? |
| Not Met | • Is there explicit imputation of formal responsibility for successes and failures? |
| Not Met | • Is appraisal comprehensive and yet selective? |
| Not Met | • Are the appraisers protected from threats or inducements? |
| Not Met | • Are internal appraisers supplemented by external appraisal? |
| Not Met | • Is appraisal continuous rather than intermittent? |
The CRWP/SACC's process performed poorly in the appraisal function. Respondent responses suggest the group's decision process failed to meet any of the eight criteria for this function.

Respondents that were members of the CRWP/SACC process indicated that the group's decision process did not incorporate any formal or structured appraisal function and the process was never evaluated (prior to the present study). Responses indicated that evaluative policies and criteria were not discussed. Respondents were not aware of any evaluation that had been conducted in relation to the group and its efforts.

4.5.3.8 Criteria for Overall Process

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<th>Met</th>
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<tr>
<td>• Are official personnel fiscally honest?</td>
<td>• Does the public believe that program officials are fiscally honest?</td>
<td>• Is the process efficient in the use of money?</td>
<td>• Is the process efficient in the use of non-monetary resources?</td>
<td>• Are official personnel committed to the overriding goals of public policy?</td>
<td>• Does the program contribute to the mobilization of immediate and continuing political support for the political system as a whole and to the overriding goals of public policy?</td>
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<tr>
<td>No Response</td>
<td>No Response</td>
<td>Not Met</td>
<td>Mixed</td>
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<tr>
<td>• Are there differentiated structures for each function of decision making?</td>
<td>• How well does the system adjust to changes such as from crisis to non-crisis?</td>
<td>• Are decisions made in a deliberative and responsible manner rather than in an erratic and impulsive manner?</td>
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*Rating based solely on interview responses

The CRWP/SACC's process performed poorly in the criteria for the overall process. Respondent responses suggest the group's decision process met two of the nine criteria and failed two of the criteria. Results were mixed for three of the criteria and respondent responses were not received for two of the criteria.

Strengths

Respondents stated that the research group was efficient in its use of funds and other resources for specific projects. However, respondents also commented that
resources (both financial and staffing) were allocated to field work not discussed or agreed to by the CRWP/SACC members as a group and that this field work did not support their research program. One might consider this use of resources as inefficient in terms of accomplishing the research group’s goals.

Responses indicated that group members were generally understanding and considerate of people’s values, rights and property. In one instance where ranchers complained about predation following the group’s fladry project, the group may not have adequately considered the values of those ranchers operating next to the project location.

Weaknesses

Decisions were generally well thought out and agreed upon following the appropriate amount of time. However, respondents noted times where decisions were made without group debate or consultation and without consensus. The group’s decision making process faltered when they were forced to address the concerns surrounding the fladry research. In that situation the group was met with resistance from local ranchers and the group was unable to come to an agreeable solution and the consensus based decision process formerly used was replaced by an unpopular decision largely dictated by a single member of the group.

Two respondents mentioned that the research group’s funding was mismanaged, and suggested that all official personnel may not have been fiscally honest and that resources were spent on equipment and projects not discussed or agreed upon by the group as a whole. R9 stated that “the money stuff wasn’t being handled right...got frustrated with how the money was being spent and where it was going and how it was being applied because it was intended for southern Alberta but it was being used for other things...”
was impossible for me to independently check whether these claims about fiscal honesty were factually accurate, but as there was no apparent reason to doubt these respondents on this matter and there were no other responses that challenged their claims, I assigned this criterion a rating of "not met".

The group's decision process lacked differentiation for the individual decision functions.

4.6 Case study 2: Oldman Basin Carnivore Advisory Group

4.6.1 Problem Orientation

Goals

The goal of the OBCAG was to bring all interested and affected groups together to make recommendations to the provincial government to help reduce wolf-livestock conflicts in the Oldman Basin while maintaining a stable wolf population. R1 stated the group's goal was "to minimize conflict between livestock and wolves ... and ... do some actual basic studies to try to understand the behaviour of the interaction more and to see if there were ways to co-exist..." R17 commented that, "there were actually goals as far as putting together a strategy or on what we were trying to do as far as research and then come up with a management plan." R12 recalled that "...the group was put together primarily at the request of two department ministers... in relation to ... the amount of wolf depredation that was occurring in the Oldman River drainage area..." R23 didn't think the goals were clear stating that "one of the drawbacks of the group, it was never really defined what the goals were. Normally I think it was to get people together and talk about the issue and try to come up with some solutions other than just killing wolves."
In order to achieve the group’s goals, group members stated that they were looking to improve understanding of wolf ecology and wolf-livestock interactions through research, address depredation directly through targeted wolf control, reduce potential for depredation by instituting mitigative livestock management practices, and improve communication among the stakeholders.

**Trends**

Respondents identified six main trends that were apparent prior to the OBCAG’s efforts regarding wolf populations, wolf-livestock conflict cycles, ranching practices, economic viability of ranching, human sentiment towards large carnivores, and an increase in human presence. First, a growing wolf population in Alberta has added to the challenges surrounding wolf-livestock conflicts. R22 suggested that “we have more wolves... between the Bow River and the Montana border than in living memory.” The second trend is an ongoing wolf-livestock depredation cycle. R12 summed up this cycle well saying “historically the wolf numbers would build up and the population would start preying on livestock and the wolves would be killed off, the whole pack, and then it would be quiet for two to three years or maybe four, and then the wolf numbers start again and then the depredations would start and then they would increase and you kill them all again.” The third trend is the lack of broad change in livestock management practices. Livestock management practices have been handed down from generation to generation with little change over the years with the exception of a select few individuals. The fourth trend is a challenging economic environment for the ranching industry. The fifth trend is a growing acceptance and respect by the general population for large carnivores, and increasing opposition to the practice of culling these animals. R1
supported this idea stating that, "public opinion seems to think that that's not an appropriate way to deal with wolves." The sixth trend is a growing human presence on the land used by livestock and wolves in southwestern Alberta in the forms of recreational use, resource extraction and the expansion of communities.

**Conditions**

Respondents identified the following conditions underlying the trends mentioned above. Wolf populations of southern Alberta have likely been influenced by the increase in wolf numbers south of the border and also partially as a consequence of declining trapping efforts. R12 commented that, "trapping in the old days kept the wolf numbers much lower. Since the decline of the fur industry ... the wolf is not subjected to as intense a trapping effort as it was around about 50 years ago, or even 20 years ago." R3 commented that, "(there has been) a real increase in the wolf population. I'm not sure why it is exactly... I think it might be that nobody is trapping wolves right now... in the US I think they are protected ... and wolves move back and forth." R23 commented that, "as long as you are running cattle you'll have issues because wolves are moving up and down all the time from Montana to north of Jasper." The provincial government has a history of indiscriminately reducing wolf populations in response to depredation and to support game species, and the 1991 wolf management plan permits hunting nine months of the year and permits a person to kill wolves at any time within 8 km of their property. Wolf-livestock conflicts are common as grazing lands, wild prey habitats, and wolf habitats overlap along the east slopes of the Rocky Mountains in southern Alberta. Elevated wolf populations along with recreational activity and oil and gas development in the forest/grassland interface and forested backcountry is increasing wolf-livestock
encounters and depredation. Ranching is a way of life that has been passed down from past generations and livestock management practices in this region have changed little over the years. The economic difficulties of ranchers are due in part to the BSE crisis. The Canadian beef industry was affected by BSE in 2003 and respondents commented that the provincial compensation program for livestock losses from predation was inadequate to recover real losses. R23 commented that, “part of the problem was that we were going through a time of BSE and a lot of the ranching was very poor.” Depredation on cattle not only equates to an economic loss but it also can be an emotional experience as ranchers see cattle that have been maimed or killed. R21 commented, “… you just have to be at a few depredation events… (wolves) create a huge amount of emotion. That is what you are dealing with and people who are confronted with that … it’s the emotional part of how they do it and the upfront it is not clean, there is suffering, and it is all these things that create, that trigger an emotional response and for those ranchers it is real…”

_Projections_

Had the group not come together respondents felt that the depredation and culling cycle would have continued. R23 believed that, “well if (the OBCAG) hadn’t happened, there would have been ad hoc killing of wolves by government and ranchers, including poisoning and indiscriminate shooting, the same old cycle.”

Even with the OBCAG operating, some respondents felt that the group would continue collaring and controlling wolf numbers with little interest in alternative livestock management practices. R22 stated that, “as long as wolf numbers stayed down and we
had helicopters in the air and the collars on wolves, that was good enough for them, and that would be an ongoing continuous process.”

Alternatives

Alternatives that were discussed by the OBCAG included collaring to improve understanding of wolf ecology and wolf-livestock interactions, lethal control and a ‘three-in-three’ threshold for wolf control, a communication strategy, and alternative management practices, including night riding, the use of deterrents like rag boxes, and alternative feeding arrangements for livestock. The ‘three-in-three’ threshold refers to the level of depredation – three depredation events in three months – permitted for a particular pack before lethal control is implemented. Night riding is an exercise that consists of riders monitoring a pasture overnight (camping out) with telemetry gear waiting for collared wolves to approach so that they can intercept them before reaching livestock and scare them away. R12 spoke of the alternative management options saying, “we talked about many, many things, non-lethal control, husbandry practices, what pasture do you put your cattle on, what mix of cattle do you put yearlings in the back pasture in the spring of the year when the wolves are there.” Strategies that have so far been implemented include collaring, lethal control and night riding. Although a communication plan was prepared it was not implemented. These alternatives were recommended with consensual agreement, compromises, and occasional reluctance from group members. The group members consensually agreed to collaring efforts for both research and wolf control measures. The conservation groups, biologists and ranchers compromised in recommending the three-in-three threshold for lethal wolf control. The respondents from the OBCAG that represented the ranching community reluctantly
agreed to the development and implementation of a communication plan that would assist
the OBCAG in sharing their work (ongoing research and recommendations) with people
outside of the advisory group (ranchers, rural and urban community members,
environmental and conservation groups, etc) despite concerns over potential public
backlash. R22 offered that the ranching community had received unwanted public
attention in the past over wolf control stating, “when the word got out, it resulted in wolf
lovers actually targeting some local ranchers with letters or a presence at their gate...a
spotlight that the ranchers didn’t want.”

4.6.2 Tests for the Common Interest

The group’s decision process met five of the seven criteria and did not meet one
of the criteria for the Tests of the Common Interest. Respondent responses were mixed
for the procedural test, the process met the criteria for the substantive test and responses
were mixed for the practical test.

**Procedural Test**

| Met | Are the effective participants representative of the community as a whole? |
| Not Met | Are the effective participants responsible and accountable to the community? |

The respondents that were members of the OBCAG felt the advisory group’s
membership was generally representative of the overall community with the exception of
a few groups of people not participating, such as local First Nations communities, the
Alberta Fish and Game Association (an organization representing fishers and hunters)
and community leaders. R21 felt, “that they covered the sectors well...I don’t think it
could have been set up any better,” while R12 stated that, “we didn’t have a rep from the
Alberta Fish and Game Association... I know there were probably people who weren’t
represented from the great unwashed masses of the public, how could you.” Respondents disagreed on whether the group’s members were communicating with their constituents, but the majority of the respondents suggested that the OBCAG was not openly discussing their work with people outside of the group. R23 commented that, “it was never established how it was to be communicated to the people they represent and to a large extent I don’t think it was.” R22, an OBCAG member stated, “...there was no evidence that they took answers, solutions, proceedings or progress from the committee to the rest of the community.” The ranchers that were not members of the OBCAG were unfamiliar with at least some, if not all, of the OBCAG’s efforts. R8, a rancher familiar with the OBCAG, commented, “I just honestly never heard that much of what they were trying...you know what direction they were going” and another rancher, R14, commented that, “you just can’t fly your helicopter any time you want to shoot a wolf and not tell anybody when ... or why you shoot a wolf or anything else ... and that’s the way it’s been.”

Substantive Test

<table>
<thead>
<tr>
<th>Met</th>
<th>Are the expectations of the group and its members warranted by the evidence available?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>Are the value demands compatible with more comprehensive goals?</td>
</tr>
<tr>
<td>Met</td>
<td>Have participants who are representative of the community as a whole signed off on the policy?</td>
</tr>
</tbody>
</table>

The OBCAG’s expectations, interests, and longer term goals were reflective of the actual conditions (social, economic, and biological) surrounding wolf-livestock conflicts. Some respondents, both members of the OBCAG as well as ranchers not involved with the OBCAG, questioned whether the group’s efforts were in line with the interests of the ranching community. R22 suggested that, “if this process went away, ranchers would probably be happier.” In a similar line of thinking R10 commented, “not
that the ranchers would change the way they ranch to accommodate wolves” and R11 stated that, “the ranchers see this as somewhat of a burden.” However, the majority of respondents, including ranchers (both on and off the OBCAG), felt the overall goal to reduce wolf-livestock conflict was in everyone’s best interest. R12 stated that, “if (ranchers) didn’t feel it was important they wouldn’t participate… for the most part we found that the group was pretty much in agreement that wolves had a place on the landscape... and everyone agreed that wolves should not be present on the landscape at the expense of the cattle producer.” R22 commented that, “the conservation community at the table made it a point, repeatedly, to say we want to reduce predation, we’re not here to feed cows to wolves and the ranchers would say we don’t want to kill every wolf, we just don’t want them eating all of our cows.” Although responses from one rancher did not disagree with the potential benefits of reducing wolf-livestock conflicts, the rancher believed that the efforts to reduce conflicts, including collaring (and leaving wolves on the landscape), are costly to ranchers both in cattle losses and in resources needed for mitigation, and that this hinders people’s ability to make a living.

Three respondents indicated that although government representatives on the OBCAG were very dedicated to the group’s efforts, the group lacked general commitment from the provincial government. R21 suggested that, “the OBCAG was not something that necessarily had the Minister’s ear.” R22 commented that, “Carrie (a provincial representative on the OBCAG) was committed…but you get one step above that and I think the commitment just declines, declines, declines.” In similar fashion, the majority of respondents from the OBCAG suggested that the resources provided by the government were inadequate to successfully complete the recommended strategies.
Respondents that were familiar with the OBCAG’s decision process indicated that the group’s decision process was consensus-based or by majority where consensus was not achieved. Therefore the OBCAG members had direct involvement in, and approval of, all recommendations made to the provincial government. R1 supported this by saying, “you try to go on consensus ... there has certainly been some compromises made.” R13 commented that, “I really can’t say that I remember a vote, perhaps you could say though that we operated by consensus.”

Practical Test

| Met | Is participation still representative and responsible over time, and if not is the process adapted accordingly?  
| Not Met | Do the outcomes continue to be compatible with more comprehensive goals and supported by the community over time, and if not, is the process adapted accordingly? |

Respondents suggested that the OBCAG’s decision process was generally representative and responsible, but that the outcomes of the group’s efforts were losing support from members of the ranching community and were not always compatible with community interests over time.

The OBCAG’s representation experienced several changes since inception including the Defenders of Wildlife joining the OBCAG in place of the Alberta Wilderness Association, the addition of one biologist and the loss of the group’s facilitator in 2007. The OBCAG’s membership was not adjusted to include any additional representation and the group did not discuss individual roles and responsibilities despite concerns that representatives had not been communicating with their constituencies. R22, a member of the OBCAG, identified a concern that “there were leaders in the ranching community, influential leaders... who were not present.” The OBCAG’s efforts were unknown to the majority of people outside of the group’s membership although a
communication plan was nearly completed prior to the facilitator leaving the group. R10, an OBCAG member, stated that, "there are a lot of guys down here that never new such a thing was going on," while R22 commented that, "there is a whole list of positives coming out of this committee work and it is not being taken back into the ranching community." Another OBCAG member, R23, noted that one of the deficiencies that became apparent over the years was that, "what the group was doing and what it was accomplishing was not communicated very effectively to the community at large." In contrast R12, another OBCAG member, commented that, "there were good reports coming back from representatives that were on the board, particularly from the producers. The producers were diligent in keeping the community informed of what was going on, and members of their groups were really diligent in keeping their member on the committee well informed."

Respondents suggested that support for the SRD’s current wolf control program had declined due to an increase in the number of depredation events. Respondent responses indicated that during the time when the OBCAG was actively meeting the group was able to address concerns over wolf control and livestock depredation. However, respondent responses suggested that since the last OBCAG meeting the wolf-livestock conflicts had increased and the SRD was no longer able to successfully implement the three-in-three wolf removal management alternative. R8, a rancher, described recent conditions saying, "It is getting worse and worse every year; our number of wolf kills are up drastically... there is tons of room for improvement ... the ‘three-in-three’ that’s gone by the way side, we don’t even get that anymore." R21, a member of a government agency... commented, “that is what we are going through a major period of
right now (livestock depredation).” R14, a rancher, also commented that, “the pack down here is now starting to kill cattle.” Another respondent, a member of the OBCAG, stated that the ‘three-in-three’ rule was still in place but that the government had not been able to deliver as a consequence of funding cuts. R1 suggested that the ranching members on the OBCAG were frustrated with the wolf control strategy saying, “one of the things that the ranching community has been frustrated by on this committee is that instead of removing a full pack when there is trouble we’ve tended to reduce it and given it benefit … in the hope that things would stop, and it hasn’t.” However the majority of ranchers on the OBCAG that were interviewed indicated they were supportive of the recommended wolf control strategy. Mixed responses suggested that interests were diverging on how, and to what degree, wolf control should occur.

4.6.3 Decision Functions

Of the 66 criteria for the specific decision functions and overall process, the OBCAG’s decision process met a total of 36 criteria, failed to meet 17 criteria, responses were mixed for 10 criteria, and responses were not received for three of the criteria. Overall the OBCAG’s decision process performed well for three decision functions (Intelligence, Promotion, and Invocation) and the overall criteria, performed moderately well for the Application function, and performed poorly for three decision functions (Prescription, Termination, and Appraisal). A summary of the results is provided in the following table (Table 4.3) and the results are discussed in more detail in the following subsections.
Table 4.3. Overview of the evaluation results for the OBCAG decision process by criterion categories and decision functions

<table>
<thead>
<tr>
<th>OBCAG</th>
<th>Number of criteria per function (Met, Not Met, Mixed and Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Criteria Met</td>
</tr>
<tr>
<td>Intelligence</td>
<td>12</td>
</tr>
<tr>
<td>Promotion</td>
<td>8</td>
</tr>
<tr>
<td>Prescription</td>
<td>3</td>
</tr>
<tr>
<td>Invocation</td>
<td>3</td>
</tr>
<tr>
<td>Application</td>
<td>1</td>
</tr>
<tr>
<td>Termination</td>
<td>1</td>
</tr>
<tr>
<td>Appraisal</td>
<td>2</td>
</tr>
<tr>
<td>Overall Criteria</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
</tr>
</tbody>
</table>

4.6.3.1 Intelligence Function

- Is the information gathered for decision making accurate? Can it be relied upon?
- Are estimates given of the credibility of information and the uncertainty involved?
- Are the best sources of information used?
- Can the sources be relied upon to supply realistic statements of information?
- Are appropriate methods and competence mobilized and used when needed or indicated to gather information?
- Is the information accurately transmitted from the sources to recipients?
- Do recipients acknowledge the credibility and realism of the sources of information?
- Is information obtained for all relevant components of the problem, and the context of the problem?
- Is information obtained from all appropriate sources and all affected people?
- Are estimates made of the benefits, costs and risks of each of the alternatives investigated?
- Are intelligence activities focused on the key aspects of the problem, guided by adequate problem orientation?
- What proportion of outputs are related to problems perceived to be important by insiders versus other people affected or interested?
- Are new objectives and strategies that are realistic taken to gathering intelligence?
- Are new objectives and strategies compared with older objectives and strategies?
- To whom is intelligence communicated?
- Is anyone excluded from access to intelligence and is the exclusion justified?
The group’s decision process met 14 of the 16 criteria for the Intelligence Function. Results were mixed for two of the criteria.

