

THESIS

CITIZENS, EXPERTS AND THE ENVIRONMENTAL IMPACT STATEMENT:  
PROCEDURAL STRUCTURES AND PARTICIPATORY BOUNDARIES

Submitted By

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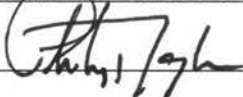
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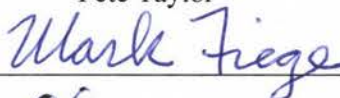
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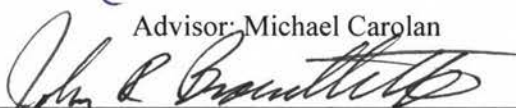
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## ABSTRACT OF THESIS

### CITIZENS, EXPERTS AND THE ENVIRONMENTAL IMPACT STATEMENT: PROCEDURAL STRUCTURES AND PARTICIPATORY BOUNDARIES

This thesis is a qualitative case-study of environmental management and decision-making as practiced by the Rocky Mountain National Park (RMNP) in accordance with the environmental impact statement (EIS) process. Because there has been little empirical study of the EIS process despite criticisms that it has generally failed to both meaningfully engage citizens in governance and produce environmental outcomes consistent with the substantive aims of the National Environmental Policy Act (NEPA), this study provides an in-depth and longitudinal analysis of the ways in which EIS procedures impacted the collaborative planning and development of RMNP's elk and vegetation management EIS. To explore how EIS procedures affect environmental planning and management, I use RMNP's archival records to reconstruct the life-cycle of the planning process and the events, processes, actors and considerations that played a role in shaping the trajectory and outcomes of planning. Furthermore, archival data is supplemented with semi-structured interviews to document how the management issue with elk and vegetation was constructed and shaped by the managerial imperatives of the park, the efforts and concerns of interagency collaborators and citizens, and by EIS protocol as it was interpreted by the interagency team and influential upon planning considerations, decisions and outcomes. The findings of this study contribute to an understanding of the EIS as a decision-making procedure and also provide some empirical support for scholarly criticisms of the EIS. However, these findings also suggest that the procedure's affects on environmental governance are more complex than currently theorized

and difficult to disentangle from the constraints that divergent interagency orientations, interests and policies, and divisive and impassioned views among citizens pose for environmental governance. Therefore, this study is as much as case-study of interagency collaboration and citizen participation in the context of environmental management in the contemporary U.S. as it is a case-study of the EIS process. For this reason, my discussion of how conflicts and constraints emerged during planning, were addressed by interagency actors, and subsequently impacted public participation and managerial outcomes provides insights useful for scholars of environmental management or governance as well as practitioners who encounter these scenarios both within and outside of the EIS.

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## TABLE OF CONTENTS

Chapter	Page
ABSTRACT.....	iii
LIST OF ACRONYMS.....	v
I. INTRODUCTION	
The Problem.....	1
Environmental Management and Collaborative Conflicts Under the EIS.....	2
Research Questions.....	4
Research Contributions.....	7
II. REVIEW OF LITERATURE	
Introduction.....	9
Conceptualizing Environmental Governance.....	10
Managerialist and Constructivist Approaches to Environmental Governance.....	12
The Managerialist Perspective.....	13
The Constructivist Perspective.....	16
Assessing Contributions to Theory and Research.....	20
Organizational and Institutional Claims and Claims-Making.....	23
Differential-Knowledge as a Managerial Claim/Frame.....	26
Expertise and Expert Systems in Governance: Implications of Expertocracy.....	28
Environmental Planning and Public Participation.....	33
Procedures and Participatory Impacts of Differential Knowledge.....	34
Concluding Remarks.....	40
III. METHODOLOGY	
Research Foci.....	44
Methodological Approach and Rationale.....	45
Research Setting.....	48
Sampling Strategy, Data and Population.....	49
Access to Data/Site.....	51
Interview Design and Questions.....	52
Retrieval, Management and Analysis of Archival Data.....	55
Management and Analysis of Interview Data.....	61
Methodological Limitations.....	63
IV. ANALYSIS	
Introduction.....	68
Contextualizing the Problem with Elk and Vegetation.....	70
A Historical Overview of Elk Related Problems in RMNP.....	71
Contemporary Views of the Problem(s): Tourism, Local Livelihoods and Environmental Concern.....	75
The Park's Legal Obligation to Act: The Influence of NPS Policy and NEPA.....	83



Internal Scoping for the EIS and the Preliminary Problem Frame.....	85
Initial Planning Concerns: Elk as a Regional Issue Requiring Regional Management.....	86
Commencement of Interagency Meetings.....	88
Reconvening the Interagency Team: Meeting #2.....	94
The Preliminary Draft Project Agreement.....	99
Revisions to the Draft Project Agreement.....	102
Interagency Team Meeting #3.....	103
Interagency Team Meeting #4 and Follow-up Meeting.....	104
Final Project Agreement.....	110
Notice of Intent.....	111
Interagency Workshop on Public and Stakeholder Involvement.....	112
Public Scoping and Education.....	114
Summer Newsletter 2003.....	115
Results of Public Scoping.....	117
Planning for the Draft EIS.....	123
Assessing Public Views and Refining the EIS.....	123
Developing Draft Alternatives.....	127
Presenting Draft Alternatives to the Public.....	133
Summer Newsletter 2004.....	133
Analysis of Public Input from Draft Alternative Workshops.....	137
Revising Draft Alternatives Through Interagency Workshops.....	141
Plans Deferred.....	144
Reconfiguring Interagency Participation.....	144
Summer Newsletter 2005.....	151
Rearticulating the Draft for Public Release.....	154
Choosing By Advantages Workshops: Determining the Preferred Management Alternative.....	155
Release of the Draft EIS.....	157
Public Presentations of the Draft.....	161
Analysis of Public Input on the Draft.....	164
Towards the Final EIS: The Resurgence and Uncertainty of Public Hunting.....	166
The Release of the Final EIS and Record of Decision.....	178
Stakeholder Interviews.....	182
Interagency Experts.....	183
Members of the Public (and Special Interests).....	194
V. CONCLUSION	
Introduction.....	207
Environmental Governance and Interagency Collaboration.....	207
Environmental Governance under the EIS.....	215
NEPA and Public Participation.....	227
Conclusion.....	232
REFERENCES.....	242
APPENDICES	

## APPENDIX A: A BACKGROUND OF NEPA AND THE EIS

Introduction.....	248
Conceptualizing the Act: A Discursis on NEPA, Its Purposes and Requirements.....	249
The Socio-Historical Background of NEPA.....	251
NEPAs “Mutually Reinforcing Elements”: The Relationship Between NEPA, the EIS and Governance.....	253

## APPENDIX B: A BASIC OUTLINE OF THE EIS PROCESS

Basic Roles and Responsibilities.....	258
Basic Organization and Trajectory of the EIS Process.....	258

## APPENDIX C: SCHOLARLY CRITICISMS OF THE EIS/NEPA

Scholarly Criticisms of the EIS/NEPA: Procedural Implications for NEPA.....	260
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## APPENDIX D: INTERVIEW GUIDES

Interview Guide for Interagency Stakeholders.....	263
Interview Guide for Public Stakeholders.....	269

## ACRONYMS USED

APHS	Animal Plant and Health Service
BLM	Bureau of Land Management
CBA	Choosing By Advantages (Workshop)
CDOW	Coalition of National Park Service Retirees
CWC	Colorado wildlife Commission
CWD	Chronic Wasting Disease
DOI	Department of the Interior
EIS	Environmental Impact Statement
EVRPD	Estes Valley Recreation and Parks District
IET	Interagency EIS Team
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NPCA	National Parks Conservation Association
NPS	National Park Service
NRA	National Rifle Association
RMNP	Rocky Mountain National Park
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Services
WAFWA	Western Association of Fish and Wildlife Agencies

### **The Problem**

While the National Environmental Policy Act (NEPA) of 1970 was designed to transform environmental governance in the United States, few scholars or practitioners believe it has achieved this goal (Wathern 1992; Andrews 1999). In fact, while it was purposefully designed to ameliorate many of the structural constraints that have characterized environmental management since the Progressive Era, its potential to serve in this regard appears limited by the procedural mechanism NEPA uses to facilitate this transformation: the environmental impact statement (EIS).

As a procedure federal agencies are required to undertake whenever their activities could significantly alter the biophysical environment, the EIS was designed to make agencies acknowledge and act upon environmental considerations. One of the primary avenues for achieving this goal was the requirement that agencies develop alternatives for meeting their goals as well as strategies for mitigating the impacts that each would entail. While agencies would also have to carefully weigh and justify their selected approach within a formally prepared document of environmental (and hence managerial) disclosure, the problem, in a historical sense, is that agencies are obligated to collaborate on the plan's development with members of the public and, more importantly, with other agencies affected jurisdictionally and with those of technical expertise. Therefore, while NEPA established a precedent by requiring environmental management agencies (e.g., the National Park Service, National Forest Service, U.S. Fish and Wildlife Service, etc.) to formally consider environmental matters while collaborating with citizens and other affected entities, the obligatory collaboration of



organizations with divergent missions, goals and policies could make it harder for agencies and the collaborators to reach consensus and establish or achieve collective goals. More specifically, because federal agencies were believed to have “been [historically] constrained from considering environmental factors by [their] statutory missions or criteria” and by the “cost and implementation of their...mission[s],” requiring a host of differentially constrained organizations to collaboratively manage the environment appears to exacerbate the historical concerns that informed NEPA’s design. (Andrews 1999: 286).

### **Environmental Management and Collaborative Conflicts under the EIS**

As Andrews (1999) suggests, a major impediment to the procedural efficacy of the EIS is due to the institutional makeup of environmental management. To this end, responsibility for environmental management is distributed among a broad range of federal and state agencies that manage different aspects or uses of the environment. Thus, while there are separate agencies for managing bodies of water, wildlife, forests, particular land uses, etc., the interconnections among the ecosystemic components and processes they manage necessitates their collaboration. However, underlying their differential responsibilities are also vast differences in the ways each are organized to manage the environment, thereby leading to collaborative disagreements and conflicts over philosophical and policy differences (Grumbine 1991).

Similarly, since environmental managers are bound to their legally defined missions and responsibilities, the respective differences among inter-organizational collaborators require



them to pursue their own goals within collaborative settings, which hinder their cooperation and fosters competition (Alford and Friedland 1985). More specifically, since the EIS requires organizations to collaboratively develop and pursue a jointly-determined management plan, the differential philosophies and commitments of organizational participants would need to be addressed and incorporated into their management plan regardless of the difficulty it could entail. While this could foster antagonistic and uncooperative relations among interagency participants (Rydin 2003), or the creation of plans that are overly complex and unwieldy (given their correspondence with the differential needs of collaborators) (Hannigan 1999), the problem is also that the different policies, tools, and budgetary resources of collaborators could constrain their respective capacities to support certain managerial strategies and, more importantly, to actually implement them. And because the constraints on individual collaborators are likely to affect the joint development and implementation of the plan, it could frustrate its development and delimit interagency options and, hence, the plan's potential outcomes.

While these problems could arise in any situation where a range of governmental and/or non-governmental organizations are required or compelled to engage in collaborative management, these problems could be multiplied or qualitatively altered by the specific requirements of the EIS. For example, NEPA makes the lead (i.e., initiating) agency responsible for assigning roles with varying levels of responsibilities in and influence over planning to interagency participants. This could conceivably alter or exacerbate the power differentials or other relations among different organizational actors. Additionally, because the EIS process has a circumscribed trajectory with a particular ordering of phases and steps that could complicate the ways in which decisions are made and plans developed. Given that citizens are also allowed to participate in the EIS, albeit in a more structured and restricted manner, their influence over

the plan could be limited by the context of their involvement in relation to that of interagency actors. To this end, because public participation occurs in the form of attending presentations and providing written or verbal input on management plans, citizens are largely commenting during the plan's early and middle phases of development, and on plan's largely developed and framed by interagency actors. Thus, since the constraints affecting the plan's development and eventual implementation could delimit its developmental trajectory, agencies' could be unable to use citizens' input while citizens may feel frustrated with the plan or their influence upon it.

While there have been few empirical studies or theoretical analyses of the EIS process, this research draws from nascent studies of the EIS (Wathern 1992; Andrews 1999) and from theories of environmental conflict, governance, and decision-making (Hannigan 1999; Fischer 2000; Rydin 2003) in order to further explore these concerns within a case-study of Rocky Mountain National Park's (RMNP) EIS.

### **Research Questions and Design**

In order to empirically study the above-mentioned concerns, this research examines how EIS procedures affect the collaborative relations and interactions among inter-organizational entities and how this, in turn, bears upon the development of the EIS and upon the public's participation and influence on planning. As such, this research involves a detailed analysis of the contexts and manner in which inter-organizational actors collaborated together and with citizens to develop the EIS plan. To achieve such goals, I trace the plan's developmental trajectory from its preliminary articulation up until its eventual completion to

explore and analyze the contexts in which deliberations occurred, decisions were made, and plans were designed and altered.

The longitudinal analysis of pivotal decision-making events and outcomes is meant to serve a multitude of interrelated research goals, all of which are dependent upon the extensive analysis of RMNP's archival records. First, the ways in which EIS procedures affect the collaborative relations and interactions among inter-organizational actors are most apparent during scenarios where they meet to strategize and develop different aspects of the management plan (e.g., its purpose, scope, objectives, potential options, etc.). For instance, the official roles of organizational actors in the EIS process will shape their interactions and their differential responsibilities in and/or authority over decision-making or certain tasks in the EIS. Additionally, these contexts are also where issues of EIS policy and its requirements are likely to be raised and/or influential on the deliberations among inter-organizational actors and how the plan is subsequently determined and framed. Secondly, these contexts provide opportunities to explore the relations between the organizational attributes of different inter-organizational actors, the types of concerns they raise, and the EIS requirements which motivate or affect their impacts. To this end, these settings are a valuable source of insight into the ways in which inter-organizational differences shape conflicts of interest, collaborative gridlock or compromise, and the influence of EIS requirements or policies upon them. Finally, because these settings can be examined in the chronological order of their occurrence, they can be used to look at the plan's overall trajectory, the actors and concerns that critically shaped it and how to what end they contributed to its trajectory and outcome. Thus, by mapping the trajectory of planning from beginning to end, it is easier to determine how the plan or its development corresponds (or



does not) to certain actors and interests, as well as how it was shaped (or not) by public participation.

Archival records are the primary source for identifying and obtaining insight into the contexts in which pivotal deliberations and decisions occurred. To this end, observer-notes and agendas from interagency meetings and workshops are used to determine who participated, how and to what end during important meetings. Presentation slides and handouts are also used to understand the context and stakes of such meetings. Email communications between interagency personnel are also used as vital sources of information about the perceptions of different actors and about occurrences and developments that were perhaps overlooked, undocumented, or that had potentially occurred outside of the context of these meetings.

Publicly available documents such as RMNP and EIS newsletters, briefings, and public presentation slides and materials, as well as media documents are also reviewed. RMNP and EIS newsletters and public briefings and presentations are used to assess interagency interactions with the public and interagency portrayals of the EIS plan and of the public's role in planning. Moreover, these sources provide supplementary material for examining the outcomes of prior planning deliberations and decisions. Media documents are also useful for developing a broader view of the developments in the EIS and for understanding certain interagency views, concerns or activities.

To further complement these research aims, semi-structured interviews are conducted with a diverse range of inter-organizational actors, special interest groups, and members of the public. Members of the public and special interests are interviewed to determine their experiences of and involvement in the EIS process and their perceptions and understandings of the planning process and of interagency actors and disputes. Inter-organizational actors are

interviewed to gain greater insight into the planning process, collaborative interactions and constraints, events and developments undocumented in RMNP archives, and their perceptions of other actors, particular events, and of the public and their role in the EIS. Moreover, the stratified sample of inter-organizational respondents helps yield additional understanding into the views and understandings of representatives from different organizations. This is also helpful for counterbalancing the study's reliance on records archived by RMNP, the lead agency responsible for the EIS.

### **Research Contributions**

The lack of empirical scholarship concerning and critically evaluating the EIS process or its relation to NEPA's purposes necessitates a study of this nature. As previously described, while scholars have contributed anecdotally or theoretically to our understanding of the EIS process, the lack of empirical verification of their claims has left the EIS process, its procedural impacts, and its relationship to NEPA poorly understood. Therefore, without detailed studies of the ways in which the EIS process shapes the collaborative relations and decision-making processes of agency and inter-organizational actors, there is little way to judge the efficacy of a procedure that was designed to facilitate managerial coordination and environmental reform.

By using nascent scholarship concerning the EIS as a guide, this research has incorporated insights derived from the critiques of practitioners and environmental historians into the research questions and methodology of this study. In addition, this study employs a synthetic framework derived from a variety of distinct but interrelated theories in order to

comprehensively explore and analyze a broad range of mechanisms related to environmental conflicts, management, and decision-making as it relates to the EIS. And through the use of a longitudinal and qualitative analysis of the developmental trajectory of the EIS plan, and of the roles played by EIS procedures, NEPA requirements, and inter-organizational actors in shaping its development and trajectory, this study aims to yield both exploratory breadth and analytical depth into the impacts of a procedure that is widely undertaken but largely unstudied.

For these reasons, this research is hoped to provide valuable insight to policy-makers and agency practitioners. In addition, by relying on a synthetic theoretical framework and longitudinal approach towards its application in a unique procedural and managerial context, this research should provide new and complementary insights into the study of the EIS, of inter-organizational collaboration, and of environmental governance more broadly.

## Introduction

Because little scholarship specifically concerns the EIS, this chapter examines a variety of theories concerning the institution in which it is part—the institution of environmental governance. This is undertaken because while the EIS is a unique form of governance, its basic structure, dynamics, and participatory arrangements are similar to those found in other contexts of environmental governance. Thus, the EIS is better conceived as a particular mode of governance within ‘the institution’ of governance. For this reason, we can expect many of the same institutional actors, relationships, and processes that characterize governance as a whole to be found, in a more or less changed form, within the EIS process.

The relationship between the EIS and the institution of governance should become more clear in the following sections. To aid in this task, I begin by offering a definition of environmental governance. While I acknowledge the contention surrounding the concept’s definition, I try to find the middle ground by drawing out some of the more important and commonly understood aspects of governance that emerge, explicitly and implicitly, from scholarly representations of the term. I then describe two theoretical perspectives—the constructivist and managerialist approaches—which have important theoretical and methodological contributions to studies of environmental governance/management. This includes a discussion of how their conceptualizations of governance differ and overlap in terms of the causal mechanisms, units of analyses, and themes they highlight. Thus, while the managerial perspective provides insight into the institutional logic and structure of environmental governance by examining its formal bureaucratic character, the constructivist perspective yields insights into the participatory dynamics of governance by looking at how



different interest groups shape governance discursively. Since both perspectives yield complementary insights into the participatory and managerial consequences of institutional expertise, both are used in a synthetic manner to develop, while considering a range of governance-related issues and themes, an inductive framework for studying the EIS. The chapter is then closed with a section summarizing the importance of the theoretical insights discussed herein.

### **Conceptualizing ‘Environmental Governance’**

While the definition of environmental governance is frequently contested, scholarly uses and representations of the term reflect an underlying convergence in the way governance is understood. Thus, at a minimum, scholars tend to characterize governance as a system for “exercising control and coordination” over the management of the environment, and of society’s interaction with and use of the environment (Bulkeley 2005:877). As this definition implies, governance is associated with government, and environmental management with federal and state laws, regulations policies.

As Bulkeley (2005:877) explains, however, contrary to what the term seems to suggest, governance is a process in which “state [(i.e. governmental)] actors are not necessarily the only or most significant participants.” This is not to deny the influence of legal structures or the managerial regimes they entail, but rather to highlight how “state and non-state actors play a variety of [interdependent] roles” (Bulkeley 2005:877). Indeed, by thinking not only in terms of the roles but also of the personnel and processes necessary for governing the environment, it becomes easier to recognize how governance, like environmental management (the latter of



which is included in the former), depends on the accumulation, transmission, and appraisal of expert (and lay) knowledges. While many experts are undoubtedly drawn from different governmental agencies, the wide range of expertise needed for environmental planning requires that it be drawn from a plethora of public (universities, non-profits and so forth) and private sources (such as firms that conduct socio-economic impact analyses, legal assessments, etc.). This is because expertise is critical not only to the environment's management, but also to the initial identification of the environmental risks warranting management. Thus, since governance can only proceed after risks have been identified, understood, and used to define and orient management (i.e. governance) strategies, governance should be conceptualized as a system requiring a great deal of coordination across a host of different institutions, knowledges, and actors, both governmental and non-governmental (Rydin 2003; Fischer 2000).

Considering how risks are identified and by whom also provides us with insight into the participatory dynamics of governance. Although risks are typically conceived in scientific terms, and are therefore assessed, formally, through scientific instruments, methods, and practices, the construction of risk also depends on administrators' (or decision-makers') efforts to parse together different knowledges, perspectives and expert judgments. Furthermore, since risks are differentially experienced and defined, constructions of risk also depend on the accumulation of "social judgments" (i.e. subjective or lay-accounts of how environmental phenomena relate to the experiences and livelihoods of individuals and groups) derived both from the "ordinary or everyday knowledge" of lay-persons and from the discretionary decisions experts make when considering the constitution and consequences of risks (Fischer 2000:14). Governance therefore depends on drawing from the lived-experiences, cultural rationalities, and subjectivities of lay-actors (who may nevertheless be experts in other domains)—occasionally during formalized public participation settings—as much as on drawing from the technical analyses, methods, and

reasoning of experts. What this means for our conception of environmental governance is that, while the institution is circumscribed by law and science; since it is characterized by (if not dependent upon) the accumulation and application of technical and lay-knowledges, it is considerably shaped by the politics of risk, and the push and pull of competing knowledges and expertise that it entails.

While this conceptualization is very broad, it nonetheless encapsulates many of the dynamics that factor into various perspectives and theories of governance. Yet, since both of the perspectives that I will discuss (the managerial, or managerialist, and constructivist approaches) place different emphases on certain components and relationship of governance to the exclusion of others, the conception I have provided mainly aims to provide a context useful for locating both approaches within the larger domain of governance scholarship.

### **Managerialist and Constructivist Approaches to Environmental Governance**

Because managerialists and constructivists differ in terms of the causal mechanism they highlight, their units of analyses, theoretical pedigrees, etc., I lay out key elements of both perspectives while discussing their relation to environmental governance. While I highlight differences in the conceptual orientations of both perspectives, these discussions are followed by descriptions of their complementary character, which is seen in the overlaps in some of the conceptions, themes, and insights offered by both.

### **The Managerialist Perspective**

According to Alford and Friedland (1985:164), the managerial perspective looks at “society as a network of controlling and subordinate organizations, each commanded by elites who attempt to manage [organizational] resources [to]...extend their domain of control.” Thus, a defining element of the managerialist approach is an attention to the bureaucratic structure of societal institutions, and a focus on the ways in which bureaucratic imperatives motivate organizations to compete for scarce societal resources. As a consequence of this orientation, social change is primarily understood in terms of the interplay and conflict between different bureaucracies, bureaucratic imperatives and processes.

The organization and function of bureaucracies both determines and is determined by their bureaucratic imperatives. As the term imperative suggests, bureaucratic imperatives are understood as processes, activities, and organizational-states which are necessary to organizational survival. For instance, since organizations are formed to serve particular purposes, constituents, and functions, serving them is a bureaucratic imperative. However, because organizations have limited resources to apply to this task, and have many sets of tasks which are occasionally in conflict, it is imperative that they rationally, that is to say efficiently, manage their resources, including their application, allocation, and accumulation (thus ‘imperative’ is used rather loosely to highlight a variety of structural requirements or constraints which are rooted in an organization’s goals or purposes).

The hallmark of organizational rationality is, of course, the bureaucratic-form itself. In ideal-typical form, bureaucracies are characterized by a hierarchical division of labor and clear chain-of-command, rational record-keeping and administrative/managerial accountability, and the scientific (i.e. instrumentally-rational) management of organizational resources, objectives,



goals, and activities. This, according to Rydin (2003:78), is why bureaucracies are believed to “pursue strategies and routines that are imbued with rationality.”

The concept of rationality itself is central to understanding the motivations and problems of bureaucratic organizations. As previously stated, because bureaucracies have only a limited pool of resources from which to draw, they must carefully allocate resources in order to fulfill necessary objectives. However, because organizations have numerous objectives, some of which command greater or lesser importance, or correspond to the interests or needs of particular organizational branches or actors, the allocation of resources often creates organizational conflict. For instance, resources directed to objective A could reduce the availability of resources necessary for objective B—possibly curtailing its fulfillment all together. Put in a real life context, the scenario becomes one of conflict between bureaucrats responsible for satisfying objective A and those responsible for objective B. Consequently, because organizational resources are finite, the bureaucratic (rational) imperatives of one branch or bureaucrat may require that resources needed for the satisfaction of another branch’s/bureaucrat’s imperatives be denied or greatly reduced. Thus, for objective A to be met rationally, objective B must be less- or unsatisfied, which would appear as an irrational use of resources from the perspective of those responsible for its fulfillment.

As these examples suggest, the competing objectives and rationalities within bureaucracies often correspond to different occupational groups, task-divisions, etc. (i.e. organizational locations). They are thus rooted in the hierarchical divisions of labor internal to bureaucracies. As such, managerialists conceptualize bureaucratic actors in terms of the respective imperatives motivating them. Because different bureaucratic elites are located in different organizational branches with different objectives and with limited resources to use or allocate towards their fulfillment, they are believed (as alluded to above) to “compete for

control over their environment,” often using their discretion over organizational resources as a political instrument (Alford and Friedland 1985:161). For this reason, bureaucratic actors are believed to face structural pressures that could motivate them to act in ways that occasionally undercut the resources, objectives, and activities of other bureaucrats, branches, and perhaps even the organization itself as a whole. As a consequence of this view, then, bureaucracies are seen as internally conflictive because bureaucrats, by virtue of their positions within such organizations, are being driven to “extend their domain of control” in order to reduce constraints on the availability, use, and predictability of organizational resources (p. 164).

Since managerialists see society as an “uncertain interorganizational power structure,” bureaucracies are conceived as actors operating within a larger inter-organizational environment (p. 161). However, as Alford and Friedland (p. 161) argue, the “[s]tate is first and foremost the dominant organization” within society. The institution of environmental governance provides a useful illustration of the centrality of formal government in environmental matters. As previously mentioned, the government is involved, both directly and indirectly, in the regulation of society’s use of and interaction with the environment. The government directly regulates our environmental interactions through the formulation, implementation and enforcement of laws, regulations and policies, and does so indirectly by vesting authority over the environment’s management to various federal and state bureaucracies, each of whom are responsible for regulating particular ecosystems, ecological services, or land-uses. While laws also circumscribe the managerial activities of governmental land-managers (such as the National Forest Service, the Department of Reclamation, etc.), such laws are created by, and hence reflect the dynamic interplay among, a variety of higher level agencies in government: namely those involved in regulatory decision-making and enforcement.

Because the managerialist perspective “is sensitive to the internal complexities of the bureaucratic state,” it treats the functions of different agencies (such as approving, developing, analyzing, or monitoring certain activities) as well as the resources they bring to bear (including informational, financial, and political resources) as critical components of the governance equation (Alford and Friedland 1985:214). Thus, since the organizational entities involved in governance are drastically differentiated in terms of their functions, interests, and resource-stocks as well as motivated to reduce uncertainties or other adverse impacts on their ability to fulfill their legal and/or organizational imperatives, governance is believed to have an adversarial structure that tends “toward[s] fragmentation” (p. 211). Governmental policy-making scenarios serve as particularly poignant examples of how managerialists understand bureaucratic configurations and consequences. Given the differences among agencies’ perspectives, purposes, and organizational capacities, collaboration entails difficult compromises which, according to Alford and Friedland (p. 210), “[often]...produce extremely ambiguous legislation,” after which “the inconsistencies [they entail] have to be dealt with by the administrative agencies” themselves. This claim dovetails with criticisms of many environmental scholars, who argue “that any success...NEPA has achieved cannot be attributed to the legislation itself, which is poorly and imprecisely worded” (Wathern 1992:27, quoting Fairfax and Ingram 1981).

### **The Constructivist Perspective**

Constructivists take a novel approach to environmental—as well as other forms of—governance: they regard all phenomena as socially-constructed without denying that phenomena are, in fact, also material or objective. This approach allows constructivists to



examine social phenomena as they are produced in social interaction—whether the things in question are formal systems of governance or particular ideas about how governance should proceed. In this way, constructivism is as much a method as a theory. It is a form of inquiry which looks at social phenomena as the products of certain claims-making activities—or, more specifically, as products of the interplay between the constructions of particular actors, in particular institutional domains, using particular discursive tactics and resources. Thus, as Demeritt (2002:776) explains, constructivists “attempt to account for the emergence, organization, and maintenance of claims-making activit[ies].” More specifically, because the things to which claims refer are socially constructed, often through deliberation and dispute, constructivists analyze their construction according to the following three dimensions: the cultural or institutional settings in which constructions occur (conceptualized as ‘claims-making arenas’), the actors participating in their construction (the ‘claimants’ or ‘claims-makers’), and the rhetoric (or ‘claims’) actors use when constructing and conveying their views (Hannigan 1999). While each of these dimensions are used to analyze and explain the processes of social construction, constructivists emphasize how the arenas in which claims are officially, or unofficially, decided delimit, to a considerable degree, the range of claimants involved as well as the efficacy of certain claims.

To get a better sense of this perspective, it is helpful to focus, as do many of the authors I discuss, on the construction of environmental problems or issues. In fact, since governance can only proceed after some degree of consensus is reached concerning the environmental issues needing management, the *decision-making processes* in which issues are identified, deliberated, and used to inform management strategies constitute claims-making activities (and perhaps even arenas) in themselves. In light of this conception, environmental governance can be interpreted as a series of interdependent claims-making activities, in which the definition (i.e.

construction) of the (environmental) problem needing management is, in each decision-making context, of paramount concern to the 'claimants' (i.e. stakeholders) involved.

By equating the decision-making processes of formal organizations with claims-making activities, constructivists highlight their conflictual nature (Rydin 2003; Hannigan 1999; Dietz et al. 1989). This is due, in no small part, to the involvement of stakeholders with different interests, resources and political clout. However, it is equally the consequence of participants' motivations to influence decision-making in ways that favor their respective interests. This is to say that participants are typically aware that the processes and eventual outcomes of decision-making will differently affect how costs and benefits are distributed among stakeholders—and according to how issues are characterized and strategies defined and justified.

As Dietz et al. (1989) imply, the strategies that actors support or advocate reflect their understandings of what needs to be done and why. Their strategies reflect, in other words, how they define the problem or issue being managed or needing management. There are ramifications for how issues are defined, however, since "each definition of a problem embodies presumptions about who or what caused the problem and who or what must change (or be changed) to solve it" (1989:48). Because "[d]efining a [problem or issue] is a means of legitimating, and thus according value to resources that may be mobilized in the struggle between actors," claims-making is political and is used, either intentionally or unconsciously, by actors to bolster their respective interests and political clout (Dietz et al. 1989:48). In other words, since claims imply what ought to be done, which further implies an opinion on who should do or get what, why and when, claims-making is inherently political.

As constructivists explain, however, all claims are not created equal. The actor making claims, the claims themselves, and the claims-making process or arena each influence the efficacy of claims and claims-making. What is perhaps most consequential to their fate,



however, is the institutional context or structure of the 'claims-making process.' As such, the effectiveness of different claims-makers and claims can often be assessed by asking, as Hannigan (1999:43) explains, who or what manages the claims-making process, what "economic and political interests [do they] represent," and "what type of resources [do] they bring to the claims-making process[?]" As Hannigan suggests, since decision-making processes occur within particular institutional settings, it is important to consider what these institutional contexts suggest about the rules, regulations, and actors that govern or structure the claims-making process. To illustrate the implications of different claims-making structures it is helpful to compare two different scenarios of environmental governance. For example, while the National Forest Service (NFS) manages the claims-making processes used to manage forests in their jurisdiction, their decision to undertake activities that would greatly impact the environment could trigger the EIS requirement of the National Environmental Policy Act (NEPA). While the NFS manages the claims-making process regardless of whether an EIS occurs, NEPA's requirements govern how agencies themselves will manage decision-making. Moreover, because NEPA's requirements obligate agencies to collaborate with citizens and other affected agencies when preparing the EIS, it enlarges the pool of claimants involved deliberations, fundamentally altering the protocol that may have otherwise governed the claims-making process.

As these examples suggest, those who manage (or co-manage in instances like the EIS) a claims-making process are better poised to define the problem, "how [it]...is to be solved," and "who legitimately participates" in solving it due to their managerial discretion (Dietz et al. (1989:48). This discretion has implications for the efficacy of different claims. To illustrate this within the context of environmental governance, it is helpful to think of how agencies' discretion is rooted in, and characterized by their use of science. As Eden (1988:425) writes,

because “science [is] the main means of identifying and measuring” environmental processes, “environmental knowledge is [typically]...‘scientized’.” This is to say that science is the authority through which the environment is known and environmental knowledge produced. This has implications for how environmental problems are identified, explained and understood—it also indicates why governmental bureaucracies are given such authority. Consequently, scientists and other technical-specialists are better positioned to “speak for the environment” because science is what “authorize[s] and certif[ies] facts and pictures of [environmental realities]” (Eden 1988:429; Nelkin 1975:36). Thus, citizens and other non-experts are likely to be less successful in their environmental claims-making unless they raise scientific concerns or issues with the scientific methodologies or assertions of experts.

### **Assessing Contributions to Theory and Research**

Both perspectives differ by way of their conceptualization of environmental governance. Whereas managerialists look at environmental governance as an inter-organizational power structure, constructivists look at governance symbolically—in terms of the claims-making activities in which it is composed. These differences produce distinctive theoretical orientations as well. Where managerialists are more apt to explain governance in terms of the structural arrangements within and among bureaucracies, constructivists are likely to explain governance as a claims-making institution that is “symbolically grounded, organizationally structured...and technically and materially constrained” (Wilchusen 2003:50). This also reflects different analytical foci. Since managerialists are preoccupied with bureaucratic (i.e. formal) aspects of governance, they look at how organizations and ‘elites’ are hierarchically arranged and then determine how the imperatives of respective actors both constrain collaboration and motivate

actors to pursue their own organizational-self-interests. In contrast, since constructivists focus on the discursive exchanges that characterize and determine governance, they look to the institutional arenas in which decision-making (claims-making) occurs to determine who the authorities of delimitation (i.e. the institutional bodies which recognize and authorize a discourse) are and what this means for the efficacy of certain claims and claims-makers.

Despite of such differences, it is easy to identify commonalities in the theoretical assumptions of both perspectives. For example, while constructivists explicitly focus on the decision or 'claims-making' activities that constitute governance, managerialists do as well, but place emphasis on how bureaucratic imperatives shape particular outcomes, instead of focusing on the claims-making activities of stakeholders in general. While this orientation requires that managerialists explore the inter-organizational (i.e. inter-bureaucratic) power structure of governance to elucidate the imperatives of different bureaucracies and elite-actors, constructivists address structural issues (formal authority, in the case) as well by illustrating how certain claims and claims-makers are more effective than others by virtue of the institutional setting or arena in which claims-making occurs. This suggests that, while their conceptual orientations are somewhat divergent, the greatest contrast between managerialist and constructivist approaches lies in their research foci. For this reason, the analytical frameworks of both perspectives should be seen as complementary. This can be observed in the way both treat the concept of rationality.

As previously alluded, rationality is, for managerialists, a concept expressing the efficient use of means to reach certain ends. Thus, when studying (inter- or intra-) bureaucratic processes, managerialist pay special attention to the ways in which bureaucratic imperatives create particular rationalities for elites, which, due to their correspondence with different organizational locations, create conflicts of interest among participating elites. Although



constructivists are, perhaps, less interested in identifying and adjudicating different sources of rationality, they are nonetheless interested in how the concept is employed by actors in their claims-making activities. Constructivists argue that while the term can be used in efficiency-claims (i.e. to argue that some actor, choice, or activity is more efficient in achieving some goal than others), it can also be used as a normative judgment against certain claims or used to bolster others. For example, because the term embodies “certain assumptions about what is an appropriate, or even logical course of action,” attributing rationality to someone or something is a means of judging such things appropriate (Rydin 2003:4). Moreover, since “the authority of expertise rests on assumptions about scientific rationality,” as Rydin suggests, rationality is conflated with science and “optimal outcomes,” giving experts or elites the symbolic resources needed to either defend their claims or to call into question the claims of others (Rydin 2003:4; Fischer 2000; Nelkin 1975).

Due to the compatibility and differential insights of both perspectives, I use insights drawn from each to understand the ways in which bureaucratic imperatives and legal requirements affect the claims-making structure of the EIS in particular and environmental governance in general. However, since literature concerning the EIS is less developed than that concerning the institution of environmental governance as a whole, I use reasoning from both perspectives to narrow in on a variety of institutional issues important to exploring the structure and consequences of the EIS.

## Organizational and Institutional Claims and Claims-Making

Since claims-making processes are managed or owned by certain claims-makers and institutions, constructivists acknowledge there are limits to how actors can bolster their respective interests by advancing certain definitions of environmental problems. In other words, while the efficacy of claims partly depends on how they are constituted and used, where they originated, and who and what they are associated with; the efficacy of certain definitions of the problem (claims) are necessarily delimited by the institutions' authorities, conventions, policies, etc (Hannigan 1999; Rydin 2003). The degree to which authorities are receptive to such claims as well as the extent to which claims mesh with the imperatives and functions of the institution where claims-making occurs both affect the efficacy of various claims. Therefore, since the claims-making processes we are concerned with here are those involved with the environment's formal governance, or more specifically, with the decision-making processes agencies undertake when planning to manage the environment (whether for managing particular aspects of the environment or for regulating human-environment interactions), it is important to consider how formal managerial structures embody certain definitions of the managerial-situation.

As Dietz et al. (1989:48) imply, because claims tell us how actors perceive the problem and "how [it] should be solved," we can discover the claims represented by institutional actors and processes by examining how environmental problems are *identified* (framed) and *managed* (treated) during administrative decision-making. To aid us in this task, it is helpful to begin, as many managerialists do, by using our understanding of how (and why) agencies are *organized to govern* to derive insights into how agencies *think about and manage environmental problems*.

As such, beginning with the premise that governance is organized bureaucratically, we can assume that claims-making has a technical orientation. Since a (or the) hallmark of the bureaucratic-model lies in its instrumentally-rational and, hence, technically-efficient design, agencies are assumed to be systematically organized around the objectives they were designed to fulfill, which, across bureaucratic contexts, involves the breaking down of organizational objectives into specific task-environments which are then ordered, ranked, and managed by various task-specialists (Rydin 2003). As a consequence, decisions are not only made by specialists *within* numerous task-environments, but also by administrators, who must *draw from and use* specialized knowledges and judgments to direct macro-organizational activities. In light of the bureaucratization of governance, it is therefore assumed that however problems are substantively defined, they are broken into their various technical facets where they will be analyzed and transmitted to administrative decision-makers, who must then interpret this “cascade of advice” and determine its managerial use (Rydin 2003:80).

At a theoretical minimum, the bureaucratic organization of governance means that environmental problems are necessarily defined as being amenable to technical management and expertise. There are important implications to this orientation, but these are perhaps better addressed by examining the underlying logic of its organization—a question that is critical to later inquiries about the efficacy of certain claims. According to Macnaghten and Urry (1998:1), Fischer (2000), Wynn (2002) Rydin (2003) and many others, governance is predicated on—i.e. organized by—an institutionalized perception of the environment as a “real entity,” known only through objectivist methodologies. The implications of this are manifold because—while the environment is a heavily contested subject (or object), diversely understood according to the ways in which different actors and groups experience, value, and interact with myriad environments—its conception by science (primarily the reigning logical-positivist varieties), as



an entity characterized by certain laws and conventions has made the environment into an object assumed inaccessible “through the normal senses” (Eden 1988:425). Therefore, since the environment is presumed to be only knowable through objective and disinterested analyses “into [its] component parts” and, hence, through the collaborative efforts of technicians and “expert systems,” the production of environmental knowledge is an activity rationally confined to deliberations among the technically proficient (Fischer 2000:183).

It is easier now to see how governance, in ideal-typical fashion, is oriented by virtue of the ways in which environmental problems are identified and managed towards certain definitions-of-the-managerial-situation. Thus, by combining the insights from above, we can see how the *identification* and *management* of problems goes hand in hand. For instance, bureaucracies are rational in the sense that their objectives and personnel are arranged hierarchically and managed efficiently. However, for an agency to rationally manage the environment, they must scientifically identify and reduce environmental phenomena into their components so they can be modeled, tested, and examined alongside of other managerial imperatives. What this illustrates is thus an affinity between the bureaucratic and scientific orientations of governance. This is to say that science is central to the bureaucratic governance of the environment just as bureaucratic governance is central to its scientific management.

Given that how problems are identified (scientifically) and managed (bureaucratically) by governmental agencies determine, or rather delimit, the ways in which problems can be defined and treated, it seems appropriate to impute certain claims to the institution itself. However, since governance proceeds, in real-life scenarios, from efforts to manage a contextually-specific problem, the institutional-claims I have discussed are no more than an institutional undergirding for more contextually-specific claims. Since they emanate from the managerial orientation of governance at large, they are at best incomplete or generic in their

circumscription of actual problems. Nevertheless, since the management of problems is linked with their identification, the structure of governance could significantly shape the processes and outcomes of decision-making. While the managerial implications of such an orientation are significant, the political consequences may be similar in both theory and practice. To illustrate this in better detail, I draw from Dietz et al.'s (1989) discussion of the differential-knowledge frame.

### **Differential-Knowledge as a Managerial-Frame/Claim**

As Dietz et al. (1989:48) explain, since our definitions of a problem imply “who or what caused the problem” and “who or what must change (or be changed) to solve it,” they also define the bases for environmental conflict. The same can be said about managerial-claims as well. Of the four rhetorical strategies or frames (i.e. ‘claims’ or ‘definitions of the situation’) that Dietz et al. (1989) discuss, two are of particular interest here.

The first frame is the value-differences frame, which characterizes a conflict as being created, sustained or shaped by competing interest- or value-groups. The value-differences frame might be used, for example, to draw attention to how unrecognized value-conflicts actually led to an environmental problem, or perhaps to emphasize how management dilemmas are not environmental, social, or economic in their bases but rather rooted in the different ways in which stakeholders value the environment. Consequently, adherents to this frame might advocate the critical examination and discussion of value-differences in formal deliberative settings. According to Dietz et al. (1989:51), this frame is of particular use to those representing “minority perspectives,” since it equalizes the playing field by reducing all sides of the debate to divergent value-systems.



The differential-knowledge frame, by contrast, emphasizes the complexity of the issues and their uncertain bases. In this view, the basis of conflict is rooted in technical ignorance, and often in stakeholders' inability or unwillingness to recognize and accept the need for expert guidance—which, itself, is a symptom of the former. Thus, in practice, the “unreasonable fears and expectations” of an “uninformed public” is often thought to create conflicts above and beyond what are relevant to the issues at hand (Dietz et al. 1989:49). As such, because it is assumed that “most people understand neither the technologies [related to the problem’s development and management]...nor the theoretical and methodological bases” used or required for their identification and management, the problem and conflict itself are believed to be better managed, if not ameliorated, by relying on the expertise and judgments of those more knowledgeable of its technicalities (Dietz et al. 1989:49). Therefore, this frame can be used to not only emphasize the importance of quantitative analyses and other forms of technical information gathering, but also of educating citizens and interpreting their input for managerial relevance. Because it “increases the value of technical expertise...and therefore the power of those individuals and institutions with access to it,” this frame is of obvious importance to scientists and other experts, as well as anyone affiliated with expert institutions (Dietz et al. 1989:50).

Since the managerial-frame described in the previous section is linked with the scientific identification and bureaucratic management of environmental problems, it is supported by the differential-knowledge frame, which appears to justify the discretion technical-experts and governmental bureaucracies are given regarding environmental governance. This is to say that both the managerial- and differential-knowledge frames reflect identical assumptions about the environmental problems at hand and their accessibility to certain forms of inquiry. Thus the degree to which governance officially depends on the efforts and judgments of agencies and

experts and marginalizes or excludes citizens and other non-governmental stakeholders exemplifies how the differential knowledge frame could be said to undergird the institution as a whole. However, since the differential-knowledge frame is not a specific claim (i.e. a rhetorical strategy used by an actor) in the sense discussed by Dietz et al. (1989), but rather a representation of how and why governance is organized as it is, its implications stem not from its use as a tool, but from its institutional embeddedness. We must therefore consider what its institutionalization means, both directly and indirectly, in terms of who governs what, how, and to what end.

### **Expertise and Expert-Systems in Environmental Governance: Implications of Expertocracy**

The environmental problem defined by the differential-knowledge frame is made manifest by the degree to which environmental governance depends on the multi-scalar collaborations of a wide-range of institutional technicians (both administrative and knowledge-specialists). It is also reflected in the complicated formal arrangements among the various types and levels of governmental agencies it involves. However, while this inter-organizational structure is predicated on the need for rational expertise, the efficacy of expert-systems and thus the “belief that bureaucracies...pursue strategies and routines...imbued with rationality [and] resulting in optimal outcomes,” many scholars argue that the value of expert-knowledge is “limited by the technological imperatives of the [institutions in which it is part]” (Rydin 2003:78; Fischer 2000:14).

Although environmental governance is organized on the basis of a particular system and type of expertise, the implications of this are unclear unless careful attention is paid to the

concept of expertise itself. As such, it is important to distinguish among various uses and meanings of the term. For instance, the term's association with scientific or technical knowledge, methods, practices, and rationality is what grants experts authority in disputes over knowledge and makes expertise valuable and necessary for efficient governance (Nelkin 1975). This tends to obscure a number of things related to expertise, however. As Fischer (2000:35) reminds us, "experts are members of the public" as well, and they are "lay person[s] when a topic is outside of their specialized field[s]." In fact, since experts differ from lay-persons by virtue of their specialized knowledge within a particular domain, and perhaps also by the quality of their methods and inferences, experts could also include administrators and managers, because of their technical knowledge of and command over organizational processes, as well as those unrecognized as experts yet employed or trained as scientists or possessing some degree of technical knowledge. Moreover, environmental scholars have identified a number of other ways in which we could conceptualize expertise in order to account for various levels and degrees of specific forms of specialized knowledge (Carolan 2006). However, in matters of governance, it is important to note that unrecognized experts cannot be experts in the formal sense—this title is reserved for those with institutionally authorized knowledge. Those affiliated with expert institutions, such as administrators/managers, can be associated with the term, however, because of their role in the commissioning, allocation, and adjudication of expert knowledges.

The institutional embeddedness of expert-knowledge has significant implications for environmental governance and represents a dimension of expertise which is typically overlooked. Thus, despite how critical the development, accumulation, and application of expert knowledge is to the organization and determination of governance, the meanings and functions of such knowledge are altered by the system in which it is part. For example, while



expertise is legitimated by the need for special knowledge pertaining to particular management issues, an innumerable range of constraints could affect its managerial application. This could include the presence of competing knowledge-claims (Jassanoff 1987; Carolan 2006), a lack of institutional resources such as the funding, personnel, and technologies needed to utilize such knowledge, the presence of legal, political, or inter-organizational constraints, and so forth. For these reasons, the value and function of expertise, at least as it is conventionally understood (i.e. in lay-terms), appears to be delimited by many of the same constraints scholars associate (see the section on Managerialism) with bureaucratic and inter-organizational coordination and management.

