Innovation in the U.S. Bureau of Land Management:

Insights from Integrating Mule Deer Management with Oil and Gas Leasing

By

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Abstract:

The U.S. Bureau of Land Management (BLM) is responsible for 256 million acres of public land, mostly across the eleven Western states. The agency has been characterized by close relationships with traditional clientele groups, shifting political support, and contradictory interpretations of vague statutory guidance. This tightly controlled environment has often resisted innovation. However, managers of the public lands are facing an increasingly complex agenda that will require innovation in resolving local conflicts. Emerging problems, like declining wildlife populations, are creating new opportunities for field offices to find innovative solutions.

This thesis utilizes information generated from document and literature reviews, case studies, and personal interviews to explore the research question, "*What organizational factors appear to promote and constrain innovation in the management of resources at the field office level in the BLM?*" The BLM history reveals that the agency is a highly decentralized and inherently political organization, and it suggests that major shifts in BLM organization and policy have most often occurred because of pressure from an organized constituency that pushes for change and defends it politically. This thesis concludes that innovation occurs when staff members recognize that there is a problem that needs attention, feel that there is the political space to take risks in generating new alternatives, and find a diverse and politically-connected constituency that supports change upstream. It also finds that the process by which the agency makes decisions has important implications on bringing innovative ideas to the table, and it finds that the demographic of the BLM employee is changing which is facilitating a shift towards new alternatives for the agency. To foster continued innovation, BLM managers should focus on building the collaborative capacity of their staff and the communities in which they work, focus on engaging diverse stakeholders in the alternative generation process, and be attentive to changing science.

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Table of Contents

List of Acronyms

APD	Application for Permit to Drill
BLM	United States Bureau of Land Management
CDOW	Colorado Division of Wildlife
CEQ	Council on Environmental Quality
CMU	Classification and Multiple Use Act
COA	Conditions of Approval
CSU	Controlled Surface Use Occupancy Stipulation
DEIS	Draft Environmental Impact Statement
DOI	United States Department of the Interior
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
EPCA	Energy Policy and Conservation Act of 2000, 2005
ESA	Endangered Species Act of 1973
FACA	The Federal Advisory Committee Act of 1972
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy Management Act of 1976
GAO	Government Accountability Office
GLO	General Land Office
GRB	Greater Green River Basin
IBLA	Interior Board of Land Appeals
JMH	Jack Morrow Hills
JMHCAP	Jack Morrow Hills Coordinated Activity Plan
LSRFO	Little Snake River Field Office
MLA	Mineral Leasing Act of 1920
MMS	Minerals Management Service
NEPA	National Environmental Policy Act of 1969
NOI	Notice of Intent
NWCOS	Northwest Colorado Stewardship
NPS	The National Park Service
PAPA	Pinedale Anticline Project Area
PAWG	Pinedale Anticline Working Group
PFO	Pinedale Field Office
PRIA	Public Rangelands Improvement Act of 1978
RFO	Rawlins Field Office
RMP	Resource Management Plan
ROD	Record of Decision
RSFO	Rock Springs Field Office
SEIS	Supplemental Environmental Impact Statement
Tcf	Trillion cubic feet (of natural gas)

TGA	Taylor Grazing Act of 1934
TL	Timing Limitations
UGRV	Upper Green River Valley
USACE	United States Army Corps of Engineers
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WGFD	Wyoming Game and Fish Department
WSA	Wilderness Study Areas

List of Tables and Figures

Figures:

Tables:

SECTION I: Introduction and Background

The following section presents an introduction to the study and its research design. It also provides the necessary background about the issue of energy development on public lands and the history of the BLM.

1. Introduction and Study Methodology

"We are never going to get a lot more money or a lot more people – so we need to get smarter and more capable at getting the job done."

~ BLM staff member, Rawlins-Great Divide Field Office, Wyoming[1]

The U.S. Bureau of Land Management (BLM) is charged with the management of 256 million surface acres of land, mostly across the eleven Western states (Appendix A and B). Growing from an agency whose primary purpose was the disposal of the public domain at the turn of the century, the BLM has been challenged throughout its history by changing mandates, resources, and constituencies. With growing demand placed on the public land resources of the American West the BLM has been forced to be innovative in how it applies constant mandate across a shifting landscape. Most notably, a renewed press for landscape-scale industrial development of energy resources has brought new challenges to the agency, forcing BLM employees to rethink traditional management approaches to balancing the multiple uses of the public lands. An analysis of the factors that promote and constrain the ability of those employees to be innovative offers valuable lessons for the discourse around federal public land policy and the performance of America's public sector agencies.