**Strengths**

The majority of respondents believed that the people gathering and providing information to the OBCAG were knowledgeable and accountable to the group and the information that was provided was both appropriately questioned and openly debated. R10 stated that, “Carita was one to question everything...she would always question the person who said it.” Respondents familiar with the group stated that information was considered from a variety of sources; ranchers, biologists, environmental groups and government.

The majority of respondents felt that most of the information brought to and reported by the group was likely available to anyone interested, including members of the OBCAG and people not involved with the advisory group. R12 stated that, “It would have been available... Carita actually prepared a major report and gave a copy to everyone at the table, of all of the things we knew historically and the things we had been doing and what records we had kept since then.” All respondents that were on the OBCAG stated that sensitive information, such as specific wolf habitats, would not have been disclosed to all people and they felt that the limited disclosure for sensitive information was justified. R10 stated that, “what Carita was worried about was that if you released points on a map especially that showed the denning areas, then people would go find the denning areas and take the wolves out... I could see her point.” R12 reasoned that, “we found four dead wolves one year in the spring...somebody had found the den and took it upon themselves to do that. So we didn’t distribute that information
to anyone.” Some people within the advisory group even felt that some information was withheld from them as well, such as R10 who said, “they used to bring maps to the thing and we could see points, but I don’t know if they gave us all the points (speaking of wolf locations).”

All respondents from the OBCAG indicated that the group was open to new ideas and was willing at the very least to discuss all options presented to the group. R12 highlighted some of the options discussed, “we talked about many, many things: non-lethal control; husbandry practices; what pasture do you put your cattle on; what mix of cattle; do you put yearlings in the back pasture in the spring of the year when the wolves are there.” The respondents familiar with the OBCAG’s decisions felt the group focused their efforts on the tasks they deemed most important to help alleviate the wolf-livestock conflicts and that the group considered the costs and benefits of options before making their decisions.

Respondent responses indicated that the group had a fair understanding of past trends and acknowledged what they knew and didn’t know of existing conditions. Respondent responses were mixed as to whether the group had clearly identified the problem as well as their goals and objectives. R10 commented that, “we were trying to see if we could get wolves and ranchers on the landscape, to see if we could make it work.” R13 commented that the goal was to, “try to establish a system where the wolves could be retained in a healthy population without getting the ranchers so upset they wipe them out.” R22 stated, “that’s what’s been lacking in the Carnivore Advisory Group… is that I don’t think we articulated, is this what we are trying to do or not.” R23
commented that, “this was probably one of the drawbacks of the group, it was never really defined what the goals were.”

**Weaknesses**

The majority of the respondent responses indicated that the OBCAG did not communicate openly with people outside of the advisory group. Respondent responses from OBCAG members indicated that some members of the OBCAG, primarily ranchers and government representatives, felt the sensitive nature of the group’s efforts in managing wolves required limited disclosure while the majority of respondents believed the group was too secretive in its actions and should have reached out to people outside of the OBCAG group to share in its efforts, achievements, and objectives. R1 commented, “Some members of the committee were very reluctant to have much public information of the committee’s activities out there ... it’s (OBCAG) had a pretty low profile, and that has been on purpose because we’ve done some things that aren’t politically popular like collaring wolves and not destroying an entire pack when there’s some predation.” R17 stated that, “we were trying to manage how the information was going to be made to the public, on how we were going to let the public know about our research and where it was going and how much success and whatever...because it is a very high profile animal, so we were careful in how we would do our work but manage the information flow so that it went out in a way that it wasn’t simply going to be exploited through the media and blown out of proportion.” R22 believed that, “there is a whole list of positives coming out of this committee work and it is not being taken back into the ranching community by the ranchers at all,” while R13 commented that, “I had the impression that they would rather that the Assistant Deputy Minister and etc., didn’t
know what we (the OBCAG) were doing.” R14, a rancher commented, “they don’t make
any effort to communicate with anybody on the ground.”

Respondent responses were also mixed on whether the outcomes of the group’s
efforts were aimed at supporting the community as a whole or rather the specific interests
of the group. Although most stakeholders were represented on the OBCAG, including
ranchers, responses in regards to the group’s efforts were still mixed. This may have
been due to the poor communication between the OBCAG and members of the local
ranching community, as well as other represented and non-represented groups.

Respondent responses indicated that the advisory group primarily focused on reducing
depredation events as well as placing collars on wolves for research, therefore the
majority of the groups decisions were focused on the primary concern of all respondents.

In addition respondents on the OBCAG commented that the group also worked on
recommendations for changing the provincial compensation scheme for livestock losses
from depredation.

4.6.3.2 Promotion Function

<table>
<thead>
<tr>
<th>Met</th>
<th>Met</th>
<th>Met</th>
<th>Met</th>
<th>Met</th>
<th>Met</th>
<th>Met</th>
<th>Not Met</th>
<th>Met</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>• Is there general cooperation in obtaining intelligence?</td>
<td>• Are all reasonable alternatives brought to the attention of decision makers?</td>
<td>• Are proposed alternatives assessed and justified in terms of value indulgences or deprivations?</td>
<td>• Are proposed alternatives broadly supported?</td>
<td>• Is the debate about alternatives bipolar?</td>
<td>• Is there coercion in the debate about alternatives?</td>
<td>• Do the alternatives proposed reflect the full range of community interests?</td>
<td>• Are the views of the weak or neglected incorporated through direct participation or other means of solicitation?</td>
<td>• Is thorough debate of all views encouraged before proposals are adopted or entrenched?</td>
</tr>
</tbody>
</table>

The group’s decision process met eight of the nine criteria for the promotion
function and failed in terms of one of the criteria.
Strengths

All of the respondents that were familiar with the OBCAG indicated that the advisory group was successful in including all group members in gathering information and in identifying, developing and deciding on the strategies it recommended to the provincial government. Similarly, these respondents also believed that the group was open to, and debated, any and all ideas and recommendations proposed by OBCAG members. R22 was “pleased with the ... ability of any of us to introduce a topic and have it considered reasonably.” R12 agreed saying, “suggestions were made that there were other things that we could look at, we were all made aware of them... they would voice their objections, they would sort of indicate why that was the case...we didn’t have to have 100 percent consensus to make a recommendation, we wanted a majority consensus.” R1, a rancher on the OBCAG, commented that decisions were often the result of “a number of long and laborious conversations between the players really,” and R21 commented that, “the discussions were very open and people were respected and everyone was allowed to speak.”

Responses from all respondents on the OBCAG indicated that the group functioned in a manner that was respectful of all interests and did not act to discriminate against one or more people or groups in its decisions. R12 commented that, “we also saw respect for each other’s philosophy...I never saw any disrespect for any one person or group during the meetings.” Respondent responses indicated that proposed alternatives were broadly supported by OBCAG members and that the alternatives adopted supported the interests (with moderate concessions at times) that were
represented on the advisory group. One rancher familiar with the OBCAG, R8, commented that, “I think decisions were made to benefit everything, they weren’t made to discriminate or hurt anybody, they were made professionally.”

The responses of respondents from the OBCAG suggested that the group members were there in good faith and that there was no coercion in the debate about alternatives. It should also be noted that one respondent from the OBCAG group also commented that the ranchers on the advisory group may have been stringing them along. R21 believed that, “there was differing of opinions, but I don’t think there was any power struggles.” R13 commented that, “I don’t think any of us were trying to deep-six the thing... because we felt that the ideal for everyone was to achieve the goal and that would be better for the ranchers long term.”

The majority of respondent responses from OBCAG members suggested that the views of the ‘weak or neglected’ were considered in the decision-making process. Respondents from the OBCAG further suggested that representation on the advisory group was fairly complete, however four of these respondents mentioned that information was not likely reaching all members of the broader community. R22 commented that, “the representatives on the committee from the ranching community seemed intent on bringing complaints, and questions, and concerns from the ranching community to the committee but there was no evidence that they took answers, solutions, proceedings or progress from the committee to the rest of the community.” R22 also believed that “probably half the ones (ranchers) that were directly affected were not there (on the OBCAG), but thinking that the province would advise the others of what was happening, but this was one of the glitches...” R23 believed that the group’s efforts were supported
by the broad community, but noted that one of the deficiencies that became apparent over the years was that, "what the group was doing and what it was accomplishing was not communicated very effectively to the community at large." R23 further stated that, "ranching individuals were quite careful in not talking about it much because then they would be perceived as working with conservationists and government." R10 commented that, "well you'd never get all the ranchers, like there are a lot of guys down here that never knew such a thing was going on." In addition, responses from three respondents from the ranching community indicated that they were not in contact with the OBCAG and R8 further commented that the group was not well known, "if you asked the guy over the hill have you ever heard of this or would you ever contact this group, he would probably say he's never even heard of it."

Conversely, four respondents from the OBCAG commented on communicating with their constituents and R12 commented that, "there were good reports coming back from representatives that were on the board, particularly from the producers. The producers were diligent in keeping the community informed of what was going on, and members of their groups were really diligent in keeping their member on the committee well informed."

Weaknesses

The majority of respondent responses (from OBCAG members and non-members) indicated that all of the interests from the broader community were probably not reflected in the alternative strategies that were proposed. The majority of the ranchers not on the OBCAG commented that greater wolf control was needed, while one rancher (not on the OBCAG) commented that wolf control may not be the most effective way to reduce
livestock losses as their experience has shown that poisonous vegetation often kills more cattle than wolves.

4.6.3.3 Prescription Function

<table>
<thead>
<tr>
<th>Condition</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Met</td>
<td>• Do those affected or interested generally consider decisions to be lawful and enforceable?</td>
</tr>
<tr>
<td>Met</td>
<td>• Are decisions for which there is general support promptly made and implemented?</td>
</tr>
<tr>
<td>Not Met</td>
<td>• Are decisions for which there will not be continuing support avoided?</td>
</tr>
<tr>
<td>Not Met</td>
<td>• Before proposed decisions are made, are they brought to the attention of groups beyond those most immediately interested?</td>
</tr>
<tr>
<td>Not Met</td>
<td>• Do prescriptions include norms, contingencies, sanctions and assets?</td>
</tr>
<tr>
<td>Met</td>
<td>• Do decisions further the common interest rather than special interests, and balance inclusive and exclusive interests?</td>
</tr>
<tr>
<td>Met</td>
<td>• Are decisions appropriate for all potential situations?</td>
</tr>
<tr>
<td>Not Met</td>
<td>• Do sanctions exist?</td>
</tr>
</tbody>
</table>

The group’s decision process met three of the eight criteria for the prescription function and failed in terms of five of the criteria.

Strengths

Respondent responses suggested that due to the fairly comprehensive representation on the OBCAG and the encouragement of members to contribute to discussions that the recommendations that were made were reflective of the interests of the overall community. Respondent responses from OBCAG members indicated that one of the ranching members of the OBCAG had experienced a high level of depredation personally, but was still supportive of the group’s research efforts and the ‘three-in-three’ threshold recommendation for wolf removal. R13 commented that, “I think even ***, who had had the heaviest depredation of all of us... I think that even he bought into what we were trying to do.”

Decisions that had relatively strong support from group members were recommended and implemented quickly. R12 agreed saying, “on a whole, when we
made a recommendation I don’t recall a single incident where we made a recommendation that was challenged or denied, other than the money.” R21 commented that, “certain things were responded on right away and ... its probably been close to two years for some recommendations for compensation...” All of the respondents familiar with the OBCAG decision process indicated that the group took the appropriate amount of time to make decisions under various circumstances. These respondents suggested that relatively quick responses were made for urgent situations such as wolf control, and longer more in-depth debate took place for longer term processes such as preparing a communication plan, where immediate responses were not warranted. Respondents however also commented that despite the quick decisions for urgent situations, the availability of resources often delayed the implementation of the decisions, primarily in the removal or collaring of wolves. R22 stated that, “I think most of it was driven by urgency, in a strategic context... I think we were always timely.” R10 commented that, “Well some of it was pretty quick, you know it depended on the availability of the (helicopter).” Examples of recommendations include the ‘three-in-three’ rule as a threshold for killing particular wolves (following three depredation events in three months by the same pack), maintaining two collars on each pack, and a communication plan.

Three respondents on the OBCAG suggested that the group discussed and agreed on contingencies for some decisions such as when to continue collaring and when and where to apply the ‘three-in-three’ rule with a limited budget. R22 recalled they had contingencies for lethal control stating that, “we adopted a lethal control methodology that has some contingencies that we would be more lethal or less lethal under certain
circumstances and we wouldn’t use strychnine and wouldn’t shoot wolves from helicopters, we’d net gun and euthanize and so on.” However, responses from other respondents on the OBCAG indicated that some members of the advisory group were unaware such contingencies existed and that these contingencies were not formally recognized. R1 stated that they were “not aware of a rule of thumb like that, but there may have been one, but I’m not aware of it.”

**Weaknesses**

Most respondents associated with the OBCAG made it clear that the decisions that were made were merely recommendations from an advisory board to a provincial government. Therefore the respondent responses indicated that the process and its decisions had little authority and the decisions were not enforceable. R17 recalled that “we didn’t really have any say, we didn’t have any legal rights to affect management, we were in an advisory position.” R1 agreed saying, “most of the time in recent years, the governments have dealt with the problem and our committee didn’t have the authority to do more than advise.” R21 firmly stated that, “the OBCAG was not a decision making board by any means…making suggestions and working as a sounding board for proposals that the government was making.” If the provincial government failed to implement those decisions or failed to implement them consistently, respondent responses suggested there was little recourse. R10, a member of the OBCAG, suggested that the government likely didn’t follow the advisory group’s recommendations at times saying, “I’m not sure if they followed them, not if they were doing them the way I suspect some of them were done.” To further challenge enforceability and compliance respondent responses suggested that the OBCAG’s recommendations were not clearly identified, did not
incorporate sanctions, and resources were not secured for consistent, long-term, implementation.

The majority of respondent responses (both OBCAG and non OBCAG members) suggested that potentially affected individuals or groups were not informed of the group’s decisions prior to their recommendations, although respondents from the OBCAG felt that with responsible representation this should not have been a challenge. Respondents also suggested that support for the recommended wolf control strategy may be waning due to an increase in depredation events. R17 stated that, “we’ve just gone through the worst year yet for depredation.” Since the group had not met since the departure of the area biologist and OBCAG facilitator, more than a year prior to the time the interviews were conducted, the group had not addressed those concerns by reviewing, amending or terminating existing prescriptions. R8 commented that, “it is getting worse and worse every year, our number of wolf kills are up drastically. I don’t think they made any headway because of the situation that the producers are in right now.”

4.6.3.4 Invocation Function

| Mixed | • Are justifiable complaints by the less-powerful encouraged and are actions taken in response? |
| Not Met | • Are all of the decisions carried out and carried out consistently? |
| Met | • Are the decisions applied fairly whenever the specified contingencies exist? |
| Met | • Are expedient processes applied where circumstances call for quick action? |
| Met | • Are more deliberative processes applied where circumstances do not require quick action? |
| Mixed | • Do initiatives impose the minimum deprivation necessary to be effective? |

The group’s decision process met three of the six criteria for the Invocation Function and failed in terms of one of the criteria. Responses were mixed for two of the criteria.
**Strengths**

All respondents familiar with the OBCAG process felt that decisions were implemented fairly with the contingencies that were specified. R8 believed that “decisions were made to benefit everything. They weren’t made to discriminate or hurt anybody.” R1 commented that, “as far as I know there was no deliberate intent to treat some people less fairly than others.”

Timeframes for decisions and implementation were generally appropriate but at times implementation was limited by resource availability. Wolf control or collaring were instituted relatively quickly, resources permitting, when depredation escalated or a collar was lost on a pack as such circumstances required quick action to keep the situation under control. In contrast, the group spent considerably more time and effort preparing a communication plan, a decision that did not have a sense of urgency and that required more thorough discussion and preparation. R21 commented that, “certain things were responded on right away and ... it’s been close to two years for some of the recommendations for compensation.” R22 stated that, “I think most of it was driven by urgency, in a strategic context... I think we were always timely.” R23 believed that the lengthy timeline for the communication plan was due to intentional delay, rather than planning considerations, resulting from two individuals who were not interested in publicity for the group’s efforts. R23 also commented that when there were strict time limits for action the limiting factors for provincial staff were resources and availability of the helicopter.
Weaknesses

The OBCAG was challenged by inconsistent implementation of decisions and a lack of a defined feedback process. The respondents felt the implementation of decisions was inconsistent and was constrained by limited resources. R12 described the consistency of implementation as “a comedy of errors” explaining that “when the helicopter was available we didn’t have any money, when we had the money the helicopter was flying in the Yukon...and then the next time we tried to get it when the conditions were good they were flying in BC.” R1 summed up the inconsistent nature well, “sometimes very quickly or sometimes it took forever. Really it depended on what time of year it was, whether there was a trapper ..., whether they had budgets for helicopters... even if you had the budget, could you get the helicopter? So the results were really mixed.”

The OBCAG group was open to feedback and accepted criticism and arguments from its members and from their constituents. One respondent from the OBCAG stated that, “we asked the members on the committee to bring back anything they were picking up from other members of their group.” Another OBCAG member, R1, commented that, “we have an opportunity to make our point, but we haven’t got the solutions we need”. R23 commented that, “a complaint like... we would talk about it to see if it fit the criteria or see if anything could be done.” The lack of communication with people outside the OBCAG, however, meant that the group received little feedback from the ranching community and those individuals or associations not represented by the group. Feedback about what the government was doing in the field (as an extension of the advisory group)
was received mostly by the government and not the members on the advisory board. Therefore this feedback may or may not have been brought to the group’s attention.