While the managerialist perspective illustrates the bureaucratic arrangements that could alter and potentially weaken the import of expertise, these arrangements tend to vary across claims-making processes given their rootedness in the interrelationships among the specific organizations and actors involved. The organizations involved in governance and the ways in which they are stratified ultimately depend on the types of expertise needed for governing as well as the requirements of law. Thus, because agencies need information not only about the environmental processes they intend to manage, but also about the economic and technical feasibility and social and cultural impacts of management strategies, they must obtain expertise from, and thus collaborate with, various agencies and experts. This imperative has significant implications because the requisite knowledge is largely dispersed among those formally responsible for managing various facets of the environment (i.e. water, forests, wildlife, etc.). This requires the lead agency to collaborate with highly differentiated agencies with expertise relevant to specific environments and environmental resources or activities. These differences can be significant, as some of the collaborating agencies could include, among many others: the National Forest Service (NFS), who is responsible for managing national forests, the



Fish and Wildlife Service (FWS), who manages wildlife and their habitat, and the National Park Service (NPS), who manages national parks and monuments. The rub, however, lies not only in the historical antagonism between agencies, which Grumbine (1991: 29) states is “born out of their different approaches to the instrumental use of wild nature,” but lies also, and perhaps more significantly, in the political-economic constraints facing individual agencies. For instance, while each is funded by Congress, the NPS derives much of their revenue from park-fees, the FWS largely from the sale of hunting and fishing licenses, and the NFS from revenue generated from logging and other extractive user-fees. Despite of their specific missions, agencies are generally believed to be sensitive to the concerns of their constituents who, if affected by certain managerial outcomes, could penalize them by withdrawing their financial support (Source).

Nevertheless, what is important to our discussion here is to illustrate how *intra*-organizational constraints (and functions) affect *inter*-organizational collaborations—to the potential detriment of expertise, managerial rationality, and public participation. This necessitates a look at the imperatives arising from collaboration itself. Since inter-organizational collaboration requires that some degree of consensus has or will been reached concerning what the management problem is and how it should be addressed, it is predicated on agencies’ capacities to reach consensus, and thus to balance their own objectives with the imperatives of decision-making, as defined by both law and the lead agency. However, given differences in their missions and philosophies, as well in their legal, financial, and political constraints, consensus is likely hard won, often leading to protracted negotiations and compromise. Compromise is not problematic per se, but it does imply that collaborative-frames will “reflect the conflicts and compromises that went into its creation” (Rydin 2003:85).

Collaborative obstacles will, of course, vary according to the reasons for conflict and the actors involved.

The collaborations entailed by the EIS provide us with a helpful illustration of this point. Recall that while EISs result from a host agency's decision to undertake particular management activities, NEPA requires them to collaborate with agencies that would potentially be impacted by planning as well with agencies or others of relevant expertise. While the organizational imperatives of different agencies create varying and potentially conflictual definitions of, and managerial prescriptions for, the problem at hand, the lead agency is given discretion over all aspects of the plans development, allowing them to arbitrate disputes among interagency claimants. However, because the lead agency depends on other agencies for technical knowledge and managerial support (i.e. for the plan's implementation), constraints on agencies' capacities to agree with, support, or help implement certain managerial plans can close off certain governance-opportunities. For example, if particular agencies cannot take certain views (legally) and/or actions that are fundamental to the lead agency's imperatives, they may be unable to further collaborate. Conversely, depending on how critical such agencies are to the lead agency's goals (by providing a certain informational or managerial service), it may be necessary for the lead agency to compromise their goals in order to satisfy lesser objectives or more fundamental imperatives.

Thus, because the problems that interagency collaborators can actually treat are delimited by intra- and inter-organizational constraints, expertise may be either inapplicable to the problem as initially defined, or rather constrained by and tailored to what is politically and thus technically feasible. For Hannigan (1999:50), the inter-organizational character and consequences of governance are why environmental problems "seldom see management that results from a rational process in which problems are precisely identified and...carefully

matched with optimal solutions.” This suggests that while expert management is justified and legitimated using efficiency- and rationality-claims, plans that “emerge haltingly and piecemeal from...complicated...bargains and compromises that reflect the biases, goals and...[conflicting] needs of...agencies, professional[s] and [other actors]” are often neither efficient nor effective (Hannigan 1999:50; Fischer 2000; Rydin 2003). Instead, plans may diverge considerably from their initial design, such as in their treatment of the problems originally defined. Because Fischer attributes this to the “technological and organizational commitments” of expertocratic (or technocratic) governance, planning deliberations are thought to devolve into “consideration[s] of what is feasible given the constraints of institutional arrangements” (Fischer 2000:14). The consequences of this, however, are many and varied, for both public participation and how the environment is actually governed. For these reasons, it is necessary to consider how institutional constraints on the identification and management of environmental problems affect, and are affected by, the structure of public participation, vis-à-vis EIS requirements.

### **Environmental Planning and Public Participation**

While the differential-knowledge of experts and citizens are presupposed within the institution of environmental governance, assessing its consequences within the EIS process requires, foremost, that we closely examine, and consider the effects of, how stakeholders are stratified by procedural requirements and the arrangements they entail. As such, we must look at how EIS requirements affect the frequency, time-ordering and format of public participation, and how this, in turn, shapes the feasibility or successfulness of public claims-making. However,



because the successfulness of public claims-making is also a function of the contexts in which they are interpreted, we must also look at how procedural requirements and institutional constraints shape their interpretation by agency personnel. For this reason, I begin by discussing how the procedural requirements affecting the frequency, timeliness and format of public participation also affect the incorporation of public claims.

### **Procedures and Participatory Impacts of Differential-Knowledge**

As illustrated in previous descriptions of EIS protocol (see the Background chapter), citizens are given relatively few opportunities to shape environmental deliberations. While citizens have the opportunity to provide feedback on the plan's early and mid-level trajectory during scoping and public workshops/presentations, the intra- and inter-agency constraints affecting the plan's formulation are likely to effect the feasibility of even the most publically supported claims. Thus, even if citizens participated fully and equally in every decision-making context, because the burden of implementation lies with participating agencies, the technical or legal infeasibility of the public's managerial desires would still limit their implementation. However, while legal obstacles and deficits of funding or personnel shape what can reasonably be incorporated into planning, the procedures which govern the frequency and forms of public claims-making as well as the criteria through which they are interpreted have much to do with how the plan is framed. Thus, the question is less about how the feasibility of public claims are affected by constraints on their implementation than of how the procedural requirements governing their interactions with experts affect whose ideas of feasibility become incorporated into planning.



While the relative infrequency of public participation limits opportunities for citizens to make claims and deliberate with agency personnel, so too does its time-ordering and format. For instance, while scoping is supposed to occur during the plan's preliminary development, so citizens can "tell [the] lead agency what the public thinks should be addressed," scoping presupposes that a preliminary team of affected agencies have already collaborated to define, however crudely, the problem and a potential range of management choices (Kreske 1996:256). Because even the most cursory constraints on interagency collaborations could delimit the planning discourse, the way planning is framed prior to scoping could constrain the incorporation of public views in at least two different ways. First, since the manner in which the plan is framed creates boundaries for a discourse and gives it an orientation (Hannigan 1999), it could make citizens feel as if some comments or concerns are less relevant, perhaps leading them to forgo making certain types of claims in favor of those which appear more relevant to current articulations of the plan, its objectives, etc. Secondly, because certain claims may appear incompatible with the plan's content or direction, they may be dismissed or reframed by the personnel responsible for their interpretation and use in planning. Of course, this could also result from early determinations of the infeasibility of certain planning options which were incorporated into planning—in which case their dismissal could have been warranted. Whatever the case may be, certain types of claims may be routinely omitted from consideration by planners by virtue of their dissonance with pre-existing plans. Nevertheless, the concern in each instance of public participation is about the relationship between planning constraints and participatory arrangements. Thus, considering that differences in the training, affiliation, and interests of citizens and experts are likely to result in their different understandings of management issues (first- vs. second-hand experience) and orientations to making claims (occupational vs. personal/familial motivations and concerns), citizen claimants may be

disproportionately affected by the types of claims omitted from planning considerations (More on this below).

Since public scoping is a voluntary requirement under NEPA (Kreske 1996), an agency's decision to forgo scoping would restrict citizens' participation to the workshop and presentation phases occurring before and just after the draft EIS is released. However, even if scoping occurs, issues with the time-ordering of public workshops and presentations present similar obstacles to the incorporation of public input. Because workshops occur during and after the formulation of the draft EIS, the plan is likely to be more developed and resistant to fundamental revisions of its objectives and scope than during scoping. While the content of its objectives and scope could become increasingly narrowed, as prior ideas are ruled infeasible or undesired, their enlargement or substantial redefinition is perhaps less likely unless the constraints on their implementation are appreciably reduced. Consequently, citizens may feel an even greater range of their concerns are inadmissible to planning due to its increasingly decided content and trajectory. Moreover, because the potential narrowing and decidedness of its trajectory could frustrate citizens whose concerns are increasingly at odds with such developments, their motivations to make this known to decision-makers could further increase the seeming infeasibility or irrelevance of their claims.

The procedures governing the interactions among experts and citizens during scoping and workshops provide another, and potentially starker, illustration of differential-knowledge. As such, the authority agency personnel have over the presentation of the plan and the incorporation of public input represents two manifestations of differential-knowledge which fundamentally impact the potential structure and quality of public participation. Considering the educational responsibilities vested in agency personnel, it is easy to see how the necessity of bringing citizens up to speed on the details and technicalities of planning permits experts to

oversee how citizens come to understand and view the plan. Although newsletters and formal write-ups convey similar messages about the content and character of the planning discourse, the plans presentation by agency personnel could exacerbate the before-mentioned consequences of framing due to their ability to emphasize certain details to the exclusion of others. Nevertheless, while planners could even choose to broaden the conversation to obtain an even greater range of public sentiments on particular, and perhaps even hypothetical, dimensions of planning, the potential for the reconciliation of such input with existing plans would still remain an issue.

Rydin (2003) sees the potential for an altogether different issue to crop in such contexts, however. As Rydin suggests, the way that planners handle public presentations could be significantly impacted by bureaucratic and procedural imperatives, and by the cognitive awareness experts have of such. Because planning is typically a time- and resource-intensive activity, having to revise such plans creates the need for new commitments of time and resources, also signaling the unproductive use or irrevocable loss of prior commitments of such resources. Considering the practical interests planners have in maximizing the quality of information obtained from citizens (which, again, is motivated by concerns about time and resources), Rydin believes planners are motivated “to shape public participation...so that the demands raised have at least the potential for being met within current structures of planning practice” (2003:91). As a consequence, planners may be motivated to frame the issues in ways that “impose some constraints on the scope and shape of discussion,” perhaps by telling the public what the purposes of workshops or their discussion of certain issues are officially about (2003:92). While the imposition of such constraints are in many ways necessary and unavoidable, the differential interests that experts and citizens have in the activities and outcomes of planning—the former being perhaps more concerned with the technicalities and



feasibilities of planning while the perceived impact on personal values and livelihoods may resonate more with the latter—could result in presentations geared more towards the refinement of existing plans than of their criticism or elaboration. In this way, concerns about the dissonance between public and institutional views of the problems or most important issues at hand arise once more.

Because differences in how citizens and planners view managerial dilemmas correspond with the differences between technical and cultural rationalities, their participatory consequences are better assessed through the latter's contrast. While the manner in which technical rationalities undergird and shape EIS protocol has already been addressed, its relationship with public rationalities deserves close consideration. As previously discussed, because environmental governance is institutionally arranged to apprehend and manage problems by breaking them into their components, allocating specialists to each of their facets, and by "defining objectives...and analyzing the most effective ways of reaching [them]," technical rationality is geared not towards the "weigh[ing] [of] conflicting interests, but [rather] the relative effectiveness of [different planning] approaches" (Nelkin 1975:36). However, since assessing the relative effectiveness of different alternatives need not include a discussion of their desirability or their distant consequences (in the long term or beyond the proximate institutional environment), these vital domains of concern may be organized out of discussions and inadmissible during planning. This is significant because citizens are thought to rely more on cultural than technical rationality, which Fischer defines "as an informal logic deduced from past social experiences" in which "personal and familiar experiences [and] the opinions of traditional social and peer groups" are given equal or greater weight "than depersonalized technical calculations" (Fischer 2000:138,132). In fact, because such calculations "are based on abstracted expert knowledges" which are potentially inaccessible to citizens and removed from



their day-to-day concerns, Fischer argues that “people are left to trust in the validity of the knowledge and the competence of...experts” (2000:138). Since trust cannot be assumed, and is mediated by the experiences and perceptions citizens have of planners, governmental institutions, etc., the technical orientation of governance and the EIS could impede the development of trust. Therefore, because “people look for help in understanding how [problems]...came about, how the system that [manages] them really works [and] not just how officials say it works,” limitations on the discourse’s rational boundaries could disadvantage public claimants.

In light of procedural imperatives and the awareness experts have of them, public presentations could have a pedantic and “adversarial structure” (Rydin 2003:93). Because experts may recognize the subordinate intellectual and discretionary status of citizens, presentations may be organized to systematically motivate and dissuade the provision of certain input by the citizenry. Although the basis of such could lie both within the public’s assumed ignorance and planners’ concerns about maximizing the utility of public input, the motivation, as previously described, could also result from planners knowledge of the infeasibility of many potential views. In the latter case, the dissonance between technical and cultural rationalities would still remain. For instance, because the adjudication of different planning alternatives could be dominated by questions of technical efficacy, inquiries may be directed towards “specific points of logic within each...case” (Rydin 2003:93). However, because “[i]ssues of values, feelings and emotions are [implicitly] inadmissible, since they are [closed or less] open to cross-examination or support through logical arguments,” discussions about the desirability of such options or the values they represent could fall outside the confines of presentation-frames (Rydin 2003:93). And again, because citizens may lack familiarity with, or even a concern for,

the specificities of aspects of the plan that they do not support or agree with, there may be little to glean from public input, leaving public claims largely untouched.

This brings us back to the question of the interpretive criteria the EIS requires planners to use when examining public input. Since personnel are required to assess public comments on the basis of their substantive contributions to planning, they are given what appears to be the permission to sort and cull public comments on the basis of their technical relevance. This is seen in how substantive comments are defined as “those that raise an issue regarding law or regulation, agency procedure or performance, compliance with stated objectives, validity of impact analyses, or other matters of practical or procedural importance” (RMNPb:1). In contrast, non-substantive comments are defined as those which “offer opinions or provide information not directly related to issues or impact analyses” (RMNPb:1). Because the definition of non-substantive comments would appear to curtail the incorporation of procedurally irrelevant comments and other input lacking a mastery of technical facts, issues of knowledge and information access arise. Given citizens’ lack of knowledge of the finer points of agency procedures, and their possible unfamiliarity with measures of validity, their ability to make substantive comments could be restrictively low. In addition, because requirements for making substantive comments concern issues such as compliance with stated objectives, they may blunt opportunities for meaningful criticism, since agencies’ failure to comply with their stated objectives speaks little to their initial desirability.

### **Concluding Remarks**

This chapter has demonstrated how the managerial and constructivist perspectives enable us to envision and understand the institutional structure and politics of claims-making

within environmental governance in general and the EIS in particular. In regards to its structure, I illustrated how the environment's perception as a phenomenon requiring scientific knowledge and explanation necessitated its bureaucratic governance. While bureaucracies are organized and managed to be rational and efficient, which is reflected in the hierarchical arrangements of technical-expertise both within and among governmental agencies, I described a host of indirect consequences this could have for environmental governance. Because experts may disagree over the validity of their findings or their implications for management, experts may be unable to provide a clear picture of how management should ideally proceed. What is more, however, even in the case of robust scientific consensus about managerial realities and the particular ways they should be managed, limits to what participating agencies can and will agree to manage—by virtue of legal, technical and/or economic constraints—could affect their perceived feasibility and their incorporation into planning. Since agencies may have vast differences in their managerial capabilities and orientations due to their legal missions, the personnel and finances they have available, and due to the socio-political and regulatory environments they are situated in, their required collaborations could delimit planning to questions of what is feasible given institutional configurations. This could affect not only the plan's outcome, which could diverge considerably from treating the concerns initially requiring such planning, but also the capacities, and hence opportunities, citizens have to participate in and shape planning.

I also illustrated how these potential outcomes were related to the procedures necessitated by the objectivist understanding and bureaucratic treatment of the environment. Because the rational management of the environment requires technical knowledge of the relationship between ecosystem processes, managerial activities and the social, legal, and political economic contexts in which management is implicated, citizens are typically afforded few opportunities to participate in governance. As I illustrated using the EIS, citizens have only a



handful of opportunities to participate in the plan's early and mid-level trajectory—their early involvement being a completely voluntary decision of the lead agency. In these settings, agencies present the plan to citizens for comment, whereupon experts take a lead role in emphasizing important elements of the plan and facilitating discussion on current topics of managerial importance. Public input is then interpreted by agency personnel using the criteria of substantiveness to determine whether input constitutes a technical challenge or necessary revision to existing plans. However, due to how the intra- and inter-organizational constraints on the feasibility of certain planning options could delimit the plan's formulation, they delimit what agencies can present to citizens and what citizens, in turn, can meaningfully raise questions about and comment upon. Thus, I illustrated how the infrequency and timeliness of their participation could privilege inter-agency constructions of the problem/plan, which could also been seen as both a function and result of the interpretive criteria experts use to assess the technical relevance of citizens' input—whose input often center on questions about the desirability of, and interests represented by, articulations of the plan or its components.

To conclude, the literature I reviewed suggests that environmental governance, given its organization on the basis of the differential-knowledge of citizens and experts necessitated by objectivist views of the environment, is structured in such a way that is likely to privilege agency and expert claims and claims-makers. This stems from both the institutional and procedural organization of environmental governance, and from the ways in which these arrangements reflect, and presuppose, that managerial, and thus environmental, decision-making requires better technical information about, and control over, the biophysical environment. Because the institution is structured to treat the problem in such a way, the incompatibility of competing views of and prescriptions for the problem could result in their omission from planning. Thus, given that citizens are likely to have broader and more personalized concerns about the way



managerial plans could impact their livelihoods and values, the feasibility of their claims could be greatly diminished by not only the infrequent opportunities they have to provide them, but also by their manner in which they are obtained and interpreted.

## Research Overview and Foci

This research seeks to determine how EIS procedures necessitate and shape interagency collaborations and, more importantly, how the organizational attributes (i.e., missions, policies, management tools, etc.) and constraints (e.g., the legal or political impediments on certain actions) of interagency collaborators shape the formation, trajectory, and outcome(s) of the EIS plan. To yield insight into these inquiries I conduct an extensive analysis of the Park's archival documents, which is used to recreate the time-ordering and development of critical decision-making events and the actors and issues involved, as well as conduct semi-structured interviews with diverse (public and agency) stakeholders, which is used to shed greater insight into these decision-making contexts and developments, and into the experiences of EIS participants. More importantly, because the dynamics and developmental trajectory of the EIS are also structured by Park considerations and protocol and by interagency communications and agreements that pre-date the actual initiation of the EIS process, archival documents ultimately allow me to produce a socio-historical narrative accounting for the larger life-cycle and evolution of managerial perspectives, concerns, and activities, vis-à-vis EIS protocol and interagency positionality.

In drawing from and adapting the social constructivist perspective and methodology (Hannigan 1995), this research specifically asks how EIS procedures shape who participates (i.e., the claims-makers involved) and how (i.e., the claims-making activities and contexts in which agency and public stakeholders may participate), while also exploring how the attributes of different agency stakeholders shape the participatory arrangements among, and activities of, interagency collaborators (i.e., how the contexts in which claims are made and the actors who

individually and collaboratively make them impact the opportunities for and successfulness of public claims-making). Moreover, because the configurations and interactions among interagency stakeholders are mainly important for exploring the dynamics, impacts, and procedural outcomes of interagency framing, this research is also poised to examine the bases (e.g., organizational, legal, political, etc.) of agency frames and their impact on collaborative decision-making (e.g., Was consensus possible? Did disputes occur? How were disputes overcome? Were some agencies or framing-tactics less successful? How did EIS protocol shape their successfulness?) and the trajectory and outcome of the EIS. Due to the public's important but ambiguously defined participatory role in the EIS, this research also explores how interagency framing disputes and outcomes shape citizens' experiences of the EIS as well as the incorporation of their input by planners.

### **Methodological Approach and Rationale**

The research questions driving this study require an understanding of the ways in which organizations (i.e., governmental agencies)—on the basis of their specific attributes, relations and constraints—interact and make claims during the EIS. As I illustrated in my review of the theoretical literature on governance, these questions are best approached and operationalized using two interrelated perspectives: the managerialist and constructivist perspectives. To this end, I explained that constructivism was useful for exploring the symbolic and material determinants of claims-making as well as the compatibility or disputes among different claims and claimants. Moreover, given this utility, it is also helpful for mapping the outcomes of claims-making as well as for tracing, on the basis of such outcomes, the trajectory and dynamics



of managerial frames. Given this orientation, the constructivist approach necessitates the identification and analysis of the contexts in which claims were made, of the ways in which claims were constructed and discursively used, and of the manner in which claims were influential on interagency collaborations and their collaborative managerial frames. Since the claims of interest here are those that emerged during interagency deliberations over the framing of the 'problem', the objectives of the EIS, or the strategies the team would use to achieve their objectives; the constructivist approach necessitates an examination of the meetings in which plans were examined, discussed, and framed; and of the documents which chronologically illustrate the progression of managerial frames, as they both arise from and impact agency and public claims-making.

The utility and use of the managerialist approach is, to reiterate, closely interrelated to the constructivist approach to research outlined above. Thus, because the managerialist perspective can help sensitize us to the organizational attributes linked to their respective interests and needs, it complements the constructivist approach by shedding insight into the motivations for and bases of their respective claims. Since interagency actors are leading figures in the development of the EIS, this approach is particularly helpful in highlighting not only the sources and collaborative impacts of interagency disputes, but also the ways in which disputes are resolved (or not) and/or influential on the use of 'expertise' and the content of (and intentionality behind) interagency/managerial framing. As such, this perspective helps us to identify the formal and informal attributes of organizational actors, to analyze their relation to agency claims-making, and to examine the ways in which interagency disputes are shaped and handled on the basis of their links to agencies' respective attributes and constraints. Thus, because the managerial approach sensitizes us to the pervasiveness and dynamics of interagency conflict, it provides us with a window into the differential bases, motivations, and

effectiveness of their various claims during collaborative settings. Therefore, the managerialist approach predisposes us to look at similar contexts and sources of data; it requires that we inquire into the organizational attributes and practices of different agencies; that we examine the contexts in which these attributes motivate and are expressed in various claims; and that we examine their differential impact on collaboration, the formation of particular managerial frames, and on the trajectory of planning and its eventual outcome(s).

While both approaches can fruitfully speak to the questions guiding this research through the analysis of planning documents alone (i.e., by drawing from archival documents including both administrative and public documents, newsletters, and communications); both the question of the how public experiences and understands their involvement in the EIS, and how agency stakeholders perceive the public's role and the dynamics of collaborative management necessitate inquiring into the experiences and understandings of public and agency stakeholders through semi-structured interviews (Denzin 1989; Marshall and Rossman 2006; Lofland, Snow, Anderson and Lofland 2006:17). As Lofland et al. (2006:17) describe, the semi-structured interview involves "the use of an interview guide consisting of a list of open-ended questions that direct conversation without forcing the interview to select pre-established responses." Given this orientation, the semi-structured interview is well poised to elicit the "participant's perspective on...phenomen[a] of interest...as the participant views it, [rather than]...as the researcher views it" (Marshall and Rossman 2006:101). Thus, while these areas of inquiry are important to the questions that drive this research, this form of interviewing can also yield additional and complementary insights into the subjective motivations and experiences of those participating in, or impacted by, different claims-making activities. In so doing, interviews also provide information helpful for triangulating (Marshall and Rossman 2006:202; Lofland et al. 2006:21) the findings obtained through the analysis of archival documents.

## Research Setting

This research involves a case-study of the Rocky Mountain National Park's (RMNP) elk and vegetation environmental impact statement (EIS). The research site was chosen for its inter-organizational dynamics, the level of conflict attributed to RMNP's EIS by the media, and because RMNP's location near Estes Park, Colorado is in close proximity to my place of residence. The appeal of choosing an EIS with the inter-organizational dynamics and level of conflict described above was mainly shaped by the perceived importance of examining an event in which numerous organizational entities of differential statuses (e.g., federal, state, municipal) were involved. This, I believe, is an important dynamic for this research because agencies of environmental management are often in close proximity, thus requiring them to collaborate—both during and outside of their involvement in an EIS—on their differential but overlapping environmental objectives. Because the theoretical literature on environmental management often speaks to the conflictive and controversial nature of interagency collaborations (Rydin 2003; Fischer 2000), this context would allow me to observe how inter-organizational collaborations and their managerial outcomes during an EIS was both comparable and contrastive with scenarios and arrangements described in the literature. In addition, because media coverage of this particular EIS painted a rather complicated portrait of the collaborative arrangements and disputes among interagency actors, I thought this EIS would serve as an important case-study from which to explore the mechanisms underlying such disputes. In this vein, I also believed it would be an appropriate context in which to apply the theoretical framework previously discussed.



## Sampling Strategy, Data and Population

During the phase in which I analyzed important archival documents, my sampling strategy was dictated by a range of concerns. First, in order to identify the attributes of organizations relevant to planning (e.g., mainly the agencies or municipalities involved, at some decisive point, with the core-planning team), I looked for documents where agencies' missions, policies, primary management or administrative tools, and legal and political constraints were either explicitly mentioned/listed or manifest in their actions or positions on certain issues or events. This information was commonly found in documents concerning the internal meetings of the interagency team (particularly in the early formative stages of the EIS and during meetings where inter-organizational constraints were prominent and explicitly discussed), but they were also found in the internal communications among interagency team members, in publically released documents such as the draft and final EIS, and were occasionally referenced (or substantiated) during stakeholder interviews.

Second, in order to determine how both inter-organizational constraints and the claims-making activities of individual agencies impacted interagency collaborations and the managerial frames in which they linked, I looked for "typical" and "critical" cases where agency opinions were provided and decisions were made (Marshall and Rossman 2006:71). Because one of my primary objectives was to identify and trace the chronological development of the managerial or EIS frame, I was mainly looking to find meetings and other instances where pivotal, and hence "critical," decisions were made (e.g., where EIS alternatives or objectives were formed, deliberated, presented for public review, or finalized). In other words, I tried to identify documents and times/dates where decisions were made that would later impact, in important

ways, subsequent planning considerations, decisions, or outcomes. Thus, my inclusion of “typical” cases was mainly an effort to chronologically link, through the use of diachronic narration, “critical” with common-place events for the purpose of mapping, and accounting for changes in, the trajectory of planning. And while many “critical” events took place in the formal meetings of the interagency team, they often also occurred in email communications between interagency representatives, or were rather learned about through such communications.

During the phase in which I recruited prospective respondents for later interviewing, my objective was obtain a “stratified purposive” sample of agency and public stakeholders (Marshall and Rossman 2006:71). This strategy was chosen because I wanted to capture insights from a wide range of participants from differential locations in the EIS. To this end, I aimed to interview an N=20 respondents drawn from the interagency team and members of the public. To maximize the positional variability of respondents selected from the interagency team, I tried to recruit respondents from different roles and divisions of RMNP (e.g., administrators, superintendents, biologists, rangers, etc.), at least one representative from each agency involved in the core-planning team, and at least a few scientists and/or agency-representatives from the extended-planning team. To aid in the recruitment of representatives and scientists with a high degree of knowledge and involvement in the EIS, I worked with the research coordinator for RMNP to identify a pool of prospective respondents. These respondents were then recruited based on the above-mentioned concerns.

A similar strategy guided my selection of public respondents. Because special interest groups are considered members of the public by NEPA, I sought to interview at least two special interest groups with different philosophies or missions. While I also wanted to obtain interviews with a relatively diverse number of unaffiliated citizens, I was unable to screen public respondents in the same way I screened those from the interagency team. Nevertheless, by

using rosters of those who had participated in public presentations at different locations and points within the EISs trajectory, I was able to select five citizens to interview. Thus, my decision to use different presentation rosters from events occurring at different times was an effort to achieve some variability in the contexts in which citizens were involved in the EIS (in case some or all participants only participated in a single meeting or workshop).

#### **Access to Data/Site**

In order to recruit respondents and gain access to the archival records needed to complete this research, I needed to gain the cooperation of RMNP. However, given that the EIS was in its final stages of completion, that the Park was being sued over its preparation of the EIS, and that the Park was lacking in the funds and personnel needed to assist me, in a timely fashion, with the recruitment of interview respondents and the retrieval of archival data; I obtained a research permit with the National Park Service (NPS) after the Park's research coordinator urged me to consider doing so. This, as it turned, was critical to ensuring the cooperation of interview respondents in the Park and to gaining assistance with the recruitment of interagency respondents as well as access to archival data—which was also used to locate public respondents for interviewing.

## Interview Design and Questions

Interviews were designed to utilize a semi-structured interviewing format. As Lofland et al. (2006:17) describe, the semi-structured interview involves “the use of an interview guide consisting of a list of open-ended questions that direct conversation without forcing the interview to select preestablished responses.” This open-endedness is critical to the elicitation of a wide range of thickly-detailed views and explanations; responses that are both often difficult to capture with closed question formats and often afforded, to the researcher, by the conversational ease that semi-structured interviews often provide (Weiss 1994; Marshall and Rossman 2006; Lofland et al. 2006). Thus, to aid in the capture of richly detailed responses, I also incorporated questions that would address respondents’ views, opinions, attitudes, experiences, knowledges, and understandings; both generally and in regards to specific phases of the EIS, or particular events and activities.

Because I interviewed both agency and public stakeholders, interview guides were created for each group. While both groups were asked the same questions about a variety of issues and themes (e.g., degree of interest in outcome, experience as participant in the EIS, understanding of NEPA), their positionality as participants with differential responsibilities (or lack thereof) in and knowledge of the EIS process required that interviews be tailored along the lines of respondents’ status as members of the public, special interests groups, or agents/affiliates of the Park or interagency team. Therefore, while there were two interview guides, some questions were reframed to be relevant to the differential experiences among Park and core- and extended-team members, or were discarded during interviews depending on the respondents’ familiarity with certain phases or events in the EIS.



Since there were limits to how much I could screen respondents for their level of familiarity with or understanding of certain issues or events, I incorporated a number of questions that were designed to give me a sense of how knowledgeable respondents' were and, in turn, how credible their responses would be. For instance, because I asked public respondents' about their understandings of the purposes public involvement was supposed to fulfill, to get a sense of both their credibility and validity I asked questions to gauge their familiarity with NEPA and the EIS procedure as well as their previous experiences of other EISs. Thus, in interviews with other categories of respondents, a variety of questions probing their knowledge or familiarity with certain phenomena and key events were used to guide further questioning as well as to aid in later assessments of their responses.

In a similar way, I also asked respondents from both groups to describe what they knew about the EIS and NEPA processes/legislation, RMNP's EIS, the object/subject being managed or needing management (i.e., the 'problem' with elk, vegetation, etc.), its historical development, and the ways in which the EIS addressed it. Often times, their answers to these questions were more important for illuminating—in relation to their responses to other questions and themes—their positionality, interests, and sentiments. Because these questions also spoke to their level of understanding of and familiarity with the EIS process or the events of planning, they were used in tandem with questions that directly asked them about their knowledge to provide a larger portrait of their overall views, sentiments, and experiences within the EIS process.

During interviews with Park and interagency team members, my questions largely aimed to solicit respondents' experiences and views of collaborating in general, with specific agencies, and during particular phases of the EIS. Here, I would ask respondents about the challenges inherent to collaboration or about those specific to certain phases or events in the EIS. Similarly, I asked about what was difficult for them in their roles, responsibilities, and activities.

In this and other instances, I would also probe respondents on the important issues they raised, and ask follow-up questions when appropriate. Interagency respondents were also asked about their opinions about and attitudes towards collaborating both generally and with specific agencies, towards the EIS as a process or its localized outcomes (i.e., the outcomes of this particular EIS), towards their involvement in working on their particular areas in the EIS and during public presentations, and towards public involvement itself. In a similar vein, I also asked respondents to give an account of the events that were pivotal in shaping specific outcomes as well as the plan's larger trajectory. Here, as well as in other occasions where I inquired about their opinions or attitudes, the goal is both to see what sorts of events or actors respondent's privilege in their accounts, as well as to see how they construct, defend, and/or reason their claims.

Interviews with members of the public (both special interests and citizens) typically covered a smaller range of issues, given their lack of insight into the daily developments and inner-workings of the planning process. Because I also asked members of the public about their knowledge of NEPA, the EIS procedure, the agencies involved, and of the major conflicts or obstacles that arose during planning (albeit, in a way framed appropriately to respondents outside of planning), I used their responses to these questions to determine if and how I would probe them about their perceptions of particular events, agencies, outcomes, etc. Nevertheless, there were also occasions where it was necessary to ask respondents that were unknowledgeable about some of the finer details or events of planning about their perceptions or views on general issues or events. To this end, although I knew citizens would interpret the question about their understanding of the formal (e.g., legislative, substantive and/or procedural) purposes that public involvement was meant to play in the EIS process, this question was for determining the comparability and contrast between expert and public views

of citizens' involvement. Additionally, since this question could be interpreted in a variety of ways, I aimed to interpret their response to it using their other responses, when possible, as a guide. A final theme I touched on with public respondents concerned their experiences in the EIS overall and during specific phases or events. In order to push respondents past the provision of generalized views, I asked them to describe the format and sequence of events during presentations and to reflect on their feelings during and understandings of the purposes of such events.

### **Retrieval, Management, and Analysis of Archival Data**

Because I received a research permit from RMNP, I was provided with a DVD containing twenty years worth of documents and research relevant to the Park's development of the EIS. While I had initially prepared to conduct archival research on-site at RMNP, the lack of personnel available to assist me with the retrieval of important archival documents resulted in the Park providing me with a DVD with the totality of archives, in PDF format, associated with the EIS. However, while this provided me with access to a vast amount of records that I would not have otherwise been able to access, or even known about, it also presented a challenge for the identification of relevant documents. Because there were over 4,000 PDFs, the lack of dating of many files as well as the inconsistent and vague descriptions of a significant portion of files made it difficult to track down important documents and events. This was compounded by the fact that the files were organized into a Microsoft Excel document under a few larger categories pertaining to the discussion of 'wolves', 'lethal reduction', and 'miscellaneous' items.



Given these constraints, I had to develop a unique strategy for locating and filing important documents.

Since I had initially aimed to analyze the interagency collaborations and claims-making activities that took place during a number of important interagency meetings and public presentations (which I had learned about through public newsletters or the draft/final EIS documents), I sought to retrieve the documents pertaining to these events, which I would then use to track down the preceding and subsequent meetings and decision-making events to which they were linked. Given the difficulty of relying on Excel headings/descriptors to find documents, the strategy I used to find important documents required the extensive use of the 'find' and 'search' functions of Excel. To this end, I would either search for the date/time of relevant events while looking for relevant descriptors among documents pertaining to similar dates (in the event there was no matching time/date) or I would search for the events or their potential titles (which I would also do when I did not know of any particular date to search for, but rather only the type of meeting or decision that I was looking to find). Moreover, when important meetings or decision-making events were located, I would also search for mentions, in the notes dictated at such events, of subsequent meetings where particular issues would be addressed. In this way, I was able to fruitfully track down and linearly organize a sequence of events that I had only learned of by examining observer notes and email communications that mentioned critical events, meeting purposes, and/or their times and dates.

Given this strategy, I also read a vast range of documents that were determined to be either irrelevant or less important to the study. However, while this was a time-consuming endeavor to engage in, this strategy was both helpful and necessary. First, because it was impossible to know beforehand which events were critical and which documents contained such events, it was inevitable that I would end up reading a plethora of documents simply to



determine if important events were mentioned or had occurred. Secondly, my review of less or unimportant documents often yielded clues to the dates and times, or even the existence, of events that I would have otherwise been ignorant about (in this sense, then, they were important). Thirdly, by finding out that certain documents or the events they addressed were unimportant to my larger aims, I could either rule them out or consider them, when appropriate, as references to the lesser events that were needed to map the chronologic trajectory between distinct events, and thus to create a narrative bridge between different occurrences in different phases of the EIS. For example, since email communications between interagency personnel often disclosed either references to important (upcoming or past) events or how the authors of such emails (which were often documented in a chain fashion that allowed me to observe how conversations had unfolded and who was involved) felt about or perceived certain events. In regards to the latter, candid conversations between interagency personnel was often an important source of insight into the difference between the formal views of agencies and the informal views and sentiments of their personnel.

In order to map the trajectory of decision-making processes and outcomes throughout the entire EIS process, I created folders for each of the important sequences, phases, and events that characterized the EIS. When documents pertaining to the interagency meetings and internal (email) communications that had occurred during, or referred to, specific activities or phases of the EIS were found; they were then copied, renamed and placed into the folders described above. This corresponds with Lofland et al.'s (2006:203) discussion of managing data by coding them into "setting-specific" event files. And because the events described in documents often pertained to numerous issues important to research, files were occasionally reproduced with numerous titles, or were at least named in ways that would reflect their documentation of numerous important events and outcomes. Finally, because I aimed to

provide a chronological account of the settings in which management or framing decisions were made, and of the actors and claims-activities involved in each setting, it was also critical that I label and arrange files in the time-order in which they occurred.

Although I did not engage in any explicit coding strategies beyond my use of “setting-specific” filing codes, my analysis of the events and actors depicted in each file was guided by my constructivist approach to analysis (which also necessitated the creation of a chronologically-organized sequence of planning phases and events). Thus, it is important to recall that claims are the accounts actors (i.e., claims-makers/claimants) make about their understandings, views, and/or opinions about social phenomena; that claims-making processes are the occasions where claims-making occurs between multiple claimants; and that claims-making activities are the strategies, concepts and logic actors use to make and advance their claims. It is also important to note that the utility of this analytical approach for this study is for the purposes of examining which interagency claimants were involved in making claims in particular claims-making processes and phases of the EIS, as well as for exploring how the collaborative (and hence managerial/EIS) frames that emerged from interagency claims-making shaped the forms and successfulness of later (and particularly the public’s) claims. In turn, these examinations are then critical for examining how the final EIS or managerial frame resulted from a long sequence of the claims-making activities of different actors. While each of these dimensions of analysis are areas in which Hannigan (1995) believes the constructivist approach is well suited, this research synthesizes a variety of analytical strategies that are often explored in separate studies of constructivism.

In an effort to synthesize the managerialist perspective (Alford and Friedland 1985) with the constructivist approach, I used the analytical concepts and methods described above to first scan “setting-specific” documents for references to the claimants involved in certain meetings

or phases of the EIS, as well as those in specific roles (e.g., core- and extended-planning teams). I would then examine the contexts of the claims-making processes to determine both what agencies were supposed to be deciding on or discussing, and what specific procedures or policies were motivating or guiding their claims-making activities or their interpretation (e.g., particularly in regards to EIS procedures, NEPA protocol, and the policies of the lead agency). In this way, the only claims of relevance to these contexts were those which were aimed at expressing an agency's or representative's point of view and/or at affecting how other claimants viewed and thought about the issue at hand. However, given that the managerialist perspective requires us to attend to how the missions, policies, finances and general organizational structure of agencies contribute to their interests, I also interpreted their claims-making strategies in relation to their organizational bases. And since RMNP was the lead actor in this particular EIS, I would assess their appraisal of interagency claims-making on the basis of their organizational policies, mission, budget, etc.

By looking at the contexts and actors involved in claims-making, I determined the outcome of claims-making by looking at how management strategies or specific aspects of the EIS (such as its alternatives, objectives, tools, etc.) were discussed, treated, or incorporated into subsequent meetings, agendas, formal documents, etc. In this vein, there could be no static conception of their successfulness; claims were effective when they created a noticeable and logical change in the way management was later talked about, designed, or formally represented.

To provide an example of the types of claims that were important and of ways in which they were influential, it is helpful to consider the following scenarios or instances. In many situations, the claims of importance concerned how agencies viewed the 'problems' needing management; the stances they took towards their resolution with certain management



strategies; and the constraints agencies raised in order to express their reservations about certain strategies or framing, their inability to participate in such actions/events, and/or their beliefs that such actions/events were inappropriate or infeasible. Examples of scenarios in which previous claims could be said to have had an influence on planning could include: instances where prior strategies were abandoned, where prior public explanations were reworded or omitted, where objectives were revised, and where new alternatives were created or merged.

Given this analytical approach, it was important to examine the specific contexts and phases in which the EIS was constructed, and in the order in which they occurred. This was essential not only to mapping the process's trajectory or the 'problem'- or EIS-frames development and change, but also for determining how the nature of management/EIS frames shaped the types and successfulness of public claims and claims-making. To this end, I examined the content of public input submitted during the scoping and draft phases of public involvement, as well as the ways in which agencies spoke about and analyzed public input during meetings and analytical documents, respectively. To gauge their relative impact on planning, I looked at how the EIS was subsequently framed and whether it was amended to make use of public input. Additionally, complementary insights into the successfulness and utility of public input were added by the use of interviews with public and interagency stakeholders.

## Management and Analysis of Interview Data

Due to the open-ended and flexible format of interviews, it was essential to digitally record interviews for later transcription and analysis. To save time in preparation for an academic conference, some of these interviews were professionally transcribed. However, I personally transcribed the bulk of interviews. In both instances of transcription, interviews were transcribed verbatim.

During the analysis of interview data, I relied on the use of open-coding, which is a strategy of “identify[ing], elaborate[ing], and refin[ing] analytical insights from and for the interpretation of data” (Emerson, Fritz and Shaw 1995:151). To this end, I tried to generate as many types and categories of insights as were theoretically relevant and possible, given the issues and themes to which respondents’ referred to or commented about.

Because stakeholder interviews were mainly designed to substantiate and complement the insights derived from the analysis of archival records, I was particularly interested in determining whether stakeholders confirmed, extended or reinterpreted the events and causal processes that were identified during document analysis or addressed in the literature. To this end, I was interested in determining whether citizens were pleased, ambivalent, or frustrated in their experience of the EIS, and in their involvement in particular processes, such as the provision of public input during meetings. Moreover, I was also interested in seeing whether citizens acknowledged the existence, or could identify particular instances of, collaborative disagreements and conflicts among interagency participants. Thus, if citizens unaffiliated with the process frequently commented on the prevalence or existence of collaborative disputes, I could examine this against the views of agency stakeholders and the insights derived from

document analysis for purposes of comparison. To this end, I would ask how public and interagency stakeholders differed in their views, and whether citizens highlighted similar issues with emphases comparable to those interagency actors.

During interviews with interagency stakeholders, I was particularly interested in analyzing their views of the EIS as a process, of the larger challenges facing decision-makers, and of the purposes of public involvement. For instance, I was interested in hearing whether interagency respondents gave as much weight to the collaborative and planning constraints identified during document analysis. Additionally, I also wanted to see if they added any additional insights into why certain events had transpired or about what they had ultimately meant in terms of decision-making events or outcomes. Some other questions I considered during my analysis of interagency interview data included: did agency representatives disclose any opinions about the sentiments of interagency team members during collaboration, their perceptions of the intentions of different agencies or representatives, or of their views of the effectiveness of certain strategies or outcomes?

Given my (above-mentioned) objectives for conducting interviews, I asked respondents about a wide range of themes related to the EIS. As described during the section regarding interview design, these questions largely focused on respondents' experiences in the EIS and particular aspects of its (i.e., their roles, responsibilities, or participation-settings); their views and understandings of the EIS's purpose, of other agencies, planning challenges, interagency disputes, etc.; and about their opinions and attitudes towards the outcomes of planning, the collaboration among agencies, the of handling disputes, the purposes of public involvement. Thus, while their answers to these questions were important for comparing differences among public and interagency stakeholders, differences within both groups, and for cross-examining the insights derived from document analysis; these questions also served as a means of allowing



me (as a researcher) to assess their responses to other questions—both as a means of determining their validity/credibility as well as their resonance (or lack thereof) with the other claims and claims-making strategies that each respondent employed. This, as previously alluded, was also the reason why I incorporated questions about respondents' knowledge and familiarity with certain processes, events, or outcomes.

### **Methodological Limitations**

A few minor alterations and occurrences may have limited the utility of data derived from interviews. First, despite efforts to contact and interview a range of respondents representing different agencies, positions, and interests; I was unable to interview some of the key members in different planning roles or to achieve the intended contrast between the special interest groups I interviewed. Nevertheless, adequate replacements were found in all but two of these occasions.

Due to the retirement of one subject and the transfer of another to a different bureau, I was unable to contact two prominent actors from the Park. I overcame this by recruiting and interviewing a couple of replacement subjects with a similar, albeit lessened, degree of involvement than those I initially planned to interview. A number of the representatives of participating extended-team agencies were unable to be interviewed for a variety of similar reasons, but these subjects were known to have played relatively marginal roles in the provision of expertise or development of plans (which the Park associate who assisted me with contacting potential interviewees informed me). One of the more heavily involved members of such an agency initially agreed to be interviewed, but was later required to decline by their host agency.

In addition, while I contacted the National Rifle Association (NRA) to obtain contact information for the spokesperson responsible for representing and commenting on the organization's views (which were submitted in written form), the personnel at NRA were unable to determine how to contact the interest group and personnel who had commented on their behalf. While this interest group had a great deal of support from those advocating for a particular management alternative within the EIS (the use of public marksmen to reduce the elk population), this organization was not critically involved in the EIS process (e.g., they only provided written comments during the draft EIS). Moreover, after finding a replacement for this interest group, I was able to obtain distinctive insights from both interest groups, despite how both shared a similar focus on either environmental or animal well-being.

A second type of limitation I faced concerns the depth and breadth of information gained from interview respondents. A number of participants I interviewed were less involved in planning or of its particular phases/activities than I had anticipated. This was due, in part, to my efforts to find suitable respondents for recruitment within the Park. In a similar way, a surprising range of personnel within the lead agency were unable to sufficiently describe parts or aspects of planning that they had no personal involvement, and many were unable to accurately recall certain details because of the length of time since the EIS began in 2001. As a result, I was unable to touch on a few areas of interest with both agency and public stakeholders (a few agency members had no role in public presentations and citizens displayed a wide range of knowledge, participation, and interest in the EIS). Nevertheless, in certain occasions, their lack of knowledge about the EIS or its particular events and participating actors was itself a source of data; it illustrated that their lack of communication with, and understanding of, other EIS and divisional (e.g., biologists, natural resource management, administration, etc.) actors, activities, and processes. Although there were instances where the subjects unaddressed by

respondents were important to this research, given the stratified sample of Park and interagency participants, I was typically able to learn about important areas of inquiry in my interviews with numerous differentially located interagency stakeholders (the insights obtained from document analysis also served this function). In addition, my interview with one public respondent resulted in a dual interview including the respondent's spouse; who was also interested, involved in, and well informed about this particular EIS. Although this made it difficult to obtain a distinctive and non-biased response from both respondents, the format nonetheless yielded a variety of important insights into the publics' institutional perceptions and trust.

Again, because I mainly aimed to use interviews with agency and public stakeholders for the purpose of confirming, extending, or refining my understandings of the issues that arose during document analysis, the sampling alterations and setbacks described above were considerably minor.

The limitations associated with document analysis were of a different, but also minor, sort. First, considering the difficulty I had with retrieving important documents from the thousands of PDFs included in the DVDs virtual archive, it is impossible to determine whether all critical events were identified and retrieved. Given that critical events were instances where pivotal decisions were made or 'game-changing' events or constraints arose, the impossibility of identifying every decision-making instance precluded my ability to guarantee that all events had been assessed for their degree of criticalness. Nevertheless, because I looked for gaps within the trajectory of the 'problem' and plan's development and searched for insights into the contexts in which unaccounted and formative events had occurred, I was able to reasonably determine that the events most critical to refinements of and breaks in the plan's development were already identified and accounted for my analysis.



A second limitation arose from the difficulty of determining whether critical events were actually critical. In other words, while the interagency team's formal objectives may have changed after a representative raised an issue of policy, careful assessments of competing explanations are also necessary to ensure that objectives were not altered simply to make them more clear for public reviewers. While this dilemma could arise in a host of analytical scenarios in different areas of inquiry, I tried to find multiple confirmations (and from multiple documents and types of them) before deciding on an explanatory frame. By searching for multiple confirmations, I was also searching for competing forms of evidence that would allow me to both refine my explanation as well as to rule out alternative explanations (Marshall and Rossman 2006:162). Thus, because I strengthened my explanations with multiple sources of confirmation and acknowledged when my explanations were less certain or more inferred, I feel I was able to overcome this limitation.