The early management of America's public domain had no clear mission, and the lack of an understanding of the role of the bureaucracy in balancing competing uses made innovative decision-making a difficult prospect for the BLM. Because of the lack of clear guidance from Congress the early BLM often defaulted to making decisions based on the resource users' interests, setting the agency up for a future of tight local control. In the years following its formal creation in 1946, the Congress often overlooked the BLM. Individual lawmakers were more often concerned about specific policy questions, such as grazing, rather than envisioning an effective governance structure to manage the public lands in the West.[2] Rather than being created under a unified vision or mandate, the BLM emerged as a political solution to circumvent shrinking support for the Grazing Service in the Congress after an

attempt to raise grazing fees on the public domain.[3] At the time, a decentralized organizational structure was seen as the best way to operate given the agency's scarce resources. Many Western lawmakers felt that structure would leave bureaucrats most responsive to the needs of local communities and the powerful cattlemen's associations.[4] Without a clear sense of purpose, no central mission, and no statutory guidance, the agency was deeply responsive to its core livestock constituency and political administrations.[5] The lack of a clear mandate and the conflicting pressures from interest groups and resource users has made innovation difficult for the BLM throughout the agency's history.

A crowded field of debate over the direction of the public lands has complicated the task of BLM employees. As the BLM continued to evolve through its history, the community of people interested in the agency and its lands also expanded, leaving employees in a debate of conflicting priorities and greatly constraining their innovative capacity. Throughout the BLM's history, it has been challenging for staff to step far from the interests of the agency's core user constituency and their political allies.[6] However, as the general public's interest in the federal lands grew in the 1960's and 1970's, the agency's constituency expanded and diversified, leaving the BLM with an altogether different, but still powerful, clientele interested in the preservation and protection of the BLM's resources.[7] Today, the debate over the management of the federal lands is more crowded than any other period in the history of the agency, complicating the task of implementing its policy objectives.[8] Growth in the environmental movement has brought an increasingly litigious environment to the agency as interest groups have attempted to influence administrative procedure through the courts. These pressures have left the BLM in an often zero sum game of conflicting priorities, profuse litigation, and tight political control. These factors constrain innovation in the agency.

When a clear mandate did arrive from the Congress in 1976, the policy system set the agency up for a culture of conflict rather than innovation. Employees in a public agency like the BLM inherently face conflicting priorities and tough choices in implementing policy, and Congress has offered minimal help to the agency. The

BLM is required by Congress to manage its lands under the principles of multiple use. The Federal Land Policy Management Act (FLPMA) of 1976 provided the BLM with its formal multiple-use mandate. It defines multiple-use as:

> […] a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment […][9]

The uses promulgated by FLPMA are often in direct conflict with each other. Pursuing the goal of one can come at the cost of another. However, the Congress has offered no guidance to the agency about how to balance two or more legitimate and conflicting uses. As Nie (2008, p 77) describes:

> The multiple use statutes governing the [United States Forest Service] and BLM are particularly relevant … These laws generally state goals, which often conflict, and then delegate the job of reconciling those conflicts to agencies. In [FLPMA] for example, Congress can stand behind the vague goal of multiple use without having to decide how to balance outdoor recreation, range, timber, watershed, and [wildlife and fish] values. The tough and politically risky decisions are again left to the agencies to decide.[10]

While a Congressional delegation of broad and vague statutory language creates an opportunity for BLM employees to be innovative in applying the agency's mandate to managing its lands, it also creates a number of problems for those implementing the policy. Making "tough and politically risky decisions"[11] requires employees to be creative and flexible, and it requires straying from the standard approaches. However, administrations and agency leadership have historically tried to control the flexibility of field employees to do those things by creating an environment of strict operating procedures and organizational norms. Ideally, these systems are designed to provide accountability across a diffuse organization and to increase the efficiency of decision processes for employees, saving the time and energy it would take to analyze complex decisions.[12] The result has been a constraining environment for innovative staff members.