Respondent responses were mixed when asked whether people had experienced unnecessary hardships as a result of the decisions that were made by the group that were implemented. Ranchers both on and off the OBCAG commented that ranchers likely experienced more depredation than they would have if the wolves been removed completely rather than removing one or two problem wolves. However all of the respondents on the OBCAG stated that they understood the importance of maintaining collared wolves. R17 commented that “I think probably, decisions to collar wolves and to keep them on the landscape and allow them to kill cattle is a negative to the ranching community.” R10 commented that, “some of them (ranchers) were getting hit harder than others to and they were still trying to work.”

4.6.3.5 Application Function

| Not Met | • Is performance supervised and reviewed and nonconformity with prescriptions rectified? |
| Met | • Is there any discrimination in application? |
| No Response | • Are third party participants mobilized in order to neutralize special interests? |

The results for the application function were mixed. The group’s decision process met one of the three criteria for the Application Function and failed in terms of one of the criteria. Respondent responses were not received for one of the criteria.

Strengths

The respondents felt that the advisory board’s decisions were implemented without discrimination and that all people were treated fairly. Respondent responses indicated that the OBCAG identified certain objectives, such as maintaining at least one
collar on each pack and the need to reduce wolf-livestock conflict (kill specific wolves) where it would provide the most benefit. Decisions were considered to be objectively aimed at achieving these goals.

Respondent comments did not indicate that third party participants were ever needed to challenge special interests within the OBCAG. One respondent from the OBCAG commented that, "I sense we have been able to solve our problems at the table. Another OBCAG respondent R15 commented that, "I don’t think any of us were trying to thwart the purpose of the committee, because we felt that the ideal for everyone was to achieve the goal and that would be better for the ranchers in the long run."

Weaknesses

All of the respondents from the OBCAG noted that the OBCAG was merely an advisory group and that all responsibility and final decision-making authority was with the provincial government. Therefore, the implementation of those decisions was largely outside of the group’s purview and they were not in a position to have much influence on the actions and conformity or non-conformity of the government staff in instituting the recommendations provided by the advisory group. R21 stated that, “the CAG was not a decision-making board by any means...were a group that that was receiving information and making suggestions and also working very much as a sounding board for proposals that the government was making,” while R1 stated that, “our committee didn’t have the authority to do more than advise.” R10 questioned whether the government implemented decisions following the group’s recommendations, “I’m not sure if they followed them, not if they were doing them the way I suspect some of them were done.”
### 4.6.3.6 Termination Function

<table>
<thead>
<tr>
<th>Not Met</th>
<th>Are obsolete programs promptly terminated when they are no longer justified?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed</td>
<td>Are the facts used in judging whether to terminate dependable and comprehensive?</td>
</tr>
<tr>
<td>Not Met</td>
<td>Are termination policies dependable and comprehensive?</td>
</tr>
<tr>
<td>Met</td>
<td>Is a balance maintained between expediting or inhibiting change?</td>
</tr>
<tr>
<td>No Response</td>
<td>Are valid losses arising from termination compensated?</td>
</tr>
<tr>
<td>No Response</td>
<td>Is compensation denied where strong coercive opposition to policy is likely to continue?</td>
</tr>
<tr>
<td>No Response</td>
<td>Are windfall advantages arising from termination expropriated?</td>
</tr>
</tbody>
</table>

The group’s decision process met one of the seven criteria for the Termination Function and failed in terms of two of the criteria. The responses for one of the criteria were mixed while responses were not received for the remaining three criteria.

**Strengths**

Responses by four respondents on the OBCAG suggested that the group was successful at moderating change through their recommended prescriptions. Respondents indicated that research and lethal wolf control, as group priorities, were agreed on and implemented first following discussions, debate and consensus. Other strategies including the communication plan and the ‘nightrider’ experiment were discussed at a later time. The communication plan was not implemented and the “nightrider” experiment was designed in the group’s first year and implemented in the group’s second year.

**Weaknesses**

The responses from the majority of the respondents from the OBCAG suggested that the OBCAG failed to identify clear termination policies for the group itself and the strategies and policies it recommended to the provincial government. Therefore, the OBCAG members were unsure when a recommended strategy would be ended either as a
result of a timeframe or specific conditions or achievements. R22 commented that, “well, I don’t know I’d ever use the term move on with this group, to move on suggests that you have a goal and destination.” R12 stated that, “The timeline that wasn’t established was for how long are we going to do this, how long are we going to keep this committee active.” Although one respondent felt that timelines were stated during each meeting, these timelines were not widely acknowledged, nor did they provide clear direction in the implementation and termination of the group’s actions. R10 recalled an initial timeline for the group’s representation that came and went without discussion, “I think we were only suppose to be on there for two years ... Yeah, originally it was like two years for people, except for Carita and government people like that.” The group’s Terms of Reference initially identified a two year timeline for OBCAG representatives. The group members continued past this term limit, however, as new representatives and timelines were not established.

Questions pertaining to three of the criteria were not asked of respondents as it became apparent that decisions or strategies had not been terminated and most strategies did not have clear direction on whether and how a strategy or recommendation would be terminated. In one example, the nightrider experiment, the local rancher experienced benefits from the experimental management strategy. The rancher did not experience losses as a result of terminating the experiment with the likely exception of the wolves eventually coming back to the area and depredating on livestock. R22, a member of the OBCAG, believed that, “if this process went away the ranchers would probably be happier than if it’s going now.”
4.6.3.7 Appraisal Function

| Not Met | • Are appraisal policies and criteria generally agreed upon? |
| Not Met | • Are the data used in evaluation dependable? |
| Not Met | • Are the explanatory analyses relevant and explicit? |
| Not Met | • Is there explicit imputation of formal responsibility for successes and failures? |
| Not Met | • Is appraisal comprehensive and yet selective? |
| Not Met | • Are the appraisers protected from threats or inducements? |
| Not Met | • Are internal appraisers supplemented by external appraisal? |
| Not Met | • Is appraisal continuous rather than intermittent? |

The OBCAG’s decision process did not meet any of the eight criteria for the appraisal function based on the cumulative responses of the respondents.

All respondents (from the OBCAG) indicated that evaluation policies and criteria were not discussed and the majority of respondents could not recall or were not knowledgeable of an evaluation that had been conducted in relation to the advisory group or its efforts. Two respondents, one government representative and one member of the OBCAG, commented that the advisory group self-evaluated its progress and discussed how they were performing on a constant basis, but conceded that a formal evaluation process was not in place. One of the two respondents stated that “every meeting there was the ‘how do you think we are doing, what can we do better’, that was one of the things on the agenda.” Other OBCAG members did not mention such an informal appraisal occurring. In addition to the two respondents commenting on the informal appraisal, the previous chair prepared two annual reports highlighting the group’s progress (OBCAG 2004; OBCAG 2005). Therefore, although I assigned all of the criteria for this function a rating of “not met”, the fact that there were two respondents that felt the OBCAG progress was constantly under informal appraisal would suggest that at least some participants felt that perhaps some of these criteria were in fact met or partially met.
4.6.3.8 Criteria for Overall Process

<table>
<thead>
<tr>
<th>Met</th>
<th>Mixed</th>
<th>Not Met</th>
<th>Met</th>
<th>Met</th>
<th>Met</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Are official personnel fiscally honest?</td>
<td>• Do the public believe that program officials are fiscally honest?</td>
<td>• Are official personnel committed to the overriding goals of public policy?</td>
<td>• Is the process efficient in the use of money?</td>
<td>• Is the process efficient in the use of non-monetary resources?</td>
<td>• Does the program contribute to the mobilization of immediate and continuing political support for the political system as a whole and to the overriding goals of public policy?</td>
<td>• Are there differentiated structures for each function of decision making?</td>
</tr>
</tbody>
</table>

The OBCAG’s decision process performed well on the overall criteria. The group’s decision process met six of the nine criteria for the overall process and failed one of the criteria. Responses were mixed for two of the criteria.

**Strengths**

All of the respondents (asked) felt that the group’s facilitators were honest and the majority felt that the group was committed to supporting human dignity although some respondents questioned the support of the government and the purpose behind establishing the OBCAG. R22 suggested that “the province...reluctantly engages in stakeholder processes mainly to cover their ass...they are designed to make the leaders of the outfit look like they are doing something.”

The majority of the respondents, most of them from the OBCAG, agreed that the resources provided for the OBCAG’s efforts were used efficiently. R22 commented that, “there was not a frivolous penny spent.” Two respondents challenged the notion of efficiency stating that there were more cost effective options that could have been considered depending on the group’s goals. One rancher on the OBCAG commented that, “I guess if you want to kill wolves, or if you think it is necessary to kill wolves you
could probably do it a lot cheaper with poison which is not as specific as shooting from a helicopter, but it is certainly cheaper." R16, a rancher outside of the OBCAG, mentioned that the losses of livestock to wolves is generally less than the losses of livestock from consuming poisonous vegetation. This respondent commented that, "...there’s a whole lot more being taken out by poison weed, but you don’t see them ... picking the weeds out of the fields. You know that is something that someone can actually do.” Although R16 suggested the group was likely efficient in its use of resources they also suggested that improving livestock survival may be better accomplished (and resources more effectively applied) by addressing other causes of livestock mortality.

All respondent responses suggested that the group worked in a deliberate and responsible manner as was indicated by the time required for both quick and urgent decisions (e.g. collaring and control work) as well as those that required lengthy discussion and debate (e.g. communication plan, compensation).

Weaknesses

The group’s main overall challenge was that it did not operate with differentiated structures for decision-making. In addition, three of four respondents on the OBCAG that were asked suggested that the group did not adjust well to change. One indication of this is that the group ceased meeting after the departure of one of the group’s government representatives that was acting as the group’s facilitator. R11 commented that, “there hasn’t been anything, the last meeting was about a year ago, ever since Carita left.”
CHAPTER 5: DISCUSSION AND RECOMMENDATIONS

5.1 Chapter outline

In this chapter I discuss the results from the two case studies in terms of my study objectives identified in section 1.4.1.

In sections 5.2 and 5.3 I discuss the results from the evaluations of the CRWP/SACC and OBCAG decision processes, respectively. My discussions for each evaluation are divided, as in Chapter 4, into Problem Orientation, Tests of the Common Interest, and Decision Process. In each of these subsections I identify the elements of the processes that are likely to promote or inhibit successful decision making. Following the last subsection for each decision process I provide recommendations for improving these processes and similar collaborative initiatives. I then compare the two case studies in section 5.4 and discuss the lessons learned for similar community-based collaborative initiatives in section 5.5. In Section 5.6 I identify the benefits and potential challenges of using this evaluative framework for assessing community-based processes and for completing similar research in southwestern Alberta in general. I conclude the chapter, and this report, with concluding remarks in Section 5.7.

5.2 Case study 1: CRWP/SACC

The CRWP/SACC collaborative process was successful in building rapport and trust among particular ranchers and some of the members of CRWP/SACC. The group was successful in completing two fladry studies, although the outcome of one of the studies hindered the group’s trust and rapport building efforts.
The group's efforts were hampered by having a limited number of stakeholders and a lack of government involvement. Furthermore, although the group's interest in reducing wolf-livestock conflicts would have been acceptable to the members of the ranching community, its reputation as a wolf conservation organization and its methods for reducing conflicts were not popular with many in the broad ranching community and only a few ranchers were interested and agreed to work with the group.

The CRWP/SACC collaborative project disbanded in 2003 as a result of a culmination of factors, including two researchers leaving southwestern Alberta, a value-based disagreement on instigating wolf mortality, and a growing mistrust and frustration among CRWP/SACC members as a result of perceived inconsistencies in the group's decision making format and accusations of mismanagement of group funds. Following the end of the collaboration in 2003 one of the remaining members of SACC continued conducting similar research and communication efforts in southwestern Alberta. That member of SACC was also invited to join the OBCAG and participated in its efforts.

5.2.1 Problem Orientation

The goal of the CRWP/SACC project was to reduce wolf-livestock conflicts and killing of wolves. The group members had a good understanding of the trends and conditions surrounding the problem and chose to focus their efforts on two trends, the wolf population cycle and ranching practices. CRWP/SACC members felt that in order to address the problem they needed a better understanding of the wolf populations in southern Alberta and how they interacted with livestock. Therefore the group researched the wolf populations through collaring and tracking. CRWP/SACC members also communicated with ranchers and government to learn about livestock management.
practices and ongoing concerns over depredation. In addition, CRWP/SACC members researched alternative livestock management practices and opportunities such as fladry to help protect livestock. In assisting ranchers to reduce wolf-livestock interactions and depredation CRWP/SACC members hoped that fewer wolves would be killed.

The group members understood that changing the perceptions of ranchers would be difficult and that it would also be difficult to convince them to use alternative management practices. They felt their work would eventually achieve the desired result but that it would be ‘years to decades’ before that would occur.

In speaking with respondents I identified three main trends that developed over CRWP/SACC’s approximate four-year timeframe: an improved rapport with some members of the ranching community, but a falling out with other members of that community; the completion of two alternative livestock management research projects, both focused on fladry; and a deterioration in trust among group members. The first two trends would have helped the group move towards their goals. It should be noted that despite the efforts of CRWP/SACC members to speak and work with members of the ranching community, many members of the ranching community were not interested in the group’s research, and the group’s decision to withhold support from particular ranchers to remove problem wolves associated with one fladry study likely limited the group’s success in building rapport and trust. However, the accumulation of their overall efforts and the fact that the majority of the blame seemed to fall on research members specifically tied to the efforts of the CRWP and not necessarily on the field staff likely meant that a certain level of rapport and trust remained. The establishment of another collaborative effort following the breakup of CRWP/SACC, one where members of the
ranching community actively participated along with one of the former field researchers for CRWP/SACC, may also be an indication of the rapport and trust established by some of the field staff of CRWP/SACC.

The third trend worked against the group and may have been the eventual reason the project disbanded. The group's internal trust was challenged as a result of inconsistent decision making, a lack of clear expectations and enforcement of group behaviour, and the departure of one group member. In addition, respondents both inside and outside the CRWP/SACC group commented that there were professional differences among members of the CRWP/SACC. Respondents commented that decisions, including media releases and the allocation of resources, were not always discussed and approved by the CRWP/SACC members as a group, although this was the expected process for decision-making. Occurrences were noted by respondents where allocations of resources were not approved through group (CRWP/SACC) discussion or consensus, such as the purchase of equipment and the collaring of wolves in Kootenay National Park. Obviously for a group with limited funding, the loss of resources for their key activities would have been hard to understand and accept. On one particular occasion two members of the research group made a decision not to support local ranchers in removing problem wolves, despite the desire of other group members to provide assistance. It is also possible that the departure of one of the group's members, one that was critical of research methods employed by some CRWP staff, may have resulted in the loss of some level of enforcement of group protocol. Respondents also commented that this same group member was incorrectly blamed for lost equipment following departure from the group. In addition, one member of the CRWP/SACC group suggested that individual
efforts were not properly acknowledged and another commented that research was not
being conducted in a manner consistent with how they believed the research should have
been conducted.

5.2.2 Tests for the Common Interest

CRWP/SACC’s decision making process did not perform well on the tests of the
common interest. The process successfully met two criteria and failed to meet four
criteria. The main reason for the poor performance was the lack of broad representation
in decision making. CRWP/SACC’s membership throughout the duration of the group’s
tenure was made up primarily of biologists and the group lacked representatives from
government, the ranching community, and other interest groups including hunting and
recreation organizations. Without having ranchers or government representatives
involved with decision making CRWP/SACC was not accountable to the community
aside from the relatively small number of ranchers that were interested in directly
working with them. Although the group’s efforts were focused on reducing wolf­
livestock conflicts, something that might be expected to be beneficial for most of the
interests affected (CRWP/SACC, ranchers, and government), their efforts were not fully
supported by the ranching community or the government. In particular, the negative
consequences attributed by ranchers to one of the fladry experiments were not supported
by members of the ranching community. CRWP/SACC did not continue its fladry
experiment, or attempt additional experiments in the same area, so one might say that
CRWP/SACC adapted its efforts accordingly.
5.2.3 Decision Process

Overall the CRWP/SACC's decision process performed poorly achieving 26 of 59 assessed criteria. The process functioned well in the Intelligence Function, functioned poorly in the Promotion, Prescription, Invocation, and Appraisal Functions, and struggled with the Termination Function and Overall Process criteria. Excluding the Intelligence Function criteria the process achieved only 12 of 45 (assessed) criteria.

The CRWP/SACC process performed extremely well in the information gathering portion of the process but poorly in the promotion and debate of ideas. The process successfully met 14 of 15 (assessed) criteria for the Intelligence Function, and successfully met two of nine criteria for the Promotion Function for a combined total of 16 from a possible 24 (assessed) criteria for the pre-decision phase of the decision making process.

The group was made up of knowledgeable people, mainly wildlife biologists. The group's members (with good intentions and strong field experience) generally worked together to generate and gather valuable information to improve their understanding of wolf-livestock interactions and ranching practices. Instances were noted where group members questioned the validity of information to ensure it was reliable. CRWP/SACC members had a firm understanding of past trends and conditions and seemed to understand the social values inherent in the struggle of wolf-livestock conflicts.

The group was challenged by their limited representation, lack of broad community support for their research, lack of thorough debate and assessment of proposals, and likely a lack of a common understanding of their goals and objectives. Although CRWP/SACC members communicated with members of the ranching
community and government representatives on an ongoing basis, the group's decisions were made without direct community or government involvement. As a consequence most respondents felt that CRWP/SACC's strategies did not adequately reflect the interests of the broad ranching community and their efforts were not broadly supported. Although decisions were generally discussed and debated by group members some respondents identified occasions where decisions were implemented without discussion. Alternative strategies were not fully evaluated based on costs and benefits or impacts to social values. When asked to help kill depredating wolves group members were in disagreement on whether to help based on differences in values and on what members felt appropriate and acceptable to help attain their goals and objectives. This lack of understanding of member values and expectations is likely due to a lack of thorough discussion among group members about how to achieve their goals and objectives, and about the values of group members.

The CRWP/SACC process did not perform well in the development, implementation and enforcement of their strategies. The process was successful in achieving six criteria from a combined total of 16 (assessed) criteria for the Prescription, Invocation, and Application functions. The process failed to achieve six criteria and responses were mixed for four criteria.

The group was reasonably successful at producing and implementing recommended strategies that furthered the common interest in a timely manner. CRWP/SACC members made quick decisions in the field where needed and the group made deliberate and thoughtful decisions for longer term research such as collaring and fladry experiments.
The process was challenged by a lack of authority, a lack of communication, and a lack of consistency. The group had no authority to directly enforce its decisions, and existing provincial policies permitting wolf removal acted against the group’s efforts to reduce wolf removal and encourage alternative livestock management practices. Although the group cannot be blamed for provincial policies, the group’s decisions did not incorporate sanctions, and enforcement was very difficult since people that worked with the group did so out of interest, not because they were required to do so. If the members of CRWP/SACC felt that ranchers and neighbours needed to be convinced to cooperate, the research group could have offered to support the recovery of depredated cattle to ensure compensation, or could have provided monetary reimbursement in addition to provincial compensation to make up any additional costs or lost value, or could have offered to remove problem wolves. Unfortunately, the research group had limited funding; however, there may have been other options at their disposal that may have encouraged further cooperation and improved relations with members of the ranching community. Two members of the CRWP/SACC research group did express a willingness to support the ranchers in removing problem wolves, but this option was turned down by others in the research group due to the CRWP’s conservation-based associations.