A third limitation concerns my reliance on unobtrusive research methods as the mainstay of this study. To this end, my reliance on secondary documents could have weakened my ability to speak with confidence about important events in the process's trajectory and determination. For instance, because meeting-notes may not accurately capture the full range and meanings of events, or may contain biases and errors; I could have been misled by certain accounts of the events that transpired in particular meetings. However, because I was able to utilize a wide range of documents such as email communications, meeting notes, and administrative and publically released statements, newsletters, etc., I was able to—and in fact had to—draw from a multitude of primary and secondary accounts when conducting my analyses. Thus, since I was able to infer from multiple sources about what had transpired in certain meetings, and because I considered the formative events in light of the changes they created in the considerations, activities, and determinations of planning; I was able to cross-

check my interpretations before writing them into my analysis. And as before, when I was less certain or confident in my interpretation, I made it known that this was so and provided an account as to why.

A final limitation is one associated with all analyses of institutional documents; agencies are selective in what they record, how they record it, and what they omit. However, given that the objective here is to link the claimants, claims-making activities, and contexts in which claims were made with the outcomes of particular phases in which managerial frames were developed, documented, presented to the public, and later adapted during new processes of claims-making; the degree to which my explanations are logical, defended, rigorous and substantiated with findings obtained from interviews serves as a counter-weight against criticisms such as these.

## Introduction

This chapter is organized to foreground the discursive development of management problem(s); from its historical roots as a long-standing Park and regional issue until its final articulation in the elk and vegetation management EIS. However, because the problem is never singularly understood, but is always perceived and articulated differently by a plurality of interest groups (in which the Park is included), I strive to demonstrate the myriad sources and motivations behind different claims and concerns, as they arose in certain phases of the EIS and during the ‘problems’ discursive development. Nevertheless, since RMNP is the agency responsible for overseeing all aspects of planning, and ultimately the plan’s determination and implementation, I try to demonstrate how structural arrangements (e.g., interagency agreements, interactions, etc.) and constraints (e.g., via law and agency policies, budgets, constituents, etc.) affect the agency’s perception and discursive treatment of different claims.

To accomplish these goals, I trace the linear development of the ‘problem’ and the EIS through a description of the emergence and substance of different claims, their attachment to various interest groups, and their relevance to, and explicit consideration and treatment by RMNP and participating agencies. In so doing, I also provide a detailed account of the manner in which EIS protocol, agency policies, and issues of technical feasibility affect managerial perceptions and treatments of the ‘problem(s)’, and of the claims and claimants involved in its construction.

With these goals in mind, the chapter is organized in the following way. To contextualize the ‘problems’ with elk and the management of elk and vegetation, I discuss their material and symbolic bases, both historically and contemporarily, in the first section of the



chapter. Here, I talk about the historical roots (Pre-EIS) of contemporary management issues in order to describe their character, their social, cultural and environmental dimensions, and their conception and treatment by the Park and other parties over time. This provides insight not only into the diversity of problem-frames, but also into their material underpinnings (i.e., their socio-ecological dimensions) and relations to different claimants. Then, I describe how contemporary views of ‘the problem’ (also pre-EIS) emerge from the environmental, social and economic dimensions of elk-related ecological disturbances, and how these, in turn, affect managerial perceptions towards the problem and its potential treatment. Here, I illustrate how the Park’s concern about tourists’ and locals’ perceptions and experiences of elk-related impacts both complicate ‘the problem’ and necessitate managerial action. In addition, to better understand the Park’s obligation to act, I describe the influence of National Park Services (NPS) policies and the NEPA.

The second and largest section of the chapter is organized to illustrate the linear progression of the ‘problem’ and the EIS plan. For this reason, this section is organized into different phases of the EIS and includes many subsections that focus on various decision-making events, developments, and processes. As described above, each of these subsections will involve both a description of the actors involved in framing or disputing the EIS and its various alternatives or objectives, and an illustration of how various claims and claimants were able (or were unable) to influence the trajectory of the EIS. While the goals of this section are many, *a few of the things it entails* involve descriptions of: how EIS protocol necessitated the involvement of particular institutional actors and how their involvement, in turn, resulted in the presence of particular planning constraints; how and why agency disputes emerge over the desired framing and activities of management; how the constituents of different agencies and organizations influence their concerns and framing efforts in ways capable of shaping planning

deliberations; and how the mass media intercedes in, and catalyzes a public debate over planning activities. Thus, because the planning process involved a dynamic interplay between individuals, special-interest groups, and different types of agencies and organizations, it is essential that my description of planning events and developments is organized linearly, and in relation to the succession of phases that characterize the EIS.

In the third and final section of the chapter, I discuss the findings from interviews conducted with public and interagency stakeholders. Here, the goal is not only to supplement and add texture to our understandings of the EIS, but to also obtain insights on how the EIS was experienced and understood by those involved in various levels and forms of its undertaking. To this end, interviews are important source of insight on public participation in the EIS; particularly since the formal purpose and structural impacts of public involvement are less apparent from document analysis alone. Additionally, interviews are illustrative of the shared and divergent experiences and understandings of expert and public respondents.

### **Contextualizing the Problem with Elk and Vegetation**

This section discusses the historical development and managerial dimensions (for RMNP) of the elk/vegetation problem, and then examines the diversity of contemporary views that bear upon the Park's consideration and subsequent treatment of the problem.

### **A Historical Overview of Elk-Related Problems in RMNP**

As park publications indicate, what was later viewed as a problem largely concerning the impacts of elk on vegetation and other wildlife was once understood as a problem concerning the disappearance of elk altogether (RMNP 2007a). Although data about their definitive numbers prior to European settlement is unavailable, they were known to have wintered in relatively abundant numbers in the Estes Valley region where they followed by Native Americans seeking food and clothing, among other things. Shortly after the colonization of Estes Valley by European settlers in the mid-1800s, the commercial hunting of elk soon exploded, resulting in their near or definitive extirpation by 1880. Given that ecosystem modeling based on empirical evidence suggests that their winter populations would have fluctuated around 1,500-3,000 historically, given “available food resources, weather and wolf predation,” the rapidity of this decline was significant (p. 13). It was also around this time, however, that wolf populations, both in the Estes Valley and across the nation, were rapidly diminishing. Thus by 1900, the elk’s chief predator, the grey wolf, was also eradicated from the Estes Valley region.

Viable populations of elk were not found in the Estes Valley again until 1913-1914, when 28 elk were reintroduced by the U.S. Forest Service (USFS) and Estes Valley Improvement Association (RMNP 2007a:14). RMNP was created in the wake of elk reintroduction, in 1915. The Park chose to maintain hunting restrictions on elk which had accompanied their reintroduction, which applied to the greater Estes Valley region until 1939. Under these restrictions, the elk population was able to reach approximately 350 by 1930, whereafter concerns about their ‘reaching the limit[s] of...food supply’ were soon voiced (p. 14, quoting G. Wright et al. 1933). As Park documents indicate, these concerns soon became framed as a



problem concerning the encroachment of private ownership on lands and vegetation required for elk survival. Thus, because the vegetation needed by elk was lost through urban expansion and enclosed behind fences installed by homeowners, additional lands in the core elk winter range were bought and added to the park.

When elk numbers continually increased alongside a steadily deteriorating winter range, plans for the reduction of elk populations using marksmen were developed and implemented from 1943-1945. Due to the strong aversion some important personnel in the Park had to the controlled reduction of elk, culling programs were halted in 1945. Culling resumed again in 1949, and an average of 60 elk and 40 deer (which were also believed to contribute to vegetative decline in their shared winter range) were removed annually until around 1962 (RMNP 2007a). Culling was again halted amidst scientific evidence illustrating the recovery of critical vegetation, as well as a collaborative agreement among RMNP, USFS, and what would later become the Colorado Division of Wildlife (CDOW), which aimed to study the distribution and migration of elk. The results of this study were inconclusive, but public hunts and the trapping and transplanting of elk by Park personnel would continue as concerns about the overabundance of elk were continuously voiced. Following the National Park Service's (NPS) system-wide implementation in 1969 of 'natural regulation', a management philosophy advocating little to no intervention with a park's flora and fauna, RMNP ceased to actively manage the elk. Despite mounting criticisms of such a policy within the scientific and NPS community (Sellars 1997), there is little evidence to suggest that RMNP seriously considered managing elk populations prior to the period shortly before and during the development of the EIS.

During the period of time following the implementation of natural regulation, the problem with elk and vegetation began to intensify, increasing the salience of the problem's

socio-ecological dimensions. As Park documents indicate, while natural regulation is a policy rooted in the belief “that a population will self-regulate, which means that population growth tends to slow as the population fills the available habitat and to increase if their numbers decline,” these assumptions were infrequently met for a variety of reasons (RMNP 2007a:16). First, with the increasing urbanization of the Estes Valley region, greater numbers of elk were forced to winter in a rapidly diminishing winter range. This increased competitive pressures for vegetation needed by both elk and other wildlife. However, while vegetation was notably impacted, the availability of vegetation in residential areas and golf courses helped sustain the elk population in the absence of opportunities to hunt elk in either the Park or areas in and around the town of Estes Park. Therefore, the inability to hunt elk within their primary winter range was a second reason for their population increase under natural regulation, which presupposed that “hunting adjacent to the park....[would] help control the elk population and...fulfill the role of extirpated predators” (p. 16). However, since the problem was not just about the size of elk populations, but also their behavior and dispersal, a third major factor was the absence of predators such as wolves and grizzly bears, which would have prevented elk from loitering in great numbers and, hence, from overgrazing on certain vegetative communities.

Given the Park’s legal responsibility for both the conservation of natural resources and the provision of opportunities for tourism and recreation, efforts to scientifically document and study the elk’s impact on a range of ecological relationships and processes became more widespread in the 1990s. This resulted in the identification of a wide range of ecological disturbances linked with the overabundance and sedentary behavior of elk. The most significant of these concerned the diminution of aspen and willow communities. According to Park researchers, elk are the primary factor in the reduction of aspen, which largely reproduce ‘vegetatively’ rather than by seed. While the aspen tree “is a preferred browse species for elk,”

the concentration of elk in lower elevations during the winter results in their greater consumption of aspen bark, which promote pathogen development, and aspen shoots, which prevent their regeneration and spread (RMNP 2007a:17). Although aspen, which occupies less than 5% of the Park's available habitat, are not seriously impacted within the Park as a whole, severe damage to aspen regeneration within the core winter range could result in their complete loss in other critical areas. Thus, the Park appeared to recognize that elk behavior in these areas was nonetheless linked with ecological relationships, and amenable to managerial activities, within the Park. However, while some researchers believe that their population size is of paramount concern, "other research suggests that elk distribution (density) may be equally or even more important for...aspen regeneration" (p. 17).

According to scientific studies conducted in the Park, the impact elk have on the Park's montane riparian willow communities have had significant repercussions for a range of wildlife, habitats, and vegetation. However, the elk's role in this problem appears to be secondary to the problem created by the absence of a viable beaver population within the Park. As Park researchers demonstrate, willow depend on stable ground water flows which beavers maintain through the creation of dams which, in turn, creates ponds and streams necessary for the survival and regeneration of willow. Under these circumstances, willow communities provide vital habitat for beavers and other wildlife and, with "an intact predator base, beaver and elk establish a competitive balance in which each species' willow herbivory does not ultimately exclude each other or annual regeneration of montane riparian willow" (p. 18). Unfortunately, as Park publications explain, after beavers were trapped and practically eliminated from the Park in the 1940s, the hydrological services that beaver dams provided also ceased. As a result, the surface water needed for willow regeneration has drastically declined, leading to diminution of willow and wildlife habitat. Thus, given that willows are one of the elks' major dietary



components, willow regeneration/survival has been further impacted by high rates of elk herbivory in the Park.

An additional concern for the Park regards the existence and uncertain prevalence of Chronic Wasting Disease (CWD). Having first appeared in 1979, CWD has been documented as affecting “free-ranging deer and elk in northeastern Colorado and southeastern Wyoming” (RMNP 2007a:20). The consequences of CWD are numerous as well, including “behavioral changes, emaciation, excessive salivation, weakness and death in infected animals” (p. 20). Additional problems with CWD concern its latency in effected wildlife (sometimes lying dormant for years), its transmissibility to other ungulates through excretion or physical contact, and its unknown prevalence in the Park’s elk populations. Therefore, while the disease is problematic as a source of elk mortality (which is not problematic in and of itself, given their excessive numbers), the real problem lies in its unknown prevalence and potential impact on future populations of elk.

#### **Contemporary Views of the Problem(s): Tourism, Local Livelihoods, and Environmental Concern**

A wide range of citizen- and organizational-claimants (such as businesses and special interest groups) also voiced concerns about the ‘problem(s) with elk’. However, while claimants construed the ‘problem’ in as many different ways as they understood and experienced it, of interest here is how their articulations of the problem influenced the Park’s own perceptions of the issues at stake and what needed to be done. As in the above-mentioned past, however, ecological considerations are only one dimension of the ‘problem’. Simply put, while claimants

are concerned about the consequences of elk-related ecological disturbances, for many, it is how they experienced the problem as tourists, locals, environmentalists, businesses, and/or hunters that determined their understandings and attitudes towards the 'problem with elk'. Therefore, while ecological considerations necessitated action by the Park, the Park's perception of the problem was unavoidably shaped by the pleas of those *were* or *would be* impacted by elk or the management of vegetation and wildlife. Since RMNP is the actor responsible for initiating the EIS, this section describes how the Park's need to address elk-related ecological disturbances was shaped by their dependence on tourism and complicated by the multitude of elk-related experiences people have and the plethora of values people attach to elk.

While public- and business- claimants voiced a variety of concerns to the Park, their influence on Park perceptions is more easily understood when we consider their relation to the experiences of tourists and local stakeholders. Because all National Parks are bound to the Organic Act of 1916, which established the NPS and required parks to "balance visitor recreation and resource preservation"; parks are considerably dependent upon tourism both in terms of the services Parks provide (i.e., such as interpretation, guided tours, ticket sales and merchandizing, etc.) and the revenue it generates (RMNP 2007a:30). As a result, National Parks are highly sensitive to visitors' perceptions of management activities and environmental conditions. This is reflected in the number of public polls conducted by RMNP which monitored visitors' attitudes and perceptions about Park-related management and environmental issues throughout the 1990s and during the EIS. Since two studies conducted in the mid 1990s found that 91.7% of visitors polled emphasized natural scenery as an extremely important park feature while 83.1% emphasized the significance of wildlife, the Park had reason to suspect that visitors' perceptions of elk- and vegetation-related environmental impacts could seriously limit future visitation rates to RMNP and the surrounding areas (p. 207). In addition, since elk-viewing is a

significant draw for tourism year-round, the high visibility of 'severely browsed' vegetation from popular elk-viewing spots increased the likelihood that visitors would notice ecological disturbances in the Park (p. 207).

While RMNP's concern about the perceptions and attitudes of visitors is well documented in Park publications, the findings obtained from visitor experience and opinion polls paint a murky picture visitors' attitudes and concerns. According to a 1999 survey, 72.4% of visitors said they *were not* concerned about the problems elk may cause (p. 207). Assuming ecological disturbances were easily recognizable, this would seem to contradict earlier studies which emphasize the importance of 'natural scenery' to Park visitors. Of course, visitors may have also conceived of 'natural scenery' in terms standing trees instead of 'healthy' ones (i.e., those without considerable amounts of bark missing or exhibiting disease). This may have been the case since 90% of those surveyed by the Park agreed with the statement 'It is acceptable to reduce the size of the elk herd to ensure that aspen and willow regenerate' (p. 207). For this reason, RMNP suggested that "visitors may not readily be aware of the physical evidence of vegetation damage, but when told...that a problem exists, agree that management actions should be taken" (p. 207). However, since it is difficult for the Park to shape the interpretations of the millions of tourists who visit every year, even visitors who strongly value the Park's vegetation and wildlife may lack an awareness of their imperilment. In this case, it would be unlikely that their experiences in the Park would result in unfavorable views towards RMNP management.

However, the Park was also concerned about the impact visitors' ignorance or lack of concern about ecological disturbances would have on their ability to manage them as such. Since RMNP is charged with preserving natural resources and providing opportunities for tourism and recreation, visitors' lack of awareness or concern about vegetative impacts could



result in an unwillingness to support Park interventions. In other words, visitors' ignorance or indifference to environmental problems could itself become problematic since interventions could be seen as unnecessary. In this case, visitors could become disconcerted with managerial efforts, perhaps leading them to visit and spend money elsewhere, thus depriving the Park of revenue needed for intervention in the first place. While it is difficult to determine the extent to which visitors are ignorant or indifferent to the vegetative impacts of elk, Park publications nevertheless explain that "[m]any visitors...enjoy seeing the 'tame' elk," suggesting that at least some visitors value ecological qualities (i.e., sedentary behavior resulting from a lack of fear of humans and natural predators) that the Park feels are problematic (RMNP 2007a: 207).

Although it is difficult to infer much about visitors' perceptions and attitudes towards management and elk by examining annual visitation rates to RMNP, it is worth noting that visitation steadily increased throughout the 1990s—when the Park began accumulating the scientific data necessary for understanding and managing the ecological impacts of elk—before undergoing a modest decline after 2003 (figure 3.8 puts visitation at around 2.75 million in 1995 and peaking at over 3.25 million in 2003)(p. 195). And though a study conducted a few years into the EIS process would find that "between 20% and 30% of...visitors...[stated] that they would visit the park less often if they were less likely to see or hear elk," there was little empirical evidence to suggest how visitation rates would have been affected if interventions unsupported by visitors were implemented, prior to studies conducted during the EIS (p. 199).

However, RMNP had other reasons for being concerned about visitors' attitudes and perceptions. These are most easily explained by reference to the political-economic relations between RMNP and the adjacent town of Estes Park. Estes Park is what social scientists would call a 'gateway community', a term which reflects not only its proximity to a National Park or others attractions, but also, and more importantly, its economic and socio-cultural

interdependence with RMNP. As with many gateway communities, the growth and character of Estes Park reflects its primary orientation to tourism-related services. Not only do many Park personnel live in Estes Park, but for many travelers to RMNP, Estes Park is an important hub for shopping, dining, recreational activities and hotel accommodations. As socio-economic analyses conducted during the EIS indicate, “[r]etail trade and arts, entertainment, and accommodation and food services...make up 43% of Estes Valley employment” while “direct tourism and recreation account for more than 40% of the Estes Valley economy” (p. 192-193). According to estimates of the Park’s average annual impact on its surrounding municipalities (of which the town of Estes Park is unquestionably the largest and most affected), RMNP contributes “\$204 million in sales, \$69 million in personal income, and nearly 5,000 jobs” to the Estes Valley every year (p. 194). However, because Park personnel and their families are likely to be consumers of the services of Estes Valley’s largest employers, namely schools, hospitals and the recreation and parks district in Estes Park (p. 192), these calculations would likely appear much larger if the indirect economic benefits of tourism could be more easily quantified.

Given that the economic impact of visitors’ dissatisfaction with Park environments and activities could be great, the Park had much to consider before deciding to act. This was further complicated by the assortment of values that locals and visitors attached to elk. While elk undoubtedly serve as a potent symbol of the town’s economic prosperity, especially since 70% of those the Park polled in 2000 stated that elk were their primary motivation for visiting the park (and 71% entered RMNP through Estes Park), elk are also an important cultural icon for the town (p. 199, 194). The town of Estes Park holds an annual elk festival and uses the likeness of elk to advertise stores and products, if not the region itself, year around. Given their habit of lounging around town without concern for predation, elk also provide both locals and visitors with opportunities to enjoy wildlife from their cars, homes, and golfing and shopping excursions.

Elk also symbolize the town's historical relationship with the Park. Locals and tourists arrive in droves to see and hear the bugling and rutting of elk every September, a time when tourism to both RMNP and Estes Park takes a dramatic spike. This is also a time of year when interpretive sessions solely concerning elk are given by RMNP staff and the "Elk Bugle Corps volunteer group"; an 80 member group of citizens responsible for patrolling areas frequented by the elk, providing information and safety guidance to Park visitors, and recording visitor statistics among other tasks (RMNP 2007a:212). Particularly since the 1990s, elk have also become increasingly important to the hunting community. According to the estimates of The Colorado Division of Wildlife (CDOW), hunters spent roughly 16,500 days hunting elk around Estes Park between the early 1990s and 2004, and contributed between \$825,000 and \$1.7 million to the Estes Valley economy (p. 197). And though the following economic benefits were unknown prior to analyses conducted during the EIS, the elk *alone* are estimated to have generated "up to \$30 million in sales, \$10 million in personal income, and 750 jobs in the Estes Valley each year. [As a result]...elk are also [estimated to account]...for 15% of [Estes Park's]...sale tax revenue, or about \$900,000 each year" (p. 201).

While the cultural importance of elk results in unprecedented economic benefits for the Estes Valley economy, many locals and visitors were divided in their opinions about elk. Although Park documents indicate that many town "residents feel...the presence of...elk enhances their personal quality of life," some feel that elk have become a "nuisance" (p. 19). Given that urbanization led elk to increase in number and congregate in areas inaccessible to hunting, the vegetation found growing in the yards and businesses of Estes Park have increasingly fell victim to the grazing pressures of elk. Surprisingly, a range of both negative and positive consequences are associated with this. While elk were widely known to damage domestic vegetation, the monetary costs of this were unknown until the Estes Valley Recreation



and Park District provided estimates during the EIS. According to these calculations, elk cost “\$12,000 to \$14,000 in management and landscaping maintenance each year” to the District alone (RMNP 2007a:201). Likewise, homeowners in Estes Park are estimated to pay an annual town average of \$350,000 for landscaping damages (p. 201). As a result, the aesthetic value of domestic vegetation was diminished for some homeowners, particularly as desires to maintain vegetation require them to erect fences around plants to keep elk at a distance. Elk grazing on the town’s vegetation also increases the likelihood of contact between humans and elk, which has occasionally resulted in personal injury. Nevertheless, landscaping damage provides considerable economic benefits to landscaping and insurance companies. While annual landscape damages incurred by the town were costly, much of these payments were received by local businesses, and therefore contributed to the local tax base. Though numbers were unavailable prior to the EIS and have yet to be verified, one landscaping company estimated that they generated about “\$70,000 annually in gross sales from installing elk-proof landscaping fence and selling shrubs and plants [to replace those damaged by elk]” (p. 201).

The elk’s presence in the Estes Valley has also led to problems with traffic and human safety. Because elk congregate on or near roads throughout RMNP and Estes Park, traffic jams are a common experience for visitors and locals in particular. It is not just that elk occasionally travel across roads, but that visitors frequently stop to film and photograph the human-habituated elk. This could be particularly frustrating for locals, however, whose year-round experience with traffic delays are exacerbated during Peak elk-viewing seasons such as June and September, when elk congregate in greatest numbers. Because these are periods when elk are either breeding or protecting their young, visitors seeking to capture elk behavior on camera occasionally get too close to the seemingly ‘tame’ elk, resulting in personal injury. As Park documents indicate, there are “an average of three to five incidents per year involving charging

bulls and approximately one per year of cows protecting newborn calves” (RMNP 2007a:203). Traffic accidents occasionally occur as well but there is little empirical evidence of the extent of this problem. Nevertheless, a stakeholder interview RMNP conducted with one local body-shop owner indicated that elk-related vehicular collisions resulted in at least one customer per month and equated to about \$24,000 each year in revenue for this body-shop (p. 202).

While RMNP needed to address elk-related disturbances with ecological, socio-cultural, and economic dimensions, the diverse ways in which different groups were impacted by and concerned with elk presented the Park with a managerial conundrum. Locals and tourists alike may have recognized the ecological underpinnings of the Estes Valley’s dilemma with elk, but because they experienced and perceived the problem differently, they defined it differently as well. Thus, while the absence of predators may have rendered the elk less mobile and afraid of humans’ presence, those fearful of wolves or averse to the potential culling of elk may have felt the elk were a non-issue. Although the Park’s legal obligations to provide tourism required them to carefully consider how visitors’ perceptions and attitudes could impact visitation to RMNP and Estes Park, what the relatively few studies they conducted seemed to suggest is that visitors may have been either ignorant to or unconcerned with the ecological impacts of elk. The cultural and aesthetic value of elk may have been responsible for some of their ignorance or indifference to vegetative impacts. Nonetheless, while some visitors may have been unwilling—at least without further education and justification—to support managerial interventions of any or a particular type, the Park was responsible for preventing further degradation of natural resources since “Courts have consistently interpreted the Organic Act and its amendments to elevate resource conservation above visitor recreation” (p. 30). And since landscaping damage, personal injuries, and traffic were all related to ecological disturbances that had permitted the elk to grow in numbers and become more sedentary and less afraid of humans, the Park had

compelling reasons to move forward with plans to manage the elk; even as widespread differences in opinions about the existence, origin, and extent of the problem would complicate how management would actually occur.

### **The Park's Legal Obligation To Act: The Influence of NPS Policy and NEPA**

According to NPS policy, “the National Park Service cannot allow an adverse impact that constitutes resource impairment” (RMNP 2007a:30). Because anything that ‘harm[s] the integrity of park resources or values’ is considered an adverse impact by NPS policy, as is anything that harms “opportunities...for the enjoyment of those resources or values,” the Park was legally obligated to address the ecological impacts of elk (p. 31, *quoting NPS 2006b, 1.4.5*). In fact, since NPS policy requires Parks to “evaluate ‘the particular resources and values that [could] be [adversely] affected, [including their]...severity, duration, and timing, [and their] direct and indirect effects,” the ecological research that began in the mid 1990s was greatly influenced—as was RMNP’s level of knowledge about the problem at hand—by NPS directives (p. 31, *quoting NPS 2006b, 1.4.5*).

While formal documentation about an ‘Interagency Agreement on elk monitoring’ (IC 1998) could not be found, an email sent from a scientist to RMNP personnel disclosed that the Park had undertaken a collaborative research project (circa 1998) with other agencies for the purposes of accumulating data, creating models and developing an understanding of elk-related ecological disturbances. However, it is unknown whether the Interagency Agreement was believed, or hoped, to supplant the eventual need for the EIS. Nevertheless, since it is clear that the agreement aimed to ‘[provide]...a level of detail that [would have permitted the plan’s]



implementation by...NPS technician[s]', it is possible the agreement was developed as a basis for the eventual management of the 'adverse impacts' wrought by elk (IC 1998). Although the above-mentioned email did not disclose the members or roles that characterized the agreement, the agreement's title suggests it was an arrangement between RMNP and other jurisdictionally impacted agencies such as the CDOW and the U.S. Forest Service (USFS); both of whom have significant responsibilities for managing elk and lengthy histories of collaboration with RMNP on a variety of natural resource issues (RMNP 2007a). Whatever the case, what is important is that the author felt the activities that the Agreement required, such "as data analysis, predictive modeling, spatial analysis of trends, time series analysis, and data synthesis...[were] beyond the expertise and job descriptions of [many of the] technician[s]" involved (IC 1998). As a result, the author feared the data would be too "limited, incomplete, and biased" to serve as the basis for the effective monitoring and management of elk (IC 1998). Thus the author believed "the ability to truly integrate information (real synthesis and publication of results) [necessitated...] a more complicated...cooperative...and...effective 'team' of technicians, professional ecologists, information managers, statisticians/modelers, resource managers, and scientists" (IC 1998). For this reason, the practical difficulties associated with elk-monitoring seemed to foreshadow the coming of a much more sophisticated institutional division of labor.

Even if the Interagency Agreement on elk monitoring would have been effective at explaining the full range of ecological impacts associated with elk, the level of intervention needed to address such problems would likely have triggered an EIS. Despite that elk were the most proximate cause of the 'adverse impacts' on Park vegetation, since RMNP was also responsible for "reestablish[ing] natural functions and processes [affected by] [...] human disturbances," the Park also had to consider activities capable of addressing the human-

dimensions of ecological harms (RMNP 2007a:31, *quoting NPS 2006b, 4.4.1.1*). Because the elk's impact on native vegetation partly resulted from humans' eradication of predators, the Park was obligated to consider "the restoration of native plants and animals" such as wolves, grizzlies, or any other 'species that...occurred....[through] natural processes on lands [in]...the national park system' (p. 31, *quoting NPS 2006b, 4.4.1.3*). Therefore, since management strategies such as these could 'significantly impact the natural environment', the satisfaction of NPS directives obligated RMNP to conduct an EIS.

While NPS protocol required the Park to assess and manage ecological disturbances, NEPA required the Park to assess "the effects of...management alternatives on park resources [to determine whether the] effects [of management] would cause impairment[s]" themselves (p. 31). As a result, RMNP had two overlapping, and somewhat complementary, procedural/legal frameworks for managing the ecological impacts of elk. In addition, since an EIS requires governmental agencies to work with citizens when determining their plans, the EIS requirement enabled RMNP to address a wide range of citizens' views and concerns to various degrees within a legally circumscribed planning process. Thus, given the diversity and cross-cutting nature of stakeholders' views, the EIS provided the Park with a mechanism for collecting, systematizing, evaluating and responding to disparate views.

### **Internal Scoping For the EIS and the Preliminary Problem Frame**

This section addresses the management plan's preliminary development both before and during the EIS's early development. As such, it details the range of actors as well as the managerial and legal concerns that factored into its early formulation.

### **Initial Planning Concerns: Elk as a Regional Issue Requiring Regional Management**

Since an EIS only becomes official when agencies publish their Notice of Intent (NOI) in the *Federal Register* (Kreske 1996; Fogleman 1990), it is difficult to determine when planning for the EIS—which necessarily begins prior to official declarations—actually began. Nevertheless, as meeting-notes from an in-house discussion of prospective participants and planning roles on April 22, 2002 indicate, RMNP had already communicated (at least informally) with select agencies and outlined a preliminary framework for planning. This signifies that internal scoping, which the lead agency initiates with in-house planning deliberations, had already begun. However, while NEPA requires the lead agency (RMNP in this case) to collaborate with agencies that are affected jurisdictionally or have special-expertise relevant to planning (RMNP 1997a), lead agencies are afforded some *initial* leeway in determining their potential collaborators; particularly when planning is still in a nebulous stage of development.

RMNP's early planning efforts reflect their definition of 'the elk problem' as one which is regional in nature, and necessitating a broad collaboration among the institutions most affected by—and involved in managing—elk. While NPS directives required the Park to manage elk as it impacted their natural resources and daily activities, RMNP felt a "regional approach [was] the only approach that [could] result in meaningful long-term solutions" (RMNP 2002a;2002b). In other words, elk and the problems they engendered were part of a larger socio-ecological system and needed to be managed as such. However, it was not simply that elk were migratory creatures that had created—and were impacted by—ecological disturbances throughout the



region, but also that elk traversed a number of different political and legal jurisdictions. Therefore, if the elk and vegetative problem within RMNP's boundaries were to be taken seriously, and managed to ensure long-term efficacy, RMNP felt they would need to collaborate with a full, or a sufficiently broad, range of affected actors. Thus, as internal memos and communications (pertaining to early in-house discussions about the potential scope and range of actors involved in planning) indicate, RMNP envisioned two possible trajectories for the EIS: one involving the RMNP as the lead agency with responsibilities for managing elk within the park, and the other involving a joint plan between a multitude of affected agencies that would manage elk at a regional level (RMNP 2002a). However, considering that the problem was regional in nature, RMNP supported the joint-management option, which would enable participating agencies to pool resources and expertise while ensuring that the interests and constraints of each (particularly in regards to law or policy) are incorporated into planning.

The Park's decision to move forward with a joint-management plan was also influenced, as meeting-notes suggest, by informal communications between RMNP and the CDOW and USFS about the latter agencies' potential willingness to collaborate on regional efforts (RMNP 2002a; 2002b). Because the Park lies within a mosaic of lands officially protected and managed by various agencies of land-management, gaining the cooperation of agencies like the CDOW and USFS was fundamental to RMNP's regional management goals. For instance, whereas the CDOW is responsible for managing wildlife throughout the state of Colorado, and dedicates considerable resources to the management of elk within the Estes Valley; the USFS is responsible for managing designated forests and grasslands across the nation, and works to preserve and restore elk-denuded habitats on vast tracts of national forest units surrounding RMNP (FEIS). For these reasons and more, the USFS and CDOW were sought as potential members of RMNP's core-planning team (i.e., the team with full involvement in all aspects of

planning). In addition, given the Park's close proximity and relations with the towns of Estes Park and Grand Lake, both municipalities and the county governments to which they correspond (Larimer and Grand County, respectively) were also invited to participate in planning. Because Estes Park is particularly impacted by elk, the Estes Valley Recreation and Parks District (EVRPD), who oversees many recreational/tourism services and runs a local golf course frequently inhabited by elk, was also asked to participate. Thus, due to the economic hardships that could potentially befall either town—including EVRPD—because of their dependence on elk- and Park-tourism, these entities were also invited to participate as members of the core-planning team.

Due to the preliminary nature of planning up until this point, there was little to no mention about the potential composition of the extended-planning team. However, because members of the extended-planning team are only responsible for “provid[ing] expertise and data on pertinent topics and...review[ing] appropriate portions of the plan and EIS,” it may have been irrelevant, if not impossible, to determine the range of experts needed for plans that were, at this point, perhaps, only crudely formed and subject to change (RMNP 2003: 3).

### **Commencement of Interagency Meetings**

The stated agenda of the first interagency meeting that occurred on August 29, 2002 included: a discussion of the NEPA process, an introduction of the NPS and joint-management plan, a discussion of potential agency roles, interests and mandates, and a discussion of planning needs, objectives, and phases (particularly in regards to strategies of public involvement). After discussing the NEPA process, the Park facilitator introduced the NPS and joint-management plan. The NPS-driven plan, as the presenter explained, “would [allow RMNP to] achieve its in-park management goals” but would not address regional goals, meaning that

“other agencies’ objectives [would likely remain unmet]” (RMNP 2002c: 1). In contrast, the regional plan was explained to allow each agency to participate on a core- or extended-planning team and permit “each agency [to]...meet their goals to some extent, although possibly to [varying] degree[s]” (RMNP 2002c: 1). Although this would entail compromise, the Park stressed that the involvement of each of these actors was “the best way of finding long-term solutions” to a collective dilemma (RMNP 2002c: 1).

At this point, representatives of many of potential collaborators voiced concerns about their relevance or prospective roles in planning. The representative of Grand County voiced that because elk were less of a problem on the Park’s Western Slope (where the town of Grand Lake sits, and in relation to the Eastern Slope where Estes Park sits), Grand County was unsure as to whether and how it needed to participate as a member of planning. In response, an RMNP staff member urged the County to reconsider, citing that both Slopes were part of “one park” (RMNP 2002c: 2). The representative of the town of Estes Park voiced their desire to participate, given concerns about the “importance of elk to Estes Park” and issues of public safety. In contrast, a representative of USFS felt their agency may have been ill-suited for collaboration, stating that “the forest service [was] in the business of managing habitat, not the elk themselves” (p. 2). For this reason, the representative expressed that “the amount of involvement...the forest service would [commit to would] depend on the amount of habitat improvement needed to solve the problem” (p. 2). When further pressed by Park personnel, the representative responded that they were “not sure how much they could help” since the tools available for use by USFS “had not contributed significantly to helping solve the [elk] distribution problem to date” (p. 2). However, while the USFS was limited to tools such as “prescribed burning...to help create elk habitat on adjacent lands,” and hunting-incentives that often failed due to the elk’s retreat “to safe zones provided by...[RMNP] and Estes Park,” the USFS representative conceded that



regional issues necessitated regional management (p. 2). Therefore, while the agency would consider participating as an EIS team member, the representative notified that the agency's obligation to manage CWD within the elk population would greatly influence their consideration of and participation in various management strategies or roles. On the other hand, EVRPD expressed a definite interest in participating in planning at some level due to their concerns about elk-related damage and safety issues, particularly in regards to their management of golf courses in Estes Park.

When discussing the need for planning, conversations focused on the human- and societal-dimensions of 'the elk problem'. As Park representatives stressed, landscaping in and around the town of Estes Park provided elk with fewer incentives to forage elsewhere, thus limiting their dispersal outside of the town (p. 4). An Estes Park representative added that the town's population growth was a major contributor to the problem as well, particularly as urbanization closes off migratory routes frequented by elk and increases the probability of human and elk encounters. And as a speaker for CDOW voiced, the agency was currently overburdened with expenditures of time and money related to "elk eating landscape, becoming trapped, or injuring people" (p. 4). Moreover, because it was "hard to sell the general public on [hunting]...due to [the] limited...opportunity" afforded by the elk's retreat to safe-havens in town and RMNP, the representative felt "there were limited benefits to [C]DOW from existing elk populations, especially given the new disease factor" (p. 4).

As questions about the distribution and behavior of elk became salient, discussions about the plan's scope and objectives also arose. As noted by a staff member of RMNP, the reintroduction of wolves had facilitated the dispersal of ungulates (e.g., hoofed mammals) such as elk in similarly affected ecosystems (such as in parks like Banff and Yellowstone). This led to questions about the ultimate focus of the EIS, i.e., "whether the plan should be primarily a

vegetation plan or an elk plan” (p. 5). In other words, the group recognized that different management trajectories and strategies would stem from how planning was initially framed. And though the practicality of an ecosystem management approach was questioned by the Park’s chief biologist, she nonetheless “felt [that the] management of the entire ecosystem would be [the] best [solution to their collective concerns]” (p. 5).

When the time came to hammer out the group’s preliminary objectives, RMNP, CDOW and USFS agreed their concern was with addressing the population numbers of elk. However, disputes then arose about whether or not to consider incorporating benchmarks to protect the cultural and economic value of elk when developing *objectives* for the EIS. While Estes Park representatives supported this option, the CDOW representative felt this would create undue constraints on what the group could accomplish with the plan as a whole, since both forms of valuation are differentially construed and contested (p. 6). Concerns then arose over the likelihood of meeting all of the team’s objectives with any one management strategy (or in EIS language, ‘alternative’). In response, both the Park’s biologist and a NEPA facilitator (an agent RMNP contracted to guide their compliance with NEPA) explained “that objectives can only be met to some degree,” and that the plan, in turn, would contain stipulations to provide such flexibility (p. 6).

Before the meeting adjourned, participants also discussed potential avenues and forms of public involvement. While NEPA leaves the decision about whether to conduct public scoping to the discretion of the lead or core-members, notables in RMNP had already advocated, during in-house deliberations, “that public involvement...be expanded beyond the basic NEPA requirements” (RMNP 2002b). “[R]ather than inviting non-agency stakeholders to participate directly in developing alternatives,” their stated goal was to open “working group sessions...to all interested parties [so that]...specific issues [could be discussed] without attempting to reach

consensus” (RMNP 2002b). If managed in this way, public involvement was believed to provide two functions. First, it would “help all parties to fully understand the different perspectives” involved in planning (RMNP 2002b). Thus, by bringing different interest groups into contact with one another, all groups would potentially see the necessity or inevitability of compromise. In theory, then, this could help reduce the amount of open conflict during planning. Second, by scoping the public in this way, the interagency team could gain an “understand[ing] [of] what would be acceptable to various public groups” (RMNP 2002c: 6). As this implied, by understanding the complexity of public views, the team could devise plans to anticipate and/or address them in planning while also avoiding the conflicts that could later arise if the public had not been sufficiently scoped. However, because the Park’s NEPA facilitator believed “the public need[ed] something to react to, [such as a]...range of approaches,” the Park agreed to consider conducting a pre-scoping session, which would be less restrictive since it is not required by NEPA (p. 6).

The interagency team then established a preliminary EIS plan and set of roles. As such, the core-planning team was determined to include RMNP, EVRPD, the Town of Estes Park, CDOW and the USFS (who stated that their actual involvement would depend “on the extent to which habitat modification [was] included in alternatives”) (p. 7). The extended-planning team would include the Town of Grand Lake and Grand County, but would potentially, once the following agencies were contacted, also include Larimer County, Grand Lake Metropolitan District, the Bureau of Reclamation (BLM), and affected Native American Tribes. When hashing out the plan’s *need for action*, the team emphasized more of the human-dimensions of the elk problem instead of the relations between elk and vegetation. While the elk problem was stated to have originated from the loss of key predators, the team’s description of the problem’s contemporary dimensions addressed issues such as property damage, personal injury, traffic



congestion, and elk disease before mentioning concerns about the vegetative impacts of elk. After vegetative concerns were voiced, the team then emphasized that the increasing urbanization of the Estes Valley region was largely to blame for the elk's lack of dispersal, resulting in their habituation to and contact with humans. The team's preliminary *objectives* were also decided, and are stated as follows:

- 1) Address size and distribution of elk population
  - ~Maintain a wild and free-roaming elk population
  - ~Restore natural range of variability to extent possible
  - ~Have specific commitments related to size, density, and distribution
- 2) Ensure that strategies and objectives of the plan/EIS compliment those of the Chronic Wasting Disease EIS
- 3) Recognize the need to coordinate the management of natural, social, and economic values of the affected agencies
- 4) Reduce the risk of elk to public safety to the extent practicable
- 5) Address the risk of damage to private property by elk
- 6) Restore the natural range of variation in vegetation conditions that would be expected under natural conditions in the park and select sites outside the park, to the extent possible
  - ~Make specific commitments regarding levels of herbivory
  - ~Prevent loss of aspen clones from the core winter range
  - ~Restore and maintain sustainable willow stands, increasing willow cover within suitable willow habitat

After the establishment of these objectives, the team closed with a discussion about “[w]hat the plan [could not] do because of agenc[ies’] mandates, funds, laws, or other restrictions” (p. 12). For the Park, it was explained that Congressional rulings dictated that the public hunting of elk was not legally permissible in RMNP. The Town of Estes Park voiced similar restrictions about hunting in the town. Since the potential restoration of key elk-predators such as wolves was raised as a potential management option, it was also noted that their reintroduction to non-NPS lands (i.e., any state-managed lands) would require legislative approval as well. According to representatives of CDOW, their agency’s official policy against the reintroduction of wolves or grizzlies could only change with the approval of the state Wildlife Commission (which had voted against the reintroduction of wolves within Colorado).

### **Reconvening the Interagency Team: Meeting #2**

When the second interagency meeting (RMNP 2002d) convened in September 23, 2002, all of the before-mentioned participants were present except for the Town and County of Grand Lake (both of whom decided to participate as extended-team members), Larimer County, and BLM. According to meeting-notes, the official purpose of this meeting was to discuss more aspects of the planning process and the assignment of roles, to refine the plan’s official *purpose* and *need for action*, and to establish preliminary management strategies or *tools*.

Upon the commencement of the meeting, RMNP staff stressed that participating agencies needed to review the preliminary ‘draft project agreement’ before their next meeting. For one reason, NEPA has strict guidelines about which agencies are responsible for fulfilling certain tasks during the EIS; these vary according to the roles agencies agree to play. A second reason, however, is because the plan’s *objectives*, strategies, etc. were being tailored to the

agreed-upon responsibilities and organizational capacities (in regards to law, policy, funding, etc.) of participants. Given the Town of Estes Park's inter-governmental agreement with Larimer County, the Town's representative decided to investigate whether they could represent the County, which was absent and/or uncommunicative with RMNP. However, the representative for CDOW was still unsure as to whether the agency could fully participate on the joint-management plan (i.e., as co-lead vs. a cooperating agency member). Conversely, the USFS had decided to decline their invitation to participate as a core-planning member in favor of participating as an extended-member. And again, the USFS representative clarified that the agency's level of participation would still depend on the degree of habitat manipulation required by management.

RMNP staff also notified the interagency team that a contractor had been hired to assist the Park with developing and preparing much of the EIS and plan. In accordance with preliminary roles, it was also announced that RMNP and CDOW would be responsible for analyzing and writing much of the EIS, while all other cooperating agencies would need to provide technical information when topics appropriate to their expertise arose in planning. The contracting agency, on the other hand, would be responsible for analyzing the information obtained from team members and for incorporating it into the EIS.

According to meeting-notes, a few disagreements arose concerning how both the 'elk population's appropriate size' and the 'reasons for existing conditions' were previously framed (in interagency discussions). While notes fail to specify the details of such disputes or the actors they involved, they indicate that NEPA and NPS policies were a source of discursive confusion. For example, the stated *purpose* and *need* (for action) of an EIS is interpreted—in line with NEPA directives—to reflect "what *must* be accomplished to a *large degree* for [their]...plan to be considered a success" (p. 2, italics added). While this requirement forces agencies to carefully



consider and word their official statement of *purpose* and *need*, some agencies or representatives could be unaware of, or less familiar with, NEPA's legislative requirements. As a result, disputes over the framing of *objectives* or the EIS's *purpose* could arise from participants' differential knowledge and understandings of NEPA directives. Moreover, since the management tools that the team developed would also be required to "be responsive to...[the stated] purpose and need [of the EIS]...to be considered reasonable," the team would need to exercise care to ensure that their declaration of *need/purpose* was framed to correspond with the managerial strategies they developed, and vice versa (p. 2).

With these considerations in mind, the team agreed upon a new and refined *need* statement. The stated need for action now elevated concerns about the *size* and *vegetative impact* of the elk population above prior emphases on their distribution and behavior—and above their former emphasis on the human or social causes of the elk problem. As meeting-notes suggest, this change was motivated by NPS policy which states that Park units are "obliged by law and policy to restore...natural conditions and processes in [the] park" (p. 2). By rewording the *need* statement to place more emphasis on the vegetative impacts of elk, the plan appeared more scientifically-oriented and legally-motivated and/or –defensible. As a corollary, the elk's impact on personal property (damage) and safety were relatively deemphasized (in comparison to early framing efforts) and framed as consequences of the 'unnaturalness' of the elk population (i.e., in terms of its fluctuation outside of the 'natural' range of population variability). The *statement of purpose* was also subjected to careful framing efforts. Because the *purpose* was officially stated to "[r]educ[e] the impacts of elk on vegetation and human-conflicts, and restore to the extent possible, the natural range of variability in both the elk population and affected plant communities, while providing elk viewing opportunities, associated recreational opportunities and economic benefits," it would appear that (the above-

mentioned) NPS directives and concerns about preserving the flexibility of plans greatly influenced its framing (p. 3).

As observer notes suggest, the team was also instructed to deliberate on potential management *alternatives* but was cautioned that, despite of their “unreasonable[ness] due to constraints posed by law, policy, funding, technical or logistic problems,” NEPA directives prohibit their “dismiss[al] from further analysis [unless]...it is clear that there is not a reasonable expectation that constraints could be overcome” (p. 4). Nevertheless, agencies were asked to identify and explain why certain strategies were unreasonable if and when they were considered as such, even though this would not suffice for their dismissal. Two of the more noteworthy obstacles to potential management alternatives that were stated up front concerned public hunting and wolf reintroduction. Here, RMNP reiterated once again that public hunting was not legally permissible in the Park as an elk reduction tool. The CDOW also reiterated that the Colorado Wildlife Commission prohibited wolf reintroduction in the state, while a USFS representative stressed that their agency found RMNP “less suitable for [the] reintroduction of wolves than other locations in Colorado, due primarily to the close proximity to dense human populations” (p. 3).

During the development of potential management tools, the team discussed the potential use of vegetation barriers, direct and indirect elk-reduction methods, the reintroduction of predators, habitat manipulation, and herding/hazing strategies for elk. These strategies were examined for their potential use alone or in combination. According to the group, barriers could be erected around vulnerable vegetation but would likely prevent other animals and wildlife from accessing vegetation and create unsightly and ‘unnatural’ views for Park visitors. However, given how vulnerable vegetation is spread throughout the Park and Town of Estes Park, fences would need to be used in residential and business areas in order to

achieve EIS *objectives*. In regards to direct elk-reduction methods, the team considered creating special hunting licenses or incentives, seeking legislation or policy changes to gain permission to use public marksmen to reduce elk in Estes Park or RMNP, and/or using deputized rangers to cull or euthanize elk. The benefits the team identified with these methods included the rapid reduction and dispersal of elk and potential economic gains associated with hunting licenses. Costs included offending those opposed to the lethal reduction of wildlife (framed as a threat to visitation revenue and RMNP reputation) as well as the economic resources needed to dispose of elk carcasses. Indirect methods of elk reduction were also discussed which, in contrast, would mainly involve the herding and capturing of elk to administer anti-fertility agents. The concerns associated with this strategy were numerous but mainly involved a lack of proven efficacy (in regards to contraceptives), the unknown biological and ecological consequences of such tools, and the potential for offending visitors to the Estes Valley if they were implemented.