The second challenge was that although CRWP/SACC members were actively communicating with the ranching community the group had not encouraged feedback nor had they contacted all of the potentially affected people prior to the start of at least one fladry experiment. Individual ranchers expressed concern over the experiment and requested that wolves be killed due to the perceived notion that the experiment had
increased depredation on their properties. Had CRWP/SACC members discussed the project with these people in advance they may have identified concerns that could have been addressed. It was stated that the number of property owners in the area made it difficult to make sure each person was notified beforehand. None the less, discussions before the fladry experiment was implemented would have prepared the ranchers and likely CRWP/SACC members about what to expect. As a result of the perceived increase in depredation and CRWP/SACC’s inaction to remove wolves at the ranchers’ requests, some respondents felt that the project imposed unnecessary costs on those ranchers. Others disagreed, suggesting that the depredation would have occurred in any event and that the government was the responsible agency for addressing wolf control and livestock compensation.

The third challenge was that decisions were not made in a consistent manner, leading to a decline in trust and a sense of frustration over the use of the group’s limited resources. Group members noted that decisions were normally made through consensus but on occasion decisions were made without debate or consideration for the interests of all the members of CRWP/SACC. Two examples include when wolves were collared in Kootenay National Park and when CRWP/SACC did not assist ranchers in removing wolves despite the stated desire of two CRWP members to provide support. Despite the problems noted by respondents, the inconsistent nature of the group’s decision making process was not discussed by the group to clarify group organization and process or rectify the perceived problems.
CRWP/SACC’s decision process performed poorly in its planning for termination and evaluation. The group managed to achieve only two criteria from the combined total of 11 criteria for the Termination and Appraisal functions.

The group did not develop specific timelines or termination policies for its decision process and research with the exception of a two year timeframe for the fladry experiment. One respondent noted that timelines for the group’s work were dictated by resource availability.

CRWP/SACC’s process and strategies have not been evaluated formally with the exception of a peer review of the research paper produced for the group’s fladry experiment. The group did not develop evaluation criteria or evaluate its decision process.

Lastly, the CRWP/SACC’s process performed poorly on the overall process criteria achieving three of eight (assessed) criteria. The group was efficient in the use of resources and was committed to supporting human dignity. The honesty of some group members was questioned in light of decisions not conducted through the group’s consensus-based process. The group’s process did not adjust well to the concerns over the fladry project and the process reverted to a non-consensus based process when group members were unable to come to an agreement. As this evaluation has shown, especially with the absence of termination and evaluation policies, the CRWP/SACC process did not incorporate differentiated structures for each function of decision making.

5.2.4 Recommendations

I recommend the following four strategies to address the challenges noted above and to improve similar decision processes elsewhere.
Inclusiveness

Similar processes should ensure that everyone who is likely to be affected as a result of resource decisions and strategies is involved with making and implementing decisions, or is properly represented, or at the very least informed of those decisions. Brown (1996) suggests that the identification and the meaningful inclusion of key stakeholders in an interdependent decision-making process are important conditions for successful planning processes. Affected individuals should have a clear understanding of what to expect, and it is important to maintain communication to identify concerns before, during, and after implementation of prescriptions. Although the fladry experiment and collaring were conducted by members of CRWP/SACC, it would have been beneficial to have the government involved at some level to support implementation, or the removal of the problem wolves (if this was determined to be appropriate). If the government was involved, perhaps a compensation agreement in addition to the existing provincial compensation available at the time for livestock losses could have been identified before the start of the project to encourage nearby neighbours to tolerate the project. Other non-government organizations such as Alberta Wilderness Association and Defenders of Wildlife may have also been able to provide financial support for compensation. However, it is possible that these groups were approached by CRWP/SACC to provide support for the group’s efforts before or during this research project and declined to participate.

This recommendation would likely have been difficult to institute as respondents commented that those members of the ranching community that were not interested in working with the group would not have supported the group’s efforts and therefore
involving them in meaningful discussions would have been challenging. In addition, one respondent commented that there were numerous neighbouring ranches and identifying and contacting all of the potentially impacted ranchers beforehand to discuss the potential impacts of their fladry research was difficult. Brown (1996) suggests that a condition for successful land use planning is 'an evident desire for action and resolution' and that parties are willing to commit. Given the limited interest by members of the ranching community to participate in or commit to the CRWP/SACC's research efforts, this would be one condition for success that would not have been met.

This recommendation addresses concerns identified in the Tests of the Common Interest and in the Promotion, Prescription, Invocation, and Appraisal Functions.

*Clarity in process, goals and expectations*

Clearly define how the group will work together to make and implement decisions at the beginning of the project and discuss the group's goals and objectives and stakeholder values thoroughly so that expectations are understood and there is a clear understanding of how the group's goals will be achieved. Individuals would be less likely to break from the process, and those that do could be held accountable to the rest of the group as guidelines would be clearly identified and understood. This would improve accountability and maintain trust among group members. Brown (1996) supports this, suggesting that a main element in consensus based planning is 'self-design' where stakeholders are responsible for designing their planning process. Brown (1996) further comments that the planning process should have rules established to guide process participants in addressing disagreements. This recommendation would be relatively simple to implement as it would involve discussions among research group members.
concerning how decisions are to be made and how to address any concerns that may arise in a constructive manner. This recommendation addresses concerns identified in the Promotion, Invocation, and Appraisal Functions and Overall Process Criteria.

Cost/benefit analysis

Similar processes should fully account for the costs and benefits of each of the strategies proposed and implemented. The analysis should take into consideration the changes to all social values, not simply the financial aspects of the problem.

For longer term projects this would be an important consideration and would help garner support for the group’s efforts and might even provide important insight for group members on completing their research in a stakeholder friendly manner. Speaking with stakeholders, in particular ranchers, concerning interests and values may be challenging especially considering many were not interested in working with the group.

For smaller research projects with low budgets and short timelines putting the time into discussing values and interests with potentially impacted stakeholders may not be considered a reasonable use of time and effort. However, had the group realized the potential outcomes to social values due to their fladry study the group may have handled the outcome differently or may have had a coordinated group response identified before hand for the concerns from the ranchers. This recommendation addresses concerns identified in the Promotion and Invocation Functions.

Decision Functions

Similar decision processes should be organized with consideration for the separate decision functions and should include policies for terminating and evaluating process
decisions (strategies) and the decision process itself. Although it may take some effort and time for a facilitator, planner or resource manager (or even stakeholders) to learn and become comfortable with the decision functions and their evaluative criteria, it would help guide planning processes and collaborative efforts and provide a template or checklist for all the things that could be considered to strengthen decision processes.

The one question I still have is at what point (on a matter of scale) should a person continue to use the criteria for decision functions to help guide processes, especially when you have a potentially short term, low budget program with few staff. With 66 criteria, that would take a great deal of time, focus and commitment. Would you try to follow all of the criteria to guide your project if you were simply trapping wolves for one season? That might seem unnecessary. What about if you were going to speak with ranchers and government staff about wolves and ranching practices? Again it seems excessive. However, if your project was to continue for several years having various tasks, funding, staff, and people outside the research group that you would be working with or may impact, it may be something to consider. Or perhaps the functions and criteria could be simply used as a checklist for reference so that a project/resource manager can make sure they haven’t forgotten anything. So being knowledgeable of the decision functions and criteria I believe is important, but its application is likely unnecessary for all resource management programs. An adapted and condensed version of Lasswell’s (1971) comprehensive criteria has been proposed by Clark (2002, 72). The criteria iterated by Clark (2002, 72) while not as thorough as Lasswell’s list, still provide a guide for resource professionals to navigate the decision process and to assist in evaluating their respective processes. The choice to use this information (either
completely or piecemeal) would be best left to the knowledgeable and experienced biologist, planner or other resource professional.

I'm not convinced that for the CRWP/SACC process that all of the criteria needed to be adhered to or considered. That being said, had the CRWP/SACC members used the decision functions and Lasswell's criteria, they might have identified criteria that they were not achieving that may have improved their chances for ongoing success. It seems for the CRWP/SACC project that the three main exercises that may have helped would have been a thorough scoping exercise of potential impacts (benefits and costs) from their research activities, a more thorough discussion of group goals, organization and rules ahead of time, and confronting transparency issues throughout.

This recommendation addresses the concerns identified in the Termination and Appraisal Functions and in the Overall Process Criteria.

5.3 Case study 2: OBCAG

The OBCAG collaborative process was successful in building rapport and trust among ranchers, conservation group representatives, biologists and government representatives; completing research studies on wolf movement and habitat use patterns through collaring; recommending a depredation threshold and lethal control protocols; and recommending changes to the compensation policy that existed at the time the advisory group was actively meeting.

Along with its successes, the group had challenges that likely limited its ability to continue successfully. The group was unable to secure long term resources; the group was not able to enforce consistent compliance with its recommendations (mainly the three-in-three wolf removal) in a timely manner, or alter or end the policy that was
obviously not functioning as intended as a result of limited funds and a loss of their facilitator; the group was not communicating with people and groups outside of the advisory panel itself; and some respondents identified a lack of clear direction. The weaknesses in communication likely limited outside support for the group's efforts, potential funding sources, the group's lobbying potential to encourage further government action and funding, and the group's ability to ensure that its recommendations were supported by all potential stakeholders.

At the beginning of my research study (fall of 2008) the OBCAG had not met in over a year.

5.3.1 Problem Orientation

The goal of the advisory group was to bring all interested and affected groups together to make recommendations to the provincial government to help reduce wolf-livestock conflicts while maintaining a stable wolf population. The group members had a good understanding of the trends and conditions surrounding the problem and chose to focus their efforts on three trends; wolf-livestock conflict cycles, ranching practices, and economic viability of ranching. OBCAG members felt that in order to address the problem they needed a better understanding of the wolf populations in southern Alberta and how they interacted with livestock. Therefore, the group researched the wolf populations through collaring and tracking. The group also discussed how wolf removal should be conducted and identified a removal strategy for individual wolves or packs that were responsible for what was perceived to be an unacceptable number of depredation events. OBCAG members discussed alternative ranching practices and attempted one such strategy, a night-rider program, although some respondents from the OBCAG were
not sure if the strategy was implemented as a result of a consensus-based decision by the OBCAG. The group discussed and recommended changes to the provincial livestock compensation program for ranchers.

Respondents felt that without the OBCAG’s efforts the pre-existing cycle of depredation and indiscriminate killing of wolves would have continued. After the group stopped meeting some participants believed that the number of depredation events were increasing and some of the respondents were starting to question whether the group’s efforts had improved the wolf-livestock conflict problem.

In speaking with respondents I identified four main trends that developed since the initiation of the OBCAG: there was an improved sense of trust and respect among the members of the group; the provincial government had replaced its wide-scale wolf removal patterns with the group’s three-in-three wolf control threshold; there had been little communication between the OBCAG and the broader community; and the resource commitment from the provincial government had declined.

The first two trends were beneficial and helped the OBCAG move towards achieving their goal. The last two trends hindered the group’s efforts and will need to be addressed if the group reconvenes in the future.

5.3.2 Tests for the Common Interest

The OBCAG’s decision-making process performed well on the tests for the common interest. The process met five criteria and failed to meet two criteria. The group was fairly inclusive of all interests with only fishing/hunting and First Nations representatives noted as missing from the decision making process. The OBCAG’s
inclusiveness benefited decision making as a variety of community values were considered in the development of recommendations.

The two main challenges faced by the advisory group were related to communication and to the outcomes of the group's decisions. Many respondents noted that group members were not communicating well with constituents and the group was not communicating with people outside of the OBCAG group. Therefore the group's successes, challenges and concerns were not being relayed to the majority of people outside of the advisory group. The depredation concerns that arose after the OBCAG stopped meeting had both members of the group and the ranching community concerned about the strategies currently employed by the province to address the ongoing and growing depredation. Some respondents felt that the lethal wolf control strategy needed to change to reflect the existing circumstances.

5.3.3 Decision Process

Overall the OBCAG's decision process performed moderately well achieving 36 of 63 assessed criteria. The process functioned well in the Intelligence, Promotion, and Invocation functions and in the Overall Process criteria. The group's process performed poorly in the Prescription, Appraisal and Termination functions.

The OBCAG process performed extremely well in gathering information and promoting and debating ideas. The process successfully met 20 of a possible combined total of 25 criteria for the pre-decision phase (Intelligence and Promotion functions). This is in stark contrast to the 16 achieved criteria for the remaining 38 criteria for the rest of the functions and Overall Process Criteria.
The group had knowledgeable people from most sectors participating, excluding such groups as the Alberta Fish & Game Association, First Nations, and some specific members of the ranching community. The group's members, with various backgrounds and experience, worked together to generate and gather valuable information that was used to debate alternatives. The representatives developed a sense of trust and respect for one another and individuals felt that they were able to express their opinions and ideas freely without fear of persecution. The comfortable setting helped in their debate and development of alternatives that respected the goals and the varied interests of group membership.

The process requirements following the research and group discussions, consisting of the development of effective strategies and effective implementation of these strategies, were more challenging. The group's process did not function as well in these areas, achieving seven criteria from a combined total of 16 criteria for the Prescription, Invocation, and Application functions; the process failed to achieve seven criteria and responses were mixed for two criteria.

The group was successful at producing and implementing recommended strategies that furthered the common interest in a timely and fair manner. The group made recommendations quickly where wolf control or collaring was needed in the short term. Under these circumstances the immediate effort was needed to reduce depredation pressure and minimize losses to ranchers and to ensure the group maintained two collars per wolf pack for research to continue monitoring wolf pack movements. In contrast the group labored over preparing a communication plan that was not implemented. Respondents suggested that progress was relatively slow because of the sensitive nature
of the issue around wolf-livestock conflicts. The group’s slow progress, and accommodating nature towards the ranchers concerns, likely improved trust among group members and might have eventually resulted in a thoroughly thought out plan that addressed all their concerns. However, one respondent from the OBCAG believed that the slow progress was due to two OBCAG members that did not want publicity for the group or its efforts and that these members were purposely delaying the completion and implementation of the plan.

The group, and the government, did well to identify parameters such as the ‘three-in-three’ threshold for wolf control and a two collar limit per pack to direct use of their limited resources and to remove bias from implementing strategies. As an example, group members indicated that wolf removal was directed at removing the individuals causing the most harm.

The group faced four main weaknesses in its process; a lack of authority over the decisions it proposed; a lack of formalized detail and clarity in prescriptions; a lack of resources; and an inconsistency in implementing decisions. One of the main challenges for the group was that they were an advisory group to the government and therefore had no authority over the implementation of the group’s decisions (recommendations). The second part to this first challenge was that the government was the agency responsible for implementing those decisions, and likely responsible for enforcing compliance with those strategies. It would be unlikely, in the event that sanctions were established, that the government would enforce any sanctions against itself. I don’t believe the group could have forced the government to act on its recommendations by approaching other provincial or government agencies and the group’s lobbying potential was minimal due to
its policy of not publicizing its efforts to people and groups outside of the advisory panel. Therefore I feel that if the group reconvenes and it is serious about having its recommendations enforced and possibly securing longer term funding, its best chances are through public education and active participation with the group's efforts, in order to generate lobbying pressure from influential groups and a larger population of interested, knowledgeable, and involved stakeholders.

The second challenge was that the group's prescriptions, including norms and contingencies, were not clearly defined or formally recognized. Some group members were unaware of some decisions and other members expressed concern that the details about when and how strategies would be implemented were not clear. The lack of clearly defined prescriptions formally acknowledged by group members and government representatives likely resulted in confused expectations among the advisory group about what the government was supposed to accomplish, and made it difficult to hold the government accountable for inaction or poor performance. Respondents commented that the SRD was not following prescriptions but at least one felt it was likely the result of poor clarity provided in the prescriptions.

The third challenge, identified as a concern by the majority of the respondents, was that the group's resources were limited and had been in decline since the group first came together. Several respondents from the OBCAG suggested that upper levels in management were likely not supportive of the process as indicated by the group's limited budget. One government representative from the OBCAG suggested that relations between the group and upper levels of government could have been better with more effort on group promotion and working together with upper management staff.
Respondents both on and off the OBCAG, ranchers and non-ranchers, suggested that one of the chairpersons of the group acted in a manner that was not supportive of public relations building, and limited support from both members of the ranching community as well as government.

Similarly, respondents believed that the fourth challenge, inconsistent implementation of prescriptions, was primarily the result of the group’s lack of staff and funding.

The OBCAG’s decision process performed poorly in its planning for termination and its evaluation. The group managed to achieve only one criterion from the combined total of 12 criteria for the Termination and Appraisal functions of the decision making process.

The group had not developed specific timelines or termination policies for its decision process or recommendations. Without identifying termination guidelines, failing or unnecessary strategies can continue to eat away at the group’s limited resources. After the group ceased to meet, depredation events appeared to be increasing in occurrence. Respondents suggested the existing wolf control strategy was no longer being effectively implemented (due to resource limitation) and that changes to the existing strategy were needed. The strategy has yet to be amended or terminated.

The group’s process and strategies were not evaluated other than through informal discussions at meetings. The group did not develop (nor did it discuss the development of) evaluation criteria, nor did they discuss conducting a formal evaluation. Respondents did comment that I was performing an evaluation, which is true; however, my evaluation was not instigated by the group.
Lastly, the OBCAG’s process performed very well in the overall process criteria achieving seven of the nine criteria. The group’s members and facilitators were considered honest and devoted to supporting human dignity. The group recommended decisions that were deliberate and well debated. All respondents (on the OBCAG) commented that the OBCAG was very efficient in its use of the limited resources, both staffing and finances, that it had at its disposal. However, three respondents (two OBCAG members and one rancher) also commented that although resources were used efficiently for particular tasks, that perhaps the resources could have been allocated elsewhere for improved overall benefits or particular tasks could have been completed differently to preserve resources. Therefore, one could also argue that the process was sometimes inefficient in its use of resources. One of the respondents (a rancher on the OBCAG) mentioned that if wolf removal was the goal, that poisoning wolves would be a cheaper alternative to using helicopters and euthanization. Another rancher (not on the OBCAG) commented that reducing livestock losses from poisonous vegetation would have a greater positive impact on livestock survival than would managing wolves. And another OBCAG member commented that funding alternative livestock management practices research might provide longer lasting improvements to livestock management and subsequently to livestock survival than funding shorter term wolf control strategies.