The potential reintroduction of wolves was palatable mainly because the absence of predators—particularly wolves—was an officially stated reason (encoded in the statement of *need*) behind the growth and sedentary behavior of the elk population. However, given CDOW's opposition to wolf reintroduction in the state of Colorado, reintroduction was now framed as an option that would only take place within Park boundaries. Nevertheless, many agreed that wolf reintroduction would "decrease...the prevalence of chronic-wasting disease" (since wolves would kill sickly prey the easiest), and "restore the natural predator-prey relationship, rather than simulat[ing] it" (p. 6). Advocates of wolf-reintroduction would likely also be pleased, but "hunters, ranchers or others with...utilitarian attitudes towards elk" were considered to be less likely to support such a strategy (p. 6). Moreover, because wolves would likely wander outside of the Park, it was feared that citizens might grow fearful of being harmed by wolves (in terms of human- and pet-safety).



Herding and hazing strategies were also envisioned as potential tools for dispersing elk and making them less damaging to vegetation and less habituated to humans. However, the group could not think of any benefits this strategy would provide beyond its use for elk dispersal. Instead, many noted that harassing elk with “noisemak[ers], rubber bullets, helicopters, [or] golf carts” would “be offensive to some people’s social values” and would create noise that could disturb visitors’ experience of RMNP (p. 6-7). The team also questioned the efficacy of such tools because steering a large number of elk to desired habitats would necessitate complicated logistical arrangements among implementing agencies and affected municipalities and property owners. While habitat manipulation was also considered for use as a potential management tool, the team’s discussion of this topic was cut short by time constraints. Nevertheless, the group questioned its efficacy as well since the USFS received marginal benefits from their use prescribed burning (which, in addition to fencing, was the primary means for manipulating habitat).

### **Preliminary Draft Project Agreement**

On September 25, 2002, a staff member from the Park circulated (via email) a draft project agreement to participating interagency team members (RMNP 2002e). The agreement summarized what agencies had agreed to during previous (formal) team meetings and was circulated to ensure that agencies had time to think about and revise their potential roles and contributions (they were permitted to request revisions for certain aspects of the plan) before agreements were finalized.

The document pertained to the regional/joint-management plan that agencies had agreed upon and listed which agencies were on the core- or extended-planning team and

clarified their formal responsibilities and tasks. While the *purpose* and *need* for the EIS were framed identically to how they were framed in the prior meeting, the draft's *project background* now emphasized that "[t]he appropriate population size and associated effects of elk [had been] intensely debated since the 1930s." While the *background* is separate from the discussion of the plan's *purpose* and *need* (and is not a NEPA-required topic of explanation, but rather unique to the agreement), the way it was framed put more emphasis on the complexity of the elk problem and of addressing its myriad impacts than was previously articulated during interagency meetings (however, this was nonetheless designed for a different audience, i.e., participating agencies rather than NEPA authorities). Because framing their stated *purpose* or *need* in this light may have complicated efforts to build a convincing managerial rationale, this could have provided a disincentive for employing such language within the EIS itself.

As the document indicates, all the previously determined members of the core- and extended-planning team were still listed as members of their respective teams. The Town of Grand Lake, Grand County, and USFS were now formally listed as extended-team members. However, as the document states, Larimer County, BLM, Grand Lake Metropolitan Recreation District, Native American Tribes, and the USFS could still be admitted to core-member status if certain aspects of planning were to change (i.e., if the scope or objectives of planning were to become more relevant to their objectives or interests). The document also clarified that "[c]ore planning team members [would need to] be present at all internal and public scoping meetings; [and available to] develop specific alternatives...evaluate [their] potential impacts...and [to] write or review appropriate portions of the Plan/EIS" (p. 5). The extended-planning team, by contrast, would "be periodically updated by the core planning team" and would need to "participate in meetings as needed, provide information within their area of expertise or jurisdiction...and review appropriate portions of the [plan]." By specifying the responsibilities

associated with these roles, the document served to underscore the commitments and level of involvement expected from different membership roles.

The document also described that “extensive public involvement opportunities” would be provided during the EIS (p. 5). The stated objective of public involvement was “to gather information and viewpoints on a wide range of issues from the general public and non-governmental organizations” (the latter of whom was also considered a member of the public, as were businesses and other special interest groups) (p. 6). This would include obtaining their views “about the development and range of management alternatives, the selection of a preferred alternative, and [the] potential effects of each alternative identified and discussed [during planning].” To this end, the team agreed to circulate public newsletters at least twice annually to keep citizens abreast of planning developments, and to frequently conduct open-houses, send press releases, etc. Core planning members would also be expected to present information at all public meetings and handle questions that might arise. The document also specified what public involvement would formally entail. This would include conducting pre-scoping with citizens so that their views could be summarized and incorporated into the Park’s official Notice of Intent as well as the conducting of open houses to allow citizens to review important topics (e.g. the draft itself, certain options, objectives, etc.) at various phases of planning. As a testament to the Park’s concern for addressing public dissent, it was also stated that “the planning team [would] make an effort to revisit alternatives and hold [more]...open houses for public comment [...] [i]f considerable controversy exist[ed]” (p. 7).

The document also explained NEPA protocol for the preparation and sequential-ordering of the draft, final EIS, and record of decision phase to participating agencies. In addition, the document stated that scientific information would be continuously sought and incorporated into planning as it became available and that this, in turn, would necessitate



leaving management strategies flexible to “allow the...team to adjust alternatives as new information [was] provided” (p. 7). As the document states, this is an essential part of ‘adaptive management’.

### Revisions to the Draft Project Agreement

Before the interagency team met for their third formal meeting, the Park circulated an email among select personnel and NEPA facilitators announcing their desire to revise previous plans for involving the public in the EIS (RMNP 2002f). The email was authored by the Park’s preeminent EIS planner and suggested that, instead of conducting pre-scoping as described before, the team should submit a more general *notice of intent* (NOI) and “during scoping ask the public to respond to the management tools [the team] identified and the...intensity/speed of recovery options ([and] not formulated *alternatives*)” (RMNP 2002f, italics added). While the rationale for such revision was not explicated, this strategy would nevertheless afford the team with more leeway in developing the EIS. For instance, since pre-scoping would have given the public the opportunity to help with the plan’s framing, the plan would have been more delimited upon its publication in the Federal Register. Because this would shape the plan’s legal trajectory and delimit subsequent formulations of the plan’s *alternatives*, *objectives*, etc., the team’s decision to abandon pre-scoping and avoid determining concrete *objectives* would leave future planning decisions less constrained by its official framing. Moreover, by also “limit[ing] the [team’s] discussion to the general *approach* [they would] use to develop alternatives,” the resulting NOI, as the author implied, would provide more flexibility to planners (italics added). And when scoping finally occurred, the author explained that there would “be plenty for the public to respond to” if they were presented “with all...the management tools [the team]

identified” and instructed about how alternatives would be developed in light of these prospective tools.

### **Interagency Meeting #3**

The meeting on November 25, 2002 largely concerned revisions to prior *purpose* and *need* statements as well as to the potential management tools, constraints, and the project agreement (RMNP 2002g). While CDOW confirmed their status as a cooperating core-team member, BLM, the Town and County of Grand Lake, and Larimer County were all absent from the meeting and had not formally replied to previous invitations to participate as members of the interagency team.

One of the first items the team agreed to revise was how the ‘natural conditions’ of elk was framed in prior meetings. Because the term appeared in the first sentence of the team’s statement of *purpose*, the group wanted to clarify its underlying meaning. As observer notes suggest, while efforts to clarify the term were relatively unfruitful, “it was agreed upon that, for now, it would be defined as ‘conditions which would be expected absent the dominion of modern humans” (p. 1). A number of relatively minor revisions were also made to how certain options or strategies were conveyed. Notable revisions focused on substituting assertions about what ‘would’ happen for what ‘could’ happen, adding caveats such as ‘when compared with’ or ‘with certain exceptions’, etc. To make the team’s elk-distribution strategy more appealing and less offensive to certain groups, the tactics were reframed as elk ‘hazing’ rather than ‘harassment’. In addition, the team felt it was necessary to add that wolves could prey on pets and that their reintroduction might “have no effect on elk population numbers or distribution” (p. 3).

Two additional management tools were also added. The first involved the potential purchase of high-quality private lands to provide additional elk habitat. The second involved either the reintroduction of beaver (which was consistent with the team's eco-regional management approach) or the simulation of beaver dams, both of which were thought to improve willow communities.

Agencies were also asked to send the names and groups of those they would like added to the mailing list of public stakeholders. While meeting-notes state that "[o]nly known public stakeholders [would] receive scoping information" about the EIS, there was no mention of *how* or *which* stakeholders were to be identified (p. 4).

After agencies received clarification about NEPA protocol, the team also discussed the official timeline of planning. As meeting-notes indicate, it was decided "after some discussion...that [planning] could be shortened to a two-year timeline by condensing the time between meetings [as well as]...the time needed to prepare...[and] respond to public comment[s]" (p. 5). This seems to suggest that the team was confident enough in their planning efforts to believe the EIS could be streamlined (since many were undoubtedly aware that EISs are typically lengthy endeavors).

#### **Interagency Meeting #4 and Follow-up Meeting**

The interagency team reconvened on February 4, 2003 to discuss frameworks for developing management tools and *alternatives* (RMNP 2003a). While meeting-notes indicate that CDOW backed out of their role as a cooperating core-team member, there is no stated rationale to explain their decision to participate as an extended-team member instead.



To develop strategies for creating alternatives, the team entertained different hypothetical alternatives and frameworks. The first framework the team developed aimed to maximize ecological restoration within a twenty year time frame. As an indication of how CDOW's (seemingly voluntary) demotion to the role of extended-team member affected the scope of planning, the team was cautioned that management strategies could only "refer to RMNP and Estes Park...subpopulations [of elk]," rather than to the populations of Estes Valley as a whole (RMNP 2003a:1). Although the tool was developed only as a test-case for the development of subsequent tools, it was framed as a twenty year plan involving the use of direct culling efforts, fences covering "all aspen and willow on the elk core winter range [for 20 years]," controlled burns, the propagation of vulnerable vegetation, and legal changes to permit hunting in areas previously prohibited (p. 2). Given previous deliberations by the team (during which tools were designed as stand-alone strategies potentially in need of complementary strategies), the range of tools evidenced by this framework may serve as a reflection of the difficulty the team had with addressing their stated objectives without resorting to a complicated arrangement of tools. For instance, the team felt this framework was necessary in order to allow elk to roam freely while achieving reduction quotas (both of which were currently objectives). However, the team acknowledged that this strategy would impact visitors' aesthetic enjoyment of the Park and would potentially result in fewer numbers of elk for viewing or hunting. The second tool-set involved the use of indirect methods such as elk contraceptives but still relied on the use of fencing and the propagation of vegetation. Because the administration of contraceptives would require elk to be trapped, it would also require the creation of trapping facilities. And since indirect methods would not disperse elk as quickly or broadly (if at all) as direct methods, extensive hazing efforts were thought to be needed to achieve redistribution objectives.

Participants were also cautioned about NEPA's legal requirements for the development of management strategies and tools. As the facilitator reminded the team, while "the alternatives considered in the EIS need to be reasonable and [representative of]...a full range [of potential options]," their feasibility would largely be judged in terms of their 'technical' and 'economic' feasibility (p. 7). In other words, management alternatives need only be logistically and financially practical to be considered as prospective tools. However, this criterion also meant, according the Park's NEPA facilitator, that prospective alternatives "requiring a change in policy or even law (such as requesting Congress to allow hunters in the [P]ark) [would] not necessarily [be considered]...infeasible" as long as they were practical and reasonable by these more proximate standards (P. 7). Thus, while many of the strategies considered by the team were seemingly improbable (some of which the team had already recognized) for actual implementation (e.g. the use of helicopters and rubber pellets to simulate the predator-driven dispersal of elk), they were reasonable under NEPA directives, which necessitated their incorporation as viable planning options for both decision-makers and (eventually) citizens to consider. At this point, the meaning of 'technical' and 'economic' feasibility was unexamined, however.

Before developing alternatives further, the team agreed to add a new statement to the list of objectives. To reflect the team's concern about elk dispersal, which factored heavily into prior descriptions of the *problem* and *need*, the following statement was added to EIS objectives: *Reduce density and re-distribute elk to reflect a more natural state to the extent possible*. The team also discussed incorporating strategies to deal with the CWD-testing of elk. However, while many supported this effort, the ways the problem and need for the EIS and its objectives were framed were thought to prevent CWD-testing from being considered as a viable option on its own. In short, the facilitator believed it "would require a separate planning

process” since plans were oriented towards the alleviation of elk and vegetative issues (p. 8). To get around this dilemma, it was noted that CWD-testing could be pursued as an additive or ‘opportunistic’ component of strategies involving the capturing of elk (which was part of the contraceptive and/or direct reduction strategy), which would thus allow for its consideration as a technique for ‘adaptive management’. And though meeting notes fail to specify which participants were advocating for CWD-testing, this strategy would undoubtedly benefit CDOW, which was currently (legally) responsible for monitoring the prevalence of CWD in elk.

Because NEPA requires agencies to consider a no-action alternative alongside a range of active management strategies, the team discussed how each agency currently manages elk and addressed the consequences this has for each agency and for the character of the problem itself. Representatives for CDOW, which largely relies on public hunting as an elk management tool, specified that hunting was becoming less effective with each year due to urban development and expansion. Estes Park representatives specified that personnel were monitoring the elk population and that the Town relied on police officers that they hired to keep people away from elk during certain events or periods. Officials for Larimer County, which is on the extended-planning team, explained that the agency ran a vegetation monitoring program that dealt with areas overgrazed by elk and, as a result, home to an expanding population of noxious weeds. The County also used land-use zoning to create migratory paths for elk.

When the conversation turned back to the consideration of management frameworks, the first strategy the team considered involved habitat manipulation. Here, fences would be installed to both protect vegetation and exclude elk from certain areas altogether. Without the use of reduction tools to complement this option, it was thought that elk would need to be hazed or herded into areas where habitat was improved by prescribed burning techniques. The team was nonetheless concerned about the impacts of this alternative on citizens’ wildlife and



aesthetic values, on other fauna needing access to vegetation and habitat, and on the city of Loveland—which lies approximately 30 miles south of Estes Park—where elk would likely migrate if hazed and excluded from vegetation in the Estes Valley. Given the last scenario, elk would likely also use and congest highly-traveled roads connecting the two towns. However, considering that herding and hazing would be used to fulfill the need to disperse elk, CDOW’s current policy against their use and/or participation in elk herding was noted to make this strategy problematic. The transplanting of elk to other regions and jurisdictions was also considered as an option to fulfill such dispersal needs, but was also considered problematic because of their potential exposure to CWD and because recipients (largely the USFS) would have to formally agree to their relocation.

Under the culling option, the team considered the logistical, financial, and, to a lesser degree, the social consequences of elk reduction. While culling was perhaps the most obvious option for reducing the numbers of elk, the team was concerned about the ramifications of elk culling methods. First, due to the possibility of CWD transmission, the use of trapping facilities to cull elk would necessitate the elimination of captured elk (since CWD is transmissible and only known through testing). Second, the use of helicopters and direct culling and dispersal methods—a number of which the CDOW was legally barred from using—could make elk disperse onto private lands where they could damage private property. Third, the culling of elk would necessitate educational workshops where the euthanasia of elk could be thoroughly explained to public. And since the culling of elk would result in a great number of animal carcasses, they would need to dispose of elk, possibly through donating meat—which itself would entail that all meat be tested for CWD prior to donation.

The contraceptive option was less fleshed out than other options. The team mainly discussed its biological/ecological impacts and the technicalities associated with its

implementation. Here, concerns were expressed about its long-term impacts on non-target wildlife and on the mating behaviors of elk—the latter of which is a major tourist draw in the fall of each year. Given that long-lasting contraceptives were undeveloped at this point, the group also expressed concern over the frequency of their administration and of the logistic requirements this would entail. Again, the hazing tactics this would require was an item of concern for a number of those involved.

The team's discussion of wolf reintroduction marked an interesting turn in deliberations and the EIS. As the team was told, following the Park superintendent's conversation with a wolf expert—who was responsible for reintroducing red wolves to the southwestern U.S.—from the Denver zoo, both came to the conclusion "that reintroducing wolves into just RMNP [was] pointless because [the] amount of area [it provided] for...wolves [was] inadequate" (p. 8). In turn, they believed "that [the]...successful reintroduction of wolves [would require]...introduction...[to] be done on a larger scale such as regional[ly] and [would] need to involve the cooperation of agencies such as the state of Colorado....USFS, and other land management agencies." However, because CDOW was opposed to state-wide reintroduction and the U.S. Fish and Wildlife Service (USFWS) had de-prioritized much of Colorado for possible reintroduction, the team decided that the "time and...coordination of a large number of people...needed to make this a success [made] the regional plan infeasible" (p. 9). The team thereby decided to explain in the EIS, and to the public, why regional reintroduction was infeasible. Nonetheless, while regional introduction was 'technically' and 'economically' infeasible, since their reintroduction to the Park was still feasible by NEPA standards, the option could not be dismissed until assessments demonstrated its infeasibility. In fact, since NPS directives obligate RMNP to restore, to the extent possible, 'all species that have occurred....as a result of natural processes on lands designated as units of the national park system,' the team

had additional obligations to determine the feasibility of reintroducing wolves to the Park (FEIS:31, quoting NPS 2006b, section 4.4.1.3). Thus, the team would have to model wolf dispersal and determine how wolves might impact personal safety and private property.

The option of public-hunting arose again as well. This time, the team decided that public-hunting within the Park would need to be supplemented by hunting outside of it. This, as the team discussed, would allow hunters within the Park to indirectly disperse elk via hunting in ways that would enable hunters outside to further reduce their numbers. This idea was particularly supported by CDOW, who believed the increase of vegetation through prescribed burnings would attract dispersing elk in areas easily accessible to hunters outside of the Park. However, given concerns about the transmission of CWD through hunting (both in terms of carcasses left laying the Park and hunters' transportation of CWD meat), the team agreed that further deliberations were needed to decide whether and how to deal with CWD as it related to public hunting.

### **Final Project Agreement**

Before the last interagency meeting was adjourned, RMNP staff announced that an alternative-development workshop would take place February 14<sup>th</sup> and that the interagency team would meet to review workshop results on March 4. While the recorded notes from these meetings were unable to be found, the final project agreement that agencies signed during their March meeting illustrates the status of their agreed upon roles and responsibilities, as well as their preliminary orientation towards planning for the EIS.

Because recent meetings of the interagency team largely concerned developing generalized alternatives and a framework for choosing and refining the tools they would entail,



there was little difference between the draft and final project agreement. As the document states, the agreement's purpose was "to establish how an Elk and Vegetation Management Plan and Environmental Impact Statement (Plan/EIS) [would] be prepared for the RMNP area [as]...required by...NEPA [,]...laws applicable to the Park, and NPS policy" (RMNP 2003b:3). More specifically, it identified "the products to be produced, a project schedule, and the roles and responsibilities of...participating agencies" (p. 3). For this reason, it was more of an agreed-upon interagency framework for *developing* the EIS rather than a formal determination of the scope, *objectives*, and strategies of planning. As such, the main items of interest are the continued emphasis on the team's dedication to a regional-management plan as well as Larimer County's formal decision to participate as an extended-planning team member.

#### Notice of Intent

On May 29, 2003, RMNP published their formal declaration (i.e., the notice of intent) that an EIS had begun in the *Federal Register*. Here, the "regional nature of issues concerning management of the migratory elk herd" was emphasized, as was the collaborative agreement among the before-mentioned agencies (RMNP 2003b:3). In line with interagency deliberations, the problem with elk was again described, first, as a result of the absence of important predators and, second, as a consequence of "extensive land develop[ment]...and elk habituation to residential areas." By separating, conceptually, the development of management 'strategies' from the development of *alternatives*, RMNP was able to state that the "planning team [had] not yet created *alternatives* [but would] draw heavily on...public input to both modify work to date and begin to build *alternatives*" (p. 3, italics added). When describing the stated *need* for planning, RMNP again emphasized their obligation to protect and restore vegetation while

describing the elk's impact on Park resources and personal safety and private property in Estes Park. The Park's stated *purpose*, i.e., "what the plan must do to be considered a success," became much more truncated than it had appeared in previous articulations by the team, however (p. 3). Now, it was framed to

Reduce the impacts of elk on vegetation, as well as human/elk conflicts, and restore, to the extent possible, the natural range of variability in both the elk population and affected plant communities, while providing for elk viewing opportunities, associated recreational opportunities, and economic benefits (p. 3).

However, since the plan's *purpose* was officially declared at this point, the Park could now discuss and develop objectives with the members of the public while knowing that their objectives would only be bound to this generalized (and truncated) statement of *purpose*.

#### **Interagency Workshop on Public and Stakeholder Involvement**

Prior to the commencement of public scoping, RMNP gathered the interagency team together to discuss and develop protocol for involving the public in planning. In this meeting, which occurred on July 28, 2003, the Park introduced the interagency team to the organization Parsons, which was contracted to assist the team with planning for public involvement, for writing the draft and final EIS, and for responding to public input. This organization, which had a long history of providing technical and support staff to NPS units, was explained as being responsible for overseeing all aspects of public involvement and, in many ways, for acting as a

public relations agent (which is seen in their responsibility for writing publically-released documents such as the draft and final EIS) during the EIS.

This workshop involved a lengthy and detailed presentation by RMNP and Parsons concerning the phases and technical dimensions of public involvement. In line with NEPA protocol, the goal of public involvement was stated as follows: “Public scoping is an early and open process to determine the scope of environmental issues and concerns” (RMNP 2003c:4). More specifically, public scoping would involve a collaborative determination of important issues and, conversely, the elimination of unimportant or irrelevant issues.

The organization of public scoping sessions was also described. Prior to the commencement of workshops/presentations, note cards were to be distributed to citizens for the purpose of collecting their input about the meeting’s ‘discussion topic’ (p. 5). Afterwards, important interagency team members would be introduced, followed by a description of the project’s background and an overview of the plan. The official objectives and discussion topics of the workshop would then be discussed and citizens would be broken into small ‘break out’ groups. During these groups, citizens would introduce themselves and choose a group ‘facilitator’ and ‘recorder’. The facilitator would be responsible for having each group member list three issues of concern, after which each member would be asked to describe and rationalize their number one issue, which the recorder would be expected to record. Finally, the facilitator would be responsible for analyzing listed concerns and for assisting the group in prioritizing them. Facilitators would then be responsible for presenting, along with other group-facilitators, their results to workshop participants. Workshops would then be adjourned and the interagency team would examine public input.

Because the team had expressed interest in earlier meetings about conducting stakeholder interviews to ensure that a representative body of the public had the chance to



voice their opinions and concerns, the presentation also illustrated how stakeholder interviews would occur. The stated criteria for involving stakeholder was to select politically sensitive groups, neighbors bordering RMNP, regional/national interests, and/or a “[b]road spectrum of stakeholders who have a vested interest or who are passionate about elk management issues” (p. 7). Of interest here is how a broad spectrum of public stakeholders was said to include: “business[s], tourist industry [actors], federal/state agencies, political representatives, hunters, city/recreation districts, ranchers, *prominent individuals*, Native American interests, conservation organizations, knowledgeable interests, *IET members*, etc. (p. 7, italics added). While this list may have resulted from efforts to brainstorm about the potential interest groups needed to fulfill a representative sample of public interests, efforts to represent interagency team members and federal/state agencies (to name a only a couple) in this group would enable those in charge of determining the EIS to speak on behalf of citizens as members of the public as well. However, as handwritten notes added to this document indicate, the Park’s superintendent wanted to devise other methods for obtaining representative input, out of concerns that some stakeholders would feel overlooked by such a method.

### **Public Scoping and Education**

This section addresses the interagency team’s initial presentation of the EIS to members of the public and the manner in which public input was solicited and later analyzed.

### Summer Newsletter 2003

In line with the interagency team's project agreement, RMNP published a summer newsletter in 2003 informing citizens of the impending elk and vegetation management plan/EIS. Beyond the NOI, which few citizens had undoubtedly read, the newsletter was the first opportunity many citizens would have had to formally learn how agencies perceived and planned to manage elk and vegetation. As such, the newsletter reflects the team's effort to educate citizens about an extensive range of issues concerning the socio-historical origins of the elk problem, the management dilemma it entailed, the relationship between NEPA and planning requirements and activities, and much more. However, while this did much to convey the complexity of managerial decision-making, which it did partly by mentioning the number of agencies and legal constraints (which were more intimated and less explicated) involved in planning as well as the assortment of tools that might eventually be employed; a clear and detailed discussion about the socio-ecological dimensions of the elk and management 'problem' (e.g. such as the relation between urban expansion, hunting policies, and elk behavior or population size) was noticeably absent. Thus, while the public was afforded a view of the breadth of contemporary management and planning issues, the educational orientation of the newsletter may have constrained the Park's ability to thoroughly discuss, and hence break down, more complicated dimensions of planning and its associated constraints.

As prior planning discussions concerning the goals of public involvement suggest, the educational orientation of the newsletter was aimed to ensure that citizens would be able to meaningfully converse and provide input to planners about issues *important* to the EIS. The newsletter's language reflects this, which is seen in the use of section headings such as 'Where in the process are we?' and 'How can I participate and stay informed?' (RMNP 2003e:4-5, italics

added) It is also seen in instances where the newsletter explicates the public's role and specifies the kinds of input *the interagency team hopes to receive*. Thus, while the public was told that the "planning team welcome[d] [their] suggestions regarding additional management approaches...and [other] issues or concerns [needing]... addressed," citizens were directed to "focus on identifying approaches that could work, or...should be addressed, rather than describing why...the tools identified [by the interagency team] *would not* be acceptable" (p. 3, italics added).

While NEPA describes public scoping as means for 'determin[ing] the scope of *environmental issues and concerns*' that are important to the public, the Park's request for input seemed to convey a relatively narrowed sense of the types of input relevant to decision-makers (p. 4). By asking the public to focus on 'approaches' that 'could work' or 'should be addressed', the newsletter is essentially requesting that commenters restrict their input to discussing management strategies or tools. In other words, by directing members of the public to focus on identifying 'management approaches', citizens are being directed to consider how pre-existing plans could be achieved through other and potentially similar means; not to consider whether planning (i.e., managerial action) is warranted or whether plans (i.e., the EIS or certain aspects of management or decision-making) are reasonably defined, organized, and/or justified. Therefore, while commenters could have misgivings or grievances about the stated purpose, need, and/or scope of planning, members of the public might interpret the newsletter's request as a discouragement against critical input. In response, members of the public might feel as if these topics are unreasonable to discuss or even irrelevant to planners. If so, they may be less likely to raise such concerns. However, even if such concerns were raised, the framing of public input requests could also reflect the interpretive frame that analysts will/would use when



analyzing their input. In this case, it could reflect the unlikelihood that such comments will/would be seriously considered during planning.

Nevertheless, the newsletter ends with a detailed description of the various ways that citizens could participate in scoping. As such, the public would have the opportunity to attend one or more of the five public scoping sessions held (during September 2003) in Estes Park and its surrounding municipalities (including Loveland and Boulder, which are approximately 30-40 miles from RMNP). They could also, as the newsletter specified, provide written comments through the Park's website, or through email or the mail.

### **Results of Public Scoping**

By the time the public scoping period ended on October 10, 2003, 373 documents had been received and, together with note cards collected at public scoping sessions, yielded a total of 1,137 comments (note that multiple 'comments' could result from a single submission of input). Parsons, with the help of the interagency team, developed a coding structure to "sort comments into logical groups by topics and issues" (RMNP 2003f:2). While 'topics' were determined, and the coding structure derived, "from an analysis of the range of topics discussed during internal scoping and meetings of the [interagency team], past planning documents, NPS [directives], and the comments themselves," 'issues' were defined as comments about this range of topics and could be either questions or statements. While the content analysis document specifies that public input was not collected for the purpose of "a vote-counting process," and that "the emphasis was on the content of a comment rather than the number of times a comment was received," tallies were nonetheless made for the type (e.g. such as about elk reduction or about matters of policy) of comment received, whether comments supported

or opposed certain strategies/tools, and whether comments were submitted by businesses, individuals, organizations, etc. (p. 3).

The content analysis of public input was made available for the team's review on December 10, 2003. As a testament to the power of agency framing, it was announced that the bulk of public input was primarily in response to two questions emphasized at public presentations—which was only one forum through which commenters expressed their views. This is illustrated in the *summary of public comments*, which states that participants at public scoping were asked: “What are the most important issues and concerns you have (1) regarding elk and vegetation in RMNP and the surrounding areas; and, (2) regarding the identification of CWD prevalence in elk within RMNP?” (p. 5). Thus, while public input was solicited in a variety of ways (i.e., requests for their feedback were framed differently in presentations, newsletters, the Park's website, etc.), the significant emphasis placed on the topic of CWD in public presentations led “most respondents at...[these] meetings [to address]...CWD,” while commenters participating in other ways (e.g., such as email, mail, and on the web) provided input about a much larger range of issues and concerns. Because it was recognized that this could make it difficult to make inferences about citizen's concerns and priorities, figures and tables were developed to both include and exclude comments about CWD.

Although calculations of the frequency that certain topics arose were interesting to examine, as were the percentages of business relative to individual claimants, neither source was explicitly examined or useful (largely because they were not sufficiently assessed) for shedding insight into the substance of public input. However, given that the stated purpose of scoping was to yield “information about what issues are important to the public as well as...to gather additional ideas about potential management tools,” the methods and analytical tools employed here were likely to suffice in this regard (p. 1). As such, according to the analysis of

public views, the Park determined that 90.1% of respondents supported “some type of population management or control” (p. 6). This was significant because the team, and the Park in particular, was concerned about the potential ramifications for regional visitation if respondents failed to support or recognize the need for managerial interventions. However, because respondents were greatly divided in their opinions about the need for and acceptability of different management strategies, the “take-home message” presented to the team was “that the topics, issues and potential management...tools [that they had developed would] need to be carefully considered [...] [and] that reaching a consensus [among public actors would] be challenging” (p. 42).

While the frequencies of those supporting and opposing different management options or tools were calculated by the team, these results were not analyzed in the document’s conclusion. This is a surprising omission considering the Park’s sensitivity to the perceptions and attitudes of visitors and locals alike (although many more categories of persons/entities were actually scoped). For instance, while analysts note that respondents overwhelmingly support some form of managerial action to control vegetation and/or elk (131:10), respondents also overwhelmingly supported wolf reintroduction (103:27), culling by agency staff (95:13), hunting inside the park by public marksmen (73:33), and the use of fertility control (75:23) (p. 11). Although this reflects support for a diversity of tools, since each tool is supported to a greater or lesser degree by respondents, this could have been potentially used by the team to guide their selection of alternatives. However, since public scoping was not to be used as a voting-process, and since the team already knew that certain options were less likely to be implemented than others, gauging the public’s support for particular tools or strategies may have been less important than demonstrating their differential views. Nevertheless, because several studies of public opinions and views would later be commissioned by the Park, the treatment of public



scoping results as mentioned here could have served, either intentionally or inadvertently, to separate information obtained during scoping from that obtained during non-required studies of public views. In other words, if the input obtained and analyzed during scoping was insufficiently clear (which is a function of its methodological/analytical treatment), there would be less ramifications for how it was used than if it would have been otherwise. Thus, public polls could be used to obtain similar information in a much more informal way.

Because the public was asked to comment on potential management tools during public presentations and on written request forms, it is perhaps unsurprising that 76% of all comments fell under the topic of ‘potential management actions’ (p. 42). For example, public input forms solicited input in the following way: “What are the issues or concerns about *elk and vegetation management* that you think we should consider?; and, “Tell us what you would like to see *included* in an *elk and vegetation management plan*” (p. 47, italics added). As this illustrates, commenters are being directed, again, to comment on the plan or, more specifically, to comment on additions that could be made to existing plans, rather than to criticize or voice concerns about what should be left out of the plan (or to comment about whether a plan is even needed or how planning should be determined more generally). However, while commenters were asked to “identify issues and potential management actions that had not previously been considered,” it is perhaps also unsurprising that the team felt “[n]one of the comments presented any unique perspectives or approaches that [they they had]...not [already] identified earlier”—with the exception for ‘the feeding of elk within the park’, which, nonetheless, was prohibited by NPS policy (p. 42). However, it is important to note that, while the interagency team had considered a wide range of potential tools and alternatives and acknowledged that many inter-organizational constraints (largely of a legal or financial/logistical nature) would affect the feasibility of their implementation, little was disclosed (explicitly or implicitly) about

the extent of planning that had already taken place prior to the NOI. While this enabled the team to keep planning flexible, it left the public in the dark about the extensivity of prior planning efforts. Nevertheless, because the EIS team is composed of technical (ecologists, resource specialists, etc.) and organizational (administrators, legal compliance associates, etc.) experts, it is only reasonable that the team would have collectively anticipated many of the suggestions offered by the public. Whatever the case may be, asking the public to identify additional management tools allowed the team to ensure they had identified and considered an exhaustive range of potential tools before analyzing and comparing their effectiveness.

It is also insightful to consider what commenters did not discuss. While many commented about management tools or on issues under the general category of 'elk' (which was somewhat of a miscellaneous or catch-all category concerning all elk-related input), very few commented about the ecological dimensions of planning (e.g., *the topics/issues of biodiversity, hydrology, ecosystem restoration, or wetlands*), matters of policy or agency partnerships (*park operations, partnerships/cooperating agencies, NEPA*), or about the plan's purpose and need (*purpose and need*) (p. 7-8). Although comments falling under the topic of the plan's purpose and need may not have actually dealt with criticisms or disputed how agencies framed the plan, comments questioning or critical of interagency plans or planning efforts would have nevertheless fallen into one of these underrepresented categories.

Despite the enormity of data obtained from public scoping, since it was ungeneralizable to the larger public (N=373) and not intended to yield an in-depth understanding of public beliefs and attitudes, little can be *explicitly* inferred from the results of content analysis. Yet it could have yielded a wealth of insight into the public's perceptions and attitudes of management activities, goals and *objectives*. While this could have been useful for anticipating public sentiments (some of which undoubtedly affect future visitation rates and attitudinal

dispositions) and addressing them accordingly, little of this data was formally utilized to these ends. Nevertheless, it is worth noting that, while the document only discloses a limited range of comments for each topic and issue, a number of commenters were well-informed about matters of policy, law and organizational practice as well as critical of managerial practices, assumptions and plans. The following provides an illustration of a few of these comments:

(Filed under) **General and population-overall** (p. 19-20)

Research on the RMNP website about elk management states, “we extrapolated to equilibrium assuming that no significant changes in current management, including harvest regulations, occur and that male survival in the park will not continue to increase.” This leads me to believe that the park populations are fairly stable and density dependent, as evident in this statement of the research: “we concluded that the town subpopulation is growing, even though the park subpopulation is no longer growing.” With this in mind, is there really a need for management inside the park at all? What this sounds like is that there is a need for management outside the park. This is not the responsibility of the NPS, nor is it the issue that is being addressed through this process.”

**Impacts to local business** (p. 37)

“Business economy is not a stated purpose [of the Park] nor is private property damage.”



### **Policy and regulation (p. 23)**

“How is the Park Service going to be able to effectively manage natural resources given its tradition of minimal or no direct management due to political and social constraints? Preservation is a primary mission of NPS.”

In summary, while much information was obtained from public scoping, the underlying goal of public scoping appears to have been more about gauging public sentiments and, perhaps about, confirming that a diverse and conflictive range of views are held by members of the public, and less about assessing the meanings or the determinants and reasonableness of such views.

## **Planning for the Draft EIS**

This section addresses how public views were interpreted and utilized by the interagency team during the development of Draft EIS alternatives. Additionally, it addresses the organizational and procedural concerns that factored into the development of alternatives during interagency workshops.

## **Assessing Public Views and Refining the EIS Plan**

The interagency team reconvened on December 10, 2003 to discuss the public’s input and move forward with the development of alternatives. As meeting agenda notes (RMNP 2003g) indicate, the team was not only presented with the results of public scoping, but also with the results of social assessments (conducted by university researchers) and public surveys

(administered by RMNP). However, because each of these studies used different respondents, question-types, and measurements, it is difficult to determine what they suggest about public or visitors' views, both separately and collectively

Although public scoping was not intended to gauge the relative acceptability of different management strategies or tools (as previously mentioned), the social assessment (RMNP 2003h) administered by university researchers was designed to do just that. The assessment was conducted by mailing surveys to Park visitors (both local and non-local/non-state) and the general public of Colorado, the towns of Estes Park and Grand Lake, and to citizens across the U.S. These surveys examined the preferences of respondents as well as their perceptions about the acceptability of four hypothetical management scenarios and a range of other management actions (such as wolf-reintroduction, fertility-control, etc.). However, while the assessment sought to distinguish and compare how national, state, and regional constituencies viewed and felt about management activities, the separation of respondents into these categories also made it difficult to assess the survey's findings. First, it was unclear how or whether the survey's author dealt with mutually inclusive categories. For instance, respondents from Colorado may also live in the region near RMNP, so in order to accurately compare the responses of 'local' and 'state' respondents, respondents that fit into both categories would need to be omitted from one category in order to make certain inferences (such as local vs. state views of wolf reintroduction). Second, no analysis of inter- or intra-category responses was presented to the team, nor were there any discussions about what study findings ultimately meant for Park operations or the EIS. Nevertheless, what can be inferred, according to the study's author, is that aggregate results illustrate that most respondents preferred alternatives that maintained vegetation and opposed alternatives resulting in vegetative loss or the "severe" reduction of elk (p. 2). It also showed that respondents "consistently" expressed low

acceptability for the use of fences or other barriers to protect vegetation as well as for the use of hazing tactics involving rubber bullets, buckshots, or loud-noises.

In contrast, the survey administered by Park researchers (RMNP 2003i) tried to compare the perceptions of Park visitors with those of Estes Park residents. This survey was also conducted via mail and polled respondents about a variety of similar topics. Residents of Estes Park were polled about their motivations for living in Estes Park, their perceptions of and attitudes toward the elk/vegetation problem, and their suggestions for reducing the amount of elk in the region. Visitors were asked about their motivations for visiting RMNP and asked similar questions about their managerial preferences and attitudes. Nevertheless, because visitors and town residents were asked slightly different questions and because their responses were weighed differently (visitors rated items on a 1-5 scale of agreement while the responses of town residents were calculated in terms of their percentages of agreement/disagreement), these findings are also difficult to interpret. This is further compounded due to the passage of time between the present and 1998, which is when the study was administered. However, what can be inferred, according to the authors of the study, is that the use of elk sterilization and contraceptives are unpopular, and that visitors are more likely to support wolf reintroduction than town residents and that the latter is more likely to support lethal reduction than the former.

When the team returned to the discussion of planning alternatives, it was agreed to add the following statement to the stated *objectives* of the EIS: “Opportunistically collect information to understand CWD prevalence in elk within the framework of a given alternative” (RMNP 2003j:1). Discussions then turned to the topics of elk-feeding and meat donation, both of which were salient during public scoping. While it was noted that elk-feeding was legally prohibited in the Park, the team was reminded by the Park’s lead biologist that the option could



not be dismissed because of its dissonance with NPS policy alone (for reasons relating to the before-mentioned requirements of NEPA). The dismissability of alternatives and strategies continued to serve as a source of confusion, however. For instance, while some members believed that an alternative's failure to meet some of the stated objectives would make it infeasible, this was explained to be incorrect by the before-mentioned biologist, who reiterated that alternatives could only be formally dismissed for being demonstrably "impossible, or unrealistically expensive" (p. 3). In other words, analyses of cost—which Parsons would provide—or logistical practicality would be needed before any alternative could be dismissed from consideration.

Since many public respondents expressed reservations about various forms of elk reduction, the team also tried to bulk up the no-action alternative which, in essence, reflected what agencies already did, or could do, to manage elk using existing policies and tools. Some felt the public would appreciate this option, since many expressed strong (often negative) feelings about the acceptability of different management *tools*—and the need for any action at all. In an effort to further develop the tools needed to cull and/or redistribute elk, the team tried to come up with various means of baiting or hazing elk. Representatives from CDOW were against both tactics. Not only did CDOW have a policy against the herding of wildlife, but representatives also felt that hunters, the prime constituents of their agency, would disapprove of baiting for ethical reasons. While others questioned the efficacy or logistic practicalities of herding and baiting strategies, they were unable to be dismissed due to NEPA requirements.

Before the meeting adjourned, the team decided to work on developing an alternative that would combine the tools and strategies of existing alternatives, each of which currently relied more heavily on a single tool. And as a head EIS associate from the Park reminded the team, each alternative was to be primarily oriented to 'address the size and distribution of the

elk population,' even though their fulfillment of other objectives would still factor into assessments of their efficacy.

### Developing Draft Alternatives

The interagency met to develop draft alternatives in small groups of relevant experts throughout the month of January and into February of 2004. During the first of these meetings, the team agreed to form alternatives that would vary by the intensity and speed of satisfying elk and vegetative objectives. In addition, while alternatives would retain their respective emphases on single management tools, the team decided to further develop tools and strategies (such as by refining the specificities and impact analyses of fences, contraceptives, etc.) that could be added to different alternatives to strengthen their satisfaction of planning *objectives*.

In latter meetings, however, the team started to seriously consider ways of legally, and linguistically, dismissing 'infeasible' alternatives. At this point, the in-Park hunting and wolf reintroduction alternatives were both considered as likely candidates for dismissal—given the enormous range of contemporary obstacles affecting their implementation. In regards to wolves, a few team members suggested explaining how issues of urban density and public fears about wolves would reduce the likelihood of their survival. As the Park's lead biologist expressed, "[i]ntroducing wolves [to RMNP] would be signing their death warrant" (RMNP 2004a:1). This, as the biologist indicated, is partly due to the retaliatory wolf-killings that often occur when and after reintroductions take place, and partly because the Park would be responsible for the actions of wayward wolves. For similar reasons, another team member suggested that the team explain "in [their] analysis that [despite of the ecological] desirab[ility

of wolves], social and political factors mean...[their reintroduction wouldn't] work" (p. 1). Still, because the alternative would have to be formed and analyzed before it could be dismissed; wolf reintroduction and hunting in RMNP were both further developed as potential alternatives.

Before beginning to actually develop alternatives, the Park requested that CDOW "take an active role in implementing the chosen alternative" (p. 1). However, representatives for CDOW announced that their agency had not formally agreed to take these responsibilities and was, instead, primarily positioned only for the provision of expertise. Consequently, they agreed to check on whether and how they could participate in such a capacity.

Most of the alternatives considered in previous meetings were then further refined. Habitat manipulation was now developed as a distinct alternative, which would rely on fencing throughout the affected area (in and beyond the Park) as well as on herding and prescribed burning (for habitat regeneration) by interagency partners (primarily by CDOW and USFS). Elk reduction through culling, which would require no fences, and fertility control, which would use fences but not culling, were also formally developed as alternatives. A concern that arose with culling, and other strategies involving the reduction and dispersal of elk, was that visitors would be unable to view elk (recall that elk-viewing was an official objective of the EIS) as they were accustomed. To address this concern, the team considered the use of tracking collars that would be monitored by GPS and placed in visitation areas to facilitate elk-viewing. And again, the public unpopularity of elk contraceptives was a notable concern. Nevertheless, the team felt that the public would appreciate the choice of an option which could achieve elk reduction/redistribution without relying on lethal techniques (since a number of citizens questioned the morality [i.e., the humaneness] of culling).

When considering the wolf reintroduction alternative, a complicated assortment of benefits and drawbacks were voiced. Because reintroduction had already occurred in



Yellowstone National Park, among others, Yellowstone provided the team with a model or case to base their own hypothetical reintroduction. As such, RMNP decided to utilize, among other aspects of the Yellowstone model, the same number of wolves that were reintroduced in this model. Thus, it was decided that 20 wolves could be imported into the 'much more peopled environment' of RMNP, and that 12-14 of them would probably survive (p. 5). The team was nonetheless doubtful that "such a small number of wolves could keep the elk population" below necessary thresholds. Because of the density of human population and the types of land-uses surrounding the Park (e.g., particularly private lands owned by ranchers, woolgrowers, and other utilitarian uses), some felt wolves would likely to be shot, run over and otherwise made to go "quickly...extinct" within the Park (p. 5). However, since one member noted that wolves had existed rather easily in some study-areas in Minnesota, Banff (an Alaskan Park), and throughout Europe, it was announced that human-habituated wolves would be considered for potential reintroduction.

When wolf reintroduction was considered for its ability to address EIS objectives, most felt that wolves would definitely address needed changes in the size, density and distribution of elk. Because wolves do not usually eat the brains of their prey, it had the added benefit of allowing the team to test the carcasses of their prey for CWD. Wolves would also boost visitation to the Park, and likely also enough to provide compensatory funds for repaying individuals and businesses for damages to private property (such as livestock). Although hunters were known to loathe wolves, some team members believed elk could be dispersed by wolves in ways that actually improve hunting. However, despite opinion polls which show that a majority of the state's citizens support reintroduction, the feeling that "...no agency in Colorado [was] likely to approve wolf reintroduction" was salient for the team (p. 6). This was

compounded by the fact that CDOW's "money comes from hunting licenses," which meant the agency "ha[d] to pay [special] attention to [its constituents'] concerns" (p. 6).

Still, as improbable as the alternative was, both politically and practically, since wolves had "at least an outside chance" of surviving to perform their ecological function, wolf reintroduction was kept as a viable alternative. In fact, if wolves became the Park's 'preferred' or 'environmentally-preferred alternative,' more assessments would need to be undertaken to demonstrate their practical feasibility. Therefore, the true feasibility of wolf reintroduction would get hammered out one way or another. In addition, the group believed it was possible that wolves might "be downgraded from endangered to threatened [species] or even delisted by the time [the] EIS [was] over" because of their expansion from the Northern states where they were reintroduced. For this reason, they entertained the possibility that wolves could serve as a potential tool under other alternatives in the event that reintroduction was dismissed and yet wolves reached RMNP.

Public hunting was now considered as an actual alternative as well. According to meeting-notes, this option would utilize hunters selected through a lottery system through which a limited number of licenses would be distributed. These hunters would have access to Park elk during specific time periods, during which visitors would be barred from RMNP. A host of problems arose over this alternative and were recognized by members of the team, however. First, hunters would have difficulties transporting their kills because vehicles of all types are prohibited outside of designated roads. However, while NPS directives could allow hunters to use horses, horses are not permitted to leave established trails, thereby making it difficult for hunters to retrieve and transport their kills. Second, hunters would most likely hunt large bulls, which is counter-productive because the fulfillment of EIS objectives would necessitate the reduction of cows rather than bulls. A third problem arose from NPS directives which bar

consumptive uses like ‘trophy’ or ‘food hunts’. Although the Park could conceivably get a legislative reprieve to allow the use of hunting for population control, policies against the consumptive use of elk meat could prevent hunters from being able to claim the meat of their prey.

By the end of the team’s February 12<sup>th</sup> meeting, however, all of the above-mentioned strategies were developed into alternatives except for the public hunting option. At the Park superintendent’s request (RMNP 2004b), the public hunting option was to now be merged with the standard culling alternative, where it would serve as a potential component that culling might conceivably involve. Given that the Park would have to seek and receive congressional approval to change legislation prohibiting hunting in the Park, the decision was now to inform the public that hunting could be used for additional population management purposes “if congress were to pass legislation” permitting it (p. 1). This would enable the Park to pursue public hunting as an additive and contingent measure of formal culling practices without pretenses about the likeliness of its implementation.

As meeting-notes indicate, the team would continue to meet in large and small groups in the following months to further develop alternatives for later presentation to the public. During this time, interagency participants were to gather expertise needed to determine the benefits, costs and technicalities of each alternative from ‘experts’ in relevant divisions and positions in each respective agency. However, while planning was still framed around a set of regional objectives, the participatory commitments of CDOW and, to a lesser degree, the Town of Estes Park and EVPRD were still largely unknown—and would remain so throughout the year of 2004. In fact, as a late January email sent from the Park’s lead biologist to the superintendent indicates (sent in the middle of the small workshop phase), CDOW representatives were seemingly unclear about whether and how their agency could participate in the EIS as formally



entertained (recall that while CDOW representatives had participated in the activity of planning, they had not formally agreed to fulfill specific managerial responsibilities) (RMNP 2004c). For instance, while a representative explained that they had “permission [from CDOW] to participate [in the EIS] to the extent that they ha[d] time in their individual schedules,” the representative expressed that “most of them...[did] not have the time to get involved in developing...alternatives and felt it would be more appropriate [for them to]...review and [provide] input” on alternatives the team developed (p. 1). This seemed to indicate that the agency was primarily constrained by the preexisting organizational responsibilities of individual agents, rather than by policy, financial or logistic constraints. This, in turn, would imply that the agency could potentially fulfill its (potential) regional planning responsibilities if its personnel could find the time. In fact, since CDOW representatives continued to attend meetings and develop alternatives, the participation of their agency was seemingly confirmed. Moreover, since representatives fully participated in the planning activities of the interagency team, even after a representative expressed that their agency’s role was officially limited to the provision of expertise, the Park’s biologist communicated to the superintendent that the CDOW “seem[ed] to participating, whether they want[ed] to admit it or not” (p. 1). However, while their commitment was ambiguous and yet assumed in pre-existing plans and planning efforts, there was concern about whether representatives were on the same page as the agency’s directors and were, hence, knowledgeable about their agency’s actual stance towards participating as discussed (this concern comes out more clearly in the following newsletter).

Nevertheless, since there was no formal indication that CDOW or cooperating agencies were unwilling or incapable of participating as they had implied they could or would, the EIS continued to be framed as a regional management plan involving the same participatory responsibilities and actions previously considered by the team as a whole. As such, as another

park superintendent and reviewer of the draft alternatives remarked in June 2004, “because of...[the] interagency and [regional]...approach” to managing vegetation and elk, the Park’s EIS was considered to be “one of the most forward thinking, innovative, and bold...for the National Park Service” (RMNP 2004d:29). To this, the reviewer added that it would help “[move] the National Park Service forward to scientific, adaptive management that fully recognizes the spatial and habitat limitations arbitrarily placed upon Parks by political park boundaries.” Thus, not only were the team’s regional management objectives alive and well, but they were also defined well enough to garner praise for their triumph over the obstacles to jurisdictional compromise—namely over matters of inter-organizational difference, policies, interests, etc.

### **Presenting Draft Alternatives to the Public**

This section addresses how the interagency team framed the EIS and its preliminary alternatives for public review. In addition, it shows the public’s sentiments and attitudes towards various alternatives as well as the interagency team’s interpretation and evaluation of citizens’ views.

#### **Summer Newsletter 2004**

The summer newsletter of 2004 was released just prior to the development of the Draft EIS and was geared to bring citizens up to speed on the problem, plan and current phase of the EIS. Since it was released during the draft alternative development phase, it was meant to

educate citizens and obtain their input about the five alternatives that were currently being considered for incorporation in the Draft EIS.

After a brief introduction to planning, the newsletter provided a summary of what was learned during public scoping. Public input was summarized to the public in practically the same way (albeit with less detail) it was presented to the interagency team; it emphasized that the majority of the public agrees that action is needed, but emphasized that a diverse range of ideas about how to do so make it difficult to utilize public views. Nonetheless, scoping was conveyed as a process for “learning [citizens’] issues and thoughts on...potential management tools and discovering tools [the team] had not previously considered” (RMNP 2004e:2). This corresponds with how public scoping had been devised in interagency meetings and portrayed to the public (as it was explicitly explained and implicitly defined in the request for public input on input-forms) in 2003’s summer newsletter. A much abbreviated list of the themes arising from public input was also provided for public viewing.

The newsletter conveyed the *objectives* developed by the interagency team to the public for the first time. It also provided citizens with insight into the relationship between *objectives* and *alternatives* under NEPA, albeit without an explicit discussion of NEPA directives and their technicalities (legal or procedural). For example, it was described that “[t]he plan’s objectives form the basis for the development of alternatives to manage elk and vegetation” (p. 6). The objectives listed for public viewing were framed in much the same way that they had been previously framed during interagency deliberations, but with more specificity about sought-after vegetative conditions. A notable addition, which the newsletter conveys under the heading ‘What’s new with the plan’s objectives,’ concerns the incorporation of CWD testing as both an *objective* and potential tool in the EIS plan.



While the newsletter presented the draft alternatives developed by the team, it also contained a section describing ‘What alternatives will no longer be considered’. This is where the dismissal of ‘public hunting’ was first publically announced. According to the newsletter, public hunting was dismissed for legal and practical reasons; federal law prevents hunting in the Park, but even if repealed, since public hunting requires Park closures, it would interfere with the Park’s ability to provide opportunities for visitors’ recreation—as they are required to provide by NPS policy. This option was also explained to duplicate the effects of culling, therefore, it could be achieved through existing alternatives. Interestingly, however, one of the alternatives ‘public hunting’ would duplicate was a newly formed alternative relying on the ‘moderate reduction of elk using *public marksmen* in the Park’. This was nothing less than a reformulated version of ‘public hunting’, which would now take place through a lottery system used to select “members of the public who qualify as marksmen” who would be “accompanied by NPS or contracted guides” (p. 9). This alternative would also rely on outside reductions by hunters and CDOW personnel. Thus, by redrawing the alternative to rely on specially chosen and NPS-guided ‘marksmen’, the need for legislative changes could be circumvented and the potential use of citizen hunters could be preserved as a viable alternative.

In addition to this alternative, the newsletter listed several familiar alternatives, and a newly designed one utilizing multiple tools. Familiar alternatives included the maximum lethal reduction of elk, maximum elk fertility control, and wolf reintroduction (now framed as a Park-only reintroduction). The new alternative combined lethal reduction methods with the administration of fertility control agents.

Readers were then directed to consider participating in one of the public draft alternative workshops to be conducted in August 2004. This, the newsletter detailed, is where the team would explain the alternatives under consideration and facilitate public discussion

about their relative effectiveness. Whether the public chose to provide input during workshops or through mail or the Park's website, the newsletter encouraged them to "focus on identifying approaches that would best meet the plan's objectives, rather than describing why one or more of the alternatives or tools...would not be acceptable" (p. 9). Again, by emphasizing this, the newsletter directed citizens to think and comment about how *alternatives* would or would not achieve the plan's stated *objectives*. And again, by steering public input in this direction, the newsletter implicitly discouraged comments about the soundness and acceptability of the plan's scope, *objectives*, purposes, etc. This is further reflected in the public comment form contained in the newsletter. Here, the public was asked: "Keeping the plan's objectives in mind, what are the pros and cons of the draft *alternatives*...?" and "Do you have any suggestions for other *alternatives* that would meet the plan's *objectives*?" (p. 11, italics added).

Because the ability of cooperating agencies to actually implement the constantly-evolving alternatives was frequently debated and often unknown to the participating agencies themselves, the newsletter contained a written disclaimer about the EIS plan. As such, it stated that

[t]he plan that is ultimately selected would be binding only on the National Park Service.

Implementation of actions associated with the plan outside the park would be determined by the respective jurisdictional agencies (p. 9).

This statement reflects a couple of important things. First, the Park was aware that agencies' commitment to certain planning responsibilities and activities were tentative and subject to change. For example, as mentioned above, CDOW's official commitments to planning were uncertain, despite of their formal participation as a cooperating core-team member. Second,

since alternatives utilizing fencing and hunting outside of the Park would require action on behalf of participating agencies, the Park's acknowledgement that their implementation would ultimately rest on the level of participation of each respective agency serves as an admission that plans—including its objectives, scope, and alternatives—might *significantly* change during subsequent phases of planning, depending on the commitments these agencies make. Thus, by including this disclaimer, the Park would be able to adjust plans and legally defend such adjustments if and when agency-commitments changed. What this disclaimer did not explain, however, was how much planning would actually change if and when cooperating agencies were unable to fulfill the responsibilities that current plans necessitated. At this point, though, there was no indication that the Park had seriously discussed this as a potential planning scenario.

#### **Analysis of Public Input from Draft Alternative Workshops**

By November 2004, the content analysis of input obtained during public draft alternative workshops was made available for the interagency team's review. The report, much like the data obtained from public input itself, was specifically explained to "help the interagency EIS team (IET) determine whether additional alternatives or modifications to the alternatives previously developed [were] needed" (RMNP 2004f:p. 1). To this end, their review of the public's input on draft alternatives was supposed to help them in their analysis of each alternative, which they would have to formally provide in the upcoming draft EIS.

While four workshops were conducted within the span of a week at various locales throughout the Estes Valley region, attendance was rather low (127 attendees collectively). Although 1,054 comments were received in all, it is difficult to determine how many of these



were provided by workshop attendees since multiple comments were often obtained from each document.

A coding structure similar to that used during the analysis of public scoping was employed to organize and analyze the input obtained from workshops. This time, however, comments were assigned to one of eight categories representing general themes: public and agency relations or reactions; park policy, mission, or operations; cost of implementation or management; impact on natural resources; naturalness or ecological integrity; practicality, efficiency, or efficacy; economic impact; and visitors. A second round of analysis then occurred, which “combined similar or identical comments into a single concise comment that (allegedly) retained the intent of the original comments. This step condensed the list of comments to only unique comments pertaining to each alternative or additional topic area” (p. 4, parenthetical comment added). These comments were then sorted based on NEPA’s criteria for substantiveness. As previously mentioned (in the *Background* chapter), non-substantive comments are those which “[offer] opinions or [provide] information not directly related to the issues or impact analys[es]” presented in the plan (p. 5). While these types of comments warrant no response from the interagency team, substantive comments do and are defined as comments that “present reasonable alternatives other than those presented in the draft,” those which question, “with reasonable basis, the accuracy of information in the draft [...] [or] the adequacy of environmental analyses,” and those which otherwise necessitate “changes or revisions in the [plan’s] proposal” (p. 5). However, as the document describes, since “the public was asked to provide opinions regarding the pros and cons of the draft alternatives...numerous comments were [only] marginally substantive” (p. 4). As a result, many of these comments were “retained to be inclusive of the public’s opinions” (p. 4).

Because few comments were listed as examples in the document, and because comments were not labeled when they were substantive or otherwise, it is difficult to independently analyze the comments themselves or their treatment by the interagency team. This is further compounded by the fact that comments were not formally tallied (or available for doing such), nor placed in charts where they could be easily examined and compared—while both were done during the analysis of public scoping. This, however, is consistent with the Park's aim to capture the content of public views without resorting to a vote-counting process.

As the document indicates, most of the input received by the team was, again, in direct response to how requests (both during presentations and through input-forms) for public input were framed. Thus, most comments dealt with the pros and cons of existing alternatives or suggested new alternatives. According to the official summary of public input, public support and opposition for various alternatives were “somewhat equally [distributed],” and no alternative stood out as “receiving only favorable or unfavorable comments” (p. 25). However, there was no mention of whether some alternatives were more favorably or unfavorably viewed than others. Therefore, the “take-home message” for the team was that “the public desire[d] additional information about...alternatives and [was] interested in creating different alternatives,” particularly those relying on new combinations of tools (p. 25).

While the following points were not included in the official analysis of public input, they are worth noting nonetheless. First, many public commenters referred to matters of policy or law when making claims about the reasonability (or lack thereof) of different *alternatives* or tools. For instance, numerous comments referred to the legal constraints on wolf reintroduction and public hunting or cited NPS policies as reasons to forgo or accept certain strategies. While this shows that the public was knowledgeable about some of the legal constraints affecting, or that could affect, the plan's determination, it also reflects their

ignorance of NEPA policies or the complicated linkages between different legal and political constraints. However, since newsletters failed to explain and clarify NEPA's directives, like those bearing upon the 'reasonableness' of various alternatives, citizens would have needed to research the Act and its requirements in order comment upon them meaningfully. Secondly, issues of political feasibility were salient for some commenters. As such, some believed the level of political controversy (i.e., the existence of deeply antagonistic interest groups) behind wolf reintroduction necessitated its dismissal, while others cited CDOW's opposition to reintroduction, in particular, as reason for formally dismissing it from further consideration. Whether or not such claims were effective or informed by understandings of law and policy, they illustrate that some citizens were concerned about and knowledgeable of political constraints that were not explicitly mentioned or clarified in public newsletters. Lastly, since commenters voiced ecological concerns about the impacts of certain alternatives or management strategies that even the interagency team had not expressly considered, the public appears to have been aware of impacts that were overlooked or left un-explicated by the interagency team. For instance, while interagency discussions about the use of fertility agents to control elk had largely focused on matters of effectiveness and public opinion, the public raised serious concerns about the impact contraceptives could have on elk behavior, the ecological well-being of other plants and animals, and on the persons who eat meat contaminated with anti-fertility drugs.



## Revising Draft Alternatives through Interagency Workshops

After the public input obtained during draft alternative workshops was analyzed, the team continued to meet in small and (to a lesser degree) large groups to refine *alternatives* and analyze the technical requirements and feasibility of different *tools* and strategies. These efforts were in preparation for the pending Draft EIS, which was currently slated for public release in the summer of 2005. Most of these meetings concerned distinct *tools*, *alternatives* (e.g., wolf-reintroduction, anti-fertility drugs, etc.) or impact analyses and—by virtue of the intra- and inter-organizational division of (expert) labor necessitated by NEPA and NPS directives—were attended by a relatively diverse range of agency- and ‘expert’-actors (i.e., by those with specialties in the topics or concerns emphasized in different workshops). As a result, large meetings of the whole interagency team became less common as small-scale meetings became more frequent and diversely oriented. This made it difficult to track or consolidate on-going developments in a chronological fashion, however. For this reason, emails sent between RMNP staff and their interagency partners served as a vital means for locating, accounting for, and/or tracing developments occurring at a multitude of smaller, and occasionally less formalized, expert and interagency meetings.

While the tools and alternatives involving fertility-control, lethal-culling, public marksmen, and wolves were intensively work-shopped between the fall of 2004 and the late winter and early spring of 2005, the most important changes that occurred concerned revisions to the use of wolves and public marksmen. Although the public marksmen option was being preserved for use as a potential additive component of the previously-mentioned (in the summer newsletter of 2004) and newly revised lethal-culling alternative, representatives for the

Park—along with other organizational affiliates (i.e., bureaus and other organizations not directly involved in the EIS)—continued to raise the concern that the involvement of public marksmen would constitute ‘hunting’ from the perspective of NPS (RMNP 2005a). For example, insofar that ‘hunting’ is characterized by the “possession of animal carcasses” and largely practiced as recreational activity, the ways in which public marksmen were being framed in interagency deliberations would clearly constitute ‘hunting’. This is to say that because NPS directives only permit managers to undertake culling whenever wildlife impinges on the protection of Park resources (whether natural, cultural, etc.), the (legal) connotations ‘culling’ has with the ‘destruction’ and ‘non-consumptive-use’ of wildlife would clearly bar the Park from using public marksmen. For this reason, the Park sent an email to the interagency team explaining (informally in March, and formally in June 2005) that the agency “and higher levels in the NPS...decided that [...] the use of public marksmen in the context...presented [in the plan] would [still] constitute hunting [and therefore]...require congressional authorization” (RMNP 2005b). Thus, after expressing that “authorization [was] unlikely,” it was explained that the tool would be dismissed and justified in the upcoming newsletter and Draft EIS (p. 1).

Although the use of wolves would continue to serve as a highly contentious tool and alternative, the legal constraints on its potential undertaking by the Park were not as clear cut (RMNP 2005c). For instance, despite a lack of interagency support (particularly from CDOW), the retainment of the wolf option was consistent with NPS and NEPA directives—especially considering RMNP’s status as lead agency. First, NPS directives not only permit, but also encourage the restoration of species which are ‘natural’ to the lands within ‘Park units’ (as previously described). Secondly, because wolves were thought capable of addressing the bulk of existing objectives and could not be dismissed without definitive proof of financial and/or legal impracticality (according to both NEPA and NPS), the lack of political and agency support

for the option would not suffice for its dismissal. However, part of the reason that concerns about political and agency support were minimized was because the team developed a new way to utilize wolves during workshop sessions. While part of the seeming infeasibility of the wolf option resulted from how it was framed and analyzed as an effort to ‘reintroduce’ wolves to RMNP, NEPA’s requirements for dismissal obligated the team to analytically examine its utility as both a *tool* and *alternative*. Therefore, while ‘reintroduction’ was a demonstrably problematic use of wolves, it was incumbent on the team to demonstrate that other potential uses of wolves were infeasible. For instance, while the ‘reintroduction’ of wolves was infeasible because it required the approval and cooperation USFS, which had decided against reintroducing any wolves in the region south of Yellowstone (where wolves were already reintroduced), the use of wolves as an intensively managed ‘experimental population’ would be subject to less logistical and political constraints. Nevertheless, because the team’s initial formulation of the intensive management option—which was proposed to initially release 14-20 wolves—was also problematic, they revised the alternative to rely on a highly complex multi-staged approach that would involve the creation of various wolf- and buffer-zones as well as the radio-collaring of wolves. Thus, while the alternative’s revision was unlikely to address the political controversies or the questionable efficacy associated with its previous articulations, it nonetheless sidestepped some of the legal and financial constraints that would have necessitated its dismissal.



## Plans Deferred

This section addresses the gradual encroachment and impact of interagency constraints on the team's subsequent planning efforts. To this end, it details the emergence and nature of interagency constraints and their impact on the plan's trajectory and presentation to the public.

### Reconfiguring Interagency Participation

Although alternative workshops were conducted in the early part of 2005 as planned, some potentially significant changes to planning had already been brewing for a lengthy period of time. After reviewing a chain of emails and meeting-notes written between November 2004 and the spring of 2005, it was clear that the interagency team was increasingly uncertain about their capacity to either pursue or salvage existing plans.

While there had been some initial uncertainty about the formal role that CDOW and (to a lesser degree) Estes Park would play in the EIS; meeting-notes and communications between agency partners (leading up until this point) indicate that many believed regional objectives would still come to fruition; meaning that both agencies were assumed to eventually commit, in due time, to the roles and responsibilities the team had collectively entertained. After all, while the team had nonetheless agreed that the EIS would be led and largely determined by RMNP, the EIS plan was still regional in its scope, and its *objectives* and *alternatives* were noticeably predicated on the CDOW's and the Town of Estes Park's commitments to manage elk and vegetation in their respective capacities. However, despite all this, Park planners received

notification as early as October of 2004 about a potential change in both agencies' commitments to certain responsibilities and activities.

According to one email written by RMNP personnel, prior planning efforts were believed to be imperiled (in terms of their pre-existing trajectory and speed) during a small group meeting when representatives for CDOW and the Town of Estes Park voiced their agencies' inability to participate in certain activities. As the email's author explains, "despite previous indications [about]...the town[s] [willingness to undertake certain]...actions on their property, [representatives expressed]...that they didn't foresee any actions being allowed on town land. [In addition, CDOW representatives] [t]hen...conveyed that they didn't see [their agency] taking any action outside the park [either] including culling, which [RMNP] had thought was still on the table" (RMNP 2004g:1). As expected, this led to much confusion about whether and how existing plans could be salvaged. As a Park agent communicated to RMNP's NEPA affiliate, Park personnel were worried "that if [they] proceed as [they had] with the assumption that CDOW [would] take some action in town and that [the] town [would] allow some use of their land [to achieve team objectives]" that they would "end up with a very inaccurate/misleading presentation of what [would] really happen" when the Draft EIS was made public" (RMNP 2004h:1). In addition, staff were unclear about whether "the plan [should] cover both possibilities (them following through with their part or the contingency that they don't)" (p. 1). Nevertheless, after convening with the Park superintendent to discuss these developments, it was decided that new alternatives would be developed "to consider no participation outside the [P]ark" in the event that collaborative obstacles could not be resolved (RMNP 2004i). According to the superintendent, to determine whether such actions were needed, however, the Park would need to 'sit down' with both agencies to clarify their involvement. Then, if and when changes were clearly eminent, "a small meeting with key people—CDOW, [the] Town, and

[RMNP]—[would need occur so they could consider] the possibility of dropping objectives” that could no longer be achieved (RMNP 2004i). Until then, the plan would have to be preserved in its current form.

While the future of planning was still uncertain, in a formal sense, by late December of 2004, the superintendent’s meeting with the director of CDOW indicated that plans would be maintained. Although the director asked for clarification about the NEPA process and the responsibilities it entailed for CDOW, the director agreed that the agency would provide formal comments on the EIS and *alternatives* in the coming month as initially planned. Nevertheless, the director expressed concerns about the public’s ability to read CDOW comments, which would become “public info”—in line with NEPA requirements, but to implicit dismay of CDOW—once the Final EIS was released (RMNP 2004j:1). Thus, while the director agreed to let the agency participate in this regard, reservations were expressed about CDOW commenting on the EIS before it knew what the Park’s ‘preferred alternative’ would ultimately be. According to a subsequent email sent by the superintendent to high-level personnel within the Park, the director “seemed ok” with the plan’s current trajectory when the superintendent had explained that it would ‘likely’ entail the use of direct reduction with the potential use of other tools in an ‘adaptive management’ framework (p. 1). However, as the director’s concern about the public’s perception of CDOW reflects, it was clear the agency was reluctant to take part in, or even be associated with, activities their constituents might disapprove of (especially the use of wolves and the potential prohibition of public hunts).

Given the director’s concern about current plans and CDOW’s reputation, the developments occurring during the first few months of 2005—when alternatives were being significantly revised for the upcoming Draft—would serve to exacerbate such concerns. For example, the dismissal of public marksmen as an alternative would have been problematic for



CDOW for a number of reasons. First, because (public) hunting is a primary tool used by CDOW to manage elk and other wildlife, and because hunters comprise a vocal majority of their constituencies (particularly since hunting licenses and other recreational fees provide the bulk of the agency's operating funds), agency personnel had invested a great deal of effort in advocating and providing expertise for the development of a public hunting option. As a consequence, the dismissal of public hunting also constituted a dismissal of the agency's preferred plan (not to be confused with a lead agency's 'preferred plan' under NEPA). Secondly, its dismissal was also problematic because CDOW was not particularly supportive of other *tools* and existing *alternatives*. For instance, as the agency commented during their formal review of draft alternatives, "CDOW [did] not support using fertility control agents...without full approval from all regulatory agencies," or using contraceptives that had not been approved by the FDA (RMNP 2005d:3). Representatives also voiced that contraceptive-treated elk would likely escape, creating concerns about hunters consuming treated meat. Moreover, the agency was concerned about their liability for property damage and traffic problems if they participated in the herding or hazing of elk as previously requested by the team.

A third issue arises from the previous concerns. If CDOW participated in developing or implementing plans that its prime constituents opposed, the agency worried about being seen as complicit (whether actively, inadvertently or perhaps even legally) in such plans, despite of its vocal opposition to certain tools, alternatives and planning decisions. This view is salient in the CDOW director's concern (mentioned above) about public perceptions of the agency's involvement. Moreover, because the CWC had ruled both recently and in the past that wolves would not be considered for reintroduction, CDOW's announcement a year earlier (in June of 2004) that they "[would] not support or endorse [the] reintroduction of wolves [in any capacity]" signaled their reluctance, or (legal) inability, to be associated with any utilization of

wolves (RMNP 2004k:7). In fact, since public hunting was dismissed during the same time that the use of wolves was retained as an alternative, the agency expressed its belief that “differential logic was used [to address] ‘hunting in [the] park’ and [the] ‘reintroduction of wolves,’” given that the ultimate feasibility of each option—whether legally or in the short- or long-term—was widely questioned by members of the interagency team (p. 7).

While emails circulated among members of the interagency team indicate that many felt—as early as February of 2005—that the EIS was about to irrevocably change, the participatory commitments of CDOW, EVRPD and the Town of Estes Park were still officially undecided by March. Nevertheless, due to decisions the Town of Estes Park and EVRPD had made almost a year earlier (in mid 2004), the team had anticipated that CDOW’s probable resignation from prior planning activities would also lead EVRPD and the Town to abandon their activities and effectively arrest the regional plan.

While EVRPD and the Town were both members of the core-planning team and advocates of management outside the Park and inside the Town, a review of internal communications and meetings throughout 2004 revealed that neither had been clear about their capacities to actually implement activities which were critical to regional objectives (RMNP 2004k; RMNP 2004l). As these documents indicate, this uncertainty had a lot to do with the relationship both entities had to the Town’s Board of Directors, which was responsible both for authorizing in any activities within Town and for approving the use of municipal funds. However, while alternatives involving Town-resources or –activities would have to be authorized by the Board, RMNP was worried that any presentation of preliminary planning alternatives would make them ‘public’ before they were formally introduced during the upcoming presentation of Draft alternatives (which could potentially defy NEPA guidelines). Nevertheless, because certain strategies and *objectives* could be rendered void if the Board were to eventually

oppose certain measures, the team decided to present a prospective list of generalized alternatives to the Board. Upon their presentation, however, the Board opposed a range of measures that made a 'number of...alternatives...unworkable', according to representatives for the Town (RMNP 2004k:8). As meeting-notes indicate, the Board's response 'was that they [did] not want the 18-hole golf course fenced, [that]...they [did] not support herding, hazing/dispersal, baiting, penning and culling on Town-owned lands; [and] they want[ed] actions to occur on federal or private lands only' (p. 8). While a representative for EVRPD felt citizens' historic opposition to fencing the Town's golf course may have influenced the Board's decision to veto such a measure, the Board's opposition to other activities was thought to stem from financial constraints which would have required the Board to apply for bond issues or grants to obtain needed funds (which they were thought unlikely to receive) (p. 4). However, rather than abandon their aims to actualize their objectives in Town, the mayor sent a letter to CDOW's director to request their 'cooperation in the...implementation of...management strategies' outside the Park (RMNP 2004m:1). Conversely, without permission to undertake culling or redistribution techniques on town-owned lands, CDOW representatives explained that management activities in-town would depend on whether they could gain approval from *all private landowners* in areas of the Town where action was required (RMNP 2004k:5).

Given the unlikelihood of landowners' complete approval and the agency's concern about their liability to landowners for any damage incurred during the implementation of such activities, representatives for CDOW had questioned, as early as mid 2004, whether management could ever occur outside the Park. Yet, since representatives did not present high-level staff (including 'commissioners and senior staff') in the agency with the finer details of planning until early in 2005, the possibility of CDOW-led actions within the Town were tentatively preserved until CDOW announced their intentions to limit their participation to an



informational role in June of 2005. Therefore, while EVRPD and the Town were both involved in the framing of the regional plan and the development of *objectives* and *alternatives* which were predicated on management activities slated for use in the Town, they were apparently banking on CDOW's eventual commitment to prior planning roles (i.e., assisting with the implementation of alternatives) and their willingness to work with private landowners. However, since CDOW representatives had already expressed their doubtfulness of being able to achieve regional objectives given decisions made by the Board (not to mention their aversion to liability), they were likely waiting to see how developments in the above-mentioned workshops panned out before making their commitments final (addressed below).

Thus, when the Park superintendent finally met with the directors of CDOW, EVRPD and the Town of Estes Park on June 28, 2005, each agency abandoned their prior planning commitments and aspirations, effectively ending the regional management plan. As a result, efforts to soon release a Draft EIS for public review were postponed as the interagency team began a lengthy effort to redesign the plan. This would involve the removal and revision of objectives involving the management of property damage and safety issues outside of the Park, and the complete reconceptualization of the EIS and existing *alternatives*. And because a whole year had elapsed between the Board's initial ruling and CDOW's resignation from prior planning commitments, it would seem as if the timing of CDOW's resignation was less motivated by the Board's decision than it was by their dissatisfaction with the trajectory of planning upon the close of the prior alternative workshop phase.

### Summer Newsletter 2005

The release of the public newsletter in the summer of 2005 permitted RMNP to explain the recent changes to planning and the EIS. To this end, the newsletter explained that while the EIS was still “intended to explore opportunities for collaborative management...with other agencies,” it would “only make decisions for [the] management of elk and vegetation within the park” (RMNP 2005e:1, italics added). And though it also explained that previous alternatives had “considered actions that others agencies might take...outside the park,” it emphasized how these agencies had since decided “to take no additional actions in conjunction with [the]...plan” (p. 2). The newsletter described the resulting changes to the EIS as follows:

The alternatives have been restructured so that all actions taken to manage elk and vegetation would be conducted within park boundaries. Therefore, objectives developed by the agencies to reduce the risk elk pose to public safety and private property outside the park have been eliminated. The plan’s other objectives remain. Under all alternatives considered in the plan, collaboration with other agencies will continue to monitor the elk population size and distribution, and the agencies will continue to share knowledge and experience regarding the management of elk and vegetation (p. 2).

This disclosure enabled RMNP to convey a couple of important things to the public. First, it demonstrated that collaborating agencies (rather than the Park) were unable to fulfill their previously defined roles, and that this was why planning was no longer regional and why certain objectives were omitted and alternatives revised. In this way, it helped convey the degree to

which plans had been predicated on interagency collaborations, and how the breakdown of such restricted the range of future management scenarios. Secondly, by emphasizing that opportunities for collaboration would still be sought, it signified that the Park was still looking into ways of preserving the former objectives and strategies, which it would do through devising new cooperative agreements (perhaps outside of NEPA) when possible, and by leaving room for opportunistic ‘adaptive management’ strategies when framing and designing alternatives. The Park could also benefit from how their disclosure was framed. For example, by making collaborative management a goal informally (i.e., extra-legally) sought by the Park, they could continue to pursue their desire to achieve (some or all) regional objectives outside of or in addition to the NEPA process and, hence, in ways not strictly bound by it. In other words, RMNP could consider additional management strategies or scenarios that, if capable of addressing previously curtailed goals, could complement the EIS or reduce the need for certain EIS activities. However, insofar that management strategies developed outside the NEPA process would not be subject to the same forms of public oversight, the flexibility that ‘adaptive management’ provisions would afford RMNP could come at a cost for citizens’ participation and understanding.

Like previous newsletters, it explained the logic behind the creation of newly revised alternatives and the dismissal of old ones. As the newsletter described, alternatives would now vary according to the strength and speed with which objectives would be met. In citing that “many commenters were concerned that other alternatives involving a different combination of tools were not being considered,” it also explained that new combinations of tools were under consideration (p. 3). However, while this may have been a motivation behind the alternatives newly revised for the public newsletter, it was also necessitated by the need to create alternatives capable of addressing EIS objectives. Therefore, since the efficacy of separate tools



(including all of the those considered during previous phases of the EIS) were often questionable and doubted by the interagency team, combining tools may have been the only means by which certain objectives could be addressed—especially since former collaborative agreements had since eroded. Whatever the case may be, it is clear that alternatives were less distinctive after each had been revised to rely on tools formerly exclusive to other alternatives. As such, lethal-culling had been divided into maximal and moderate reduction options (where the latter would rely on fencing), the fertility-control option had been merged with lethal-culling practices and would now also involve fencing, and the re-establishment of wolves now included lethal-culling activities as well. And while the wolf alternative presented during the previous year's newsletter was portrayed as a Park 'reintroduction', it was now framed as an intensive and gradually-phased 're-establishment' effort where wolves would be strictly "monitored and their movements and activities restricted to the [P]ark" (p. 3).

The alternatives dismissed from further consideration now included both the public marksmen and maximum habitat manipulation alternatives. Just as RMNP staff had described in the former workshop phase, the public marksmen option was being dismissed because "the use of public marksmen would constitute hunting," according to "NPS legal and policy guidance" (p. 4). The habitat manipulation option was dismissed, among other reasons, for logistical difficulties. Since this option relied on fencing the elk's entire winter range, the lack of involvement by other agencies would have made this option untenable, particularly because of the different jurisdictional entities that this range included.

The newsletter was concluded with a statement similar to what had it had opened with. According to the newsletter, it was being distributed "to keep you, the public, abreast of what has been occurring through the planning...and to inform you of the changes in the alternatives for elk and vegetation management and the EIS schedule" (p. 1). So while the Draft was initially

slated for release in 2005/2006 in the prior newsletter, it was now “expected...[to] be available for public review in winter 2006” (p.5).

### **Rearticulating the Draft for Public Release**

The changes to interagency agreements necessitated considerable revisions to the EIS plan. In addition to the revision of EIS objectives and alternatives, the Park and (NEPA) contracted-affiliates were also obligated to rewrite whole chapters and sections of the upcoming Draft, which they had began writing long before the breakdown of regional plans. This was necessary to remove references to collaborative activities that were now defunct, and to make alternatives and their analyses refer only to locations, activities, and consequences in the Park. However, since interruptions to planning occurred before alternatives were substantially fine-tuned or analyzed, planning efforts were not significantly delayed. For instance, while regional planning efforts officially ended in late June of 2005, the Draft EIS was already circulated to participating agencies for internal review by November 16, 2005 (RMNP 2005f).

However, because this phase was predominately characterized, again, by small-scale meetings and workshops rather than large meetings of the team as a whole, it became difficult to chronologically track all of the developments as they arose in small meetings and email communications between different levels of Park and interagency staff. The predominance of small- over large-scale meetings was due to the activities necessary for producing the upcoming Draft. For instance, after the determination of Draft alternatives in the prior internal workshop phase, ‘experts’ from both the core- and extended-planning team began to review alternatives

and provide input concerning the reasonableness of certain activities or assumptions or concerning the accuracy of stated impact thresholds, ecological relationships, projected results and timelines, etc. In the same period of time, agents from both the Park and the organization that was contracted to assist them with the writing and analysis of the EIS were also communicating back and forth and sending their revisions of the Draft to higher level staff for review. Thus, since many of these activities involved the digital circulation of documents for review and comment by geographically dispersed actors, there were few formal meetings to analyze beyond those occurring between a limited range of expert and administrative actors. For this reason, I kept track of important dates and pivotal events (such as when groups met to formally discuss certain matters or when certain plans or strategies were officially dismissed) that arose from my examination of a variety of emails and workshop notes and used these dates to identify when other developments had occurred and how they were linked, chronologically, with those I initially identified.

### **Choosing By Advantages Workshop: Determining the Preferred Management Alternative**

The fine-tuning of the details of each alternative was followed directly by analyses of their expected impacts. This was made possible through a sophisticated division of labor; biological and administrative ‘experts’ were responsible for determining technical and logistical details of each alternative while the Park’s NEPA contractors were involved in the subsequent analyses of their impact on RMNP’s management operations, activities, finances, etc. After their analyses were complete, each alternative was arranged in tables where their impacts were categorized and presented for the interagency team during the Choosing-by-Advantages (CBA)



workshops in September of 2005. As a briefing statement for interagency partners explains, CBA is process where the “advantages of each alternative [were identified]...and...weighed” according to “five standard evaluation factors” (RMNP 2005g:1). The official purpose of these workshops was both to determine and compare the costs and benefits of each alternative and to provide RMNP with a framework from which to determine and justify their preferred management strategy for the upcoming Draft.

When the results of CBA workshops were presented to the interagency team for review, the graphs and summaries provided by the Park’s NEPA facilitators indicated that the maximal-culling and intensive-wolf-management options would be considerably more advantageous than the moderate-culling and fertility-control options. Their relative advantages were determined by examining a number of items, a few of which included their ability to address each objective, their impact on existing operations and uses of the Park, and their expected economic costs. As the presentation indicates, the wolf alternative was determined to have a higher ‘advantage score’ than the Park’s preferred (not officially ‘preferred’ yet however) alternative of maximal-culling (523 and 462, respectively), but had a higher 20-year estimated life-cycle cost (\$18,811,483 compared to \$13,515,047) than culling (RMNP 2005g:1).

In addition to the higher projected cost of the wolf alternative, its ‘advantage score’ did not account for the political controversies and uncertain legal constraints that had been identified during subsequent discussions. Therefore, to capitalize on the advantages of both alternatives, the Park decided to revise the maximal-culling alternative “to include the potential, based on adaptive management, to use wolves to redistribute elk [at a] later [point] in the [plan’s] 20 year time frame” (RMNP 2006a:2). However, since NEPA requires the lead agency to identify the environmentally-preferable alternative in addition to the one preferred by the lead agent, the Park would have to explain in the upcoming Draft why they preferred the maximal-

culling alternative to the environmentally-preferred wolf alternative. Nevertheless, as meeting-notes taken during a roundtable discussion by interagency actors indicate, the Park was prepared to explain, by late January in 2006, how the level of financial investment and risk associated with the intensive-management of wolves was critical to determining their preference for maximal-culling (RMNP 2006b:4).

### **Release of the Draft EIS**

The Draft EIS was released on the Park's website and distributed to individuals and organizations on their mailing list on April 24, 2006 (RMNP 2006c). The Draft not only included objectives and alternatives that had been revised since prior public meetings, but it also contained a much lengthier explanation of the purpose and need for the EIS and described a range of Park policies that were affected by elk and necessitating action.

The newly revised objectives would now include:

- 1) Restore and/or maintain the elk population to what would be expected under natural conditions to the extent possible
  - ~Maintain a free-roaming elk population
  - ~Decrease the level of habituation to humans exhibited by elk
  - ~Restore the elk population size to a level allowing it to fluctuate within the natural range of variation, between 1,200 and 2,100 elk
- 2) Restore and/or maintain the natural range of variation in vegetation

conditions on the elk range, to the extent possible

- ~Prevent loss of aspen clones within high elk use areas
- ~Restore and maintain sustainable montane riparian willow
- ~Increase montane riparian willow cover within suitable willow habitat on the primary range
- ~Maintain or improve the condition of riparian and upland willow on the primary summer range
- ~Reduce the level of elk grazing on herbaceous vegetation

- 4) Opportunistically collect information to understand chronic wasting disease prevalence in the Park within the framework of the alternative
- 3) Ensure that strategies and objectives of this plan/EIS do not conflict with those of chronic wasting disease management
- 4) Continue to provide elk viewing opportunities
- 5) Recognize the natural, social, cultural, and economic significance of the elk population.

Given efforts to downscale the EIS from a regional plan, the objectives no longer refer to attempts to mitigate the issues of property damage or personal safety. And given that over seven years of environmental modeling and research had also been achieved, the plan's objectives were much more refined and concrete than they had been prior to the Draft's release.

The same range of alternatives considered during the CBA workshop were also presented in the Draft. They too were much more nuanced than the public had previously seen in the summer of 2005. Nevertheless, they were framed in nearly the same manner that they



were considered during CBA, albeit with the inclusion of the potential utilization of wolves as an adaptive add-on for the maximum-culling alternative.

The expansion of the plan's official purpose and need qualitatively changed how certain topics were implicitly framed. Given that the Park was now the primary (since the end of regional planning) actor responsible for implementing the plan, the Draft devoted more time to contextualizing the need for planning as it was necessitated by a range of NPS and Park policies and directives. For instance, it now explained the relationship between the Park's planning efforts and the need to preserve and restore 'natural conditions' to satisfy 'NPS management policies'. After briefly explaining the methodology the Park uses to determine whether 'natural conditions' are intact, the Draft went on to explain how the problem with elk resulted from a range of issues affecting 'natural conditions' in the Park. While wolves were still a part of the ecosystemic equation, the problems with elk were now described in relation to the absence of "an intact predator base," which still included the gray wolf, albeit with less emphasis than in previous articulations (p. 10). And because references to property damage and safety issues were now omitted from the plan's objectives, the stated purpose of the EIS was explained "to guide management actions in [RMNP] to achieve [natural conditions]...by reducing the impacts of elk on vegetation and by restoring...the range of variability in the elk population and affected plant communities" (p. 10).

Due to the plan's current focus and trajectory, the plan's *purpose* and *need* suggested a somewhat different orientation to planning. For instance, because CDOW, EVRPD, the Town of Estes Park decided against taking action outside the Park, these entities would have less influence on how the plan was officially framed. Since entities like the Town and EVRPD were more concerned about the impact of elk on people and community at large, their resignation from former roles resulted in fewer references to impacts outside the Park. In fact, while safety

risks and property damage were briefly mentioned, both were now depicted as consequences of the elk problem rather than part of the problem needing managerial attention in the EIS. In similar respects, the role of urbanization and 'safe havens' in Town were given less attention and explanation as components of a dynamic social-ecological problem—which earlier articulations of purpose and need statements had emphasized. However, each of these omissions make sense considering how the framing of the lead agency's purpose and need is commonly equated, by NPS and court interpretations of NEPA, with what the agency considers vital to their goals in planning.

By giving less emphasis to regional impacts and the interrelationships between various social-ecological processes, the Draft draws more attention to the nuances of elk and vegetation. For example, the Draft is considerably more detailed in its description of the migratory behaviors of elk, the differences between Park, Town and other regional subpopulations of elk, and the relationships and impacts among geographically distinct vegetative communities and elk and other wildlife. However, given its orientation to Park policy and ecological nuance and methodology, the Draft moves the planning discussion down a more narrow and technical path. While this is to be expected since the plan is becoming more refined with each meeting and revision, the public might also feel as if planning was too technically nuanced to either understand or to bother with voicing certain concerns (i.e., meaning that some could feel as if the experts had it all figured out or had little need for public input). Nevertheless, without the chance of regional management or the involvement of other agencies and municipalities, RMNP could only frame the problem in terms of NPS and NEPA directives and in terms of what the agency could potentially do to address it given the constraints of policy and law.

### Public Presentations of the Draft

The public was able to review and comment on the Draft for a 75 day period following its official release. They were also permitted to attend public meetings during the week of May 22-25, which were held in four different geographically dispersed locations. Though the Park provided notification about the Draft's release and the dates and times of public meetings, there were only 231 people in total who attended these meetings.

In contrast to scoping, which gave the public more opportunities to deliberate with interagency staff and amongst themselves, public meetings on the Draft EIS were mainly organized to inform the public, via PowerPoint, about the Draft and the analyses it contained. While the stated purpose of these meetings was to also answer questions about the Draft and obtain public comments, early formulations (i.e., drafts) of the public presentation began with a slide asking the public to 'hold their questions' until the presentation was over, whereupon "NPS staff w[ould] be available...to answer...[their] individual questions" (RMNP 2006d:2). Although it is uncertain as to whether or not the presentation was revised to exclude or reframe this request, it is clear from the presentation's general orientation (and the handwritten notes that accompanied it) that the presentation was mainly meant 'to provide information' rather than to solicit it—which NEPA nonetheless requires as well, however.

The slides presented to the public mainly summarized the latest revisions to the EIS (including its *need, purpose, objectives, alternatives*) and the team's formal analyses of each alternative. Following brief accounts of what each alternative was meant to accomplish (in terms of numbers of elk removed, amounts of fencing required, etc.), the public was presented with slides summarizing how each alternative was expected to meet planning *objectives*. For each alternative, their expected impacts on vegetative and elk objectives were treated



separately, but each included a simple line graph to help participants visually compare the costs and benefits of different alternatives as they were determined by the team. A similar graph was presented to enable the public to visually compare how each alternative would impact a range of other objectives, such as socio-economics, property damage, viewing opportunities, etc. However, while alternatives were described in terms of their expected duration (long- or short-term), intensity (major, moderate, or minor), and degree of benefit or cost (beneficial or adverse), there was no indication that the methods by which impacts were analyzed were described or explained to members of the public.

Although slides mainly described what was already conveyed in the Draft, which was circulated to members of the public on the Park's mailing list, slides presenting a succession of relatively detailed comparisons of the impacts of each alternative on a range of objectives could have been overwhelming to participants. However, since the slides presented to the public were not accompanied by observer notes (beyond those included in separate documents which were nonetheless minimally detailed), I was unable to get a sense of the public's reaction.

Since there was no indication that public input was specifically solicited in presentation slides, citizens may have had to either verbalize their comments to the interagency staff present or they may have gotten to write them on forms similar to those mailed to citizens on the Park's mailing list. In regards to the public comment form that was circulated via mail, the public was provided with a request for input that was framed much broader than in previous phases of the EIS. As such, the stated goal of "the comment period [was] to obtain [the public's] thoughts and input on whether the Draft Plan/EIS adequately address[ed] environmental issues and concerns and if the overall analysis of impacts [was] accurate and thorough" (RMNP 2006:e:2). However, while input was solicited quite broadly, concerns similar to those raised in relation to earlier forms of input solicitation arise once more. Namely, without a working familiarity with and

extensive knowledge of NPS and NEPA policy and the backstage occurrences of interagency planning, citizens would have difficulty commenting successfully on the 'accuracy' and 'thoroughness' of plans. For instance, while the public could employ such claims, interagency actors are likely to be the only ones privy to the information from which analyses were derived, and are likely able to refer to the policies and directives that influenced their interpretations. Therefore, at issue is whether it is the accuracy or rather the legality of their interpretations/analyses that is an actual cause for agency concern. And while questions about the 'adequacy' of the Draft's treatment of 'environmental issues and concerns' afford the public with more leeway in developing their claims, it would be difficult for the public to criticize the Draft's attention to 'environmental issues and concerns' without appearing opinionated and, thus, being judged for making 'non-substantive' claims.

Nevertheless, as an email sent from an NPS staff-member to the Park's NEPA facilitator indicates, interagency staff attempted to convey verbal comments to those formally analyzing public input. However, as the content of the input conveyed to the Park's NEPA analysts suggests, staff may have been more attentive to and/or communicative of comments that raised questions or items that were of interest to planners, i.e., those which were 'substantive'. To this end, it is insightful to look at the following transmission between inter-organizational staff (RMNP 2006f:2):

Verbal comments/questions raised at May 2006 public meetings on DEIS:

- 1) Address potential inbreeding of female wolves and domestic dogs/wolf hybrids
- 2) What about use of hides, bones, etc.?
- 3) Lethal reduction will increase the potential for more poachers and the need for

park staff for enforcement

- 4) Silenced guns and subsonic ammo won't work on elk (they are too big)
- 5) Can sovereign Indian nations be exempt from meat donation rules?
- 6) Could carcasses be turned over to the state so they could distribute the meat through their established channels?

### **Analysis of Public Input on the Draft**

According to the formal analysis of public comments on the Draft EIS, the Park received a total of 2,675 responses, which yielded a total of 3,246 comments (RMNP 2007b). As such, "2,615 [were received] from individuals, 3 from businesses, 14 from organizations, 2 from congressional representatives, seven from public agencies, and one from a tribal government (p. 1). Of most interest to our analysis here are the percentages of 'substantive comments' and of certain topics that were commented upon.

As the document describes,

[t]he most common issue that was raised (2,149) by the public concerned those alternatives that were eliminated from further consideration in the plan/EIS. These comments were largely nonsubstantive in nature and generally supported or opposed an alternative. Of these comments, 1,085 were received in support of re-introduction of a self-sustaining wolf population into the park. Approximately 900 comments were received supporting allowing public hunting in the park [...] (p. 1).

This means that approximately 66% of public input addressed alternatives that were no longer considered for the Draft. While this interesting and potentially suggestive of the framing efforts



of the interagency team or the understanding and intentions of members of the public, it is difficult to ascertain the meaning of these and other percentages and frequencies (which is nonetheless beyond the scope of this project). However, while it may suggest that the majority of commenters were unsatisfied with the dismissal of these alternatives and, similarly, that they were opposed to the current focus of the plan/EIS, it is unclear whether the focus of public commenting was an outcome of interagency framing (i.e., how public input was solicited and the plan conveyed).

What is worth noting, however, is that only 142 comments were deemed substantive by analysts for the Park (p. 1). Since this means that less than 0.05% of comments were substantive (and that approximately 95% of them were non-substantive), it shows that a miniscule fraction of public input was worthy of agencies' consideration and formal response (according to NEPA directives). In other words, because the interagency team would only have to respond to, and potentially address, the substantive concerns and questions of the public, the significantly small number of substantive comments indicates that public input on the Draft would largely remain unused in subsequent phases of planning, such as in the development of the Final EIS. This is especially evident since the requirement that agencies respond to substantive comments contains no obligation that agencies will actually revise their plans if substantive questions/concerns can be refuted or justified by the team.