The one apparent challenge was that the OBCAG did not incorporate differentiated functions for decision making into its decision making process.
5.3.4 Recommendations

I recommend the following seven strategies to address the challenges noted above (if the OBCAG reconvenes in the future) and to improve similar decision processes that may struggle with similar challenges.

Develop stakeholder responsibilities

The OBCAG members should, as a group, develop a clearer outline of the responsibilities of stakeholder members. This outline should identify who the stakeholder constituents are and how often they should communicate with their constituents. The outline should also provide clear expectations of what the OBCAG members are to bring back to the group from their constituents. Brown (1996, 13) supports this idea suggesting that mechanisms need to be in place to enable participants to communicate with their constituencies to ensure perspectives and interests are correctly projected in the process. Brown further suggests that stakeholders should be empowered by their constituents to make decisions on their behalf. In the OBCAG process the provincial government asked individuals to take part in the process knowing they had an interest and were even impacted by the wolf-livestock conflict. Although the interests of a wide ranging representation were considered, the representatives were not voted in by their constituencies, stakeholders were not held accountable to their constituencies, and there was not an established process for altering stakeholder representation on the OBCAG in order to correct or improve responsible representation.

Establishing stakeholder rules is a recommendation that would not be difficult to implement and could be produced as a group exercise to improve understanding and ownership of, and compliance with, the rules. Brown (1996, 13) further points out the
importance of stakeholder design of the planning or shared decision making process as long as there is leadership and advice from government technical aspects of the process.

This would help address concerns identified through the Tests of the Common Interest.

*Improve OBCAG representation*

The OBCAG should incorporate additional interests such as fishers and hunters and a representative from the local or provincial hunting organization. Respondents mentioned that First Nations representatives were not interested in participating, however, encouraging First Nation participation in the group’s efforts would be beneficial. Respondents both on and off the advisory group commented that other ranchers from the community might be interested and were not represented by members on the OBCAG. There was also mention that leaders in the ranching community should have been invited to join the group and this might help to alleviate concerns from the ranching community. Several respondents from the OBCAG also commented that representatives from the fish and game outfitters were not represented on the advisory group and may have been interested in the group’s efforts.

The group’s terms of reference stated that group representation would be revisited following an initial two year period. One respondent on the OBCAG stated that this two year time frame came and went without discussion. Following the second year it may have benefited the group to consider expanding representation on the OBCAG to include some dissenting or otherwise interested members of the ranching community to ensure that all or at least most interests of the ranching community were considered. In addition, had the group been more forthcoming with information for the people outside of the
OBCAG, there may have been better communication between the OBCAG, government, and members of the ranching community.

The recommendation for improved representation on the OBCAG would address concerns identified in the Tests of the Common Interest.

*Implement communication plan*

The OBCAG should implement its communication plan to increase communication between the group and the broader community. This would bring to light previously unidentified concerns and would improve feedback for the group to help gauge community sentiment and group progress. Furthermore, in terms of improving lobbying efforts, implementing a communication plan may improve public, private, and not-for-profit support for the OBCAG’s efforts and for encouraging the provincial government to provide adequate funding and long term commitment. Implementing a communication plan, by promoting the group’s efforts, might also help the advisory group raise additional funds.

Brown (1996) suggests that even with a broad ranging stakeholder representation that incorporating general public involvement to “complement” the efforts of planning groups is a condition for successful consensus based planning. Brown (1996, 11) comments that planning groups are an important means for identifying the public interest, but should not be used as surrogates of the public interest.

This recommendation could be challenging initially as the group previously implemented lethal control protocols and collaring research without much feedback from members of the broader community, including ranchers, conservation groups, and people from rural and urban communities. However, once the public was introduced to the
group and its efforts and a process of communication was established, there might be less concern over the group's efforts and an expression of interest in guiding or supporting the group.

Implementing the communication plan would be very important as a means for generating support for the group including funding sources and a lobbying voice to encourage the government to allocate additional resources and agree to a longer term commitment. This recommendation would help address concerns identified in the Tests for the Common Interest, and the Promotion Prescription, and Invocation functions of the decision process.

**Hire/designate a facilitator**

The OBCAG should hire or designate a neutral facilitator to direct the group's decision process. The facilitator would assist the group in preparing clear objectives and prescriptions and a comprehensive 'map' to show how the group would achieve its goals. The facilitator would also aid in developing termination and evaluation policies.

I understand that the OBCAG did have a member who acted as facilitator up to her departure in 2007. But that person was the previous provincial wildlife biologist for the Pincher Creek area and was not a professional facilitator. Respondents commented that the biologist was overworked and understaffed for her regular responsibilities alone. Therefore, her time was limited. If there was a professional facilitator, the provincial biologist could focus less on running the group meetings and scheduling, and focus more on other daily tasks and on providing advice during meetings. Wondolleck and Ryan (1999) suggest that the most effective agency representatives act in leader, partner and stakeholder roles but refrain from acting in a facilitator's capacity. In addition, although
Terms of Reference were prepared for the OBCAG the group’s process and goals were not well understood by most advisory group members. The design of collaborative processes, a thorough problem analysis and detailed goals, objectives, and tasks are among the primary responsibilities of a facilitator (Kolfschoten et al. 2006). Furthermore, Kolfschoten et al. (2006) provide an overview of the steps used by facilitators in problem solving that mimic the problem definition tasks provided by Clark et al. (2002). The results presented by Kolfschtoen et al. (2006) show that facilitators believe that design is ‘critical’ for success of collaborative processes. Fisher (1983) states that a facilitator would also guide the process in terms of stakeholder rules and conduct.

The facilitator would focus on directing the decision process and meetings and ensure that the group identified clear, achievable and measurable goals as well as clear and reasonable timelines. The facilitator would guide meetings so that time was used efficiently and would be able to intervene if necessary to resolve conflict in a non-biased manner. Furthermore, a neutral third party facilitator would be able to identify problems in the collaborative process and address these potential problems, including ineffective and unwilling participants, from a neutral stand point without other participants being burdened with drawing attention to such concerns (O’leary and Raines 2001). For example, in the study by O’Leary and Raines (2001), neutral third party facilitators identified the uncooperative nature of government agencies as a result of: previous norms for working with community and conflict; government representatives that had limited decision making ability were participating in collaborative processes; and, middle
managers responsible for implementation of the collaborative processes provided limited support.

It is interesting to note that respondents from the OBCAG process commented that they felt the government did not buy into the process (aside from the individuals at the table), that group members were unsure of how their recommendations were addressed outside the advisory group, and that funding for the group was insufficient.

Lastly, respondents commented that the previous biologist/facilitator invited a professional facilitator to the advisory group for a short time to help prepare a communication plan. Obviously she understood the benefits of having a separate facilitator. This recommendation addresses concerns identified for the Prescription, Invocation, Application, Termination and Appraisal functions.

**Review goals and prescriptions**

The OBCAG, with or without an experienced facilitator, should review existing objectives and strategies and provide clarity where needed for norms, contingencies, sanctions (where appropriate), termination expectations, benchmarks and plans for appraisal. An explicit description or ‘road map’ for how the group plans to achieve its goals should be prepared by the group. Brown (1996) speaks to the importance of stakeholders preparing and following a clear work plan and on the importance of stakeholders developing criteria for the evaluation of the planning process and the achievement of goals.

This recommendation would likely be a challenge to the group members without a facilitator or person experienced in problem definition and goal setting. The group’s initial attempt at goal setting and preparing recommendations resulted in OBCAG
members commenting that decisions and goals needed further clarity. However, the group would be able to improve on their existing process and strategies (recommendations) by reviewing their successes and challenges and working towards correcting those challenges. Using established criteria for producing goals and objectives, such as the ‘SMART’ criteria (specific, measurable, attainable, reasonable, and time specific), would assist the group members in preparing clear direction and prescriptions (MSRM 2004). This recommendation would address concerns from the Problem Definition and from the Prescription, Invocation, Application, Termination and Appraisal functions.

Secure multi-year resources

A commitment for resources for the long term is required. Piecemeal funding does not permit adequate planning and reduces accountability. Dedicated resources for a two, five or 10 year timeframe from all areas (stakeholder groups) would allow for long term planning of strategies, and especially for wolf control and research. Brown (1996) identified the commitment of an adequate budget as one prerequisite for successful planning.

This recommendation would likely be difficult without support from the broad public and this would require additional effort by the OBCAG and its members to communicate with people and groups outside of the group’s membership. With additional support from the broad public, the group may have a greater lobbying presence and be more successful at encouraging longer term government support for the group’s efforts. However, despite strong lobbying pressure, considering the recent economic environment, convincing the provincial government to provide further funding and longer
term funding commitments is likely not reasonable. However, with improved communication and involvement with the broad public community, it might be easier to access funding from other government agencies, charitable donations from people from the general community, and from interested groups. This recommendation addresses concerns identified in the Prescription and Invocation functions.

Encourage consistent implementation of policies/decisions

There are several approaches that the OBCAG could consider to improve the provincial government’s consistency in implementation of OBCAG recommendations. Brown (1996, 26) states that, “there is little point in going through the planning process unless the results can be implemented.” Brown (1996, 22-27) outlines commitment factors such as the provision of an adequate budget, open communication between the planning group and government, and commitment of other levels of government as prerequisites for successful planning. Brown (1996) further identifies capacity for implementation factors as prerequisites for successful planning such as the confidence of stakeholders in the ability of responsible parties in implementation, and the need for clarity on organization responsibilities in implementation. In the case of the OBCAG, respondents familiar with the OBCAG process were in agreement that the group did not have the adequate resources for implementation and many respondents felt the group did not have support from upper government. Responses from respondents suggested that there was not a clear expectation on implementation.

Joseph et al (2008) identified important elements of successful implementation through stakeholder evaluations of a Land and Resource Management Planning process in British Columbia in 2004. Stakeholders identified the following components as the
most important (top 5 of 19): clear and consistent plan, collaboratively developed plan, supportive decision-making authority, clear problem definition, and clear delineation of stakeholder roles and responsibilities (Joseph et al. 2008). Four additional components that were also rated important by stakeholders were: strategic implementation policy (ranked number 9), adequate resource support (11), supportive external environment (13), and sound monitoring and information flow (14) (Joseph et al. 2008).

Through my evaluation of the OBCAG process, seven of the above nine components (clear plan, supportive authority, clear roles and responsibilities, strategic implementation policy, adequate resource support, supportive external environment, and sound monitoring) were at least partially lacking. The OBCAG should review each of the above components and attempt to institute or improve one or more of these process components to encourage successful implementation. In the event the provincial government will not provide support for the process or provides limited resources, it will be important for the OBCAG to implement its communication plan in order to publicize its efforts and bolster external support for their efforts. By improving its support in the broader community, the group might be able to successfully lobby the provincial government for the necessary resources and commitment, or they might be able to attain resources and commitment from other sources.

This recommendation addresses concerns identified for the Prescription, Invocation, and Application functions.

*Complete a cost/benefit analysis*

One respondent commented that more livestock are lost to cattle consuming a poisonous weed than to depredation by wolves. If this is true, perhaps similar
collaborative processes should consider completing cost-benefit analyses before or even during their projects to direct where their efforts and resources would best be spent. I understand that losing cattle and other livestock to wolf depredation is an emotional experience, but if ranchers’ main concerns are the economic losses from dying, dead or maimed livestock, perhaps resources should be allocated elsewhere such as a vegetation control strategy.

This recommendation would not be difficult to complete but would require full disclosure from members of the ranching community about the costs and benefits of carnivore-livestock conflicts as well as other influences affecting livestock management (e.g., poisonous vegetation).

5.4 Comparing the CRWP/SACC with the OBCAG

The two collaborative processes were initiated with similar goals in mind; ultimately to reduce wolf-livestock conflicts. The CRWP/SACC project was initiated by a small group of people, mainly biologists, with the intent to reduce wolf-livestock conflicts by: speaking with people in government and ranchers in order to improve CRWP/SACC members’ understanding of livestock management practices and challenges; researching wolf movements, habitat needs, and land use patterns to improve CRWP/SACC members’ understanding of why the conflicts occur and to help identify methods for reducing conflict; working with ranchers to test the effectiveness of alternative ranching practices designed to reduce wolf-livestock conflict.

In contrast, the OBCAG was established by the provincial government to help diffuse concerns over high levels of depredation. The OBCAG’s goals were determined before the group was established, but the goals were directed towards reducing large
carnivore-livestock conflicts. Despite a stated interest to reduce large carnivore-livestock conflicts, the group’s focus throughout its existence was limited to wolves.

There were several notable similarities between the two processes. Both processes lacked clear process rules, formal evaluations, clear termination policies and timelines. Both failed to acknowledge the seven decision functions or consider the various criteria for each function in their decision processes. Both processes were successful at completing research on livestock avoidance strategies (fladry, night rider), although many respondents commented on the unacceptable resource requirements to institute those avoidance strategies, and both processes were successful at gathering information. Both processes operated by consensus (for the most part), were open to feedback and were open to considering and discussing all ideas and strategies. One final interesting similarity is that resources for both processes were limited and were administered by a single, authoritative group, and the ability of group members in either process to influence the allocation of funding was limited. In the CRWP/SACC process, members of CRWP dictated where resources would be allocated despite the collaborative approach adopted by CRWP/SACC members. In one instance where the majority of stakeholders (ranchers and CRWP/SACC members) wanted to allocate resources to provide help to local ranchers to remove problem wolves, two individuals made the decision to withhold resources as they felt that removing wolves was not compatible with CRWP’s objectives. Similarly, the provincial government allocated available resources to particular strategies recommended by the OBCAG, and the OBCAG had no control over how those resources would be used.
There were also several notable differences between the two processes. The OBCAG was successful at building trust among stakeholders involved in the process, whereas the trust among members of CRWP/SACC seemed to deteriorate over the project timeline. The OBCAG consisted of representatives from the majority of potential stakeholders. The CRWP/SACC group’s membership was limited to biologists and one business person. Although CRWP/SACC members communicated with ranchers and government representatives and worked with a select few ranchers interested in the group’s efforts, only members of the CRWP/SACC were included in the group’s decision-making process. Another important difference in process was that the CRWP/SACC members were responsible not only for making decisions but also for implementing those decisions, whereas the OBCAG was merely an advisory group that recommended strategies for implementation, and the responsibility for successful implementation was left with the provincial government. Therefore, any failures of the implemented strategies were attributed to the CRWP/SACC group for their research efforts while the OBCAG was isolated from blame as the provincial government was primarily considered to be responsible for failures as a result of implementing the OBCAG’s recommended strategies.

Lastly, the CRWP/SACC process was initiated several years before the OBCAG and ended just as the OBCAG was initiated. It is possible that the efforts by the CRWP/SACC members helped to encourage the interest of ranchers and government to work together to help reduce wolf-livestock conflict. Therefore the difference between the two initiatives in this instance would be the level of support prior to the start of each process: the CRWP/SACC members likely faced greater opposition to their efforts
whereas in the OBCAG, the previous efforts by CRWP/SACC members may have provided a basic level of support by a larger population from the ranching community and by government representatives from which to begin a working relationship. In the instance where the CRWP/SACC withheld support to remove depredating wolves following a fladry experiment, any rapport and trust with those members of the ranching community was likely compromised. However, the overall effort by the CRWP/SACC field staff may have generated an overall increase in trust and rapport between the CRWP/SACC field staff and members of the ranching community in their study area.

5.5 Lessons for designing similar community-based collaborative initiatives

In this section I summarize the recommendations from the evaluations in this study, discuss the conditions that may promote trust among process respondents, and discuss the mechanisms attempted by these two processes for reducing human-large carnivore conflicts.

5.5.1 Lessons learned

The results from my evaluations of the CRWP/SACC and OBCAG initiatives highlight eight important recommendations that should be considered in the design of similar community-based collaborative initiatives.

Communication and inclusiveness

Communication and inclusiveness are important for identifying concerns and developing effective strategies reflective of participant and community perspectives and values. These strategies are more likely to be supported by the majority of participants and the general community. Inclusiveness and communication will improve compliance
with prescriptions but won’t necessarily prevent dissenting individuals or groups from acting against the group’s interests. However, with open communication there should be fewer dissenting individuals as their interests would be considered in developing prescriptions.

Authority and control

Authority and control is important for encouraging compliance with prescriptions. Under circumstances where groups do not have authority and control it would be beneficial to include an agency with authority and control in the decision making group or process. This will help identify enforcement opportunities and challenges to proposed prescriptions. It would also improve the potential for changing existing governing policies or regulations.

Clarity in process

It is important to develop clear process rules and expectations, including the roles and responsibilities of each stakeholder. A clear, understandable process provides clear expectations and people can be held accountable for not contributing or for working against the group’s efforts. Process rules and stakeholder responsibilities should be formally acknowledged in Terms of Reference or similar guiding documentation so that all participants can easily refer to them.

Clarity in prescriptions

Similar to the process rules, it is important to have clear understanding of the decisions that are proposed and implemented by the decision making group. It is important to identify clear policies with norms, the objectives to be achieved, rules,
contingencies, sanctions and sufficient resources (Clark 2002). The clearly identified prescriptions should be formally documented so that the decision group is clear about expectations and participants have written documentation to refer to.

Termination policies

Termination policies should be identified to ensure failing strategies are not continued. With the absence of activity in the OBCAG, the group’s recommended wolf control strategies have become more unpopular with the broad community. These strategies, if resources are to continue to decline or remain inadequate for effective control, should be amended or terminated. Without a clear direction on how or when to terminate particular strategies, or even a process for making such a determination, there is little to guide the removal of ineffective prescriptions and processes. The termination strategy should be supported by a systematic evaluation program.

Evaluation policies

Collaborative processes and their policies should be evaluated to keep prescriptions and processes useful and effective. Evaluations will help to identify weaknesses in the preparation of prescriptions as well as in a group’s decision process. The collaborative group should work together to identify evaluative criteria and evaluation policies.

Professional Facilitator

Collaborative planning groups should consider hiring or at least consulting a professional facilitator. A facilitator would be able to successfully direct the group
through the development of clear process and policy requirements and help the group identify clear and achievable, or reasonable, goals.

Secure Resources

Collaborative planning groups need to identify sources of secure resources to ensure that prescriptions are implemented consistently and effectively. Secure, long term resources are needed to be able to clearly identify long term goals and a plan on how to achieve those goals. Without having secure resources to support the group’s goals, there will be little accountability and expectations for achieving them.

5.5.2 Building trust among participants

In review of the results from my evaluations of these two collaborative processes, I would suggest that trust can be built among ranchers, conservationists, wildlife scientists, and provincial government staff in dealing with wolves. The OBCAG process provides an example of how trust can be built among participants in local collaborative initiatives. The CRWP/SACC process provides another example of how trust can be built, but also shows how easily that trust can erode.