Because the Park's document summarizing the results of public input also contained a list of substantive comments exemplifying different categories of inquiry or concern, it was possible to construct a simple frequency count of which public entities were making comments deemed substantive. Out of 102 substantive comments (6 of which were examples representative of two types of entities, meaning that there were only 96 examples in all), 63 (61.7%) were made by unaffiliated individuals (i.e., those who did not espouse formal

membership) and 39 (38.2%) were made by special-interest groups and a congressperson (p. 1). While this indicates that individuals were more represented than special interests and other entities within the comments deemed substantive, this is misleading because comments were received by 2,615 individuals but only 14 organizations. Thus, when we consider that 38.2% of substantive comments were received from organizations which composed only 0.005% (14/2675 documents of which comments were derived) of those providing input, it becomes clear that special-interest organizations were much more successful at making substantive comments than were individual citizens. However, this does not necessarily mean that they were more successful at impacting the planning discourse since there is no indication that substantive comments necessitated any noteworthy revisions to the EIS. To the contrary, the substantive comment examples and agency responses that I reviewed indicate that most if not all of such comments were refuted and/or justified by the interagency team.

### **Towards the Final EIS: The Resurgence and Uncertainty of Public Hunting**

Before the dust had settled from the public release of the Draft, the interagency team was already well on its way to completing the Final EIS, which the Park planned to have “ready for release sometime after the first of [2007]” (RMNP 2006g:1). This was made possible by the division of organizational and expert labor, and more specifically, by the organizations RMNP had contracted to formally write-up the EIS document (Parsons) and to manage and ensure the team’s compliance with NEPA protocol (TQ-NEPA). For example, many chapters of the Final EIS were near completion during the Draft phase (such as the final *purpose* and *need* statement), while the impact analyses and models developed for Draft *alternatives* were used as the basis

for more detailed assessments of their relative costliness and effectiveness at meeting *objectives* in the Final EIS. However, even as the Final EIS was approaching completion, constraints on its implementation by the Park and interagency team created a chain of events that would increase the national salience of the EIS and hamper its timely completion.

Within the months following the late April release of the Draft, Park agents became aware that the preferred management alternative would exceed their agency's budget to an unprecedented degree. According to a briefing RMNP prepared in August 2006, "[i]n order for the objectives of the Elk and Vegetation Plan to be met many actions [would] need to happen simultaneously during the first 4 years," which would create considerable overhead costs for the Park (RMNP 2006h:3). After highlighting how the Park was "currently operating on a piecemeal funding approach," the briefing expressed "that without a comprehensive funding approach it [was] likely that implementation [would] be unsuccessful and [that] public backlash could be severe" (p. 3). Thus, as the briefing concluded, the Park "[did] not anticipate that th[e] plan [would] be implemented" as intended (p. 3).

The costliness of the Park's proposal soon became a salient issue in the media and among certain segments of the public. However, the salience of the issue was less a reflection of concerns about the economic feasibility, and hence viability, of the Park's management plans than it was a reflection of the sentiments of a hunting demographic and of those who were similarly appalled by the federal government's alleged inefficiency and irrationality. In other words, the costliness and inefficiency of the Park's plans were established through contrast to the perceived inexpensiveness and ease of using public actors or 'hunters' to reduce the elk herd. Many of these sentiments were voiced directly to RMNP through the comments provided by individuals and special-interests on the Draft, while others were expressed through media outlets, both local and national. The following comment by the National Rifle Association on the



Draft EIS encompasses the bulk of these sentiments, and also represents the dominant form of argumentation employed by individuals and organizations voicing support for the use of public hunters and 'marksmen':

Alternatives 2 and 3 would employ Park staff or contractors to reduce the elk population by varying degrees over time. It is an alternative that would likely achieve the goal of population reduction, but at a high cost to the taxpayer. The cost estimates range from \$1.1 to \$1.3 million annually for a total cost between \$16.5 to \$18.2 million. [...] The true failure of the DEIS is that it did not include the most viable and cost effective alternative and that is to allow licensed hunters, under the supervision of Park staff, to act as the 'contractors' to cull the elk herds. [...] A supervised hunt would not have the practical and fiscal shortcoming of other alternatives. In fact, the Park could charge a fee for participating in the controlled, supervised hunt and the proceeds could be returned to the Park to offset the cost of the supervised, culling program (RMNP 2007b:106-108).

Similar sentiments also underwrote the recommendations and proposals made by some important organizations, including that of CDOW. Following on the heels of the Colorado Wildlife Commission's recommendation—in the past April—that the Park reconsider the use of public contractors for managing elk, the Western Association of Fish and Wildlife Agencies (WAFWA) passed a resolution with a similar emphasis. As WAFWA announced in July, they were both "promot[ing] hunting in national parks and 'encourag[ing] the National Park Service to seek whatever legislative or regulatory authority [was needed]...to support [the] use of public hunters to reduce ungulate populations in national parks'" (RMNP 2006i:1). However, while the pronouncements of these groups helped elevate "[t]he issue of hunting in national parks....to [a]

national level,” the Park’s decision to reconsider the use of public contractors was motivated by the issue of cost and the subsequent request from the Park’s regional director that they “go back and re-evaluate the preferred alternative based on public comments...and what [RMNP thought could be]....realistically... implement[ed]” (RMNP 2006j: 1).

Given that the economic infeasibility of the Park’s preferred culling strategy was predicated on the Park’s sole responsibility for implementing the plan, CDOW began devising a plan—with *some* preliminary support from Park staff—that could alleviate the Park’s constraints while potentially salvaging their elk reduction goals. This plan, which was communicated to the Park’s superintendent in the form of preliminary proposal in August, would involve a renewed focus in making the public’s participation in culling more legally, economically, and politically feasible. The following bullet points are some of those initially presented to the superintendent, and illustrate CDOW’s thought-process quite well:

- The Division of Wildlife (DOW) will utilize qualified members of the public to achieve the required reduction in the elk population.
- The reductions will be cow elk only...
- Licenses will be issued under a drawing process separate from the normal DOW drawing process.
- CWD testing will be required for any elk taken under the DOW program. The DOW will pay for the costs of testing.
- Members of the public that participate...will be required to take and pass a certification above and beyond the normal hunter education requirements. This program will include training in ethics, dealing with the media, NPS requirements and rules, and will also include a mandatory marksmanship

requirement. Members of the public that do not pass...will not be allowed to participate.

- The DOW will work with NPS staff to determine the best times and locations for...reductions...
- The DOW feels that it is very important for areas of the park to be closed to visitation during the operations. This will avoid most conflicts with visitors...
- The DOW will hire qualified “hunt coordinators” to take members of the public out in the field each day. These coordinators will be responsible for up to five members of the public each day and make sure that the harvested elk are brought out each day.
- One DOW staff person would be in charge of coordinating with NPS staff, hiring hunt coordinators, monitoring the operation and adaptive management (RMNP 2006k:1-2).

As these points indicate, CDOW had put considerable effort into the design and framing of a preliminary, but ambiguously feasible, elk management plan. Since numerous problems were identified during prior meetings on the public ‘marksmen’ and ‘contractor’ options, the CDOW’s efforts to ameliorate such problems—seen in their emphasis on certifying public contractors, educating them about ethical and media issues, and supervising them while attending to visitor conflicts—is evident in the language (e.g., ‘working’ and ‘coordinating’ with ‘NPS staff’) and proposed activities included in the proposal. Additionally, by demonstrating their willingness to take a lead role in management, despite of their prior resignation from their core-team responsibilities, the proposal reflected the seriousness of their commitment to seeing the actualization of public hunting. In this way, it also illustrated the degree to which CDOW was responsive to a vocal hunting demographic.



While CDOW's proposal evolved partly from discussions with the Park's superintendent and staff, where it was then discussed, in a fair amount of detail, in numerous meetings over the span of six or more months; their proposal was problematic for the same reason(s) the use 'public shooters' was dismissed prior to the Draft. However, even as the Park's superintendent explained that "[t]he folks [they had] consulted with (both Park Service and DOI Solicitor) still [saw] the use of 'public' shooters as problematic due to legal/policy concerns, precedent, safety, and impact on park visitors [etc.]," the Park continued to hold formal meetings to discuss the practical aspects (e.g., how to handle the elk meat left over from culling) of its potential implementation (RMNP 2006j:1). In other words, its definitive infeasibility was still uncertain, given NPS and NEPA protocol.

As it turns out, the Park's willingness to consider both CDOW's proposal and the potential use of 'public shooters' was motivated by the ongoing problematization of NPS directives; in short, even the Park was unclear about the legal definition of 'authorized agents' and 'volunteers'. For instance, while NPS directives were relatively clear in disallowing 'hunting' in the Parks or barring the consumptive use of culled prey (which was tacit assumption of various articulations of the 'public shooter' strategy), it was less clear about who could be an 'authorized agent' or 'volunteer', both of whom were allowed to assist NPS with culling. As a document prepared by a staff member in the Park illustrates (RMNP N/A), determining the legal definition and character of such roles and functions was difficult. It required nothing less than the scouring of NPS and Park-specific directives and policies, which would then involve a careful reading and cumulative assessment of a plethora of references to 'agents' or 'volunteers' throughout such documents. For instance, the author who compiled policy references to such terms produced the following summary for the Park:

WHAT IS AN AUTHORIZED AGENT? (I could not find an NPS definition; I pieced this together and it will need your review and legal review)

An 'authorized agent' is an individual or entity empowered to represent the NPS for specific tasks or assignments. An individual or entity becomes an agent by delegation of authority through a formalized agreement or contract whereby the 'authorized agent' assumes liability for their actions. Contractors or cooperators are determined by formal contract or agreement, respectively (RMNP N/A:2).

As a result of the legal ambiguity inherent to the NPS position towards 'authorized agents' and 'volunteers', the potential opportunity for the public's involvement in elk culling became a prominent area of debate in Colorado, the western U.S., and the national media. The public salience of such uncertainty is partly the result of the Park's need—after the costliness of its proposal was broadly announced (e.g., in both hunting magazines and the New York Times)—to justify its decision-making processes to individuals, special-interests and the media; all of which ultimately exacerbated it as a public issue. However, rather than announcing the intricacies of Park and NEPA policy to the public, RMNP disclosed bits and pieces of its rationale to news agencies and commenters on the Draft. For instance, while the Park disclosed that hunting was barred in RMNP, that visitors would be impacted by public culling, and that it would be costly to select, license, and supervise public contractors; the Park was largely replying to individual and media criticism, and *was not* releasing a comprehensive legal justification for a national audience. This, in other words, would be left for the Final EIS.

The public salience of the hunting issue and the EIS was further amplified when the Park decided, despite of legal ambiguities surrounding the definition of 'agents' and 'volunteers', to

inform CDOW that “their proposal for using public shooters [was being taken] off the table” on October 2, 2006 (RMNP 2006m:2). In response, the director for CDOW wrote the superintendent a “letter...to re-affirm the DOW commitment to continue to work with NPS to implement the preferred draft alternative,” albeit, “using hunters to achieve the desired level of reduction” (RMNP 2006n:1). In the letter, the director again emphasized how “[t]he saving to NPS would be considerable,” explaining also that CDOW was prepared to “pay for the [public hunting] program” as well (p. 1). However, while this would have reduced some of the costs initially projected by the Park, since RMNP was already revising their preferred alternative to rely on a relatively gradual culling approach (which was now framed in much the same way that their moderate-reduction strategy had been framed during the Draft) that would use Park staff rather than agency-contractors, Park analysts believed CDOW’s proposal would “have no significant reduction in the cost of...implementation” and may, instead, “require parts of the plan to be rewritten” (RMNP 2006h:4). Thus, as it turns out, part of the costliness of the Park’s initial strategy was that the cost of contractors, rather than Park staff, was being calculated in the Draft. So considering that the EIS was already down-sized from a regional plan, and that the cost-savings and legal support for public marksmen were unconvincing, the Park appeared justified in their rejection of CDOW’s proposal.

With the renewed dismissal of public hunting, political support for opening the Park to hunting increased significantly. Since the ongoing coverage of the Park’s plan in the media largely focused on the costs of their preferred alternatives and the reactions it was drawing from regional hunters, recreational interests, and other organizations and agencies, there was little to no mention of how the Park had recently justified its dismissal of public hunting, or how RMNP had developed ways of getting around the initially projected costs. As a result, perceptions that the costliness of Park operations were largely a function of legal prohibitions



on their use of public hunters catalyzed the emergence of pressure groups seeking legislative changes to Park policy. For example, after the Park superintendent presented the EIS—or more specifically, the legal analysis used to dismiss public shooters—during a public workshop conducted by the Colorado Wildlife Commission on February 2, 2007, a couple of ‘frustrated’ commissioners voiced support for “lobby[ing] the Secretary and Congress to get the law changed” (RMNP 2007c). Since Colorado Senator Mark Udall had vocalized support for seeing the Park use “qualified non-NPS marksmen” to reduce the elk herd at costs he believed could be “substantially reduced” from those initially proposed, Senator Udall—along with House Representative Musgrave and other political actors—was targeted as a sympathetic proponent for legislative action (RMNP 2006o:4211:4). This appeal seemed to work; on February 16, Senator Udall put forth a bill that would “clarify the authority of the Secretary of the Interior with regard to management of elk in Rocky Mountain National Park” (RMNP 2007d:1). It established the following items:

##### Sec. 2. USE OF SERVICES.

Nothing in the Act of March 2, 1929 (45 Stat. 1537; 16 U.S.C. 198c), or other applicable law, shall be construed as prohibiting the Secretary from using the services of qualified individuals, as volunteers or under contract with the Secretary, to assist in implementation of the Elk and Vegetation Management Plan by using lethal means to reduce the population of elk within the Park.

##### Sec. 3. CONSULTATION.

The Secretary shall consult with the Colorado Division of Wildlife regarding possible participation by such Division in implementation of the Elk and Vegetation Management Plan.

### Sec. 4. LIMITATION.

Nothing in this Act shall be construed as applicable to the taking of wildlife within the Park for any purpose other than the implementation of the Elk and Vegetation Management Plan (RMNP 2007d:1-2).

Because the Park had already made the decision to dispense with the idea of using public shooters as a formal management alternative, the most interesting events following Senator Udall's bill were those surrounding the public's reaction to the bill. While Senator Udall was initially supported by a vocal hunting constituency, whose interests he was initially representing, a counter-swing of public opinion would soon cast suspicion on the intentions of the Senator's bill. The Senator's legislative intentions were aired in many of the same news outlets that had been covering the EIS since the costliness of the Park's preferred option were first announced. Given the public salience surrounding the EIS and efforts to legislatively open the Park to hunting, the Senator also held a public meeting in Estes Park in March of 2007 to discuss his bill and the "use of volunteers to cull elk" in RMNP (RMNP 2007c:1). As an observer affiliated with the Park noted, the event was "very low-key" and to the surprise of many in the Park, "[n]o big wigs from CDOW spoke" and "nobody from an organized hunting group made their presence known, if they attended at all" (p. 2). As it turned out, the tone of the meeting was potentially subdued by the opposition Senator Udall was now facing in regards to his bill. As noted by an associate for the Park

...I was struck by the fact that Udall never made a strong statement about him moving the bill forward because of his commitment to it. I think he was using this meeting to assess public response, and he is realizing it is causing his base constituency in the

conservation community to question his motives. Is the tradeoff for [a] few hunter votes worth it? (RMNP 2007e: 2-3).

As this excerpt indicates, Senator Udall was becoming increasingly targeted by conservation proponents, Park advocates, and even organizations of retired NPS agents. Thus, not only was the Senator confronted by two conservation groups during the public meeting, both of whom “want[ed] to go on the record as strongly opposing his bill,” but he also received letters conveying similar sentiments by the National Parks Conservation Association (NPCA), the Coalition of National Park Service Retirees (CNPSR), and the Park’s Regional Director for the Intermountain Region. While the CNPSR argued that “[c]hanging the park’s authorization, as Rep. Udall’s ill-advised legislation proposes to do, would undermine the foundation upon which [the] park was created,” the NPCA similarly capitalized on the belief that Senator Udall’s bill would constitute a “whittling away” of Park values whose end result would be “mediocrity in the national parks” (RMNP 2007f:3; RMNP 2007g:4). Following this backlash, the Senator took efforts to carefully reframe his stated intentions with the bill. As he replied to one of his constituents

...[Y]our letter suggests a misunderstanding of the terms and intent of the legislation.

The bill would not authorize hunting in Rocky Mountain or any other National Park. Instead, it would declare that nothing in current law is to be construed as prohibiting the Secretary of the Interior from using the services of qualified individuals—defined as people with Colorado big-game hunting licenses and who have such other qualifications as may be set by the Secretary—to assist the NPS in implementing the NPS’s Elk and Vegetation Management Plan by using lethal means to reduce the Park’s elk population.



[...] So it would not affect the laws that bar public hunting in RMNP or any other unit of the NPS. Instead, it would make clear that those laws do not prevent the National Park Service from considering using the services of Colorado's sportsmen and sportswomen to reduce the Park's elk population (RMNP 2007h:3).

Whether or not Senator Udall had initially intended for his bill to serve as a legislative wedge to open the Park to hunting (as many in the Park seemed to believe), the Senator's reinterpretation of the bill would make the subject a non-issue. Not only had the Park already decided to go with a moderate-culling framework, but the Park already had the legal clearance to use qualified public marksmen. As such, the Park superintendent's response to a former NPS employee on April 19 is suggestive

Thanks for sending a copy of the response you received from Mark Udall. Technically, his legislation does not open the park to hunting. It does however encourage use to use 'hunters to do the culling. A fine distinction if you ask me. He's walking a fine line between hunting and culling. The bill has been portrayed in the media as a hunting bill, so I think Mark has been getting some push back on this that he wasn't anticipating. By the way, we already have the authority to use volunteers as authorized agents to assist with culling. Its really more a policy issue on whether that's an appropriate use of volunteers (RMNP 2007h:3, italics added).

As this admission suggests, the real problem was that the use of public marksmen as authorized agents would still create adverse impacts on visitors' experience on the Park. In so doing, it would also constitute a reduction of the Park's capacity to uphold visitor's enjoyment and recreational opportunities in RMNP. Thus, because this would reduce the Park's ability to satisfy

a crucial component of the Organic Act, to which all Park's are bound, the Park would continue to revise the preferred alternative to reduce costs. These reductions would come by lowering the intensity of culling, increasing the time-frame of implementation, and by planning to use NPS rather than contractor staff.

### **The Release of the Final EIS and Record of Decision**

When the Final EIS was released on December 11, 2007, there appeared to be little discontinuity between the document and the Draft. Given the salience of the EIS in the media, particularly in regards to its projected costs in the Draft, the substance of revisions to the Park's preferred *alternative* was well known. Therefore, since the *alternative* was already 'preferred', the Final EIS needed only to reiterate why this was so; which it did by disclosing how other alternatives were developed, analyzed and rejected, and how the preferred alternative satisfied legal and managerial requirements that others did or could not. Such disclosures took the form of expanded purpose and need chapters, chapters dealing with the affected social, economic, cultural and ecological environments (i.e., as they were affected by inaction or each alternative), sections listing various laws, policies, plans and agreements that influenced the plan's development, and sections listing the agencies and publics the Park collaborated with and how the public was made involved. Thus, since there were few important changes to the commitments and arrangements within the interagency team, and since the plan was already decided (i.e., to rely on moderate-culling), to a large degree, by the preceding Spring of 2007; the main addition to the Final EIS was the announcement of the environmentally-preferred alternative—which NEPA requires all agencies to announce.

In line with NEPA protocol, the Park described this about the environmentally preferred alternative:

The environmentally preferred alternative is the alternative that will best promote national environmental policy expressed in the National Environmental Policy Act (NEPA). Section 101(b) of NEPA identifies six criteria to help determine the environmental preferred alternative. The act directs that federal plans should:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assure for all American safe, healthful, productive, and aesthetically and culturally pleasing surrounds;
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. Preserve important historical, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The environmentally preferred alternative would cause the least damage to the biological and physical environment, and would best protect, preserve, and enhance historical, cultural, and natural resources. Alternative 5 [i.e., the intensive management



of wolves] is considered the Environmentally Preferred Alternative in its ability to best meet the six national environmental goals (2007a:94).

While the intensive management of wolves would have met each of the above-mentioned criteria to a greater degree than other alternatives (except for the fifth point, which is due to the potential for “wolf depredation on livestock or domestic animals”), NEPA does not require agencies to select the environmentally-preferred alternative for implementation (2007a:95). In addition, while the wolf alternative had the potential to meet most of the plan’s objectives to a greater degree than other alternatives, the logistical and financial constraints on its implementation and efficacy made it less feasible for implementation. In short, the perceived constraints on its implementation and efficacy were ultimately the result of legal constraints facing the reintroduction of a self-sustaining wolf population—which was later rearticulated into the intensive-management option rejected in the Final EIS.

Although the considerations that influenced the Park’s management plan have been documented throughout this chapter, the Park’s in-house presentation of the Final EIS is where the rationale behind the selection of a preferred alternative is most clearly explicated. In the team’s final articulation, the culling (formerly referred to as ‘moderate’) strategy would use fences, herding and aversive conditioning of elk, and would entail reductions of up to 200 elk per year using NPS personnel and other ‘authorized agents’. Because their research showed that 75% of the elk population “spends at least 7 months [of the year] outside the park,” the presentation also emphasized that the Park would continue to work cooperatively with CDOW and other agencies, particularly on hunting outside the Park (RMNP 2007i:20). Thus, given the uncertain efficacy and the economic and legal constraints on other alternatives, the presentation emphasized that “[t]aking a slower approach to lethal reduction will allow work to

be accomplished in house, which will provide cost savings, rather than relying on contractors as...proposed in the [Draft EIS]" (p. 16). In addition, it was also explained that funds were already available for fencing, that reduction goals "have a high degree of certainty of being successful," and that "impacts on visitors from lethal reduction operations" would be minimized, particularly in comparison with the use of fertility drugs or the intensive-culling of elk (p. 16). Therefore, as intimated by the Park, the preferred *alternative* was chosen because it was the least expensive option with the highest degree of success at reaching the plan's stated objectives.

To assuage public concerns over the waste of elk meat, which were vocalized during the Draft commenting phase, the presentation announced that "carcasses or meat would be donated to individuals through an organized program, pursuant to public health requirements" (p. 17). However, while it was also acknowledged that "NPS personnel would be augmented by authorized agents [...] when additional personnel are need to achieve annual population goals," it was explained that "[c]ost, efficiency, and effectiveness would...determine" when and if supplemental agents were needed (p. 18). This would nonetheless involve training in firearms and wildlife-culling and would involve proficiency tests. And though the training and caveats that this implied was similar to what CDOW had proposed in their plan to assist the Park with culling using members of the public, there was no mention of CDOW as having an oversight role or any other management responsibility.

Thus, following a 60 day review period by other federal agencies, the Record of Decision (ROD) was signed on February 15, 2008, thereby completing the seven year planning process and initiating a twenty year management plan. The preferred culling alternative was finalized at this point, and left open the possibility that "[i]n future years, the park will, using adaptive

management principles, re-evaluate opportunities to use wolves or fertility control as additional tools” (RMNP 2008:1).

### **Stakeholder Interviews**

Semi-structured interviews were conducted with 18 individuals, including: 5 agents with different roles in the Park, 4 agents from different agencies on the interagency team, 2 scientists affiliated (as extended-team members) with the EIS, 2 special interest groups and 5 citizens. While interviews involved a broad range of questions spanning different aspects of the EIS, as well as the experiences and views of respondents; the findings I discuss here mainly concern respondents’ accounts of NEPA’s purpose and impact, the determinants of interagency decision-making and planning outcomes, and their experiences and challenges as individual participants during the EIS. Although many of their accounts were directly elicited by the interviewer (i.e., in response to questions about particular the topics mentioned above), the comments they provided on a range of other issues and events were also used, when appropriate, to shed light on their views concerning the areas of inquiry listed above.

Rather than discussing insights gleaned from interviews as a whole—which I do in the summary of findings in the next chapter—I illustrate the findings derived from ‘expert’ and public (which includes special interests, according to NEPA) interviews separately (particularly since both were asked slightly questions due to their differential involvement in the EIS). Additionally, I also discuss both pools of respondents in terms of their differential statuses—i.e., as Park, core, and extended-team members; and as unaffiliated citizens and special interest representatives.



### Interagency Experts

Interviews with Park agents resulted in the emergence of two important but interrelated themes: the difficulties and importance of collaborative management, and the structural constraints on organizational decision-making. While these themes—like those that emerged during interviews with different stakeholder groups—were derived from the most salient topics and issues that respondents addressed, only some of these accounts were elicited directly (e.g., by asking, ‘what are some of the challenges you faced/observed with regards to planning?’). Rather, many of their accounts were obtained or inferred from their responses to questions about the process and its events more generally. At any rate, the salience of these themes resulted from their participation in a seven year decision-making process. As such, the emphasis respondents placed on collaborative issues stems from their recognition that the EIS, like environmental management in general, is an enterprise entailing the cooperation of numerous agencies, organizational divisions/fields, and experts. In similar respects, the attention given to constraints on organizational decision-making reflects a shared awareness of not only the bases of collaborative conflict, but also its pervasiveness and impacts on planning. Given the prominence of such constraints (also apparent from the documents analyzed above), most respondents—including those from both the Park and interagency team, as well as those among the categories of experts and citizens—were forthcoming in their acknowledgement of collaborative obstacles.

According to respondents from the Park, what were most detrimental to inter-agency collaboration were the different laws, policies, missions, and funding sources of participating agencies. Though several mentioned how this was, in and of itself, a major obstacle to planning, three out of five respondents directly cited the particularities of CDOW (in relation to RMNP, of

course) as being especially consequential. For these respondents, the CDOW's dependence on hunting licenses for organizational revenue was seen as a central, and problematic, determinant of the agency's interests. However, while two of these respondents drew a link between the agency's hunting constituency and its alleged intentions to 'open up the Park to hunting' during the EIS, the other respondent felt the agency's collaborative activities were more structurally constrained by their managerial toolset, which is primarily limited to the use of hunting quotients as a conservation tool. Thus, while all three respondents agreed that CDOW's resignation from their regional responsibilities were motivated by their support and political representation of a vocal hunting demographic, they highlighted different reasons for why this was so.

For the two respondents who emphasized the agency's 'capture' by hunting interests, the perception was that CDOW was disingenuous in their participation in the EIS. As Meredith explained, while the agency had not formally agreed to assist the Park with culling, fertility control, or redistribution techniques, representatives for the agency had participated in the framing of plans that were predicated on CDOW's involvement in critical management activities (i.e., those fundamental to the team's regional plan). Therefore, regardless of whether they had agreed to such in a formal contract, she argued that their (active) participation was pivotal in the formulation of EIS objectives, as well as the range of alternatives that were presented for public evaluation. Although Meredith believed that Park personnel were generally skeptical of CDOW's intentions (to follow through as planned), they were given the benefit of the doubt because of their level of involvement in establishing and fine-tuning the EIS plan. Cynthia, who confirmed and aligned with many of Meredith's views, also described a couple of issues or events that she felt had foreshadowed the agency's managerial intentions. First, she felt that CDOW's interaction with the public served to convey their 'perceived ownership of Colorado's

wildlife'. For instance, despite the Park's aversion (which was documented throughout the planning process) to implementing anything that would negatively impact visitors' experiences in the Park, such as 'requiring closures of Park roads and visitor-areas', she believed the agency's actions signified their lack of concern for the Park's mission and constraints. Secondly, she had witnessed an outburst by an agent from CDOW during a public meeting that seemingly illustrated her point. As she explained, the (well-recognized) agent had sat in the back of the meeting hall snickering and muttering amongst his peers before eventually standing up to accost the team (as a civilian, yet wearing a CDOW uniform) about their reluctance to utilize public hunters as culling agents.

While Meredith was not specific about the outbursts she had witnessed during public meetings, she nonetheless felt CDOW's actions signaled their intent to "avoid accountability" while remaining influential over the planning process. While it is an open question as to whether CDOW foresaw the impossibility of hunting in the Park (and of their eventual 'backing out' from prior plans), since the Park had repeatedly struck down proposals to utilize hunters for legal and other reasons, their active participation in regional planning efforts up until the formal dismissal of the public marksmen option seemed to serve as an implicit source of support for Meredith as well as Cynthia. Additionally, because the same three respondents highlighted that CDOW "continued to fully participate" in the plan's (post-regional) development and eventual implementation, this was also used to support Meredith and Cynthia's account of the agency's avoidance of accountability.

Although the Park's superintendent (one of the three respondents mentioned above) said nothing of CDOW's intentionality or motivations, he nonetheless believed the CDOW's stance was similarly consequential for the EIS. However, the superintendent's view of CDOW's stance was more structural than in Meredith and Cynthia's accounts. For instance, when first



asked about a ‘major issue of planning’, the superintendent explained that the Park was challenged by simply being ‘a federal agency surrounded by state agencies with overlapping jurisdictions’ and ‘mismatching policies and missions’. Because hunting and wolves were two main tools that had factored into interagency deliberations at various phases of the EIS, the mismatch between CDOW and RMNP’s missions and policies were huge constraints. However, the superintendent was much more cognizant of how these constraints were a function of the attributes of different organizations—and of the arrangements between them as collaborators within a particular socio-political domain. For example, while CDOW relied on hunting licenses to fund daily operations that also revolved around the use of hunting as a conservation tool, the superintendent also spoke to the alignment between CDOW’s policies and that of the Colorado Wildlife Commission (CWC). As a policy-making board for CDOW, CWC’s ruling against the use of wolves in Colorado and their recommendation that the Park ‘collaborate with CDOW to utilize hunters’ were highlighted as significant to CDOW’s orientation to planning. From this perspective, CDOW’s repeated criticism of any use of wolves as well as their continuous advocacy for the public hunting option are both viewed as manifestations of their inability to do otherwise, given their legal deference to CWC. Thus, while the superintendent was silent about the underlying motivations behind CDOW’s continued involvement in planning, it is apparent from the superintendent’s view that CDOW could have continued participating simply as a means for honoring CWC’s desire to see the agency pursue a collaborative hunting option—which was, nonetheless, still looming as a possibility of planning (given its permissibility within the context of ‘authorized agents’)—rather than as a means of exercising control without being accountable.

While two other (previously unmentioned) respondents had not explicitly focused on CDOW, the difficulties of interagency collaboration were salient for them as well. For Mateo,

the diversity of agencies' interests, missions, and goals were impediments to not only consensual decision-making, but also communication; a fundamental component of collaboration. In this way, the different laws and policies of various agencies were also sources of communicative strife; the less agencies knew of each others' constraints, the more difficult it would be for them to sufficiently compromise on the basis of such constraints. Mateo and Daniel both implied that the difficulty of 'getting everyone at the table at the same time' was an obstacle to the communication of organizationally specific constraints. This was also exacerbated by the lack of time and resources that the individuals involved in collaborating across agency divides had to invest in balancing their day-to-day activities with their roles in the EIS. In this event, agency representatives would have fewer opportunities to actually learn about the perspectives of other agency collaborators. For Daniel, who was much less involved in inter-organizational matters, the difficulties of communication were also a product of the Park's own division of labor; which put ecologists, wildlife biologists, resource managers, and administrators all in a situation of informational exchange. The same could be said for CDOW, however, which Cynthia implied was marked by an ideological division between scientists and rangers (the latter of which she lumped in with 'hunters'). Because personality differences were also mentioned as an obstacle to communicative exchange, it is easy to see where the differences in organizational missions and practices could have something to do with the various orientations, communication styles, and objectives of agency representatives. Additionally, it is apparent that these components are interrelated and implicated in a cycle of communicative conflicts.

Three representatives of different agencies from the core-planning team were also interviewed. These were representatives from EVRPD, the Town of Estes Park, and CDOW—since the latter had initially participated as a core-team member and continued to participate in

this capacity despite accepting an extended-team role. Again, with these respondents, the same themes arose, albeit with different emphases. For Michael (EVRPD) and Dennis (Town of Estes Park), the planning process was predominately shaped by the constraints of core-team members. While EVRPD and the Town were each constrained from participating in certain critical activities, it is interesting that both representatives spoke more to the incompatibilities between RMNP and CDOW. Although Michael noted that part of the dilemma stemmed from the differential authority of each agency, which he explained by saying that the ‘federal government doesn’t recognize the state’, he emphasized how their unwavering position on different management alternatives were what ultimately determined the outcomes of the EIS. To this end, he acknowledged that CDOW was most concerned with the ‘methods of control’ examined during the EIS. However, while he noted that CDOW “preferred hunting and fertility control” and “couldn’t participate” in the reintroduction of wolves, Michael appeared to vacillate in his perception of whether CDOW was truly constrained in this regard. This is reflected in how he wished CDOW “wouldn’t have been so rigid” in considering wolves.

Dennis was less critical of CDOW but equally cognizant of the sources of planning constraints. In his view, the EIS had brought together organizations with little commonality in their interests, functions, and abilities. For Dennis, it was the differential abilities of agencies—in terms of their legal constraints—that ultimately mattered. While agencies noticeably differed in regards to their support or opposition for specific *alternatives* and tools, Dennis accepted that these differences were rooted in the laws and policies to which agencies are bound. Therefore, while he acknowledged that frustration and disputes had marked their collaboration, he believed that ideas were openly exchanged and then sifted “through the filter of what’s possible.” Dennis’s view of the unavoidability of such an outcome was communicated throughout our interview; he continuously reflected, while speaking with an accepting-tone, on



how things couldn't have been otherwise, given inter-organizational constraints. In following up on his 'filter' metaphor, he added that the "process would have dysfunctional if its outcome couldn't be implemented." To this end, while their sentiments were somewhat differently expressed, Michael also concurred by saying that interagency constraints "[didn't] leave much ground for mediation" and that collaboration ultimately "occurs within the bounds of what's possible."

Phil, who represented CDOW during planning, also spoke to the organizational differences between RMNP and his agency. Interestingly enough, he had nothing to say about the organizational positions or constraints of EVPRD and the Town of Estes Park. In fact, he directly admitted CDOW's allegiance to a vocal regional hunting demographic. After acknowledging how the agency is funded by "sportmen's dollars" and predominately reliant on "hunting as a main conservation tool," Phil went on to explain the CDOW's position regarding their resignation from a 'full partnership' with the Park. As Phil described, following the Park Solicitor's formal ruling against the use of hunting in the Park, a outpouring of their constituents raised concerns. In addition to their frustration as hunters who were unable to participate in the reduction of elk, they were also vocal in their belief that wolves could "outcompete hunters" if and when they used by the Park. As a result, Phil said CDOW came to believe that they "shouldn't be involved with such politics." However, after making this admission, Phil also mentioned that his agency's policy against leaving "big game animals to rot" also impeded their involvement with culling, since it barred the consumptive use of meat and necessitated that some animal corpses be left to reflect natural processes.

Interviews were also conducted with three members of the extended-planning team: a director from the Animal Plant and Health Service (APHIS) and two scientists affiliated with different universities. The views of these three individuals were somewhat different from those

previously discussed. In fact, only one of these respondents (a scientist named Andrew) acknowledged inter-organizational differences as an obstacle to planning. However, while Andrew highlighted differences in the policies of CDOW and RMNP, he believed the “general disparity of organizational philosophy/culture was the largest constraint.” For example, the most critical disputes, for Andrew, were those concerning different “philosophies about management and intervention in a National Park, federal versus state jurisdiction, precedent to be set, etc.” Given the degree to which Andrew had worked with both agencies, he was undoubtedly aware that jurisdictional, and hence legal, differences were also influential over the culture of respective agencies. To this end, he emphasized that while “CDOW sought a public hunt solution, [this]...was not among the ideas that fit NPS philosophy and policy.” However, while policy constraints (e.g., the historical prohibition of hunting in most NPS units) may have an impact on an organization’s culture, Andrew was keen to point out how the Park’s “sensitivity” to precedent-setting interventions (such as altering the Park’s image as a sanctuary from the consumptive use of wildlife, which many NPS employees and visitors hold) made it “very difficult to find common ground necessary to collaborate effectively.”

The views of the other two extended-team members were less insightful about the central dynamics of the planning process. This may have been a function of their peripheral involvement in the EIS and their reluctance to speak about issues that they were insufficiently knowledgeable of. Of course, in the case of the director of APHS, it may have also been motivated by a concern about maintaining public relations for one’s organization. To this end, when asked in various ways about the challenges or constraints on planning, the director would only mention the positive attributes of planning. Time and again, he replied that planning was dictated by science and that the process was relatively open and considerate of a broad range of views. Nevertheless, by eventually disclosing that he would only speak for his agency, it became

clear that he was unwilling to speak about any of his perceptions or concerns given his position as director. Perhaps for different reasons, the other scientist, Nathan, had little to say about the agencies involved in planning. Rather, in his view, the challenge of planning was how to address a public that was ‘unknowledgeable about what managers could actually do’. Although Nathan was admittedly less involved in planning, his response seems to reflect his understanding of the ‘problem’ at hand, which he described as being a relatively uncomplicated ecological issue. Thus, while he did not specify that there was a problem with the public’s misunderstanding of management issues, this was seemingly implied when he reiterated that the Park did the “best it could” given the divisiveness of the public’s views.

As the bulk of these interviews suggest, inter-organizational conflict was a prominent theme for ‘expert’ respondents. While there were different variations in what respondents emphasized, such as law and policy, or agency philosophy, mission and culture; these were all attributes of individual organizations. For instance, even if an agency’s philosophy or culture was thought to dictate their stance on particular issues (e.g., wolves or hunting), or their interactions with other types of organizations (e.g., federal vs. state), their philosophies are nonetheless informed by their missions, which tend to have a legal character and correspond with certain management tools and sources of funding. Thus, regardless of which of these attributes precedes the other (if they can be disentangled as such), they are interrelated and implicated, by most of these respondents, in facilitating collaborative disputes. However, since these attributes were viewed as constraints on the effectiveness of inter-organizational communication or decision-making, it is clear that most respondents understood that they were primarily constraints of a relational, rather than individualized, sort. And given how many respondents conveyed their acceptance of planning outcomes, the fact that many believed planning could not have ended otherwise—which several had in fact stated, in different ways—



seems to underscore their implicit belief that planning was largely delimited by the compatibility (or lack thereof) of the most enduring attributes (e.g., law, policy, mission, culture, philosophy, etc.) of the agencies planning the EIS.

Because I also asked respondents about their views and past experiences with the EIS as a procedure itself, their responses to these questions were helpful in illuminating the similarities between their perceptions of the EIS/NEPA process and their accounts of the EIS at RMNP in particular. While most respondents were able to find something positive to attribute to the EIS, such as the consideration of environmental impacts, the provision of public education, and the transparency of the process; the most common complaint about the EIS process was the length of time it typically takes to agencies to complete it. For instance, as Meredith explained using an example from the Park's elk and vegetation EIS, the interagency team spent an inordinate amount of time fine-tuning alternatives that no one thought were feasible. She offered the intensive-management of wolves as an example, which she admitted was disliked by both the interagency team and wolf advocates alike. The superintendent for the Park provided a similar example by highlighting how the doubtfulness of legislative or policy changes had little effect on the interagency team's development of hunting and wolf alternatives. As both a cause and effect of the lengthiness of the process, Michael from EVRPD noted that the EIS tended to generate a lot of "redundant" and "irrelevant data." As an example, he noted how the plan was designed with a regional focus before conflicts between CDOW and the Park necessitated a Park-only management plan.

However, the lengthiness of time associated with completing an EIS was also linked, for several respondents in the Park, with the collaborative constraints an EIS typically entails. As Cynthia highlighted, when an EIS involves numerous agencies, the differential laws affecting each agency increases the difficulty of working as a team, and for gaining the consensus needed

to actually collaborate. Mateo added that while it was a lengthy endeavor to assimilate all of the modeling data, impact analyses, etc., the cross-cutting constraints from differences in agency policies eventually ends up making much of the plan and its data irrelevant. However, for Daniel, it was the bureaucratic nature of collaboration itself that exacerbated the time needed for planning. As such, he noted how it was difficult to communicate across divisions within and among different agencies, or to simply get everyone to participate in planning at the same time and place.

As these findings suggest, however, it is difficult to separate their views of the EIS as a process from their views of the interagency obstacles that collaborative management typically entails. Nonetheless, their views of the public's role within the EIS are particularly insightful given the mixed messages conveyed by public newsletters and input forms. To this end, while all respondents were asked about the public's role in the EIS as a process, it was mainly Park respondents who were visibly confident in their estimation of the public's formal role in the NEPA. Additionally, while at least a few Park respondents noted that the public had an evaluative or input-providing role, it is illuminating that these respondents typically implied that their input was more important for managing the Park's public relations than for conveying the public's opinions and desires. For example, while Mateo believed the public played valuable role in the evaluation of planning alternatives, he described the relationship in terms of the Park saying "here's the issue, [now] what do you think?" Thus, while the public was given an opportunity to provide input, Mateo intimated how the issues were pre-framed rather than jointly determined through public and agency input. Similarly, Daniel stated that public input was "crucial for the plan's effectiveness" because they could otherwise "rock the boat." To this end, he stated that it was important to get "the public on board"; particularly by "getting the public to buy into the plan" and by making them feel "like they've had a voice." It is clear, then,

that while these views do not preclude a more active and deliberative role for the public, they tend to depict the public as more of a confounding variable than a source of insight during planning.

This confounding role was made more clear in interviews with other Park respondents. As Meredith's estimation, the public's role was for "mainly providing information." While she admitted that "people often think it's about voting," she was explicit in her explanation that public input was critical for letting "the park know where [the public] stand[s]." This is, in fact, how both Meredith and the superintendent viewed the purpose of public presentations. However, in line with Mateo's view about the importance of public workshops for getting the public to 'buy in', the superintendent explained that presentations were an important source for "foster[ing] learning and acceptance." Therefore, while it is questionable as to whether the public could, or is supposed to, take a more active role in shaping planning or deliberating over the necessity or needs of planning, it is clear that their participation in the EIS is considered, by 'experts', to be an important source of their education. And given that their education is important for fostering their acceptance of planning, it is also clear that the public's informational role could also, by letting the Park "know where they stand," enable them to foster public acceptance by making concessions during planning and by carefully framing their presentations, their justifications for dismissing certain alternatives, etc.

#### **Members of the Public (and Special Interests)**

Given that citizens were relatively unknowledgeable about the EIS as a process; and that both citizens and special interest groups generally lacked knowledge about the events and developments internal to planning; the data derived from public respondents is of a different



sort from that obtained from 'expert' interviews. Thus, while I asked about respondents' views and understandings of the challenges and constraints on planning, their responses are mainly useful for gleaning insights into how unaffiliated citizens and 'experts' (i.e., special interests who nonetheless have expertise, but are nonetheless considered members of the public by NEPA) experienced and understood the process. To this end, their (sometimes limited) understanding of planning events helps establish a contrast between their views and that of 'experts'—occasionally leading to new insights—while also shedding light on how members of the public experience and perceive their participation within the EIS.

As a result of their peripheral insight into the plan's internal development, citizens were less precise and confident with their accounts of why things had occurred as they did during planning. Nonetheless, while public respondents cited political, economic and cultural constraints as being the primary obstacles or determinants of planning, their accounts of how and why these constraints came about were perhaps more insightful than the constraints they identified. This is especially so because they illuminate the degree to which citizens understand that collaborative management is conflictual and shaped by inter-organizational disputes. Additionally, respondents sometimes provided complementary insights into the events and disputes uncovered during interviews with interagency 'experts' as well as in the earlier analysis of Park documents.

During my interview with Tim and Mona (a couple I interviewed together), the couple discussed a range of phenomena that they believed were influential on planning. While they believed many of these obstacles were either political in nature, or had resulted in political disputes, they often attributed these obstacles to the particular attributes of collaborating agencies. For instance, while both highlighted that the conflict between CDOW and the Park had arose over their disagreement about the strategies of elk management (e.g., that the

former wanted hunting and the latter wanted culling), they both felt that CDOW was “biased” towards hunters because of their revenue base and responsibility for state hunting laws and that the Park was equally influenced, albeit in a different way, by their “dependen[ce] on tourists” for funding. In addition, Mona raised an organizational constraint that was not mentioned by any of the ‘experts’ I interviewed. As such, she believed the Park was internally divided by a body of staff who were vocal proponents of wolf reintroduction. However, upon hearing from a number of her contacts in the Park who “were saying ‘We’re not going to go out on a limb here’,” she explained that the divisiveness was overcome because “[p]eople in the Park Service got worried about [their] jobs.”

The connection between agencies’ politics and their organizational attributes was less clear, but still able to be ascertained, during my interview with Erin. This respondent was an adamant critic of the Park, other agencies, and the EIS process itself. In her view, the elk problem emerged from the Park’s reluctance to manage elk, which she described had stemmed from their “fear of being sued” by “environmentalists”. However, she also believed that this fear is what ultimately slowed the process down and shaped their reluctance to take immediate action on a problem that she believed the Park was well aware of and capable of addressing. While she noted that a lack of public consensus may have complicated planning to some degree, she nonetheless believed that “managers should [have] manage[d]” the problem without resorting to an EIS. Thus, while Erin’s account was impassioned by her status as a business owner impacted by the overpopulation of elk, what may have appeared to her as the conservatism of different agencies may be more accurately described as the manifestation of their different political and legal constraints. For instance, while CDOW (who she also blamed for being conservative) may have been abandoned much of their former responsibilities within the EIS, they were doing so more out of concern for representing their hunting constituents

than out of fear of being sued by environmentalists. Similarly, while the Park could have perhaps managed the elk without resorting to an EIS, the differential pressures from the community of Estes Park and from Park visitors could have resulted in the backlash of at least one of these groups in the event that they were to take action (see the section above on the contemporary views of the elk-problem). To this end, the Park may have felt the EIS was their best chance for taking steps to resolve the problem without committing to any one strategy for resolving it and, thus, without angering any one groups of interests. In other words, the EIS could have aided in their defense of any one action, given how its procedures appear to influence the dynamics (and processes) of decision-making.

Another respondent by the name of Donald, who was avid hunter and hunting proponent, also noted a conflict of interests between CDOW and RMNP. Given his concern for seeing hunting used to reduce the Park's elk, his belief that Park personnel were largely "anti-hunter" may have stemmed from his understanding that the Park was less considerably less swayed by local hunters than was CDOW. For instance, Donald recounted how a CDOW representative addressed the local chapter of the "gun club" that he was a member of by claiming that the Park "[didn't] have jurisdiction over elk," which the representative also claimed was "owned by Colorado citizens." It is also apparent that the alleged representative may have also stirred up club members' concern about the Park's desire to reintroduce wolves. As Donald explained, the representative told the club that "wolves were likely to migrate away from the park as elk numbers go down," potentially leading to them "killing livestock." Since Donald claimed his knowledge about the elk problem was primarily derived from meetings of his gun club and from conversations with CDOW personnel, he appeared to recognize—although he never explicated it—how CDOW's policies and decision-making could have stemmed from their demonstrable allegiance (e.g., via their funding and mission statement) to a vocal hunting demographic. And



given his acknowledgement that the Park's "preservationist perspective...might [have] foster[ed] a hands-off approach" that initially 'upset the balance' between elk and vegetation, Donald appeared to recognize, at some level, that this was a result of their organizational culture (which he believed was "'anti-hunter', 'if not environmentalist') or policies.

Given her apparent and verbalized lack of vested interests in the outcomes of planning, Amanda was considerably less involved and concerned with the EIS process or its consequences. In fact, she attended meetings mainly out of her alleged "curiosity" about the process and its events. As a result of her level of interest and involvement in the process, Amanda had considerably less to offer about her reasoning and understanding of important events. Nevertheless, when asked about her knowledge of organizational participants, she said she mainly knew that "CDOW caters to hunters". Additionally, when asked about events important to the plan's overall trajectory, she cited that the "wishes of the Estes Park community" were pivotal in this regard. To this end, in an apparent reference to the Town and CDOW's decision to not take any action on Town lands, she explained that it really came down to "what they could actually do that close to a metropolitan area." Thus, whether or not Amanda was aware of the considerations and events that motivated such a decision, she seemed to acknowledge that the Park's interests in seeing certain activities implemented within the Town—namely the regional (i.e. in-Town) use of wolves, culling, and fertility control—were notably curtailed by the Town's divisive views, and by what the Park could feasibly pursue given CDOW, EVRPD, and the Town's unwillingness to undertake certain activities on Town lands (whether for liability (CDOW), financial (Estes Park), or aesthetic (EVRPD) reasons).

While interviews with the two representatives of different interest groups provided an important view of how non-agency 'experts' viewed the planning process or its outcomes, their views tend to be more homogeneous since I was unable to schedule interviews with a diverse

range of interest groups. Nevertheless, the views from the environmental and animal welfare interest groups that I interviewed present an important contrast from those discussed above.

According to Ralph, a representative for a wildlife advocacy group, politics played an important role in shaping all aspects of the EIS process. Given his interest in seeing the reintroduction of wolves, however, Ralph tended to explain much of the import of politics and law as it related to the consideration and treatment of wolves. Nonetheless, the treatment of wolves allowed him to explain the intersection of a variety of organizational and political constraints. First, while Ralph was highly critical of RMNP's handling of wolves and other aspects of the EIS process, he believed the Park and (to a larger degree) its personnel were truly interested in seeing wolves productively used to manage elk. The problem in his view, however, was that the Park was not willing to court controversy by pushing the wolf agenda. Thus, while Ralph recognized that CDOW "was interested in opening the Park up to hunting" and that the Colorado Wildlife Commission's opposition to wolves had underwrote CDOW's decision to do the same, both of which escalated the controversial status of the Park's prospective wolf strategy; he believed the Park lacked with political courage to fight for wolves as Yellowstone National Park had done over a decade ago. To this end, he explained how conversations with the Park's superintendent had convinced him that the Park understood that the absence of wolves was the root of the problem. In fact, he explained that the EIS was, in the beginning, "at least tacitly" honest about the importance and need for wolves.

At some point, however, Ralph argued that "[RMNP] made a complete leap in logic; from being honest about the root of the problem to reaching a conclusion that was considered politically safe rather than scientifically and ecologically defensible." While he cited powerful ranching interests in the Western states—in addition to CDOW's opposition to wolves—as weakening the Park's resolve, as alluded above, he believed the Park's conservatism was most

evident in their treatment of the EIS plan. As Ralph explained, the Park turned the issue “into numbers and narrow variables,” and eventually “sidestepped the problem” altogether by justifying their actions by saying ‘It’s an elk and vegetation plan, not a wolf-plan.’ And in an effort to further illustrate the dissonance between the sentiments of Park personnel and the agency’s eventual ruling on wolves, Ralph alleged that personnel had gone so far as to say ‘Sue us (i.e., the Park).’

While Ralph sidestepped discussing how allegations of political conservatism could also relate to concerns over the political feasibility of strategies such as wolves, he nonetheless identified how either could become manifest in how agencies talk about and explicitly frame their plans. To this end, he believed the shift in the Park’s focus from supporting to giving up on a wolf strategy may also have been supplemented, as he ‘suspected agencies often do’, by their choice of in-house (or selectively chosen) ‘experts’ to draw from during their formulation or analyses of alternatives or other impacts. In this way, he believed agencies could better “insulate [themselves]...from litigation.”

My interview with a representative for an animal welfare organization resulted in a slightly different take on the same theme raised by Ralph. According to Juan, the process played out largely as a result of the ways in which the plan was framed. While Juan cited an anti-predator bias throughout the Western states, he believed “that the elk ‘problem’ [was]...manufactured by the NPS and does not exist in reality.” Thus, Juan charged the Park with “selectively us[ing] data and other information to create an elk ‘problem’ in order to justify its management actions.” Juan articulated his accusation in two ways. First, he rejected the Park’s argument that elk were problematic because the Park had not sufficiently demonstrated that Park resources were negatively impacted or that “visitor[s’] experience[s] ha[ve] been diminished.” To this end, he argues that “as the NPS concedes...these are localized [vegetative]



impacts,” and “the RMNP EIS indicates that visitor use in the park has increased.” Secondly, Juan rejected the problematic status of elk because he believed the Park could have reintroduced wolves to limit the population of elk in a manner consistent with, and even warranted by, the NPS Organic Act; which “requires the use of a “natural regulation” management strategy in which nature is the primary factor influencing wildlife population dynamics and ecosystem processes.”

Because Juan only analyzed the draft and final EIS and provided written comments for his organization, he was unable to comment on the events leading up how to the ‘problem’ was framed. Nonetheless, given his analysis of the EIS at RMNP and his career of preparing written critiques of other agencies EISs for his organization, he argued that “[t]he decisions made during the entire planning process was, as is often the case with federal agencies, a product of an agency attempting to use whatever evidence exists to justify an a decision already made.” Thus, by suggesting that the decision was predetermined, Juan seems to imply that the actors involved in the EIS were the primary constraints on its development. In other words, by depicting agencies as clamoring for evidence to support pre-determined decisions, he inadvertently speaks, given his acknowledgement of the diverse organizations involved, to their inability to achieve the objectives of any one agency. In this way, Juan seems to implicate, even if unintentionally and unknowingly, the very organizational constraints within and among such agencies as being pivotal to the plan’s delimitation.

Given the diversity of views and understandings among citizens and special interests, their responses should be viewed according to their perceptions of the dynamics most important to the plan’s development and outcome. Therefore, despite differences in what they privileged in their accounts of the plan’s unfolding, it is clear that public respondents were more or less cognizant of the ways in which planning was significantly shaped by the specific

configurations within and among participating agencies. To this end, regardless of whether planning was shaped—in their views—by the philosophical or cultural differences among participating agencies, by the Park’s lack of ‘political courage’, or by the impracticality of undertaking certain activities within the Town’s boundaries; each of these factors tend to emerge from the capacities and constraints of individual agencies, even if they were only problematic in relation to the attributes and positions among team members as a whole. However, given their recognition of the ways in which such differences translated into collaborative conflicts or disputes, it is also telling that most public respondents, like ‘experts’, were generally open about their beliefs that planning could have scarcely ended otherwise. In other words, given the existence of differentially constrained and interested agencies, they intimated that planning was delimited by the positions of those involved in its undertaking.

We must now, however, consider the experiential accounts of members of the public in order to glean insights about how ‘experts’ and citizens view the official (and tacit) purposes of the public’s involvement in the EIS. To this end, it is important to recall that while NEPA tends to tout the public’s role in shaping the decision-making considerations of interagency planners, interviews with ‘experts’ seemed to emphasize that the interagency team perceived their involvement as both a means of helping decision-makers gauge the public acceptability of various alternatives and outcomes, and as a means of educating the public and facilitating their acceptance of planning outcomes.

Although I asked members of the public about both their experiences (both generally and during specific events) during the EIS and their understandings of the official purposes for involving the public in the EIS/NEPA, their responses to these questions tended to vary—and were often interrelated due to the relevance of their experience to their understanding of the

public's role in NEPA. Nevertheless, some interesting parallels and contrasts were noted between their views and those provided by experts.

According to Donald, who was admittedly less involved or interested in the EIS, the public's involvement was to mainly allow citizens to "provide their say," although he believed "policy is most likely to shape how it's used" during planning. While his involvement in public presentations was mainly as proponent of hunting, his apparent lack frustration over the final outcome of planning was illustrated by his appreciation of the opportunities for public participation, of the representativeness of opposing views and interests (as presented by the interagency team) during public presentations, and of the ways in which his participation in presentations had facilitated his understanding of the issues involved.

This view was somewhat mirrored in Amanda's response. Since she had participated mainly out of her curiosity in the decision-making process itself, she was also supportive of the number and forms of public participation opportunities. However, it is interesting that, while she was considerably less involved and invested in the EIS process or its outcomes, she surmised that the public's involvement was "possibly more to gauge public views than to obtain suggestions."

Erin, who considerably more vested in the process's outcomes, displayed a much more critical and carefully considered view of the public's role in the EIS. Although she believed the EIS was unnecessary because managers already knew what needed to be done, she stated that the public's involvement in the process was to "educate citizens" while "giv[ing] managers locals' insights." However, while she generally felt that the Park did a great job of presenting information about the plan and with explaining how certain alternatives or strategies were differentially viewed, she thought the team was less open about issues of "practicality." For instance, she felt the team addressed alternatives and strategies (e.g., the use of wolves and



long-term/moderate-culling) that were unlikely to work given issues of economic (and time) infeasibility. As such, she stated that there were probably “too many opportunities for public participation”; a view that was further reflected in her belief that the team/Park “didn’t focus enough on getting something done.” Consequently, since she explained how the public was told to provide input on management strategies without being told how they were going to be used or assessed, it is likely that her feeling that public opportunities were too numerous was related, in part, to her feeling that “citizens see little result from providing feedback and attending presentations.” Nevertheless, given the degree to which her complaints appear to stem from the requirement that agencies preserve alternatives until they are definitely infeasible, her frustrations with the agencies involved in planning are perhaps more accurately aimed at the EIS itself.

Tim and Mona were highly critical of the EIS when reflecting on their experiences and on the public’s potential role in it. For both respondents, it was the quality of public participation rather than the number of opportunities that they found problematic. According to Tim, while the Park seemed more open to broader range of views and concerns in the beginning of planning, they “then became more selective with opening up the forum and [in] disclosing [their considerations and constraints].” As Tim later explained, he came to feel “like the Park Service was forced to go through this formality and that they didn’t really want the public’s input. They knew what they wanted to do.” As an example, Mona explained how their participation in presentations was limited to writing down their top 2-3 management choices on cue cards which, as a result, “left a lot of issues undiscussed.” Consequently, Tim argued that the “basic assumptions and guidelines [of planning] weren’t challenged much” given “parameters” such as these. The interagency team was also implicated in a failure to explain how their options were limited by “outside constraints,” such as the interests of “key players.” Thus, while Tim and

Mona were generally unsure about their views on the role public participation was meant to formally play in the EIS, it is clear that they were unconvinced of the “value of their role in terms of the [process’s] outcome.” To this end, Mona raised the question of whether the public’s role in this particular EIS was more “by design or circumstance.”

At the farthest end of the spectrum was Ralph; the only special interest group representative that had attended public meetings. While Ralph generally believed the Park was lacking in the “political courage” needed to uphold their conservationist vision (e.g., which he saw in their early support for wolves and an ecosystemic approach), he felt some of the blame could be placed on the procedural organization of public participation itself (which was in part due to NEPA protocol). In his view, while agency personnel “may be sincere in their efforts to involve the public,” the “process was structured for shallow involvement.” As Ralph described, the “informality” of the process may have comforted some members of the public, but it came at a cost of “cultivat[ing] meaningful engagement,” which he believed agencies must desire to create. As an example, he described meetings as being akin to open-house gatherings where ‘experts’ presented the story and had the public break into small groups for separate discussions. In Ralph’s view, this was interpreted as a strategy of “divide and conquer”; particularly since he alleged that no one from the team was actively documenting their individual views or conversations. In terms of the team’s presentations, Ralph stated that they appeared “very streamlined, professional...and low-key.” As a consequence, however, Ralph believed the message was too basic and he argued that it did not, and could not, convey the complexity of political constraints or promote critical dialogue. As he explained, it was “more about selling an idea to the public.” All of this, he argued, was counter to what NEPA was initially designed do; he which claimed was to serve a “public policy-making model.” However, given the structure of the process and the partisan-leanings of individual agencies, which he

believed was “practically impossible [to overcome],” he believed citizens must be able to organize as interest groups to get their message across. Because he believed the interpretive criteria agencies use (in line with NEPA protocol) to weigh their comments generally undermined their collective actions, due in part to agencies counting majority views as a single vote, he believes the EIS does not live up to such standards and, as a result, the “public...get angry and/or drop-out.”

From these views, it is apparent that citizens believe the process is meant to educate and solicit input from citizens. However, beyond these functions, public respondents were unsure of what the public’s involvement is meant to provide decision-makers, as well as how it was supposed to serve NEPA’s goals. Interestingly, however, all of these respondents were more or less cognizant that public input could equally serve as a means for the Park or interagency team to gauge public sentiments; or that it would eventually be filtered through a political or organizationally-pragmatic frame. In this vein, three of the five citizens I interviewed intimated that they could not perceive any impact public participation had on the final outcome of the plan.



## **Introduction**

This chapter discusses insights from the central findings of this study and closes with a discussion of the ways in which they relate to existing scholarship and to matters of policy and managerial practice. As such, the first three sections discuss, within the parameters of this study, the nature of inter-organizational collaboration and environmental management, interagency collaboration under the EIS, and public participation in NEPA. The fourth and final section of this chapter relates the findings of this study to scholarship concerning environmental governance, interagency collaboration, and the EIS procedure. Additionally, the chapter is concluded with a brief discussion of what these findings suggest in terms of informing the communicative interactions and commitments among interagency participants.

## **Environmental Governance and Interagency Collaboration**

As this case-study of agencies collaborating to manage elk and vegetation under the EIS illustrates, interagency planning was highly conflictive. This is evident in both the numerous claims-making disputes between agencies and interagency personnel, as well as in the kinds and frequency of events (e.g., conflicting agency mandates or the procedural constraints created by the EIS) that catalyzed abrupt and often unfavorable changes (according to both interagency and public respondents) to management plans under the EIS. However, while legal obstacles and the divisive views of the citizenry certainly added to such conflicts, since management decisions were largely shaped or dictated by the interagency actors entrusted with developing

and later implementing the EIS plan, the conflicts most detrimental to planning appear to originate from the differential interests, goals, policies and hence capacities of interagency collaborators. To qualify this claim, it is instructive to consider the impact that their differential interests had on collaborative relations and the EIS plan itself.

It is important to note that while NEPA requires agencies to collaborate with other jurisdictionally affected agencies, the roles and responsibilities of collaborating agencies were voluntarily chosen and/or accepted. For this reason, despite the fact that RMNP was the lead agency and that the EIS was oriented towards the treatment of elk and vegetation primarily as it impacted Park operations and policies, the participation of CDOW, EVRPD, and the Town should be examined in light of their respective interests in elk and vegetation management. Therefore, while RMNP's interest in managing elk and vegetation on a regional scale necessarily predisposed the Park to collaborate with organizations capable of managing elk and vegetation outside of the Park but consequential to in-Park resources and operations, these entities necessarily had their own managerial interests given their unique organizational functions and policies.

While document analysis revealed that the Town and EVRPD were both relatively open to a variety of management objectives and outcomes, their organizational missions required them to focus on actions in and around the Town. Furthermore, while both entities participated as core-members (i.e., as full, but not co-lead, partners) of the EIS team and were able to participate in all aspects of the plans development, they were primarily involved in discussions pertaining to the installment of fences and the use of fertility control and culling in Town and on Town-owned lands. As such, the bulk of their participation came in the form of providing information about the logistical and practical dimensions of in-Town management activities. However, since any activities in Town would require review and permission from the Town's

board of directors, since the board was historically opposed to aesthetic blights such as fencing, EVRPD and the Town were both reluctant to seek clearance from the board about management strategies that were constantly evolving, relatively undefined (both logistically and monetarily), and potentially only hypothetical. Although the Park was also reluctant to share this information because of its confidential (rather than 'public') status, the team's reluctance eventually resulted in the abandonment of years of planning efforts as well as lengthy revisions to the EIS plan when in-Town management strategies were finally presented and rejected by the board for economic, policy, and aesthetic reasons. Consequently, while the Town and EVRPD remained as core-members of the interagency team, their participation became more of a means of providing socio-economic information about the impacts the Park's management activities could potentially have on Town businesses and operations. And because the Park would preserve the right to pursue adaptive management techniques if and when their or their team members' policies or economic constraints were ever lessened, both entities would continue to participate as a means of remaining a party to future management opportunities involving the Town.

Although RMNP has a history of cooperating with CDOW on Park and regional management issues, the EIS process and the jurisdictional geography of the elk dilemma greatly impacted their collaborative relations. On one hand, the degree to which CDOW is organized to manage Colorado's elk made the agency valuable to the Park as a source of both the scientific knowledge of elk and of the logistical strategies and details necessary for elk management. On the other hand, given CDOW's primary use of hunting seasons, quotas, and licensing (in addition to fertility-control) as a means of managing state wildlife, they were primarily treated by RMNP as collaborators in the potential culling, redistribution, and fertility-control of elk. While CDOW obliged the Park by providing information and developing the protocol and logistical details for



assisting RMNP with its regional objectives, interviews with Park and CDOW respondents as well as email communications between interagency personnel indicate that CDOW had ulterior motives. To this end, CDOW was motivated to help the culling strategy evolve into, or at least include, a public hunting/marksmen option. This desire was seen in the various ways in which the agency repackaged and pitched the hunting option to the Park, especially when NPS and RMNP policies seemed to greatly preclude the feasibility of hunting. It was also seen in how the agency's subcommittee, CWC (which was formed as a wolf-working group), voted against the reintroduction of wolves (to the state or in the Park) and recommended the use of hunters to cull the Park's elk, as well as in the alleged hunting-activism of CDOW representatives (noted by both a Park and public respondent). And given CWC's stance against any use of wolves within the state, the agency was also motivated to dissuade the Park from using wolves, which is seen in their incessant opposition to all of RMNP's strategies involving some use of wolves.

Because CDOW left the core-team and abandoned pretenses about overseeing or assisting RMNP with culling and fertility control within the Town (which the Town board's decision undoubtedly catalyzed), their continued participation in the EIS as a core-team member (under extended-team member status, nonetheless) renders suspect their official claims about why they abandoned such roles. Recall that according to a CDOW respondent, the agency left their prior role upon deciding that it was politically unwise to be a part of plan that was staunchly opposed by their hunting (and perhaps anti-federalist) constituents. From this view, the expensive use of federal agents rather than Colorado citizens as culling (or controlled-hunting) agents and the potential use of wolves were seen as affronts to hunters and livestock owners and businesses. Thus, had the agency abstained from participating as full members of planning, it would have appeared that their participation in the EIS was, after the dismissal of public hunting, a conflict of interest with their policies (which obliged them to defer to CWC

rulings) and their organizational culture and constituency. Nonetheless, because the agency continued according to numerous Park respondents (including the superintendent) to participate as a full-member in planning, and even volunteered to lead a public hunt on Park grounds as a member of the extended- rather than core-team, their bowing out of their role in the regional management of elk and vegetation appears to be motivated by concerns beyond those acknowledged in my interview with a representative for CDOW.

Given the degree to which the agency continued to be involved in planning, it is unclear how CDOW could appear as being uninvolved in the Park's EIS by the agency's constituents. In fact, because their continued participation also casts doubt on the legal or policy constraints that could have motivated their formal resignation, it is necessary to consider an alternative explanation—one unacknowledged officially by CDOW and the agency representative I interviewed. First, given how CDOW continued to offer their support for a public hunting option after it had been formally removed from the EIS (which culminated in their proposing to oversee such a strategy), their bowing out could be interpreted as a symbolic gesture to both the Park as well as their hunting constituents. In light of their continued participation, this would gesture to the Park and public that CDOW was deeply unsatisfied with the EIS and/or the Park's handling of it. In this view, while the agency would still participate in planning, they would no longer do so under the status of a full member of the EIS team. This, in turn, would also serve as a symbolic gesture to CDOW's constituents because the agency was thumbing its proverbial nose at the Park's goals while continuing to maintain influence over the plan's development (i.e., keeping the Park's planning objectives and strategies in check and marginally satisfactory to CDOW constituents) by remaining a party to key planning strategies and decisions. In so doing, CDOW could also remain poised to influence if not lead future discussions involving the potential use of hunting down the road (a possibility provided by the Park's adaptive management strategy).

Although this explanation is compatible with the argument espoused by two respondents from the Park, who more or less argued that CDOW was seeking to avoid accountability while retaining influence on the Park's decision-making, this assertion cannot be supported with the evidence reviewed in this study. Nevertheless, neither CDOW's claim nor the alternative account I have provided here change the fact that differences in the managerial interests of CDOW and RMNP resulted in disputes that perpetually and critically marked the plan's development and outcome.

As illustrated throughout my analysis of the planning process, organizational differences were most acutely manifest during instances of policy or legal disputes. However, while matters of policy and law were frequently raised by organizational actors to support their claims of how certain strategies, objectives, or considerations would or would not work, or could or could not be implemented by their organization, it is important to consider how differences in the interests and opinions among interagency participants were, in fact, related to their organizational missions, structures and capacities. For instance, neither EVRPD nor the Town of Estes Park were established or sufficiently equipped to govern resource management interventions in Town or elsewhere. Rather, EVRPD was organized to maintain the Town's golf course and other recreational facilities and uses of Town land, while the Town of Estes Park was tasked with responsibilities characteristic of a municipal government. While both entities were interested in seeing their problems with elk and vegetation alleviated, they needed assistance from federal or state land managers to implement activities in Town. However, since they were unable to accept such assistance given their policy concerns about aesthetics (fencing) and liability (trapping, culling, and redistributing elk) in Town, as well as their inability to fund such efforts through their existing financial means, they were unable, once these constraints were made evident, to uphold their former roles as potential facilitators of in-Town management.



In regards to CDOW, while their organizational mission and policies may not have dictated their resignation from their initial planning roles, their organizational makeup undoubtedly shaped their managerial philosophy and interests in the EIS. Given how CDOW was designed to manage the state's wildlife and game populations directly through culling and fertility control, and indirectly through the issuing of hunting licenses and the creation of hunting seasons and game quotas, it is unsurprising that CDOW was more interested in managing elk than vegetation, and with the use of these rather than other tools. Additionally, given their organizational affiliation with CWC, it is also unsurprising that CWC opposed wolves and recommended the Park work with CDOW to implement a public hunting program in the Park, and that CDOW referred to CWC's ruling when justifying their opposition to wolves and support of public hunting. Therefore, while RMNP wanted CDOW to participate in a range of activities that extended beyond their organizational responsibilities (e.g., redistributing elk on Town-owned lands) and/or were dissonant with the policies and standard practices associated with the agency's mission, the foreclosure of the possibility of hunting within the Park and of culling within the Town created a disincentive for CDOW to fully participate in the EIS. In other words, since CDOW was already opposed to RMNP's strategies of fertility control, wolf-reintroduction, and professional culling, and was vehemently supported by the agency's primary constituents, they were unwilling to use their funds and personnel to assist the Park with goals that would imply a reduction in their capacity to pursue their own legally defined missions and objectives. The rationale behind their unwillingness to fully participate in the EIS is further demonstrated by their continued willingness to play a supportive or lead role in the development or implementation of strategies compatible with the organization's mission and existing tools (e.g., hunting and modified fertility-control strategies).

The organizational structure of NPS, of course, also played a role in the collaborative disputes among interagency participants. As a federal entity charged with balancing environmental conservation with tourism and recreation, the organizational mission and policies of NPS are more complicated and varied when compared against a state entity like CDOW. For instance, whereas CDOW manages game and wildlife for a state constituency using a limited range of management tools, the NPS manages ecosystems and their natural components and processes for a national (and international) audience of tourists and non-tourists alike. Additionally, due to the complicated relationship between tourism and resource protection, and between NPS units and gateway communities, the managerial concerns of Park units are dynamic and conceivably difficult to communicate and address during collaborative management. To this end, while representatives for RMNP were convinced that hunting in the Park was likely to violate NPS and Park-specific policies, representatives and legal advisors for the Park were not entirely sure which policies precluded hunting and how, thereby making it difficult to communicate such logic with certainty to interagency actors or the media. Thus, given their inability to fully articulate such legal or policy-constraints, the issue of public hunting was continually raised by CDOW and other entities and the Park was left to entertain the logistical details and planning impacts of a strategy that no representative actually believed would come to fruition.

The eco-regional management philosophy of NPS also factored into the Park's desire to collaborate on managing issues that extended far beyond Park borders. Although the problem with elk and vegetation was inherently regional, the manner in which the problem overlapped and affected different environmental managers and gateway communities presented the Park with an opportunity to share resources and expertise, and to thereby lower (ideally) the costs of management. However, since the Park either did not sufficiently recognize or act upon the lack

of certainty that interagency actors had about their ability to implement the activities that they had helped frame during collaborative meetings, the Park's commitment to a regional plan may have consumed resources (e.g., time, personnel, finances) that could have been utilized to devise a Park-specific backup plan that was less encumbered by interagency constraints and framing efforts. Nevertheless, even if the regional plan deprived the Park of resources needed for developing a Park-specific plan that could have better salvaged their objectives, the Park's commitment to a single regional plan as well as their reluctance to begin planning anew were also shaped by the time and effort needed to legally amend the EIS or to prepare a supplementary EIS plan.

While some collaborative disputes may have resulted in little change in or constraints on the planning discourse, it is clear that the extensity and nature of interagency disputes (and the organizational differences to which they corresponded) considerably affected the trajectory and outcome of the planning discourse. However, to better assess the inter-organizational character of such disputes or their implications for planning, we must also look at how EIS procedures contributed to their emergence or exacerbation.

### **Environmental Governance under the EIS**

Although the EIS plan was fundamentally shaped by the collaborative conflicts and disputes among agencies and other entities with differential interests and organizational functions, EIS protocol played a significant role in the creation, scope, and/or impact of collaborative conflicts. To further qualify this claim, it is necessary to consider how EIS



procedures shaped the collaborative arrangements among interagency actors, the decision-making criteria used in planning, and the interpretation and managerial use of public input.

To adequately assess the relationship between EIS procedures and the trajectory and outcomes of planning, it is helpful to consider how planning might have otherwise occurred outside the EIS. To this end, since the Park recognized that the issue with elk and vegetation was regional in nature, their acknowledgement that ecological disturbances outside the Park would further impoverish Park resources if unabated would have likely resulted in the recruitment of some of the same participants from the interagency team: namely CDOW, EVRPD, and the Town of Estes Park. Not only were these entities jurisdictionally impacted and critical to the amelioration of ecological disturbances outside of, but consequential to resources and management within, the Park, but they had all worked with RMNP to a greater or lesser degree on previous managerial agreements and service contracts. However, while each of these participants were interested in alleviating the impacts of elk as it related to their respective organizational missions and responsibilities, the collaborative arrangements among these entities are likely to have differed a great deal because of NEPA's criteria for determining planning roles and responsibilities and the decision-making criteria used by planners.

Because the agency initiating the EIS is given the primary responsibility for developing, determining, and implementing the EIS, RMNP enjoyed more control over the decision-making process than other agencies. To this end, planning decisions would have to correspond with what was appropriate given the Park's regulations and policies towards resource conservation and tourism. Conversely, if the management agreement had been entirely voluntary (meaning if collaboration had occurred outside of the EIS), agencies would have had to have jointly determined the purposes, goals, and responsibilities that each would have in the management process. In this scenario, agencies would have still pursued and acted upon their own

organizational interests and imperatives, but unless collaborators were willing to let a particular organization assume responsibility for leading the management process or its implementation, no particular agency would have been able to impose their agenda on other agencies or on the planning agreement itself. To further clarify, unless organizations were either *unable to achieve their management goals without assistance* or *were interested in potentially influencing how and/or whether other organizations pursued or achieved their own goals*, it is unlikely that organizational collaborators would participate or continue doing so if their needs were not sufficiently met or were subordinated during collaboration.

For example, since CDOW could have continued to rely on hunting quotas and contraceptive-drugs to control elk numbers while the Town and EVRPD could have sought assistance from CDOW and waited for the board to approve and fund fencing and culling efforts in and around the Town, the Park's regional aims—which necessitated the extensive cooperation of different jurisdictional entities—may have made the Park more dependent on the cooperation of these entities than they were on the Park's.

Nevertheless, while the Town and EVRPD's lack of personnel and technical support may have increased their dependence on RMNP for achieving their objectives, CDOW's ability to achieve their own organizational goals may—considering the Park's need for CDOW's assistance with the scientific expertise and management personnel necessary for management outside the Park—have given the agency more bargaining power to determine the conditions, objectives, and strategies of planning. For this reason, and under a purely voluntary agreement, the Park may have never raised or continued to pursue the options of using wolves or federal agents to cull elk given CDOW's vocal and constant opposition to both. This is because, in the event that they had, CDOW may have resigned from planning altogether, leaving the Park unable—as in

the EIS—to implement management activities in and around Town (given the Town and EVRPD's lack of resources).

While the Park was given primary responsibility for developing the EIS, the range of alternatives developed and their continued consideration and refinement during planning is more illustrative of the decision-making criteria associated with NEPA than of the Park's own managerial interests. The case of wolves is instructive in this regard. Although the Park is required by NPS policies to consider opportunities for reintroducing species that were formerly part of the ecosystems within NPS units, wolves were infeasible for many reasons beyond the stance of CDOW. Recall that while Park personnel had referred to Yellowstone National Park as an example of how NPS had reintroduced wolves despite political opposition, RMNP personnel and their expert affiliates had both recognized that the small-size of the Park, the dense urban areas surrounding it, and the migratory behavior of wolves all indicated that wolves would not suffice as a strategy for reducing elk. Given RMNP's concern about media and public perceptions of Park operations, the considerably high potential for wolf mortality via traffic, livestock interests, and the Park's own policy towards culling problematic wildlife would have limited the Park's serious consideration of wolves outside of the EIS process. However, since wolves were a management tool that could be potentially used by an NPS entity, the requirement that agencies consider a full range of potential management alternatives necessitated the consideration of wolves within the EIS.

Despite the problems noted by both Park and interagency personnel in regards to the practicality of reintroducing wolves either regionally or in the Park, NEPA's requirement for determining the feasibility of alternatives differed substantially from the team's. Whereas the team felt alternatives were infeasible when they provoked staunch political opposition, were overly complicated and logistically impractical to implement, and/or were highly costly and



uncertain to result in acceptable planning outcomes, NEPA requires agencies to demonstrate through analysis that alternatives are *impossible* to implement or *significantly unlikely to satisfy EIS objectives*. While this requirement is perhaps meant to prevent alternatives from being rejected simply because they are unpopular, expensive, or hard to implement, it can also have the effect of preserving impracticable strategies that the team believes are unfit for potential implementation or managerial success. First, because the legally determined feasibility of alternatives could not be established until alternatives were sufficiently examined by numerous legal and scientific experts during a limited number of late-term alternative workshops, seemingly impractical alternatives would persist and often become further refined before being discarded altogether. As a consequence, tools and alternatives that the team believed would or could never be implemented were often preserved in plans presented for public review. Secondly, because the criteria that dictates the feasibility of planning alternatives also stipulates that agencies revise them until they are either proven feasible or rejected, the inability to definitively rule out problematic alternatives would often ensure their refinement and, consequently, increase their vulnerability to interagency constraints. Thus, the impact of such requirements can be seen in the length of time taken to formally reject tools such as the use of helicopters for culling and sound guns for dispersing elk, as well as in the further refinement of seemingly impracticable tools involving wolves or public ‘marksmen’ (e.g., which was transformed from an alternative implying a regional wolf-reintroduction, to a self-regulating population of Park wolves, and finally an intensively managed and radio-collared ‘experimental population’ of wolves—all of which were deemed highly impractical, costly, and politically unwise).

The persistence of the public hunting option is particularly insightful for demonstrating how NEPA’s evaluative criteria fostered a conflict between the Park and CDOW. In this case, the

persistence of the public hunting option largely stemmed from the Park's inability to rule it out definitely using NPS and Park policies. In fact, the uncertainty of whether and how such policies precluded hunting in the Park was a major reason behind CDOW's dogged pursuit to see it realized within the EIS. While the Park was almost certain that hunting in any form was precluded by NPS and/or Park policy, their inability to demonstrably prove this to the media, public, and interagency team resulted in the perception by CDOW, politicians and other special interests that it actually was feasible, or that it could be made more so by taking additional measures. For instance, when the Park voiced uncertainty about whether it was 'hunting' that was prohibited by NPS or Park policy or rather any consumptive use of meat obtained from culled wildlife, CDOW and other political actors sought to redefine public contractors as 'marksmen' rather than as sport hunters or develop alternative means of conducting 'controlled hunts' or of distributing or using elk meat such as through lotteries and donations. And while these revisions did little to change the fact that RMNP was averse to setting a precedent for hunters and to closing the Park for hunting, efforts to increase the feasibility of public hunting kept the alternative alive until near the end of the EIS and were made possible by NEPA's protocol.

Although the interagency team was differentially interested in the EIS or its outcomes, and differentially constrained in their capacities to support and/or implement certain strategies, the treatment of public hunting under the EIS illustrates how inter-organizational differences were catalyzed and exacerbated by EIS protocol. Just as the Park may not have raised—outside of the EIS process—the use of wolves as a potential management strategy given its unlikely successfulness and opposition by CDOW, neither the Park or CDOW are likely to have raised or seriously pursued the issue of a public hunt in the Park given RMNP's legal stance and hunting's potential impact on visitation rates and visitors' experiences and perceptions of RMNP. Thus,

under a voluntary agreement, public hunting is unlikely to have become an issue given Park policy and the unlikelihood that CDOW could persuade the Park to compromise on objectives central to its organizational mission (i.e., the protection of wildlife and the provision of tourist services). However, since it was a valid tool available to CDOW and RMNP failed to produce a compelling argument for dismissing it despite of the real limitations on its eventual implementation by the Park, CDOW was able to redefine public hunting within the parameters of NEPA. As a consequence, the Park and team had to devote considerable resources and effort to fine-tuning different hunting strategies (e.g., determining their satisfaction of EIS objectives, their logistical details, and finances required, etc.), analyzing their feasibility, and eventually justifying their dismissal in the EIS.

While it is debatable whether or not the Park or interagency team could have developed better strategies for addressing issues with elk and vegetation outside of the EIS process, neither the Park nor its prospective collaborators are likely to have spent as much time and resources on developing or fine-tuning alternatives that were demonstrably infeasible—either legally, financially, or practically—in terms of achieving important objectives. Yet this is exactly what the EIS process required them to do. Again, while NEPA’s protocol could have resulted in agencies’ taking a more thorough look at seemingly infeasible alternatives or tools, and perhaps even in their gaining insights into how they could work or how and why they could not work, it is clear that this requirement could as easily result in the preservation of strategies that were impracticable due to interagency constraints, or highly ineffective given the character of the problem and the context of management. In fact, because all of the tools and alternatives considered in the final analysis were initially thought infeasible (not for their dismissal, but for their utility in resolving management issues in a timely, socially acceptable and inexpensive manner) by the team and were continuously, if not increasingly, considered as such despite



efforts to revise them through the EIS process, the resources and time spent developing, refining, and debating alternatives such as those surrounding wolves and public hunting may have detracted from the timely assessment of other alternatives. Thus, the effort spent presenting these choices to the public is also questionable considering that the team was also skeptical of the merits of such choices, and thus that they would ever be actualized in the final articulation of the plan or in its implementation. Not only did this threaten to make citizens' input largely irrelevant, since their criticism or support for various alternatives would be trumped by planners' (practically pre-determined) ruling on their efficacy and implement-ability, but it also—according to a few of public respondents—contributed to citizens' skepticism of the public's impact on the planning discourse. This skepticism appears to be warranted since the particular tools and alternatives that drew staunch criticism from members of the public—namely the use or potential impacts of fertility-control drugs, federal culling agents, and extensive fencing and elk-barriers—in early phases of public involvement were, in light of their separate infeasibilities, later recombined so that all alternatives under consideration relied, to various degrees, on the same mixture of tools and applications.

In many ways, then, the constraints bearing on the plan's development and the practicality of the strategies it entailed make the public's participatory impact appear non-existent. This, however, is less to do with the public's influence on the planning discourse than it is about the decision-making calculus the team used to determine the outcomes of pivotal decision-making events. This calculus, as Fischer (2000) and Hannigan (1999) both suggest is common in the collaborative interaction of different institutional orders and expert-systems, was a form of satisficing. As such, organizations voiced their views and undertook certain collaborative and managerial responsibilities in full knowledge that the outcomes of decision-making would be filtered through the lens of what was legally, financially, logistically, and hence

practically possible. While such possibilities were often delimited by the organizational missions, policies, capabilities and stances of individual organizations, all of which then become impediments to compromise and hence cooperation, they were also, in the case of the EIS process, determined by the overarching legal protocol governing the relations among claim-makers and the criteria by which claims are judged. Therefore, while interagency differences often produced collaborative constraints and conflicts, the dissonance between how agencies and NEPA conceived of feasibility seemed to thwart the open and honest identification and communication of inter-organizational constraints and the practicality and efficacy of managerial interventions.

More specifically, by establishing criteria that prevent or complicate the identifying and weighing forms of infeasibility or constraint beyond those recognized by NEPA, agencies are less able to identify and plan around constraints that may weaken their capacity to actively and successfully implement the plans they refine during the EIS. As a result, agencies can lose sight of what truly constitute a feasible strategy or plan. For instance, regardless of whether or not public hunting could be ruled out of considerations in the EIS, the wealth of policy support the Park had for ruling against its feasibility (e.g., laws against hunting in NPS unless authorized Congress, against hunting in RMNP specifically, against culling with the consumptive-use of meat, and against adversely impacting Park visitors' experience) suggested that the Park, as lead agency, would not conceivably employ such a strategy, and that CDOW and others were mistaken to think otherwise. However, because compliance with NEPA protocol—however ambiguous and unfavorable it may seem to participating agencies—was necessary to avoid legal repercussions, the Park had to go through the appropriate channels to dismiss such a choice. And while this bolstered the Park's defensibility under NEPA, the legal ambiguity behind the practicability of any form of public hunting within the Park came to overshadow its potentially

detrimental impact to Park operations (another form of infeasibility), thereby allowing CDOW to contest its legality under NEPA by making the alternative more logistically and legally feasible.

A significant problem with the EIS process is thus that it tended to thwart meaningful communications among those involved in planning. On one hand, the concern the Park showed for faithfully complying with NEPA's procedures and their legal interpretations resulted in the inability of Park personnel to recognize, admit and/or prove when certain strategies would be infeasible in the final analysis. Therefore, while the Park needed to suspend rendering their judgments about the ultimate practicality of various alternatives or strategies until analyses were conducted and confirmatory of their views, there should have been avenue through which their knowledge of the myriad limitations on the implement-ability of public hunting, wolves, and other uses of fencing, fertility-control, etc. could have served as grounds for dismissing inefficacious and unpracticable alternatives. However, because RMNP was ultimately responsible for formally analyzing each alternative prior to the plan's finalization, they may have been reluctant to continuously and exhaustively emphasize the limitations that would eventually result, in the final analysis, in the formal or informal dismissal of certain alternatives. Whether or not EIS procedures necessitated or merely inspired the Park's unacknowledgement of the extensity and consequences of the constraints on their application, the result is that the process soon became conflictive when CDOW interpreted the Park's ambiguous opposition to hunting as an indication that hunting was perhaps possible.

On the other hand, communication was perturbed by the range of organizational experts involved, and by their distance—geographically, temporally, and cognitively—from one another and from the contexts in which decisions were made and appraised (e.g., within and between different organizations). To this end, part of the team's reluctance to converse about the impracticality of different strategies was that they were unauthorized to speak or rule on



matters related to the respective (official) positions of their organizations. This is to say that since the lower and mid-level staff of these organizations were responsible for planning the EIS and relaying questions of policy or organizational-position to higher-level staff that were far removed (e.g., as seen with the director for CDOW and the board of directors in charge of EVRPD and the Town of Estes Park) from the decision-making contexts and realities of planning, the personnel with the most knowledge of what their agencies could actually support or implement were relatively uninvolved in planning. Nor could they be, considering the frequency of interagency meetings and the daily developments and changes to planning that could have benefitted from administrative and directorial oversight. Moreover, since planning took place over seven years and involved communications among an almost innumerable range of managerial, administrative and scientific experts, communication was hindered by the fact that interagency personnel were unable to attend all the same meetings, were unfamiliar with the EIS process or other agency's constraints and positions, or had retired and been replaced.

Given this discussion, it is clear that while inter-organizational collaborations were conflictive and shaped by the different positionality of interagency participants, the conflicts most detrimental to the preparation and efficacy of the EIS plan—and to the resolution of RMNP's dilemma with elk and vegetation—appear to stem from the protocol that hinders the open, in-depth and ongoing discussion of interagency constraints and positionality. Thus, while different organizations are prone to disagree over the appropriateness or feasibility of certain managerial interventions in a collaborative decision-making process, or to have different capacities to support or engage in them, requirements shaping the development and evaluation of planning strategies seem to preclude the in-depth discussion and treatment of agencies' positions, constraints, and capacities. As a result, the basis of such differences or the potential ramifications of such constraints are often left unexposed to the collective recognition and

scrutiny of inter-organizational participants. For this reason, they are likely to lay dormant until they cannot be ignored, which often occurs in the final stages of planning. However, as in this EIS, by the time they arise, they often make irrelevant the amount of time and resources dedicated to developing and assessing the strategies and activities that they eventually negate. And in so doing, the belated emergence of such constraints raises the transaction costs inherent to devising new plans or to salvaging old ones.

While the EIS process can therefore be said to have catalyzed or exacerbated certain conflicts, it is important to note that conflicts arising over differences of agency viewpoints and interests are unavoidable and hence natural to collaborative decision-making. That being said, the problem with EIS protocol is less to do with its fostering of conflict per se and more to do with the ways in which its requirements foster the obfuscation of agency positions, constraints and capacities—which lead to conflicts of a varied assortment. Thus the problem is with the types of conflicts created or exacerbated by EIS protocol, and with the constraints they engender. And as I have tried to explain here, the conflicts and constraints most detrimental to the preparation and efficacy of the EIS were those which remained unacknowledged and uncommunicated until the final, or their later-term, analysis. These were namely the unlikelihood of the Town Board's support of in-town management activities, CDOW's reluctance to face liability by undertaking action on privately owned lands, and the Park's inability to implement strategies that might adversely impact tourism and RMNP's reputation—particularly that associated with the implementation of public hunting and self-sustaining or radio-collared wolves.

Therefore, because NEPA provided little room or incentive for agencies to openly discuss and critically evaluate a range of other facets of agency (or interagency) constraint or feasibility, elements crucial to determining what strategies and actions agencies could or would

actually support or implement were excluded from consideration. And by failing to consider more fully the capacities of individual agencies, the team could not realistically assess how practicable and successful their planning strategies would be. However, because strategies *were* assessed—up until the final ruling on the EIS—without reference to other aspects of feasibility and constraint, the constraints on late-term plans were often greater than realized and—because of their emergence when plans are more narrowly defined and complete—more constraining on planners’ choices and their efficacy at meeting important objectives and goals. Thus a central dilemma is that the requirements described above obscure the existence or nature of conflict/constraint (as with RMNP’s myriad positions against public hunting) while occasionally also creating the appearance of conflict (thereby fostering its emergence) when little actually exists (as with CDOW’s perception of RMNP’s support of wolf reintroduction and hostility towards hunting in the Park). So while conflict is inherent to collaborative decision-making, particularly among diversely interested and organized agencies, the problem is with how certain EIS requirements detract from agencies’ understanding of the bases and consequences of conflicting organizational positions and capacities. And if agencies do not perceive and understand such conflicts, they cannot realistically plan around them—leaving agencies, instead, with the reality of selecting among a number of strategies limited by the late emergence of previously unrecognized constraints.

### **NEPA and Public Participation**

While the divisiveness of public views about the need for the EIS and the feasibility or desirability of different strategies would have certainly complicated the interagency team’s



appraisal and use of public input, the limited impact of public input—broadly speaking—can be seen in the plan’s developmental trajectory and in the way that interagency and public stakeholders understood its impact and purpose.

Given how the strategies and alternatives presented for public review were often criticized by interagency actors for being infeasible to implement by their respective organizations or being ineffective at meeting EIS goals, much of citizens’ views were inconsequential. Although their views widely and incompatibly varied much of the time, since the public’s involvement, to paraphrase Park respondents, is not a vote, it is interesting that agencies typically found few managerial insights (which is indicative of their perception of the purposes of public involvement) from examining public comments. This was partly, of course, related to the fact that agencies had already noted many of the problems that the public raised in regards to the feasibility or desirability of various alternatives or tools. As such, because the public was often presented with alternatives or other matters to consider despite the fact that the team had already moved on, either formally or informally, with the development and fine-tuning of the EIS, it is clear that much of the public’s input was irrelevant to existing plans. However, as alluded throughout this chapter, the reason agencies had criticized or moved beyond the alternatives or issues presented for public analysis was often more to do with their inability to actually implement or support them, either individually and/or as a team given NEPA policies (e.g., alternatives must be able to satisfy EIS objectives). To this end, the only comments the team considered important to their future planning efforts or appraisals of the EIS were those which raised suggestions that fit within the parameters of existing alternatives and which were not yet precluded by legal and financial analyses (e.g., the donation of culled elk meat and the use of culling agents drawn from Native American tribes).

Although the use of public input was necessarily restricted by the realities of planning and the developmental trajectory of the EIS, the views interagency respondents held of the purposes of public involvement in NEPA makes it questionable whether their input could have served a more meaningful end. Since the Park was largely responsible for determining the public's involvement, overseeing presentations/workshops, and interpreting public input, it is telling that Park respondents were explicit in their views that the public's involvement was to educate citizens about gauge their views. While their education could have allowed them to better understand and hence participate in the deliberations over the EIS, Park respondents spoke of two other imperatives guiding the education of citizens. Because public involvement was viewed by several interagency and public respondents as a means of helping agencies consider a larger range of issues relevant to planning and management, the education provided through presentations and the Draft was, in part, meant to help citizens comment on issues of concern to the Park or interagency team. Secondly, as one Park respondent explicated, educating the public about the plan was essential to getting them to "buy in" to it, which was critical in the early phases of planning.

By describing the purposes of public involvement as a means of ensuring citizens' support for or at least acceptance of the EIS and those involved, it becomes clear that Park respondents felt that public involvement was primarily a means of fostering and preserving the legitimacy of the EIS plan. In this view, then, the public was seen as an obstacle to managerial decision-making—either during the planning process or after it, in terms of the legal ramifications associated with the public's opposition to the EIS. This perception of the public being an impediment to planning nicely dovetails with the perception that public involvement is meant to help agencies gauge public views. There are two ways in which this is so. First, since members of the public necessarily hold a multitude of different and potentially conflicting views,

planners must get a sense of the range and extent of the publics' views and attitudes in order to incorporate them into planning in a way that facilitates their buying in. The second point emerges from the first; since the team could not meaningfully satisfy or plan around a multitude of conflicting public views, educating citizens about the plan and allowing them to provide input would both contribute, to some degree, to their acceptance and/or support of it. For instance, by educating citizens about the plan's development and managers' planning efforts and needs, citizens would get a better sense of the complexities of management as well as the constraints (e.g., Park and NEPA policies, financial limitations, etc.) affecting its determination. Although citizens might disagree with the ways plans were devised or what they appeared to entail in terms of their potential outcomes, their understanding of how and/or why the plan was developed as it was could potentially assuage some of their frustrations about its outcomes. In this way, they would be less likely to seriously oppose the plan or take legal action. In a similar light, by allowing citizens to participate in planning, they may feel a sense of influence, however marginal, over the plan's development. And by knowing that their views were only a few among thousands of others that were provided to decision-makers, citizens could come to accept the fact that their impact is necessarily limited by the volume of comments that agencies received during the EIS.

Therefore, while citizens may have had little impact on the plan's developmental trajectory, the public's involvement may have enabled the team to assuage many of their concerns about the planning process and its outcomes. In fact, interviews with public stakeholders support both of these views. Despite their varied interests and levels of involvement in the process, public respondents generally voiced concerns or doubts about the impact public participation had on the considerations of planners and the outcomes of the EIS. Yet, despite the frustrations that some voiced about such an outcome, all respondents were



generally vocal about their belief that planning could have scarcely resulted otherwise, given the constraints of agencies, the peculiarities of the EIS process, and the complexities of managing elk and vegetation amidst divisive public views. And because most public respondents felt that they had learned a great deal about the EIS and the complexities of planning, there is some support for the view that public participation and education breeds support or acceptance for processes and/or outcomes that are otherwise disfavored by many members of the public .