Following my discussions with respondents and a review of the evaluations of these studies I identified six conditions that appear to have supported the sense of trust experienced by OBCAG members. The first condition was that participants showed a real commitment to the process. They not only committed time and financial support to the group, but also showed a willingness to compromise when the wolf control and wolf research prescriptions were recommended. The wildlife specialists and conservation members on the OBCAG understood that by keeping wolves on the landscape the
ranchers would be the people that would experience the most deprivation as cattle would continue to be killed. The ranchers on the OBCAG understood that wolf depredation would continue indefinitely and that there was a growing element of the urban population that was interested in having large carnivores on lands outside of protected areas. The ranching members settled for a reduced level of wolf removal, while the biologists and conservation representatives agreed to a moderate level of lethal wolf control as long as lethal control targeted wolves that continued to depredate on livestock. R13 commented, “considering that there is an element at least in the urban population which is the majority that would rather have the wolves and kick the ranchers out.”

The second condition was that the group isolated its deliberations from the outside community and media which likely created a sense of freedom to speak openly, especially when speaking of sensitive topics such as wolf control. Although information about the group and its efforts were available to anyone that may have been interested, the information discussed by the group, its recommendations and the implementation of strategies were not openly shared with people outside the group through the media. Knowing that sensitive and potentially controversial discussions, such as lethal wolf control, would not be shared with the public at large likely permitted OBCAG members to speak freely knowing they would not receive a public backlash. R1 commented that, “well it’s had a pretty low profile, and that has been on purpose because we’ve done some things that aren’t particularly popular like collaring wolves and not destroying an entire pack when there’s some predation.” A study by Lachapelle et al. (2003) identified that concerns over trust developed following the release of a newsletter that, “generated negative media attention, angered the public, and intensified a sense of mistrust.”
contrast, the OBCAG group took time to develop a communication plan that all
stakeholders helped to develop, and refrained from releasing information to the media
due to the sensitive nature of wolf management and stakeholder concerns over negative
media attention. Unfortunately, partially as a result of the amount of time it took to
complete its communication plan, the OBCAG stopped meeting before it implemented its
communication plan. Therefore, although the slow pace of development of the
communication plan and the limited media and public attention to the group helped the
group members build trust, the lack of communication with people outside of the group
likely limited the group’s ability to identify outside concerns, identify additional funding
sources, and encourage the provincial government to commit additional, and long term,
resources.

The third condition was likely the consensus-based approval process used to
recommend strategies to the provincial government; ensuring each participant’s concerns
and interests were considered.

The fourth condition was the sense of informality, as described by several
respondents, which made the group meetings more comfortable. Similarly the study by
Lachapelle et al. (2003) identified that trust was supported by having a “forum that
encouraged dialogue and consequently promoted trust.” The same study also suggested
that trust was further created as stakeholders learned of their responsibilities to their
constituents. The roles and responsibilities were not clearly outlined by the OBCAG
process, but if roles and responsibilities were established that were agreed to by all the
OBCAG stakeholders the trust among members might be strengthened further.
The fifth possible condition was the limited responsibility of the advisory board as the government was responsible for implementing decisions. If failure to implement occurred the blame would be placed mainly on the government, rather than on members of the advisory board. In my view, the advantage of this is that group members were not looking for other members to blame. This may have also created an 'us versus them' (OBCAG versus the government) mentality that fostered cohesion within the OBCAG. Unfortunately, one of the disadvantages to this is that placing the blame on another group, the government, may have resulted in a sense of apathy on the side of the group members to ensure their recommendations were implemented correctly. A second disadvantage may have been that group members may have attempted to redirect blame for failure on the implementation of recommendations rather than addressing potential problems with a particular recommendation.

The sixth possible condition was the willingness of the SRD to implement full consensus recommendations within a short period of time. The 'three in three' livestock depredation threshold was decided on by the group and recommended to the Alberta SRD staff and was adopted immediately. Other recommendations including collaring for research were also adopted fairly quickly. The willingness of the SRD to adopt the initial recommendations of the group likely helped to validate the meaningfulness of the process to the group members and improved the sense of trust toward the government representatives on the OBCAG. Also, in adopting the recommendations, the government staff possibly helped the group members feel a sense of accomplishment that likely reinforced the purpose of the group, and its efforts, and helped to promote a sense of comfort among members.
The CRWP/SACC process conversely was not successful in building lasting trust among all participants. The main lesson to take from this study is that non-conforming actions need to be addressed when they are observed. Respondents commented that at times decisions were made without consensus and funding was applied to equipment and work not agreed on by CRWP/SACC members. Allowing these actions to continue unchecked only created frustration among participants and potential distrust toward those participants that were in non-compliance. It is possible that non-compliant actions are a simple misunderstanding of process rules and can be easily rectified. It is also possible that non-compliant acts are not misunderstandings and need to be addressed before the group’s process deteriorates further.

5.5.3 Designing and implementing effective mechanisms

Some respondents suggested that the use of strychnine would be by far the most effective mechanism for reducing human-large carnivore conflicts. However, they also suggested that the use of poison is no longer acceptable to many in the public, ranching community and wildlife managers. Therefore, a more fitting question is, ‘can local initiatives design effective mechanisms that are also acceptable to the broader community?’ The answer seems to be ... possibly. The CRWP/SACC and OBCAG processes attempted to identify effective strategies to reduce wolf-livestock conflicts, and related human-large carnivore conflicts. Through the CRWP/SACC process the use of flags, otherwise known as fladry, was shown to be effective at reducing livestock depredation (Musiani et al. 2003). Likewise, the OBCAG process proved that a strategy referred to as night riding could also be effective at reducing livestock losses. The problem with these strategies, as expressed by respondents, is that the majority of the
ranching community does not have the resources or the interest to implement and maintain them.

In addition to ranching strategies the OBCAG attempted to address wolf-livestock and human-large carnivore conflicts by recommending changes to the provincial government’s livestock compensation program and wolf control strategies. The OBCAG recommended an increase to provincial compensation for livestock losses in order to better reflect the true costs of wolf-livestock conflicts. With higher compensation it is possible that ranchers might be less sensitive to the occurrence of depredation events. The compensation program has not yet been amended.

The OBCAG was successful in influencing changes in the provincial wolf control program in southern Alberta from a strategy of indiscriminate wolf removal, often using strychnine, to a strategy that targets ‘problem’ wolves using net gunning, trapping, and euthanization. The revised strategy was successful at reducing wide-scale wolf removal, but required constant attention as the wolf population in the region was no longer wiped out. Respondents commented that wolf removal activities had become less effective since the OBCAG stopped meeting and that effective wolf removal is reliant on an adequate budget, staffing, and equipment.

5.6 Benefits and limitations to the research methodology

5.6.1 Using the evaluative framework adapted from Lasswell (1971) and Brunner (2002)

In using the evaluative framework I was able to generate detailed evaluation questions for each component of decision making as laid out by Lasswell (1971) and Brunner (2002). As a result I had the opportunity to gather detailed information on the
two collaborative processes. I stress the term opportunity here as little time was available for detailed discussions, because most respondents were not willing to devote additional time to this. However, in using the criteria, and the adapted questions, I was able to identify general successes and challenges for each process.

The challenges I experienced using this evaluative framework stem from the number of criteria that were developed by Lasswell to evaluate the decision process. In order to accommodate all of the criteria my initial interview contained a total of 82 questions. I revised the interview and reduced the number of questions to 34 to make it more 'respondent friendly'. Unfortunately this lost too much detail and many criteria would not have been addressed. My final interview protocol had 66 primary questions with additional probing questions. Interviews lasted from 28 minutes to approximately 180 minutes depending on the time available for respondents and their familiarity with the processes in question. The length of the final interview format resulted in the following challenges.

1. The interview protocol was too long to permit in depth discussion for more than a few criteria.

2. I found it difficult at times to keep track of all the questions asked due to the number of questions and the semi-structured interview format that often consisted of a relatively free flowing discussion.

3. I found that respondents lost interest part way through interviews and where additional interviews were needed respondents stated time as a factor for declining.

4. In addition, many of the respondents had a limited amount of time they could provide for an interview and this limited the number of questions I could ask.

5. In order to address all the criteria in the interviews I often focused less on gaining a detailed answer for each question in exchange for the opportunity to address as many questions as possible before time ran out.
6. One last challenge was that with such a small group of respondents and such a large number of questions, there were many criteria that received only one or two responses. Therefore the evaluation of those criteria was based on my interpretation of one or two respondent responses that were themselves based on their interpretation of the questions asked.

It is possible that key informant interviews are not the most ideal method for using this evaluative framework, and perhaps that is another consideration for additional evaluative research on other collaborative initiatives. However, I feel that the key informant interviews were a better fit for gathering additional information from respondents than would be expected from a survey questionnaire, or from focus groups.

5.6.1.1 Recommendations for further research using the evaluative framework

The following recommendations should be considered when the evaluative framework is used for further research.

*Reduce the interview length*

I recommend that further research should use an interview that is shortened to make it more user, and respondent, friendly. The interview could be shortened by: summarizing criteria; focusing on a limited number of decision functions; or, creating two or more interviews that, when combined, touch on all of the criteria. If the criteria are summarized the evaluation would lose depth but general and dominant themes would likely still be obvious. Clark (2002, 72) have identified a shorter list of evaluative criteria to assist resource professionals navigate successfully through, and evaluate, their respective decision processes. If the interview focuses on only certain functions, the entire process would not be evaluated. If two interviews were created that touched on all criteria the researcher would be able to address all of the criteria in the shortened format,
however there would be lower response rates for all criteria which might make it difficult to identify clear conclusions, especially considering the potential for diverse respondent values and experiences.

**Use a combined survey/interview format**

Another possibility would be to use both a written survey questionnaire and a key informant interview to ask the needed questions. Basic and easily understood questions could be used in a survey questionnaire prior to conducting interviews. These surveys would provide three functions; the first is to introduce the research project, the second is to get answers for the evaluative criteria, the third is to reduce the number of questions needed for the interview. The interview then would be shorter and could focus on criteria not already touched on by the survey and could provide follow up questions to clarify survey responses.

**Identify and focus on significant criteria**

It might be possible to identify criteria that have more significance in evaluating the decision processes than other criteria. Therefore the interview format could be altered to focus primarily on these criteria. Interviews could either be shortened, maintaining questions for these significant criteria, or the questions for the significant criteria could be highlighted and focused on first before other questions are asked.

**Include social values as a focus**

In Chapter 2, I briefly identified the components of the policy sciences framework: standpoint clarification, problem orientation, social process mapping, and decision process mapping. In this study although my main focus was the decision
functions, I also touched on the problem definition component of both collaborative exercises. I did not explicitly focus on the social values of the participants of each process and how those values were used and impacted throughout the course of events for each process. Evaluating the social process for these two collaborative efforts would provide further understanding as to how the processes impacted participants and stakeholders and how and why different events did or did not occur. Also, clarifying participant values and the resulting value indulgences and deprivations as a result of these collaborative efforts might help explain the challenges faced by the two groups and the outcomes of their efforts.

*Compare processes on the basis of professional facilitation and design*

Literature reviewed for this research has shown that professional facilitators’ efforts include working with collaborative groups on problem definition, process design, appropriate stakeholder involvement and responsibilities and the identification and evaluation of alternatives. Many of the concerns observed for the two collaborative processes evaluated in this study include those very same tasks that professional facilitators would focus on. It would be interesting to determine how well facilitators knowingly, or unknowingly, guide collaborative processes through the decision functions and their criteria. Considering the very real possibility of resource managers given the responsibility to facilitate collaborative processes and the challenge of applying the decision function framework to guide those processes, it may be beneficial to consider hiring a facilitator, even if only to establish the collaborative group, its structure and its process as well as evaluating its function.
5.6.2 Conducting similar research in Southern Alberta

For people conducting similar research in southern Alberta it would be beneficial for them to consider the recommendations noted above as well as the challenges and recommendations noted below.

There were two notable benefits from using key informant interviews to gather research information. I feel that a personal delivery of the questions was necessary to have the respondents commit time to answering the research questions (rather than a written questionnaire), especially considering their busy schedules. Second, the key informant interviews helped me gain a sense of the values, perspectives and doctrines of the respondents that I would not have gained using other methods such as surveys.

There were six notable challenges that I experienced during my time in southern Alberta. These challenges were related to limited scheduling opportunities, time requirements for interviews, recording complications, my limited familiarity with the people and the processes, respondent discomfort with the evaluation, the politeness of respondents, and student researcher exhaustion. Many respondents had limited and unpredictable schedules that made scheduling and completing interviews a challenge. In addition, scheduling was further complicated by the widespread locations of the respondents.

As noted above, interviews were difficult to complete at times due to time availability and it was difficult to reschedule subsequent interviews due to the time required for completing interviews.
My interview recordings were often difficult to hear as a combined result of equipment failure and background noise as a consequence of interview locations (e.g. vehicles, pastures, and conference halls).

Possibly the most difficult challenge for me was entering into a situation with minimal background in the environment (social and physical) and evaluating the efforts of people I had not had the opportunity to meet prior to the start of my research. This challenge was further confounded by the polarized and somewhat emotional subject of my research; that being collaborative processes directed at reducing wolf-livestock conflicts.

It seemed to me that some participants were uncomfortable with me evaluating these two processes and I found that some information was difficult to obtain. In other circumstances I found that where criticism may have been warranted many respondents politely declined to provide any such comments or statements leaving some questions unanswered or only partly answered. In one instance where information that was critical was provided, it was provided with the condition that it was ‘off the record’.

Lastly, several respondents commented that students were a common element in southern Alberta and members of the ranching community were often contacted to help with various projects. These respondents also indicated that students would take up their time and would come and go without seeing the completed work or without any follow up by the student. One of the respondents, R22, suggested that, “There is an irritation with graduate students who take up a lot of ranchers’ time and come and go...” Respondents from the ranching community were more than generous with their time for this study; however their contributions should be noted and recognized. R22 further
suggested that, "(ranchers) are a part of the research, they are not the subjects...to make this more meaningful researchers might... provide a stipend."

5.6.2.1 Recommendations for similar research

1. The interviewer would benefit from being available in the study area for an extended period of time (1 month or longer) to improve access to key informants. Respondent availability was ever-changing making scheduling the interviews within a short timeline difficult and rushed. If the researcher remained in the study area for longer periods the respondents could contact them when they knew they had available time.

2. As recommended by respondent R22, and in response to several respondents commenting on the prevalence of student researchers, it might be beneficial to offer monetary reimbursement to respondents for committing their time to research projects. It would be beneficial at the very least to follow up with study participants following the completion of research projects and to provide them with a copy or summary of the final product, and provide them an opportunity to ask questions or provide comments or suggestions.

3. The interviewer should ensure that recording equipment is functional and make sure to use multiple recording devices to record every interview in the event of a technical failure. If possible, it may also be beneficial to identify one or two specific locations for interviews so that the interview conditions are constant and easier to control, including background noise. This however might reduce the comfort and informality of meeting and speaking with respondents in a more personal setting.

4. It would be beneficial for the interviewer conducting similar research to provide themselves with ample time to review the efforts and relationships among the people being evaluated. Obviously this was not possible for me as the groups were not actively meeting at the time of the interviews. However, it might be beneficial to provide some sense of familiarity with the groups and people involved prior to interviewing to get a sense of the efforts and challenges faced by those people. There would be extra costs involved but it is likely that information may be gathered in other ways not consisting of strictly interviews, but merely by interacting, of course in the most non-biased fashion possible.

5. Lastly it might be beneficial for the respondent to use weighted scoring or qualitative judgment for evaluating respondent responses. Equating the responses of all respondents may not provide the best evaluation method for all criteria. If particular respondents have a better understanding of the subject in question or if certain respondents are privy to information that others might not be, than some responses may be more meaningful and therefore extra weighting may be the appropriate method for completing evaluations. For example if one or two people
responded saying that they knew of circumstances where process leaders were being untruthful yet others, the majority, were not aware, than it may be beneficial to provide additional weighting where specific examples are provided. In addition, while some respondents may not be experienced in resource planning or familiar with problem definition or effective goal identification (SMART: specific, measurable, attainable, relevant, time specific) others may have a better understanding of what is required and therefore when asked about adequate problem definition and goal setting, those that can provide examples of why the problems or goals are or are not well defined versus other responses perhaps stronger weighting should apply.

5.7 Concluding remarks

CRWP/SACC

The results of my evaluation show that the members of CRWP/SACC were faced with numerous challenges in their efforts to improve wolf-livestock conflicts in southwestern Alberta. Saying that the group process had many challenges does not, however suggest the group was not successful. Success is based on whether the group was able to reach its goals or at the very least move conditions closer to their stated goals. The group completed two fladry experiments to show that alternative management strategies may be valuable under particular circumstances and field staff initiated a working relationship with members of the ranching community. In the end their efforts provided a foundation for further work in southwestern Alberta towards reducing wolf-livestock depredation, such as the OBCAG process. As one respondent (R9) in particular commented, “I don’t think we’d be near as far along at this point in time had we not started together back in 2000.

In addition, one member of the collaboration has continued to build on the research and communication efforts as a member of SACC. Shortly after the dissolution
of the CRWP/SACC collaboration, this member of SACC was invited to join, and was an active member of, the OBCAG collaborative process.

**OBCAG**

The results of my evaluation show that the OBCAG collaborative process performed well in my evaluation. The group still faces challenges, but, it seems to have a solid basis from which to continue to address depredation concerns. The group has established some initial priority strategies and these strategies, with sufficient resources, can help to maintain depredation and wolf population at an acceptable level. However, the group needs to identify how, or if, they are going to move past the current policies that are in place in order to achieve the collective goals of the individuals at the table.

The group has successfully altered the provincial wolf removal practice in the short term and has generated trust and a respectful working relationship among stakeholders. With some of the insights provided from my evaluation I hope the group is able to continue to work together to develop effective policy for ranching, wolves, and other resource management challenges in southwestern Alberta.
APPENDIX 1: Collaborative initiatives focus management area

*The highlighted area in the figure above shows the OBCAG management area. The
CRWP/SACC focus area was also in the same general area as the OBCAG focus area
within southwestern Alberta, however trapping (of wolves) was also conducted in
Kootenay National Park, B.C.

This map was produced using Google maps 2010 (August 25, 2010). The green shaded
area outlining the collaborative management areas was added by the author and is based
on the description of the management area provided by the OBCAG’s annual report
(OBCAG 2005) and on the boundaries of the 9 wildlife management units as provided by
the Alberta SRD Fish and Wildlife Management Information System Internet Mapping
APPENDIX 2: Contextual Framework

The conceptual framework of the policy sciences is outlined below as Problem Definition, Social Process Mapping, and Decision Process Mapping.

A 2.1 Problem Definition

Problem definition consists of five tasks known as ‘clarifying goals’; ‘describing trends’; ‘analyzing conditions’; ‘projecting developments’; and, ‘inventing, evaluating’, and selecting alternatives’ (Clark et al. 2000; Clark 2002; Lasswell 1971). Details of these tasks are provided below.