Nonetheless, there are indications among the views of citizens that agencies could have enhanced the legitimacy of the process. As noted by a few members of the public as well as special interest group representative, the interagency team was less than forthcoming or clear in their admission of the constraints facing decision-makers or the logic they used when making decisions. While citizens were generally accepting of the outcome of planning, the responses they gave concerning the perceptions of interagency constraints were often partial or difficult to substantiate. Although citizens often referenced specific agency positions or constraints that had detrimentally affected planning, their inability to more concretely explain these constraints or their impacts on planning speaks to the interagency team's reluctance to formally explicate such constraints in a public forum. Thus, while the complexity of the process may have hindered their identification of the constraints most pivotal to planning, my analysis of public newsletters and presentation materials illustrated that the admission of such constraints were seldom explicated and inconsistently implied by the interagency team. However, given that interagency respondents generally felt that public participation was mainly meant to provide information to decision-makers and to educate the public, it is perhaps unsurprising that the team did not get into the finer details of planning with members of the public. While they did not necessarily explicate that the public would be unable to comprehend or appreciate the intricacies of planning, this is somewhat implied by their understanding that the public was likely

to oppose the outcomes of the process or the process itself if not adequately educated. In this view, a basic description of the planning process, its components, and the needs of decision-makers may have been all the Park or team felt citizens would need to provide information to planners and to feel knowledgeable about and accepting of the EIS.

### Conclusion

While this study only focused on one case in which environmental management agencies and municipal entities collaborated to manage the environment under the EIS, I believe this study yields important insights into environmental governance, the basis and impacts of interagency conflicts, and the procedural impacts of the EIS process. As such, it is important to reflect on what this study suggests about matters such as these and their implications for policy and research.

As Fischer (2000), Hannigan (1999), and Rydin (2003) collectively indicate, the contemporary context of environmental management has changed very little since the Progressive era. To this end, the same plethora of governmental bureaus that managed water, wildlife, forests, national parks, and other natural resources and land uses during the early 1900s continue to serve in this capacity today. However, while the science behind their management regimes has changed, as have the federal and state policies dictating how science is to be used and management decided, the ways in which these agencies are structured, oriented, and interactive with one another has, in the views of many environmental scholars, changed very little. More specifically, because agencies like NPS, USFS, DOW, and BLM—to name but a few—still have the same legally defined missions and managerial responsibilities a

hundred years or so later, it is questionable whether the addition of new policies to govern their managerial activities or collaborations has done much to overcome their traditional orientations towards the environment, its management, and their relations with the citizenry and other agencies (Fischer 2000; Grumbine 1991).

In fact, it was the concern that the organizational missions and structures of governmental bureaus precluded their consideration of environmental impacts as well as their collaboration with citizens and other agencies that prompted the creation of legislative measures aiming to make them expressly do so (Andrews 1999). For example, insofar that agencies like USFS and the USFWS protect forests and wildlife while receiving much of their operational funds from logging permits and hunting and fishing licenses, respectively, their interests are recognizably motivated and constrained by their financial, and hence legal, dependencies on these largely consumptive interests. Consequently, while the belief is that this tended to detract from their consideration of the environmental ramifications of their day-to-day activities, it is also believed to have had an affect on their willingness and ability to (effectively) interact with other agencies and the public. Nevertheless, despite historical and theoretical accounts of the constitution and impact of the wider system of environmental management (academically coined as environmental governance), this study is one of few that examine the determinants and outcomes of organizational decision-making and interagency collaboration in the context of environmental management.

While this study was oriented towards the study of inter-organizational collaboration, it provided a wealth of insight into the manner in which organizations view and manage their respective environments. As seen in the activities, concerns, and claims of CDOW and RMNP, these agencies were considerably wed to the constituents they served as a matter of policy and/or finance. This is seen most clearly in the interests of and decisions made by CDOW, who



fought to realize hunting within RMNP on behalf of its constituents, and who openly admitted—during interagency communications as well as in an interview—that hunters, in particular, were its primary constituents. Although the Park has a wider range of constituents, it was no less concerned with preserving tourists' enjoyment of the Park than it was with conserving the ecosystemic balance within Park grounds. And while both agencies were entrusted with conserving environmental resources and equally implored to do so cautiously by NEPA, ESA, and other agency-specific policies, they could only consider doing so within the parameters of what they could politically, legally and financially afford. For CDOW, this meant that elk were primarily, albeit implicitly, conceptualized as organisms (i.e., game) managed by and for hunters and hunting interests, and were rarely considered as species relevant to ecosystemic balance, outcomes, etc. While for RMNP, this meant that wolves were a less appropriate means for culling elk than the use of professionally trained federal snipers. In short, managerial realities were structured by what is possible given the missions and policies of environmental agencies as well as the constraints they collectively entailed. And while this did not preclude their consideration of environmental ramifications, this was one among many other considerations and was necessarily subordinated to preserve agencies' capacities to address the other policy requirements to which they were bound.

One of the most significant contributions of this study, however, is to the empirical documentation and theoretical understanding of the ways in which environmental managers collaborate with one another, and with other municipal and public entities. As such, this case-study provided a window into the extensity and substance of conflicts that arose from or were influenced by inter-organizational differences and interests. Again, the conflicts between CDOW and RMNP were most acute due to their different missions and philosophies towards environmental management. Given the Park's broader mission and policies, the organizational

tools available to the Park enabled them to undertake a broad range of interventions to address environmental issues. While this included fertility-control, culling, predator reintroduction, and elk-barriers such as fencing, CDOW's mission and policies orientated it towards the use of hunting as a conservation tool and, to a lesser degree, prescribed burning—which would greatly speed up vegetative growth and entice elk to move towards revegetated areas. Although CDOW had access to the tools of fertility-control and culling, their orientation towards serving their hunting constituents reduced their interests in and willingness to support the use of such tools in their collaboration with RMNP. This, however, is also because CDOW was concerned about the Park's consideration of using wolves and federal culling agents to manage wolves. Thus since wolves could potentially impact the availability of game and were disdained by hunters, and since CDOW vehemently petitioned to get the Park to consider using hunters—which the agency also believed was more efficient and less costly than the use of federal agents—to cull elk, CDOW worked adamantly to oppose the use of wolves and certain types and uses of fertility-drugs while demonstrating the need for and efficacy of using hunters as culling agents. And though the Park—by the superintendent's own admission—could have chosen to use hunters in the Park as 'authorized agents' contracted by the NPS, the Park's concern with setting a precedent that could potentially impact Park visitation and the Park's image as an environmental sanctuary for wildlife, plants and people alike led them to reject the idea on the grounds that it could interfere with their provision of tourism opportunities.

Since the collaborative conflicts explored by this study are those which centrally arise from the differential missions, policies, and constraints of environmental management agencies and other organizations, their exploration within the context of the EIS process contributes to the empirical study of what has largely been anecdotally associated with NEPA and the EIS. While Andrews (1999) argues that the environmental and participatory imperatives of NEPA

have been thwarted by the fact that EIS procedures and mandates do little to overcome the constraints facing different agencies and bearing on their effective collaboration, all of which were thought to preclude their consideration of environmental consequences, most analyses of the EIS have examined it theoretically (Schnaiberg 1993) or in terms of the litigation surrounding its various outcomes (Kreske 1996). Therefore, while Andrews draws our attention to the organizational and inter-organizational constraints that perturb environmental management and its collaborative undertaking, this study explores inter-organizational collaboration and disputes in relation to EIS procedures in extensive qualitative detail, and by employing a synthetic framework derived from various theories of environmental management, claims-making, and decision-making.

By looking at the EIS process from its inception to its completion and examining the ways in which its procedures and other requirements affected the participatory arrangements and interactions among organizational and public stakeholders, I was able confirm some of Andrews's concerns about the nature of collaboration under the EIS. To this end, by requiring RMNP to share planning responsibilities with agencies and other organizations that were potentially impacted by planning, NEPA brought a number of differentially interested entities into the managerial equation. While this enabled the Park to share resources and expertise with those participating in the EIS, it also gave them a voice and stake in how plans were developed and management determined. While it also enabled the Park to pursue a much more ambitious management plan considering the interests these entities shared in the potential management of elk and/or vegetation, the differences in the organizational missions, policies, finances and capacities among interagency participants made it difficult to both compromise and achieve collaborative goals. In this respect, differences in the missions and philosophies of CDOW and RMNP resulted in numerous disagreements over the feasibility of different alternatives, and in



the occasional efforts by CDOW to (inadvertently or intentionally) undermine some of the Park's goals. This culminated in CDOW's untimely resignation from prior planning roles which, along with EVRPD and the Town's inability to actually permit and fund activities in Town, resulted in the abandonment of the EIS plan as previously designed, as well as the loss of time and resources that it entailed.

Thus, while collaborative conflicts and constraints were a common fixture of the EIS and were typically engendered by the constraints of individual organizations or the incompatibilities between such organizations, these were often influenced by the EIS requirements described above. For example, since the interagency team was required to develop a full range of potential management alternatives to consider, team members were allowed to raise a variety of strategies which they were then unable to legally dismiss, despite of their problematic nature, before demonstrating through analysis that such strategies were infeasible according to NEPA's criterion. Because this obligated agencies to assess planning strategies according to a limited range of criterion, and to revise them until they were legally feasible or could be dismissed, the uncertain and narrow bases by which they could be definitively dismissed resulted in the persistence and frequent contestation of recognizably unworkable strategies. Therefore, the team had to continuously redevelop and reconsider the efficacy of using wolves to manage elk, while the Park's inability to initially rule out hunters using NPS and Park policy allowed CDOW to redevelop the alternative to make it increasingly feasible. However, a larger problem is that while interagency collaborators often realized that certain strategies were infeasible, insofar as they could not be implemented or legally supported by certain agencies, the dissonance between the team's and NEPA's criteria for determining their feasibility often resulted in their legal inability (given organizational representatives' inability to officially speak for their agency without getting approval) or reluctance to openly and honestly communicate about the

existence and nature of their differential positions, capacities and constraints. As a result, disputes arose where they might not have otherwise occurred—as did interagency antagonisms and misgivings. Additionally, such events also resulted in the inefficient and irretrievable loss of time and resources, and in the presentation of alternatives that—by being impractical in the final analysis—were largely irrelevant for citizens to consider, which thereby weakened the already questionable import of public opinion under the EIS.

Because this study is one of the first to critically examine how EIS procedures affect both the managerial responsibilities, relationships, and activities of agencies as well as the outcomes of environmental planning, it is also important to consider the beneficial aspects of such procedures. Since NEPA aims to facilitate a deeper understanding of the environment and the impact that agencies could have upon it through their activities, as well as an environmentally considerate management ethic among the agencies responsible for treatment, it is clear that the EIS process achieves the former and thereby contributes to the latter. In fact, the process seems to excel at ensuring that agencies have understood the environment and their impacts upon it by requiring them to document the need for action and the purposes and objectives of management, and by obligating them to devise a wide range of strategies as well as assess their impacts on various environmental conditions. NEPA excels in this regard largely because of the requirement that agencies collaborate with a vast range of technical experts when considering the environment and evaluating, in numerous stages and steps, the efficacy and impacts of their managerial interventions. Also, by obligating agencies to document and disclose their environmental considerations and managerial assessments and strategies within drafts, briefings, newsletters, and final impact statements, NEPA helps to further ensure that agencies have understood the gravity of their managerial situation and strategies by making them publically accountable for such. However, while NEPA contributes to the formation of an

environmentally considerate ethic in ways such as these, the constraints engendered by interagency differences and exacerbated by procedural arrangements may limit—as they did in this particular case study—agencies’ ability to actually act upon or realize such an ethic in planning. Thus, while agencies may agree that certain environmental outcomes or interventions are desirable or necessary to achieve, the need to undertake some action within the parameters of what is economically, legally, politically, and logistically possible is likely to necessitate the scaling back of certain environmental goals.

Despite of the fact that planning possibilities and outcomes were constrained as much by EIS protocol as they are by the attributes and capacities of interagency collaborators in this case study, the procedures and collaborative requirements that led to their emergence are also responsible for their recognition by collaborators. For instance, by requiring agencies to determine their respective capacities to support certain objectives or actions and to implement particular planning alternatives, agencies were able to better understand the positionality of different actors and were better positioned to address them during planning. Therefore, while the positions and capacities of individual agencies may have limited the managerial possibilities of the collective, it is undoubtedly more helpful to know of these constraints prior to the plan’s implementation rather than during when they could have stalled or undermined management altogether. Additionally, the mere participation of agencies in a process such as the EIS could also serve as a means of allowing agencies to better understand their own positionality and the limitations as well as potentialities that theirs and others pose for present and future management scenarios. Citizens could benefit too in this regard since the existence and nature of such constraints are made evident in the EIS document or its numerous articulations, or become manifest when agencies strategize or disagree and when they solicit and evaluate public input. Again, while this affords agencies and citizens alike with a better understanding of



the nature, intricacies, and difficulties of environmental and especially collaborative management, the utility of such understanding is limited when constraints preclude a wide range of important considerations, actions, or outcomes—and is certainly limited when other requirements of the EIS prevent agencies from openly and critically identifying and communicating, in a timely fashion, what and why each agency can and cannot support or implement in regards to management.

Although interagency collaborations were marred by extensive conflicts and constraints under the EIS, these were the result of interagency differences and, particularly, the EIS procedures that limited their collective recognition, appraisal, and treatment within the context of planning. To this end, while there is some support for Andrews's view, understanding the procedural mechanisms by which these conflicts arose and constrained decision-making under the EIS process requires a wider range of case-studies in different contexts. As such, a better understanding of the mechanisms and their relation to EIS procedures and inter-organizational attributes and differences could be gleaned if scholars were to study EISs characterized by various numbers and types of organizations (e.g., larger and smaller ranges of similar and different organizations), those concerning different types of managerial foci, and those characterized by different types (scientific, legal, economic, etc.) of planning disputes.

In terms of managerial policy and practice, the findings of this study also suggest that interagency actors should better communicate their respective organizational positions as well as, and perhaps most critically, the multitude of reasons and justifications for their positions and constraints. Since the lead agency has the responsibility for leading such discussions, the lead agency should make a point to recruit and establish regular contact with higher-level staff within the organizations participating in the interagency team. While this could help assuage communicative barriers between agencies and between various levels of staff within each

agency and organization, the problem presented by NEPA's protocol for dismissing infeasible alternatives indicates that the lead agency would do well to lead and/or establish an inter-organizational culture of mutual disclosure concerning the extent and nature of organizational and collaborative constraints.

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## Introduction

Because this research examines the ways in which the EIS process shapes the collaborative arrangements among agencies of environmental management, and how this, in turn, shapes the development of the EIS as well as agencies' incorporation of public input, this section seeks to better explain the purposes and procedures of the EIS, as well as the legislative act in which it is part: the National Environmental Policy Act (NEPA).

While the need for an understanding of EIS procedures is relatively straightforward, since they entail specific collaborative arrangements among, and responsibilities for, participating agencies; the purposes of such procedures are perhaps less clear. Nevertheless, examining the purposes of the EIS and its myriad procedures are critical to understanding the environmental and participatory outcomes it was designed to fulfill. However, since these purposes are difficult to glean from the legislative wording and design of NEPA or the EIS—due in part to their piecemeal development and amendments through Congressional and Supreme Court rulings—their purposes are more accurately inferred from using a socio-historical approach to examine the contexts in which NEPA and the EIS were created. This, in fact, is also important to illuminating the historical context of environmental management and, thus, the organizational dynamics and events that necessitated and contributed to the Act's formation and procedural orientation. In this way, it also helps with establishing a historical contrast that can be used to theoretically assess its procedural requirements and to empirically evaluate their collaborative, environmental and participatory impacts.

However, in order to both substantiate this socio-historical analysis and the illuminate the perceived gap between NEPA's goals and the procedures (e.g., the EIS and its specific



requirements) used to achieve them; I also include a discussion of scholarly criticisms of the Act/EIS. This discussion is also used to establish a link between scholarly criticisms and the theoretical framework developed in the following chapter.

### **Conceptualizing The Act: A Discursis On NEPA, Its Purposes and Requirements**

As NEPA's legislative wording and design reflects, the Act was legislated to serve a variety of procedural and substantive objectives. To serve these differing ends, NEPA was designed with numerous functions and components. However, because a complicated assortment of policy declarations, principles, executive-level councils, administrative guidelines, and procedural and task requirements are included among its components, the act is not a single policy, procedure or requirement but rather a composite of numerous layers of policy and procedural requirements; or what Andrews (1999:286) refers to as "mutually reinforcing elements." As a consequence, while each of these elements ultimately constitute the act, it is difficult to say whether the whole is greater than or equal to the sum of its parts (e.g., do we describe the EIS according to its procedures, its relationship to NEPA, or its efficacy in achieving what it was designed to achieve?).

There are several reasons why this is so. One reason is because the act was written by numerous Senatorial authors, revised in Congress, and later transformed to incorporate new procedural requirements and an oversight organization, the President's Council on Environmental Quality; which produced and added specific requirements and guidelines to govern compliance with the Act. Therefore, the Act was not the conscious product of any one

actor or group, but rather the outcome of agreements between many different actors seeking to define its purpose and design, in various contexts, and under many unknown political, economic, and technical constraints. Another reason stems from litigation, and thus, to Supreme Court rulings which have reinterpreted its legal requirements and purposes. This means that the Act is not merely defined by its written purposes or the understandings actors have of them, but rather, and largely, by the Supreme Court's interpretation of its purposes and requirements. Lastly, it is difficult to speak of the Act's *purposes* or *requirements* because they are numerous, interdependent; both stated and implied; and both procedural and substantive. Therefore, while the various elements in which NEPA is composed should work towards some larger and officially designated goal(s), the many different interpretations of such goals—and of the ways in which NEPA's procedures or policies actually 'address' or 'achieve' them—makes it an onerous task to describe or evaluate NEPA.

Due to the inherent complexity of NEPA, it is essential that we address it in relation to the socio-historical contexts in which it was created, and in relation to the parts in which it is composed. This approach, as I hope to make clear, is crucial to our understanding of the Act—its alleged, implied and stated purposes—and our evaluations of it as well. Nevertheless, because it is impossible to discuss NEPA or the EIS without reference to their purposes, I use a socio-historical approach to account for their emergence as well as to differentiate them in an effort to distinguish the implicit or substantive purposes for which the Act was created (using history as our guide) from the purposes formally associated with its myriad procedures.

## The Socio-Historical Background of NEPA

As Andrews (1999) and Schnaiberg (1994) explain, citizens' widespread support for environmental reform in the late 1960s was critical to NEPA's legislation. It was during this period, according to most environmental scholars, that *modern* environmental problems first emerged as a political concern (Fischer 2000; Macnaghten and Urry 1998; Beck 1992). However, for this to occur, as Macnaghten and Urry (1998:23) explain, "there had to be a gathering up of a whole series of issues so that they became viewed as part of an overarching environmental crisis." Environmental organizations and the mass media were considered instrumental in this regard. Due to a general increase of environmental reporting, citizens became more familiar with 'environmental' issues. Environmental groups contributed to their familiarity not only through their ability to raise awareness for or 'construct' such issues, but also through their efforts to identify 'environmental threats' and mobilize the support needed for their political treatment. This led "a striking array of different problems and issues to be regarded as part of the 'the environment' and subject to similar threats (Macnaghten and Urry 1998:23)." Thus, the loss of biodiversity, forest habitats, and natural resource reserves as well as concerns about the health effects of pesticides and other forms of air and water pollution all became 'environmental issues' deserving concern. It was against this backdrop of social movement organizing and escalating 'environmental' concerns that citizens eventually came to believe that

...the federal government was as much the cause [of environmental problems] as were big businesses. It was federal land management policies that were allowing clear-cut logging of the national forests, and it was federal agencies that were damming and channelizing rivers and



bulldozing the interstate highway system across the landscape. It was federal policies too that were promoting large-scale nuclear power plants, strip mining of coal on the public lands, oil extraction from vulnerable coastal waters...[etc.] (Andrews 1999:285).

The culmination of such views, as Andrews writes, produced “a clear public consensus that the federal government should take the lead in controlling pollution and correcting environmental destruction” emerged (Andrews 1999:285).

NEPA was one legislative effort among many other environmental policies, laws and bureaus that resulted from the government’s attempt to assuage citizens’ environmental concerns (Andrews 1999). Yet, as Fogleman (1990) explains, NEPA was predated for years by bills proposing to make “the federal government...consider environmental matters in its decision making and in formulating its policies” (Fogleman 1990:2). However, as NEPA’s legislative design would later indicate, governmental actors perceived the ‘environment’ and the sources of its degradation differently than environmental groups and many of their constituents. Instead of treating environmental crises as part of a larger incompatibility between ecological systems (and their ‘limits’) and modern social organization or specific cultural practices, as many mainstream environmentalists implied, Congress believed they were indicative of poor governmental integration (Andrews 1999). As Andrews (1999:285, quoting US Congress 1968) explains, environmental crises were attributed to the environment’s management ‘by different policies’ . . . “across [a] patchwork of conflicting agencies, missions, and ...values.” While Congress largely believed the absence of a shared legal or procedural framework was responsible for agencies’ conflicting environmental practices, Congress recognized other dimensions to the problem as well. Thus it was also that agencies were beholden to different missions, regulations, policies and constituencies, all of which constrained them from adopting

less ‘environmentally’ consequential actions and from involving stakeholders, and thus interests, beyond those required by their “[narrow] statutory missions or criteria” (Andrews 1999:286). However, while constraints such as these were recognized as being detrimental to environmental reform, a socio-historical examination of NEPA’s legislative mechanisms and design suggests that policy-makers believed they were amenable to specific policy and procedural requirements or that they were relatively minor to concerns about reconciling different governmental policies.

### **NEPA’s “Mutually Reinforcing Elements”: The Relationship Between NEPA, the EIS and Governance**

As Andrews explains, although numerous constraints hindered environmental reform, Congress believed agencies would “take action to protect the environment” if they were ‘authorized and directed’ to do so by national policy (Andrews 1999:286). Therefore, NEPA “was designed as a government-wide policy framework” or ‘super-mandate’ composed of “mutually reinforcing elements: a declaration of policy, a series of [procedural] mechanisms, and an oversight organization” (Andrews 1999:286). Each of these components worked, in different ways and degrees, to fulfill similar objectives: namely environmental reform by way of governmental reform. To give agencies “authority to consider” the ‘environment,’ NEPA declared ‘a national policy’ that made the federal government responsible for ‘[encouraging a] productive and enjoyable harmony between man and his environment [and for promoting] efforts [to]...prevent or eliminate damage to the environment and biosphere’ (Andrews 1999:286; Fogleman 1990:3, quoting NEPA). To encourage compliance with NEPA’s ambitious but vaguely defined declaration (Wathern 1992), Congress explicitly mandated ‘the federal

government...to use all practicable means...to improve and coordinate Federal plans, functions, programs, and resources' to better fulfill NEPA's policy objectives (Fogleman 1990:4, quoting NEPA). NEPA's mandates were also supplemented by a number of principles agencies were expected to 'strive' towards (Andrews 1999; Fogleman 1990). These directed agencies to 'fulfill the responsibilities of each generation as trustee of the environment for succeeding generations,' to 'attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences,' and to 'enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources' (Fogleman 1990:4, quoting NEPA).

What is apparent from NEPA's legislative wording is that federal agencies were being required to not only *adopt* principles of environmental stewardship and sustainability, but also to realize them in their daily practices. However, given that "[a]gencies...had been constrained from considering environmental factors" by their organizational objectives and by economic, technical, and legal factors, their capacity to "administer their responsibilities in accord with NEPA's policy principles" was known to be limited in certain cases (Andrews 1999:286). Therefore, as Andrews writes (1999:286),

[t]o assure these principles were implemented, NEPA included a second element, a series of 'action-forcing mechanism': specific tasks and procedural requirements to assure that agencies [would] actually consider and implement [its] policy statement in their day-to-day actions. The most specific of these was a requirement that before taking any 'major federal action significantly affecting the quality of the human environment,' the responsible agency must prepare a detailed statement of its environment impacts and alternatives: an 'environmental



impact statement' (EIS), as it came to be called.

While the inclusion of action-forcing mechanisms suggests lawmakers believed agencies would be unable (or unwilling)—in the face of organizational constraints or NEPA's ambitious and vaguely worded mandate—to consider or implement NEPA's policies, since they only came into play when 'major federal action[s]' were "controversial," it is difficult to say whether Congress felt greater procedural obligations were needed to translate NEPA's objectives into practice or whether the EIS requirement was included as strategy of last resort (Andrews 1999:287,289). Nevertheless, even if agencies could perfectly comply with EIS requirements, the EIS was a conditional requirement while NEPA's policies affected all agencies all the time. Therefore, NEPA's capacity "to forge a more coherent overall environmental policy across the many agencies whose actions affected the environment" would depend on whether agencies were truly capable of putting NEPA's policy commitments into practice (Andrews 1999:284). This is due, in part, to the role played by the Council of Environmental Quality (CEQ), which is the oversight organization that was created to complement NEPA. As Fogleman (1990) explains, while the CEQ was created to "[review] and [appraise] federal programs and activities" for the purpose of "develop[ing] and recommend[ing] to the president national policies fostering and promoting [the] improvement of environmental quality," rather than evaluating NEPA's legislative efficacy as a whole, the CEQ has worked primarily to add new regulations and guidelines to govern agencies' preparation of the EIS (Fogleman 1990:30-31).

As Andrews explains, the EIS requirement is NEPA's most demanding requirement, not because of its status as an 'action-forcing mechanism' but due to the ways in which it "[alters] the procedures and politics of administrative decision-making" (Andrews 1999:287). While "federal agencies had essentially no responsibility to consider alternatives to or consequences of

their actions” prior to NEPA, the EIS requires them to “prepare a detailed statement” of their activities’ likely environmental consequences and makes them develop “alternatives...that might lessen [their] adverse impacts” (Andrews 1999:287). Likewise, where agencies were once free to manage the environment without input from “the full range of people who would be affected by their actions, including “other government agencies,” they were now “forced [to coordinate] with...other agencies whose missions might be impacted” and with the general public, who was now permitted to “play a role in...the decision making process” (Andrews 1999:287; Fogleman 1990:111). Therefore, because it sought to overcome existing institutional arrangements and the outcomes they typically engender by changing who participates in governance and how, Andrews believes it was meant to serve as “a distinctive innovation in administrative reform” (Andrews 1999:287).

What is perhaps more innovative about the EIS is the degree to which its requirements govern—through various procedural requirements and guidelines—the decision-making process agencies use to manage the environment (Andrews 1999:286; Fogleman 1990:2). Although its requirements were, from the beginning, considered stringent and cumbersome for agencies to comply with (Fogleman 1990), the regulations and guidelines that CEQ has added over the past several decades has heightened the degree to which decision-making is governed by law. This entailed the addition of “more detailed procedures for determining the timing and scope of the NEPA process; [for] preparing draft and final EISs including commenting by other agencies and the public; and [for] resolving disputes between agencies [etc.]” (Fogleman 1990:34). While the addition of requirements such as these were necessary for clarifying, bolstering or reformulating less effective requirements, it is uncertain whether enhancing its ability to further circumscribe who does what, when and how during the EIS has bolstered its reformative aims.

In fact, although NEPA requirements, CEQ guidelines and Supreme Court rulings work together to create an elaborate decision-making framework, scholars find little evidence to suggest that NEPA's objectives are served by or within the EIS process. While its procedural design and arrangements were ostensibly configured to overcome or reduce historical obstacles to governance, scholarly critics suggest that the political arrangements and planning outcomes associated with the EIS are problematic for many of the same reasons that necessitated their reform. Thus, despite of its inclusion of numerous procedural innovations, scholars suggest the problem is rooted in how stakeholders are ultimately arranged and stratified by the sum total of its requisite procedures (Andrews 1999).



## **Basic Roles and Responsibilities**

The agency initiating the plan/EIS is typically considered to be the lead agent responsible for overseeing all aspects of the plan's development, including the selection of a preferred management plan and the preparation of the record of decision (RMNP 2007a: 469). Because proposals are likely to affect other governmental entities within a given region, the lead agent is obligated to contact and potentially collaborate with other jurisdictionally-affected agencies and those with expertise relevant to planning imperatives (Kreske 1996:50; RMNPa: 470). Agencies affected jurisdictionally are eligible to participate as members of a core team permitted to participate in all aspects of planning. Agencies or individuals with technical-expertise are eligible to participate as members of an extended-planning team permitted to assist the former in determining the technical details of management and conducting assessments (RMNPa: 470). Citizens and special-interest groups also play a role in the EIS process by reviewing and providing input during the development of the EIS (RMNPa:470-471). However, it is primarily during public scoping sessions and during the circulation and presentation of the draft EIS that citizens become involved.

## **Basic Organization and Trajectory of the EIS Process**

After the lead agent proposes an action and forms an interagency team, agencies are encouraged to conduct public scoping (Kreske 1996:18). Scoping normally occurs early in the EIS so citizens can voice concerns about the preliminary purposes, objectives, scope and potential management tools identified during interagency workshops. The interagency team then

develops a draft EIS that includes public input obtained during scoping, current managerial goals and objectives, as well as a full range of management strategies and tools being considered for implementation. Once the draft is complete, members of the interagency team present the plan to the public and solicit their input concerning the merits and consequences of particular solutions and other important aspects of the plan. Citizens' concerns are documented during presentations and through comment forms submitted in person, through the internet, or the mail. When comments are deemed "substantive," the team is obligated to provide a response in the final EIS document and to revise the plan accordingly (RMNPb:1). Next, the interagency team begins developing the final EIS which includes the identification of both the "environmentally-preferred" management plan and the one selected for implementation. Following the release of the final EIS, the record of decision, which discloses why agencies selected their chosen alternative, is announced by the lead agent. If the plan meets federal approval, the lead agent is permitted to begin implementation (Kreske 1996).

## **Scholarly Criticisms of the EIS/NEPA: Procedural Implications for NEPA**

While scholars have yet to explore the EIS process (or NEPA for that matter) in rigorous sociological detail, theoretical critiques of the process give us a perspective into its structure and its participatory or procedural dynamics. Thus, although there is little empirical evidence to substantiate their insights, their accounts of the EIS help pinpoint issues needing further study.

According to Wathern (1992), the reason EIS procedures have little effect upon agencies' decision-making processes is due, in part, to the inadequate opportunities citizens have to participate in the EIS. As Wathern implies, while citizens are permitted to "review and comment" on the EIS's development during public scoping phases and during the circulation of the draft statement, they are largely providing input on plans developed, and hence defined by an interagency team. As a consequence, the EIS could disproportionately reflect agencies', rather than citizens' interests, due to their authority over the plan's development, scope, objectives, and eventually, its final articulation. While this is partially due to the frequency, time-ordering and scope of citizens' involvement, it is also because the interagency team or the analysts they employ are required to appraise citizens' input to determine their relevance for incorporation into the EIS—i.e. by determining whether citizens bring up 'substantive' concerns overlooked by the interagency team or highlight major flaws in their plans?. According to Wathern (1992:37), the problem is that the "translation of social concerns into scientific investigation is fraught with moral, conceptual and operational difficulties [... since] it is often difficult to conceptualize scientifically the public's perception of an environmental problem." Thus, a major concern is that the substance and actual content of citizens' input will be either lost in translation or considered irrelevant by analysts. Therefore, for Wathern, the EIS's efficacy



is undermined by the process's participatory arrangements, or more specifically, from procedures which give agencies discretion over the plan's development and over the interpretation of citizens' input on such plans.

Andrews (1999) describes similar problems related to the EIS's procedural arrangements. According to Andrews, while EIS procedures were specifically designed to make agencies—in various phases, steps and tasks—consider the 'environment' and "take action to protect [it]," EIS protocol has "had only limited...effects on the policies and programs of most federal agencies" (Andrews 1999:286,290). This is largely attributed to the fact that "the same agencies still made...decisions, the same congressional committees oversaw and funded them, and the same beneficiaries still lobbied them for federal support" (Andrews 1999:289). Thus, while EIS procedures were designed to "assure that...agencies [would]...actually consider and implement [its policies and objectives]...in their day-to-day actions," the problem is that agencies are beholden, by law, to particular missions and constituents, and constrained to various degrees by their organizations' financial, technical, political and legal capacities (all of which may intersect to create new and more pressing constraints) (Andrews 1999:286). Therefore, since agencies "had been [historically] constrained from considering environmental factors by [their narrow] statutory missions or criteria" and by the "cost and implementation of their...mission[s]," Andrews believes the same constraints that prevented them from pursuing conservationist goals before NEPA continue to limit their capacity to pursue strategies which are 'environmentally-beneficial' but economically, technically, and/or legally infeasible (Andrews 1999:286,287). In other words, because discretionary authority is given to various governmental agencies, the intra- and inter-organizational constraints that influence the EIS's development is believed to delimit what agencies can consider or actually incorporate into the EIS at various stages of its preparation. Since constraints such as these could affect the

feasibility of strategies and alternatives supported by citizens or even the interagency team, it could have significant but unanticipated consequences for stakeholders' participation and for the environmental outcomes of planning.

○ **Interview Guide for Interagency Stakeholders**

○ **Demographic Information:**

- Name
- Education
- Occupational Title
- Organizational Affiliation

○ **Personal/Organizational Role:**

- What role did *your organization* play in the environmental impact statement?
- What role did *you* play in the environmental impact statement?
- Could you describe when and how you were involved in the EIS process? (Were you involved with public presentations, developing alternatives, etc.)

○ **Knowledge/Perception of the EIS Process:**

▪ **Issue/Process Knowledge:**

- *How did you come to know about:* (through personal experience, official documents/presentations, research, etc.):
  - *The issue with elk and vegetation?*
  - *How an EIS is conducted?*
  - *The legislation and mandates that guide/constrain the process?*
- *What do you know about:*
  - *The history of the problem* addressed by the EIS?
  - *The science* of elk and vegetation management?
  - *The NEPA? The EIS? Their purposes? The legal requirements associated with each?*
  - *The organizations/agencies that you have worked with?* (respective interests, cultures, legal constraints, budgets and operational capacities)
- How would you *describe what the EIS is trying to address?*
- Could you describe some of the *factors* (social, political, economic, etc.) *that may have led to the development of this problem?*
  - (Ex: competing political interests, budgetary constraints, bad science, lack of predation, etc.)



○ **Characterizations of the process/issues/decisions: Self and others:**

- Can you describe *how the problem and its historical development have been characterized* by:
  - Your organization (If Applicable)?
  - The National Park Service (or the RMNP)?
  - Other participating agencies?
  - The Media?
  - The citizens you may have spoken with? (on the job, or off the clock)
- Could you describe how the problem is addressed within the EIS? (such as through technical analyses, public meetings, and/or through the selection of a particular alternative)
  - (If applicable) How does the EIS address the *problem's historical development*?
- Could you describe some of the *factors that may have led decision-makers to address the problem* as they did within the EIS?
- Could you describe *what the final decision consists of*?
- (If Applicable) Could you describe *how this decision treats the problem?* ...how it treats *the problem's historical development*?

○ **Characterizations of EIS 'processes' and its 'themes':**

- Could you describe *how an EIS is conducted*? (basic descriptions are fine)
- Could you *describe how roles and responsibilities* are assigned within the EIS (i.e. experts develop and analyze information, the public comments)?
- Could you describe *how decisions are made* during various processes or stages?
- *What role does science and/or technical-expertise play* in the EIS?
- *What role does the public play* in the EIS?

○ **Internal Collaboration:**

- Could you *describe the process of collaborating* with the Interagency Team?
- Could you describe *how consensus was generally built*?

- **Internal/External organizational constraints: Self and other agencies:**
- Could you *describe some of the organizational constraints* (both internal and external) *that faced your agency/organization?* (organizational culture, laws, budget, constituents, etc.)
  - Could you describe *how these constraints affected your organization during collaboration?*
  - (If Applicable) *Which set of constraints affected your organization most significantly?*
- Could you *describe some of the organizational constraints* (both internal and external) *that may have faced other agencies or organizations?* (organizational culture, laws, budget, constituents, etc.)
- Could you describe *how the constraints faced by all of the participating agencies/organizations affected Interagency collaborations* in general?
  - **Organizational interests:**
- Did *your organization have a particular set of concerns or interests* during or within the EIS process?
  - (If applicable) What were these concerns/interests?
  - (If applicable) How were they addressed during collaboration? ...in the EIS itself?
- Could you describe any *set of interests or concerns that other agencies/organizations may have had?*
  - **Descriptions of the collaborative process: difficulties, issue salience:**
- Could you describe *a specific issue (or set of issues) that made it difficult for your organization to collaborate?*
  - Were there any issues or concerns that seemed to affect the capacity of other organizations to collaborate?
- Could you describe *a specific issue (or set of issues) that made reaching consensus difficult for the Interagency team?*
- (If applicable) Could you *identify and describe any type of issue* that made collaboration difficult?
- Can you describe how *disagreements were resolved during collaboration?*
  - Could you provide an example?

- Can you identify and *describe an occasion when consensus was not possible?*
- *At the end of collaborative sessions* (in particular and/or in general)...
  - Could you identify any particular *issue/concern(s) that received more or less attention* than others? Explain.
  - (If applicable) Could you identify any particular *agency/organization that was more or less influential during collaboration?* Explain.
- **Organizational perceptions of the collaborative process:**
- Could you *describe how your organization perceived:*
  - The *efficacy* of the collaborative process?
  - Their level of *satisfaction* with the collaborative process?
- **Public Relations/Presentations:**
- **Characterizations/perceptions of public presentations: format, transmission of information:**
- *Could you describe (the format of) public presentations?*
- Could you *describe how information was conveyed* to the public?
- *How well did public presentations/sessions convey:*
  - The *complexity* of the decision-making process?
  - The *degree to which some objectives, alternatives, or analyses may have been uncertain?*
  - The *degree to which NEPA/EIS mandates shape decision-making options?*
  - The *degree to which other factors (such as legal, technical, and economic constraints) shape the process?*
  - The *different values and interests* held by EIS participants?
- **Characterizations/perceptions of agency-public relations: dialogue, input solicitation, dispute resolution**
- How would you describe the *relationship between Interagency personnel and the public* during public presentations and workshops?
  - *The level/type of dialogue* between the public and presenters?
  - *The way(s) in which public input was solicited?*
- How would you *describe the manner in which disputes were resolved?*
  - Can you think of an example?



- **Characterizations/perceptions of presentation efficacy:**
- *Do you think the information and analyses presented to the public were:*
  - *Clearly conveyed?*
  - *Reasonably defended?*
  - *Rigorous?*
  - *Inclusive of diverse opinions, interests, and values?*
- *Considering your observations of those participating or any conversations you may have had with participants, how do you think they felt about:*
  - *The number and quality of opportunities for public participation?*
  - *The clearness, reasonableness, or the rigor of the information being presented?*
  - *The format of presentations?*
- **Personal Views:**
  - **Perceptions of the EIS's efficacy (in this context or in general): general, participatory opportunities, decision-making, etc.**
- How would you describe the strengths and weaknesses of the EIS as a process?
- *Considering your experience of this particular EIS, how well do you think:*
  - *Disputes were managed?*
  - *Disputes were resolved?*
  - *Learning was facilitated?*
  - *Environmental concerns were addressed? Economics? Social/Cultural?*
  - *Diverse values, interests, and beliefs were balanced?*
  - *Diverse values, interests, and beliefs were respected?*
- *(If applicable) Considering your experience of this and other EIS processes, how well do you think it:*
  - *Manages disputes?*
  - *Resolves disputes?*
  - *Facilitates learning?*
  - *Addresses environmental concerns? Economics? Social/Cultural?*
  - *Balances diverse values, interests, and beliefs?*
  - *Respects diverse values, interests, and beliefs?*
- *What do you think about the:*
  - *Number of opportunities for the public to participate?*
  - *Quality and/or format of opportunities for public participation?*

- *What do you think about the way:*
  - *Roles and responsibilities* are assigned to participating agencies and individuals?
  - *Decisions are (or were) made?* (ex: the efficacy of having a lead agent/decision-maker, or collaborating with diverse agencies)
  - *Decisions were explained and/or justified?*
  - *Disputes are/were handled?*
  - *The role that science and/or technical-expertise plays/played in the process?*
- Do you believe the *EIS process is (or was) fair?*
  - How would you describe ‘fairness’ in the context of the EIS?
- Do you believe the *EIS process is (or was) democratic?*
  - How would you describe ‘democracy’ in the context of the EIS?
- **Potpourri:**
- How would you describe *the value of your organization's role to decision-makers and to the EIS process?*
- Is there any particular set of issues or values that you feel should have been considered more during the EIS?
  - (If applicable) How were they addressed in the EIS? Why do you think this was the case?
- Was there any particular outcome that you had hoped would result from the EIS process?
- How would you describe your level of satisfaction with the final outcome?
- If you had to attribute the final outcome to any set of processes, interests, values, or occurrences, how would you do so?
- How do you separate occupational/organizational concerns from your concerns as a member of the public (or any other role)?
- (If applicable) Can you think of a time where you were faced with this?

- **Broad Questions:**

- Is there anything you would like to add about your personal experiences as a participant in the EIS?
- Are there any issues that you feel are important to this research that you feel were excluded or overlooked during this interview?

○ **Interview Guide for Public Stakeholders**

- Demographic Information:
  - Name
  - Education
  - Occupation
  - Organizational Affiliation
- Knowledge/Perception of the EIS Process:
  - *How did you come to know about:* (through personal experience, official documents/presentations, research, etc.):
    - The *issue with elk and vegetation*?
    - *How an EIS is conducted*?
    - *The legislation and mandates that guide/constrain the process*?
  - *What do you know about:*
    - The *history of the problem* addressed by the EIS?
    - The *science of elk and vegetation management*?
    - The *NEPA? The EIS? The legal requirements associated with each*?
    - The *organizations/agencies that were on the interagency team*? (respective interests, cultures, legal constraints, budgets and operational capacities)
    - The *role that organizational constraints* might have played in the process?
  - How would you *describe what the EIS is trying to address*?
  - Could you describe the *factors* (social, political, economic, etc.) *that may have led to the development of this problem*?
    - Ex: competing political interests, budgetary constraints, bad science, mismanagement, etc.
    - Looking back on the process, *has your view changed*?
    - (If Applicable) Could you *describe how others* (agencies, organizations, individuals, etc.) *characterized these underlying factors*?
      - Any examples?



- Considering the *publications that you may have read or the presentations you may have attended*, how has the EIS (interagency team) characterized the factors that led to the development of this problem?
  - (If Applicable) Did this characterization change over time?
  - (If yes) How?
- Could you describe how the EIS (process, publications, outcomes, etc.) addresses these underlying factors?
  - (If respondent doesn't think the process addresses these factors)
    - Why do you think this may have been the case?
    - How do you think this shaped the EIS process as a whole?
    - Do you think this could have been overcome? Explain.
- Could you describe whether and how the *final outcome will address and/or resolve the underlying problem or the factors associated with it*?
  - *In the short-term?*
  - *In the long-term?*
- Considering any conversations you may have had with other citizens or any news you may have heard about these issues, *how do you think that members of the public view the underlying problem*?
  - *Any examples; in particular or in general?*
  - Is/are there a/any view(s) that you think were more prevalent?
- Could you describe the role of expertise in the EIS? (administrative, scientific, economic, etc)
  - What do you think about the role that expertise and/or experts play in the process?
    - Should it/they play a greater or lesser role?
    - Could you explain why?
  - Can you think of *an occasion where experts were in disagreement*?
    - Do you know whether and how it was resolved?
    - (If Applicable) How do you think it shaped the process?
  - Considering the presentations you may have attended or the publications you may have read, could you describe whether and how *uncertainty may have shaped* the EIS?
    - Was uncertainty acknowledged by publications or the interagency team?
      - Were the reasons behind the uncertainty explained?
    - Do you know how and/or whether this uncertainty was resolved?
    - How do you think uncertainty may have shaped the process?

- Could you describe whether and how ethics/values shape the EIS process?
  - (If Applicable) Can you think of any occasion(s) where differences in values may have caused a disagreement? Explain.
- **Public Relations/Presentations:**
- Could you describe (the format of) public presentations?
- How would you describe the relationship between experts and the public during public presentations and workshops?
  - The level/type of dialogue between the public and presenters?
  - The way in which comments were solicited?
  - Would you describe expert-public relations as being mutually supportive, adversarial, or somewhere in between?
- Could you describe how information was conveyed to the public?
  - Why do you think that information is conveyed in this manner?
  - Would you describe the presentation of information as neutral or biased?
- Did presentations facilitate a critical dialogue among participants?
  - Explain.
- Did public presentations convey:
  - The complexity of the decision-making process?
  - The degree to which some objectives, alternatives, or analyses were uncertain?
  - The degree to which NEPA/EIS mandates shape the process (and options)?
  - The degree to which legal and economic constraints shape the process?
  - The diverse values and interests of EIS participants?
- Considering your experiences at presentations, what do you think about:
  - The analyses presented to the public?
    - Were they clearly conveyed?
    - Were they reasonable?
    - Were they rigorous?
    - Were they inclusive of a full range of considerations?
  - The expectations of those leading presentations?
    - Were they clearly conveyed?
    - Were they reasonable?
    - Were they inclusive of diverse interests and ideas?

- *Considering your experience as a participant in the EIS process, what do you think about*
  - *The number of opportunities for participating?*
  - *The quality of opportunities for participating?*
- *Considering your observations of other participants or conversations you may have had with others, how do you think participants felt about:*
  - *The number of opportunities for public participation?*
  - *The quality of opportunities for public participation?*
  - *The analyses presented to the public?*
  - *The expectations of presenters?*
  - *The efficacy of presentations?*
  - **Efficacy of Process:**
- *How effective do you feel that the EIS process is in:*
  - Managing disputes?
  - Resolving disputes?
  - Facilitating learning?
  - Addressing environmental concerns? Economics? Ethics?
  - Balancing diverse values, interests, and beliefs?
  - Respecting diverse values, interests, and beliefs?
  - Serving the public interest?
- *How do you feel about how participants are assigned roles and responsibilities within the EIS (i.e. experts develop and analyze information, the public comments)?*
- *How would you describe the value of your role within the process?*
- *Do you believe the EIS process is fair?*
  - How would you describe 'fairness' in the context of the EIS?
- *Do you believe the EIS process is democratic?*
  - How would you describe 'democracy' in the context of the EIS?
- *How would you describe your level of satisfaction with the EIS process?*
- *How would you describe your level of satisfaction with the outcome of the EIS?*
- *Would you say that the process is deficient in any respects? Why?*
- **Personal Views:**
- *Is there any particular set of issues or values that you feel should have been considered more during the EIS*



- How were they addressed in the EIS?
  - What may have limited their consideration?
- Was there any particular outcome that you had hoped would result from the EIS process?
- If you had to sum up the why the process/outcome unfolded as it did, how would you describe it?

- **Broad Questions:**

- Is there anything you would like to add about your personal experiences as a participant in the EIS?
- Are there any issues that you feel are important to this research that you feel were excluded or overlooked during this interview?

- **Probing Questions (unaffiliated members of the public):**

- What led you to become involved with the EIS?
- How would you describe your involvement (ex: during the scoping, public commenting, or other sessions that you were involved)?
- What sort of concerns did you have before, during, and after your involvement?
- How did/do you feel about your involvement in the process (ex: perceived relevance of contribution, value of your role in the process, satisfaction with participation/outcomes)?
  - Are there any instances which come to mind that might have contributed to these feelings?
- How do you think that other individuals/organizations/decision-makers felt about your (citizens') involvement (ex: value of your contribution, value of your role, etc.)?
- Do you feel that your concerns were adequately addressed? Explain.

- **Knowledge (unaffiliated members of the public):**

- Where did you get your information about the issues in the EIS (personal experience, official documents/presentations, newspaper, etc.)?
- Could you explain how public scoping sessions or EIS presentations were conducted (who presented information, how was information presented)?
  - Did these sessions increase your understanding of the issues?
  - Do you feel that these sessions were adequate (ex: presentation materials, selection of speakers, etc.)?

- Do you feel that a full range of concerns were appropriately considered? Explain.