Clarifying goals

Each participant should be asked to identify their goals, and what they would like to achieve through the policy process (Clark 2002). In stating goals stakeholders can work towards developing process goals and policies that achieve the common goals of process participants. Where goals are different, which is likely to be the case, other information such as people’s interests and values should be discussed in order to identify other commonalities to build agreeable decisions (Clark 2002). Clark mentions that it may be necessary to focus on more basic and widely held beliefs or doctrines in the event that connections between the stakeholders are difficult to find.

Once the social variables are understood, goals for addressing the policy problem can be developed. In identifying the goals it is also necessary to develop realistic objectives that work toward achieving those goals as (Clark 2002). Furthermore, it is important to identify the procedures that will be employed to reach those goals, because
identifying the goals and objectives isn't enough to direct people on how to achieve those desired ends (Clark 2002).

Describing the trends

It is important to understand whether the problem is getting better or worse and how the factors influencing the problem are changing (Clark 2002). Trends can be observed in the physical environment such as a change to landscapes or they can be observed in the social context with a change in norms, or laws. In Chapter 2 I identified several trends that have lead to the wolf management challenges that are currently facing land managers. Understanding what changes are taking place in both the social context (society’s values, perceptions and interests) and in the condition and use of the physical environment, as well as notable events that help to shape those trends, can help managers determine if these trends are moving society closer to or further from where it is they hope to be.

Analyzing conditions

It is important to identify and understand the causal factors of the trends that have lead to changes in perceived problems. This task consists of in-depth inquiry into the factors influencing the observed trends and considers both technical, scientific factors as well as social factors. Having a better understanding of these factors (environmental, human values, institutions) will better prepare stakeholders for developing effective policies or amending existing, ineffective or failing, policies.
Making projections

This task requires that we view current conditions and project future conditions based on the past and existing policies and conditions (Clark et al. 2000; Clark 2002). After gaining an appreciation for past events and trends in both the social context and in scientific analysis, it is necessary to determine whether existing or alternate policies will improve conditions or achieve desired goals (Clark et al. 2000; Clark 2002). If existing policies are functioning well and projections show that goals will be realized then new alternative policies are unnecessary (Clark et al. 2000; Clark 2002). However, if projections of past and existing trends are unlikely to meet the desired end-state, than existing policies are likely to be ineffective and new policy alternatives are needed (Clark et al. 2000; Clark 2002). Projections of future trends relative to each of the new alternatives will help determine if the new policies will improve conditions or leave society worse off, and this will help determine the most appropriate alternative(s) (Clark et al. 2000; Clark 2002).

Inventing, evaluating and selecting alternatives

After determining that existing trends are likely to fall short of achieving expected goals, new alternatives need to be invented, evaluated and implemented. The previous four tasks provide the means for identifying new and potentially successful strategies and these strategies can be contrasted in terms of whether they will bring existing conditions closer to preferred goals.
A 2.2 Social Process mapping

The social process consists of seven components that help define the human element of decision making. These seven components, described below, are ‘participants’, ‘perspectives’, ‘situations’, ‘base values’, ‘strategies’, ‘outcomes’, and ‘effects’.

Participants

Participants are the individuals or groups that may have an interest in the policy problem (Lasswell 1971; Clark 2002). Clark (2002) also includes people that have related expertise that may be able to help address the problem. The participants can be further characterized by their associations, such as governments or interest groups (Clark 2002). In the processes evaluated in this study the participants include but are not necessarily limited to government representatives, wildlife specialists, members of the ranching community, trappers, and conservation groups.

Perspectives

The second task is to identify the perspectives (identities, expectations and demands) of each stakeholder and then identify the differences and similarities among these perspectives (Clark 2002). Examples of identities include government, ranchers and conservation organizations. The members of each (identity) group will operate under particular doctrines, operate under similar rules or norms, and have similar goals and expectations. Expectations are what stakeholders perceive future outcomes will be in terms of their base values. Stakeholder demands are realizations of their identities and expectations.
**Situations**

Situations refer to the circumstances in which stakeholders interact and include spatial, temporal, institutional settings, as well as the existence or non-existence of a crisis (Lasswell 1971; Clark 2002). Spatial settings refer to the landscapes in which the problems and processes occur and the process participants interact (Clark 2002). Temporal settings refer to different times at which different components of the problem or decision process occur (Clark 2002). Institutional settings refer to how people interact, in either an organized or unorganized process with formal or informal rules and norms (Clark 2002). Crises can occur in various forms including war or ecological devastation (such as mass flooding or droughts) (Lasswell 1971; Clark 2002). In general, society’s and institutions work towards avoiding crises (Clark 2002). Unfortunately crises inevitably do occur and Clark suggests states that people’s perspectives and practices change as a result (Clark 2002).

**Base values**

There are eight values that participants stand to gain or lose through the outcomes and process of decision making: wealth; power; enlightenment; respect; rectitude; affection; skill; and, well-being (Lasswell 1971; Clark 2002). The values that stakeholders have prior to the start of a process, called base values, are used throughout decision processes to persuade or coerce other participants to understand and agree with their goals in order to add to their existing values (Clark 2002).
Strategies

There are four strategies that stakeholders use to add to their base values: diplomatic (speaking with process leaders), ideological (appealing to the public), economic (affecting goods and services), and military (military force) (Clark 2002).

Outcomes

Outcomes refer to the ‘changes in the distribution of values’ among participants through their participation in each decision making process (Clark 2002). In this change in the distribution of values, participants experience both value indulgences and deprivations (Clark 2002). For example, some participants may gain wealth or lose wealth as a result of particular decisions to lift market restrictions for particular products such as when the US imposed restrictions on Canadian beef exports due to the concern over BSE. In this specific example the Canadian beef farmers lost market share and the American beef producers (as well as beef producers in other exporting countries to the US) likely benefited from increased market share.

Effects

Effects refer to the culmination of value deprivations and indulgences from the outcomes of decision processes over the long term. These effects are reflected in changes in societal values and changes in the institutions that society operates by.
A 2.3 Decision Process mapping

The decision process is made up of seven distinct functions known as the *Intelligence, Promotion, Prescription, Invocation, Application, Termination, and Appraisal Functions*.

**Intelligence Function**

The intelligence function of the decision process consists of gathering and processing information and providing it to decision makers (Clark 2002). The information is based on past trends that have lead to specific outcomes, as well as the circumstances under which those trends developed. Participants need to project future outcomes based on existing trends and those trends that may be possible through the development of new policies. The information that is gathered needs to be reliable, correct, and understandable and needs to be made available to all interested participants and decision makers (Clark 2002).

**Promotion Function**

The promotion function refers to the attempts of participants to ‘promote’ the policies/prescriptions that they believe are in their best interest (Clark 2000; Clark 2002). Political parties and activist groups are especially good at promoting their interests (Clark 2002). In order to develop the optimum prescription for the overall community, promotion from all stakeholders is necessary to discuss all interests, values and concerns and debate opposing views and alternative prescriptions. In the decision process it is important to understand which groups are promoting what policies and how each group stands to gain or benefit from each policy alternative (Clark 2002). Decision processes
are often distorted as participants attempt to influence decisions to better suit their interests by using their base values such as power or wealth (Clark 2002). Power dynamics within a group may play a role in the formation of inequitable policies (Clark 2002).

**Prescription Function**

The prescription function leads to the development of rules, norms and guidelines that a community is expected to follow (Clark 2002). As stated by Clark, effective prescriptions are those that have clear goals, rules that direct the accomplishment of the goals, provide contingencies for attaining the goals in changing circumstances, identify how participants will be encouraged to follow the rules (sanctions-punishments and/or incentives), and the assets necessary to implement the prescription. Authority members are needed to support the prescriptions and show intent to uphold them on a continuous basis. The new rules should complement existing policies or at the very least not contradict them (Clark 2002).

**Invocation Function**

The invocation function determines how a prescription will be managed including identifying who will be responsible to follow what rules under what conditions and who will be required to apply the relevant sanctions (e.g. enforcement) and how (Clark 2002). This function identifies and institutes all of the components necessary to enact the prescriptions including administration, staffing and resources (Clark 2002).
Application Function

The application function of decision making addresses any challenges that may confront those people responsible for instituting the prescriptions (Clark 2002). The decision process is a dynamic entity and as prescriptions are set into motion there are likely to be; conditions or circumstances that were not considered, disputes about how to carry out the implementation of a prescription, mechanisms for resolving disputes that need to be identified or clarified, or some components of the prescription that may not be functioning as intended (Clark 2002). As part of the application function decision makers make the appropriate adjustments to resolves potential challenges to invoking prescriptions (Clark 2002).

Termination Function

The termination function involves the termination of a prescription or the replacement of outdated policies with updated and improved policies (Clark 2002). Termination should be planned for when goals have been achieved or when policies are determined to be ineffective (Clark 2002). When terminating a prescription, policy makers need to consider how that termination will impact the community (costs and benefits) and they need to address those with concerns or expectations (Clark 2002). One example of dealing with such concerns is compensating those people that experience a loss as a result of terminating a policy (Lasswell 1971).

Appraisal Function

In the appraisal function decision process is evaluated on how well it has functioned overall and evaluates each of the policies that were enacted by the process
The policies and process are evaluated in the terms of the goals and objectives identified by the community (Clark 2002). The evaluations help identify the impeding and supporting factors for each policy and informs decision makers how to alter (or terminate) existing policies and how to better develop and implement future policies (Clark 2002). Evaluations are most effective when they are continuous and independent of the decision making body (Clark 2002).
### APPENDIX 3: Participant interview evaluation - CRWP/SACC

#### A.3.1 Evaluation Results for Brunner’s Tests of the Common Interest - CRWP/SACC decision process

N/A = Not Applicable  
Nans = Not answered  
Nask = Not asked  
Unkn = Answer unknown  
NRec = Answer not recorded

Table A.3.1 Evaluation results for Brunner’s Tests of the Common Interest for the CRWP/SACC decision process

<table>
<thead>
<tr>
<th>Brunner’s Tests of the Common Interest</th>
<th>Criteria</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procedural test</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Are the effective participants representative of the community as a whole?</td>
<td>+ 5 1 0 0 0 2</td>
<td></td>
</tr>
<tr>
<td>2. Are the effective participants responsible and accountable to the community?</td>
<td>0 5 2 0 0 0 2</td>
<td></td>
</tr>
<tr>
<td><strong>Substantive test</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Are the expectations of the group and its members warranted by the evidence available?</td>
<td>5 0 2 0 1 0 1</td>
<td></td>
</tr>
<tr>
<td>4. Are the value demands compatible with more comprehensive goals?</td>
<td>5 1 2 0 0 0 1</td>
<td></td>
</tr>
<tr>
<td>5. Have participants who are representative of the community as a whole signed off on the policy?</td>
<td>1 4 2 0 1 0 1</td>
<td></td>
</tr>
<tr>
<td><strong>Practical test</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Is participation still representative and responsible, and if not is the process adapted accordingly?</td>
<td>1 5 1 0 0 0 2</td>
<td></td>
</tr>
<tr>
<td>7. Do the outcomes continue to be compatible with more comprehensive goals and supported by the community, and if not, is the process adapted accordingly?</td>
<td>1 0 8 0 0 0 0</td>
<td></td>
</tr>
</tbody>
</table>
A.3.2 Evaluation Results for Lasswell’s Decision Functions and Overall Process - CRWP/SACC decision process

N/A = Not Applicable
Nans = Not answered
Nask = Not asked
Unkn = Answer unknown
NRec = Answer not recorded

Table A.3.2 Evaluation Results for Lasswell’s Decision Functions and Overall Process for the CRWP/SACC decision process

<table>
<thead>
<tr>
<th>Lasswell’s Decision Process</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
</tr>
<tr>
<td><strong>Intelligence</strong></td>
<td></td>
</tr>
<tr>
<td>1. Is the information gathered for decision making accurate? Can it be relied upon?</td>
<td>5</td>
</tr>
<tr>
<td>2. Are estimates given of the credibility of information and the uncertainty involved?</td>
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<td>3. Are the best sources of information used (quality of expertise)?</td>
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<td>4. Can the sources be relied upon to supply realistic statements of information (loyalty, identification)?</td>
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<tr>
<td>5. Are appropriate methods and competence mobilized and used when needed or indicated to gather information?</td>
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<tr>
<td>6. Is the information accurately transmitted from the sources to recipients?</td>
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<tr>
<td>7. Do recipients acknowledge the credibility and realism of the sources of information?</td>
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<tr>
<td>8. Is information obtained for all relevant components of the problem (goals, trends, conditions, etc.), and the context of the problem (social process, decision process)?</td>
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<tr>
<td>9. Is information obtained from all appropriate sources and all affected people (Traditional science, TEK? Local knowledge? Social, economic, ecological, etc.)?</td>
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<tr>
<td>10. Are estimates made of the benefits, costs and risks of each of the alternatives investigated?</td>
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<tr>
<td>11. Are intelligence activities focused on the key aspects of the problem guided by adequate problem orientation?</td>
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<tr>
<td>12. What proportion of outputs are related to problems perceived to be important by insiders in comparison with problems perceived to be important by other people affected or interested?</td>
<td>5</td>
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<tr>
<td>13. Are new objectives and strategies that are realistic taken to gathering intelligence?</td>
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<tr>
<td>14. Are new objectives and strategies compared with older objectives and strategies?</td>
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<td>15. To whom is intelligence communicated?</td>
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16. Is anyone excluded from access to intelligence and is the exclusion justified?  

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**Promotion**

17. Is there general cooperation in obtaining intelligence?  

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18. Are all reasonable alternatives brought to the attention of decision makers?  

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19. Are proposed alternatives assessed and justified in terms of value indulgences or deprivations?  

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20. Are proposed alternatives broadly supported?  

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21. Is the debate about alternatives bipolar (yes-no, either-or)?  

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22. Is there coercion in the debate about alternatives?  

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23. Do the alternatives proposed reflect the full range of community interests?  

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24. Are the views of the weak or neglected incorporated through direct participation or other means of solicitation?  

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25. Is thorough debate of all views encouraged before proposals are adopted or entrenched?  

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**Prescription**

26. Do those affected or interested generally consider decisions to be lawful and enforceable?  

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27. Are decisions for which there is general support promptly made and implemented?  

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28. Are decisions for which there will not be continuing support avoided?  

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29. Before proposed decisions are made, are they brought to the attention of groups beyond those most immediately interested?  

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30. Do prescriptions include norms, contingencies, sanctions and assets?  

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31. Do decisions further the common interest rather than special interests, and balance inclusive and exclusive interests?  

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32. Are decisions appropriate for all potential situations (high, middle and low crisis)?  

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33. Do sanctions exist to:a) deter nonconformity with prescriptions?b) resist acts of noncompliance?c) rehabilitate persons and restore damaged assets?d) prevent future recurrences?e) correct motivations and deficiencies in education that stimulate nonconformity?f) reconstruct institutions to encourage conformity?  

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**Invocation**

34. Are justifiable complaints by the less-powerful encouraged and are actions taken in response?  

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35. Are all of the decisions carried out and carried out consistently?  

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36. Are the decisions applied fairly whenever the specified contingencies exist?  

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37. Are expedient processes applied where circumstances call for quick action?  

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<td><strong>Application</strong></td>
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<td>40. Is performance supervised and reviewed and nonconformity</td>
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<td>with prescriptions rectified?</td>
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<td>41. Is there any discrimination in application?</td>
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<td>42. Are third parties participants mobilized in order to</td>
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<td>43. Are obsolete programs promptly terminated when they are</td>
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<td>58. Are official personnel fiscally honest?</td>
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<td>62. Are official personnel committed to the overriding goals of</td>
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<td>63. Does the program contribute to the mobilization of immediate and</td>
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<td>2</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>continuing political support for the political system as a whole and</td>
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<tr>
<td>to the overriding goals of public policy (human dignity)?</td>
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<tr>
<td>64. Are there differentiated structures for each function of</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>decision-making?</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
65. How well does the system adjust to changes (e.g., shift from crisis to non-crisis and vice versa)?

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>4</th>
<th>2</th>
<th>0</th>
<th>2</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
</table>

66. Are decisions made in a deliberative and responsible manner rather than in an erratic and impulsive manner?

|   | 2 | 1 | 2 | 0 | 2 | 1 | 1 |
APPENDIX 4: Participant interview evaluation - OBCAG

A.4.1 Evaluation Results for Brunner’s Tests of the Common Interest - OBCAG decision process

N/A = Not Applicable
Nans = Not answered
Nask = Not asked
Unkn = Answer unknown
NRec = Answer not recorded

Table A.4.1 Evaluation results for Brunner’s Tests of the Common Interest for the OBCAG decision process

<table>
<thead>
<tr>
<th>Brunner’s Tests of the Common Interest</th>
<th>Criteria</th>
<th>Met</th>
<th>Not Met</th>
<th>N/A</th>
<th>Nans</th>
<th>Nask</th>
<th>Unkn</th>
<th>NRec</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procedural test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Are the effective participants</td>
<td>representative of the community as a whole?</td>
<td>11</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Are the effective participants</td>
<td>responsible and accountable to the community?</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Substantive test</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>3. Are the expectations of the group</td>
<td>warranted by the evidence available?</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4. Are the value demands compatible</td>
<td>with more comprehensive goals?</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Have participants who are</td>
<td>representative of the community as a whole signed off on the policy?</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Practical test</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6. Is participation still representative and responsible, and if not is the process adapted accordingly?</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7. Do the outcomes continue to be</td>
<td>compatible with more comprehensive goals and supported by the community, and if not, is the process adapted accordingly?</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
A.4.2 Evaluation Results for Lasswell's Decision Functions and Overall Process - OBCAG decision process

N/A = Not Applicable
Nans = Not answered
Nask = Not asked
Unkn = Answer unknown
NRec = Answer not recorded

Table A.4.2 Evaluation Results for Lasswell’s Decision Functions and Overall Process for the OBCAG decision process

<table>
<thead>
<tr>
<th>Lasswell’s Decision Process</th>
<th>Met</th>
<th>Not Met</th>
<th>N/A</th>
<th>Nans</th>
<th>Nask</th>
<th>Unkn</th>
<th>NRec</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intelligence</strong></td>
<td></td>
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</tr>
<tr>
<td>1. Is the information gathered for decision making accurate? Can it be relied upon?</td>
<td>9</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Are estimates given of the credibility of information and the uncertainty involved?</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3. Are the best sources of information used (quality of expertise)?</td>
<td>9</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Can the sources be relied upon to supply realistic statements of information (loyalty, identification)?</td>
<td></td>
<td></td>
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<tr>
<td>5. Are appropriate methods and competence mobilized and used when needed or indicated to gather information?</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Is the information accurately transmitted from the sources to recipients?</td>
<td>8</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. Do recipients acknowledge the credibility and realism of the sources of information?</td>
<td>8</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8. Is information obtained for all relevant components of the problem (goals, trends, conditions, etc.), and the context of the problem (social process, decision process)?</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9. Is information obtained from all appropriate sources and all affected people (Traditional science, TEK, local knowledge, social, economic, ecological, etc.)?</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>10. Are estimates made of the benefits, costs and risks of each of the alternatives investigated?</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>11. Are intelligence activities focused on the key aspects of the problem, guided by adequate problem orientation?</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12. What proportion of outputs are related to problems perceived to be important by insiders in comparison with problems perceived to be important by other people affected or interested?</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>13. Are new objectives and strategies that are realistic taken to gathering intelligence?</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14. Are new objectives and strategies compared with older objectives and strategies?</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15. To whom is intelligence communicated?</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>0</td>
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<td>16. Is anyone excluded from access to intelligence and is the exclusion</td>
<td>6 5 3</td>
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<td>justified?</td>
<td>0 0 0</td>
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<td>17. Is there general cooperation in obtaining intelligence?</td>
<td>9 0 5</td>
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<tr>
<td>18. Are all reasonable alternatives brought to the attention of</td>
<td>8 0 6</td>
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<tr>
<td>decision makers?</td>
<td>0 0 1</td>
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<td>19. Are proposed alternatives assessed and justified in terms of</td>
<td>7 1 5</td>
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<tr>
<td>value inducements or deprivations?</td>
<td>0 1 0</td>
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<td>20. Are proposed alternatives broadly supported?</td>
<td>6 2 4</td>
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<td>21. Is the debate about alternatives bipolar (yes-no, either-or)?</td>
<td>8 0 6</td>
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<td>22. Is there coercion in the debate about alternatives?</td>
<td>4 2 5</td>
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<td>23. Do the alternatives proposed reflect the full range of community</td>
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<td>interests?</td>
<td>0 0 0</td>
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<td>24. Are the views of the weak or neglected incorporated through direct</td>
<td>7 5 2</td>
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<td>participation or other means of solicitation?</td>
<td>0 0 0</td>
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<td>25. Is thorough debate of all views encouraged before proposals are</td>
<td>7 1 6</td>
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<td>adopted or entrenched?</td>
<td>0 0 1</td>
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<td>Prescription</td>
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<td>26. Do those affected or interested generally consider decisions to</td>
<td>1 7 4</td>
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<td>be lawful and enforceable?</td>
<td>0 2 0</td>
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<td>27. Are decisions for which there is general support promptly made</td>
<td>8 0 6</td>
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<td>and implemented?</td>
<td>0 0 1</td>
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<tr>
<td>28. Are decisions for which there will not be continuing support</td>
<td>0 4 3</td>
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<td>avoided?</td>
<td>1 4 0</td>
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<tr>
<td>29. Before proposed decisions are made, are they brought to the</td>
<td>4 8 1</td>
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<tr>
<td>attention of groups beyond those most immediately interested?</td>
<td>0 1 0</td>
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<tr>
<td>30. Do prescriptions include norms, contingencies, sanctions and</td>
<td>1 3 6</td>
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<tr>
<td>assets?</td>
<td>0 5 0</td>
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<tr>
<td>31. Do decisions further the common interest rather than special</td>
<td>8 3 3</td>
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<tr>
<td>interests, and balance inclusive and exclusive interests?</td>
<td>0 0 1</td>
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<tr>
<td>32. Are decisions appropriate for all potential situations (high,</td>
<td>6 0 6</td>
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<tr>
<td>middle and low crisis)?</td>
<td>0 2 1</td>
<td></td>
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<tr>
<td>33. Do sanctions exist to: a) deter nonconformity with prescriptions?</td>
<td>0 4 6</td>
<td></td>
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<tr>
<td>b) resist acts of noncompliance? c) rehabilitate persons and restore</td>
<td>2 2 0</td>
<td></td>
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<tr>
<td>damaged assets? d) prevent future recurrences? e) correct motivations</td>
<td>1 0 1</td>
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<td>and deficiencies in education that stimulate nonconformity? f)</td>
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<td>reconstruct institutions to encourage conformity?</td>
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<tr>
<td>Invocation</td>
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<tr>
<td>34. Are justifiable complaints by the less-powerful encouraged and</td>
<td>5 5 3</td>
<td></td>
<td></td>
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<tr>
<td>are actions taken in response?</td>
<td>0 1 0</td>
<td></td>
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<tr>
<td>35. Are all of the decisions carried out and carried out consistently?</td>
<td>2 4 5</td>
<td></td>
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<tr>
<td>36. Are the decisions applied fairly whenever the specified contingencies exist?</td>
<td>6 0 5</td>
<td></td>
<td></td>
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<tr>
<td>37. Are expedient processes applied where circumstances call for quick action?</td>
<td>7 2 5</td>
<td></td>
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<tr>
<td>Question</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>Are more deliberative processes applied where circumstances do not require quick action?</td>
<td>9</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Do initiatives impose the minimum deprivation necessary to be effective?</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Application</td>
<td></td>
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<tr>
<td>Is performance supervised and reviewed and nonconformity with prescriptions rectified?</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Is there any discrimination in application?</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Are third parties participants mobilized in order to neutralize special interests?</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Termination</td>
<td></td>
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<tr>
<td>Are obsolete programs promptly terminated when they are no longer justified?</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Are the facts used in judging whether to terminate dependable and comprehensive?</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Are termination policies dependable and comprehensive?</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Is a balance maintained between expediting or inhibiting change?</td>
<td>4</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Are valid losses arising from termination compensated?</td>
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<tr>
<td>Is compensation denied where strong coercive opposition to policy is likely to continue?</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>0</td>
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<tr>
<td>Are windfall advantages arising from termination expropriated?</td>
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<td>0</td>
<td>14</td>
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<td>1</td>
<td>0</td>
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<td>Appraisal</td>
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<td></td>
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<tr>
<td>Are appraisal policies and criteria generally agreed upon?</td>
<td>0</td>
<td>8</td>
<td>6</td>
<td>0</td>
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<tr>
<td>Are the data used in evaluation dependable?</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>0</td>
<td>6*</td>
<td>0</td>
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<tr>
<td>Are the explanatory analyses relevant and explicit?</td>
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<td>7</td>
<td>7</td>
<td>0</td>
<td>6*</td>
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<td>Is there explicit imputation of formal responsibility for successes and failures?</td>
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<td>7</td>
<td>7</td>
<td>0</td>
<td>6*</td>
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<td>Is appraisal comprehensive and yet selective (use the framework to assess)?</td>
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<td>7</td>
<td>7</td>
<td>0</td>
<td>6*</td>
<td>0</td>
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<td>Are the appraisers protected from threats or inducements?</td>
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<td>7</td>
<td>7</td>
<td>0</td>
<td>5*</td>
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<td>Are internal appraisers supplemented by external appraisal?</td>
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<td>7</td>
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<td>5*</td>
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<td>Is appraisal continuous rather than intermittent?</td>
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<td>7</td>
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<td>5*</td>
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<td>Overall Process</td>
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<tr>
<td>Are official personnel fiscally honest?</td>
<td>9</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Does the public believe that program officials are fiscally honest?</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Is the process efficient in the use of money (benefit/cost? cost effectiveness)?</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Is the process efficient in the use of non-monetary resources?</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td>0</td>
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<tr>
<td>Are official personnel committed to the overriding goals of public policy (human dignity)?</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Does the program contribute to the mobilization of immediate and continuing political support for the political system as a whole and to the overriding goals of public policy (human dignity)?</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
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</table>
64. Are there differentiated structures for each function of decision-making?

65. How well does the system adjust to changes (e.g., shift from crisis to non-crisis and vice versa)?

66. Are decisions made in a deliberative and responsible manner rather than in an erratic and impulsive manner?

* The asterisks shown for criteria 51 through 57 indicate that respondents were not asked follow up questions about group evaluation after they commented that the group and its decision process were not evaluated. Had questions been asked for these criteria, based on the responses from the respondents stating there was no evaluation, I would expect the respondents would have answered ‘no’ to those questions as well and therefore those criteria would have been evaluated as not met as well.
APPENDIX 5: Interview questionnaire

I’ll start with some general questions about your involvement with the project, and what it was trying to achieve.

1. In what ways were you involved in the Pincher Creek Project?
   a. Did you have an official capacity with the project?
   b. How did you get involved?

2. What would you say the project was trying to achieve – in other words, what were its broad goals?
   a. What do you think the participants expected the project to accomplish?
   b. Did different groups or individuals want different things from the project
   c. Were all of these expectations reasonable?
   d. How did these expectations compare with what the community as a whole generally wanted?
   e. What can you tell me about the level of broad community support or agreement with what the project was attempting to accomplish
   f. Any particular individuals or groups who disagreed? Why?
   g. Were the concerns of those who disagree reasonable?
   h. How did the project and its outcomes compare with general community values and goals?

3. Tell me about the specific problems or difficulties the project was supposed to resolve or improve?
   a. What kinds of problems did the group focus on?
      (Biological, Social, Economic, Political)
   b. Perceived to be problems by insiders?
   c. Perceived to be problems by non-participants?

4. What do you think were the causes of these problems or difficulties?

5. How did the project attempt to address these problems or difficulties?

6. What do you think would have happened if the project hadn’t occurred?

Now I’m going to ask some questions about who else was involved with the project, and how it fit with other things that were happening in the community.

7. Who else was involved in the project?
   a. How representative would you say the participants in the project were of the community as a whole?
   b. Was anyone left out who should have been involved?
   c. Do you think their interests were represented? How?
   d. What steps were taken to encourage stakeholders to participate?
8. How were the participants responsible to other members of the community who were not directly involved?

9. How did participation in the project change over time, from inception to completion?  
   a. Why?  
   b. Would you say that the changes in participation made the project more representative of the community as a whole, or less so?

Next I’d like to ask you some questions about your views about the project and wolf management more broadly.

10. Do you feel that the project was important and worth pursuing?

11. Do you think it has improved, or will improve, wolf management?

12. Do you get the sense that other participants feel the project was important, or felt it was important at the time?

13. Have participants benefited from the project? How?

14. How did the project change the attitudes and activities of participants and those affected by it?  
   a. What effect do you think the project has had on participants’ views about cooperative decision making and democratic processes generally?

15. Had the project changed since it started?  
   a. How?  
   b. Why?  
   c. Would you say that the changes made the project more compatible with general community values and goals or less so? In what ways?

16. Would you say that the project leaders were committed to human dignity?  
   a. How about to their commitment to the survival of wolves?

17. What do you think the broad goals for wolf management in this region should be?  
   a. How do the existing goals for wolf management in Alberta compare with your ideal?

I’m going to turn now to some more specific questions. I am interested in how decisions were made in the project, and who was involved in making decisions. I am also interested in how differing views were handled when decisions were made.

18. Tell me a bit about how your group (CRWP/SACC or OBCAG) operated  
   a. how often (and how) it met
b. what took place at meetings
c. how it made decisions and how those decisions were carried out?

19. How were the goals for the project determined?
   a. Did the group discuss the goals?
   b. Who was involved in determining the goals?
   c. Was anyone missing that should have been involved?
   d. Did anyone disagree with the goals? How was this dealt with?

20. How did the group decide on the particular strategies and activities it used?
   a. Was there a formal process?
   b. Meetings? email, phone calls
   c. Voting? Consensus?
   d. Was this the same process that was used to decide on the project’s goals?

21. Do you feel that anything was missed or avoided?
   a. Were there any reasonable strategies that the project could have used, but did not?
   b. Were they discussed?
   c. Were any tasks or activities neglected or delayed? Why?
   d. What kinds of activities were treated as the most important and given priority? Why?

22. Before proposed decisions were made, were they brought to the attention of people or groups other than those that were directly involved in the decision making?

23. Would you say that proposals were thoroughly debated and all views considered before decisions were made?
   a. Were the group’s decisions deliberate and responsible or were there instances where impulsive decisions were made? Examples?
   b. When the group was thinking about a course of action, did they talk about the benefits, costs and risks of different alternatives?
   c. Did they talk about which individuals or groups were going to benefit and which were going to be harmed?
   d. Do you think that all of the interests of the community were reflected in the alternatives that were discussed?
   e. What about those in the community who didn’t have a lot of money or power?

24. Did everyone that was involved or affected generally agree to the strategies and activities?
   a. If not, who and why not?
   b. Did they consider them to be valid? Why or why not?
   c. Did they think of the project as having authority? Why or why not?
25. How would you say that these strategies and activities fit with the broader community interest?
   a. Do you think people would generally consider these strategies and activities to reflect a balance of community interests?

26. What happened if someone didn’t agree? (to a proposed action/decision)
   a. Were there proposals for action on which members of the group took strongly opposed positions?
   b. How did the group deal with this?

27. Can you think of any circumstances where someone was pushed or forced into going along with a proposal?

28. Can you think of any strategies or activities that were talked about but not accepted or enacted?

29. For the strategies and activities that were adopted, what can you tell me about how they were tied to the goals of the project?
   a. Was the link to the goals clear?

30. Once a strategy or activity was decided upon, what mechanisms were used to try to get people to cooperate and do the things that were required?
   a. Education/information
   b. Negotiation/diplomacy
   c. Monetary incentives or penalties
   d. Compensation
   e. Force, police, legal action
   f. Social pressures, peer/community pressures

31. Did the group discuss what would happen if a participant didn’t cooperate?

32. Were there instances where someone did not cooperated or failed to do their part? What happened?
   a. What reasons were there for these people to reject these rules or accepted conduct?
   b. Were these reasons valid?
   c. Were there consequences for not cooperating or participating? (education/information, negotiation, social pressure, penalties, etc.?)
   d. Have attitudes or actions changed as a result? How?

33. Was there any difficulty determining where or when each strategy or activity would apply or take place?

34. What can you tell me about the sufficiency of resources devoted to the group’s work?

35. What about the resource efficiency of the project (efficient use of funds, people and equipment?)

174
Now that we’ve talked a bit about the project and what had been done, I’m interested in learning about how information was gathered to make decisions about the project. Generally, I would like to talk about the types of information gathered and used, and the sources of information.

36. What types of information was gathered in order to make decisions in the project?
   a. biological, social, financial, political?
   b. Trends, conditions, projections, alternatives

37. Where did the information for decisions in the project come from?
   (referring to biological, social, financial, political)?
   a. Who provided the information?
      (internal-external; scientists, government, ranchers, other local, etc.)

38. How accepting were the members of the group toward the information that was provided for decisions?
   a. Can you think of any occasions when information was rejected by the group or anyone in it? Why was it rejected?
   b. Can you think of any occasions when someone talked about how uncertain or certain the information was?
   c. How about believable or not believable?

39. What can you tell me about how scientific information was treated in comparison with ranchers’ observations or other local knowledge?

40. How did the group check to make sure that the information it used was correct or accurate?
   a. How reliable were the external sources of knowledge?
   b. How do you know they were reliable?
   c. How reliable were the internal sources of knowledge?
   d. How do you know they were reliable?
   e. How reliable do you think the group’s own field research was?

41. Did the group discuss how information should be gathered and checked?

42. Did everyone in the group have access to all the information on which decisions were based?
   a. What about other people who were interested or affected, did they have access to this information?
   b. Has anything been kept secret from anyone?

43. Can you speak to the level of trust within the group?
   a. Would you say that everyone involved with the project was honest?
   b. Did you ever have the feeling that someone was being misleading?
   c. Do you think anyone else felt this way?
44. What can you say about their reputation for honesty in the community generally?

45. Was the group open to new ideas? Can you provide an example?
   a. Internal or external sources?
   b. Were new ideas compared with old ideas?

*We've talked about how information was gathered and considered, and what tasks were chosen for the project. Next I would like to learn about how those tasks were implemented. We'll start by talking generally about what was done so far – the project's successes and failures.*

46. After the group chose a task, how long did it generally take for that action to take place?
   a. Was this a reasonable or unreasonable period of time?

47. When there was a situation that required a quick decision or action from the group, how quickly and how well was the group able to respond?

48. What about when the circumstances called for slower and more careful action – how did the group perform?

49. How well did the project's strategies and activities deal with changed circumstances or surprises? Can you give examples?
   a. Can you describe any instances where the group's strategies or actions were changed in response to non-cooperation?

50. Can you think of any problems that came up that required that new or different people become involved? If so, tell me about them and what happened.

51. Did the group ask for feedback or complaints about its activities from participants and others who were affected?
   a. What about from those who were less powerful?

52. Tell me about how the group dealt with complaints about what it was doing?

53. Were all participants and affected individuals or groups treated fairly?
   a. Do you think that anyone was unnecessarily or unfairly inconvenienced or harmed by decisions of the group or the activities of the project?
   b. If impacted, how were these impacts addressed?

*We're very close to the end now. My final questions are about how and when the group decided to stop doing something they were doing, and how the project was evaluated as it progressed. By evaluation, I mean any assessment of how well the project and its activities were working.*
54. When was the project as a whole expected to be completed?
   a. Did the group talk about this?
   b. Was a specific time frame set?

55. How did the group know when it was time to move on, time to stop the project or a particular task?

56. Did the group set specific timelines for each activity?
   a. What were they?
   b. How were they chosen?
   c. Have they been followed?

57. For those participants that were benefiting from the project, how did the group address the removal of those benefits when the project was terminated.

58. How did the group know whether the project or a specific action was a success or a failure?
   a. Did the group talk about this?
   b. Do you think that the strategies or activities that the project used were successful in achieving the goals? Why or why not?
   c. Would you describe the project as successful? Why or why not?
   d. Tell me about the successes of the project?
   e. To what do you attribute these successes?
   f. What about failures of the project?
   g. To what do you attribute these failures?

59. Was the project evaluated?
   a. If so, how often? If not, why not?
   b. Formally or informally?
   c. Were participants involved in determining how the project would be evaluated? (choosing evaluators, developing evaluative criteria?)
   d. Were participants involved in the evaluation itself? How?
   e. Who conducted the evaluation(s)? (internal or external? independence?)
   f. How was the evaluation conducted? (continuous? One-time?)
   g. What kinds of pressures do you think there might have been on the evaluators from people involved with the project or others that might have influenced the evaluation? (threats? inducements?)

60. Who has seen the results of the evaluations and who has had access to the evaluations?

61. Were there any written evaluation results?

62. Do you agree with the evaluations that were completed?

63. Did the evaluations say who was responsible for successes or failures?
64. Do you think the evaluations missed anything?
   a. Was there something that should have been evaluated that wasn't?

Closing Statement:
The formal component of the interview is now finished. I am interested to know if there are any questions that weren't asked that you feel should be asked, or if there is anything that you would like to add that was not addressed in the interview. I would now like to provide an opportunity for you to share your thoughts and opinions of this project.
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