The Opportunity for Innovation in the BLM

Despite a number of organizational constraints, the potential for innovation in the BLM warrants a thorough exploration. External pressures – changing political environments, court decisions, and an active constituency – have been most responsible for pushing the BLM towards different approaches over the course of its history. In response, the agency's leadership has most often attempted to maintain tight control over its diffuse organization by encouraging staff to adhere strictly to defined agency operating procedures, effectively pre-selecting decision outcomes.[13] Staff members at the field level are left to these standard procedures and "rules of thumb" when confronted with conflicting priorities in the management of their resource area.[14] This environment has commonly resisted innovation. If some employees in the agency are finding different solutions to continuing problems, an analysis of what is enabling them to push through those conditions is therefore useful.

The BLM's decentralized structure offers a realistic opportunity for crafting innovative solutions, and some suggest that at the local level in the BLM, units referred to as field offices, innovation is occurring. A Wyoming Game and Fish biologist noted, "Based on my personal experience, we have crafted [biologically] good plans here at the local [field office] level only to have them politicized in Cheyenne or Washington."[15] A mule deer biologist in Colorado argued, "… people at the lower rungs of the agency are smart and care about the resource, but [political] changes occur upstream [in the State Office and Washington]."[16] Both statements imply that staffs at the local level are finding different ways of doing business, pushing back against traditional political control.

A Complex Agenda of Issues

The changing nature of public lands management has made for new opportunities for innovation in the decision-making process. Today, BLM staff members at the field level are being presented with an increasingly complex agenda. Yaffee (1994, p 235) describes, "… in a time of limited slack resources, when some goals are incompatible, implementing a policy of multiple use becomes difficult."[17] Today is

a period of growing interest in public lands and increases in demand for the resources they provide. Legitimate uses for the federal lands are pulling the agency in multiple directions. Rather than just issuing grazing permits like staff members were doing in the BLM's early years, today's BLM employee is deciding what to do with a burgeoning interest in renewable energy production, pushes for expansion of traditional fluid mineral development, dynamic and pervasive recreational activities, and the traditional demands for high quality range and wildlife habitats. Increase in demand is coupled with heightened public scrutiny. As Skillen (2009, p xi) points out, "Federal land and resource agencies [in the twenty-first century find themselves] … floating on a sea of litigation, financially handicapped in congressional appropriations, and beset by urban, exurban, [and industrial] expansion in public lands states …"[18]

New landscape-level decisions are beginning to define the agency, changing the way that the agency is required to approach problems. Managers are no longer being asked to simply approve individual permits to drill single oil wells or renew existing grazing leases. Today's BLM employees are being required to design fundamentally new landscapes with potentially thousands of natural gas wells, large-scale wind or solar energy development, and a growing complex of transmission lines, roads, and pipelines that fuel the growing population of the American West.[19] Localized stress on resources has been replaced by a new and highly uncertain landscape of global scale pressures on complex and fragile range and desert ecosystems. Additionally, these ecosystems are now understood as more complex systems with sinks and flows of environmental processes that span traditional political boundaries.[20] Negatively affecting one pronghorn antelope migration corridor, for example, can completely destroy an entire herd.[21] The BLM has been left to understand, and attempt to measure, the cumulative impacts of these decisions across the landscape, and the agency is required to fit them into existing mandates, statutes, and decision-making process that were designed well before these pressures were conceived.

The landscape scale development pressure for fluid mineral resources serves as a timely example of these challenges, and it offers a useful lens through which to view

an evolving bureaucracy. Energy development has increased rapidly in scale across the Intermountain West in the last ten years, partly as a result of the Bush Administration's policy direction aimed at increasing domestic production of fossil fuels. State and field level BLM employees have been directed to implement policy decisions. As a result, the BLM had nearly twenty-four million acres of federal lands under lease in Colorado, Wyoming, and Utah in 2008. Between the years of 2001-2007, 15,376 new wells were drilled in the same states. By comparison, from the years of 1996-2000 only 4,366 wells were started.[22] On Wyoming's Pinedale Anticline, a 2008 Supplemental Environmental Impact Statement (SEIS) recently authorized a 4,339 well infill project across a 198,000 acre project area, including crucial wildlife winter ranges.[23] Energy development on this scale is unprecedented.

As the growth in industrial scale development of energy resources in the West has occurred, the scientific understanding about the impacts of energy production on wildlife populations expanded. A series of studies on Wyoming's Pinedale Anticline began to show that drilling and production of natural gas on crucial winter range had significantly affected mule deer. Twenty-seven percent of the decline in deer populations was associated directly with gas development with just a two-percent direct disturbance of habitat.[24] According to Sawyer et al. (2006), the dramatic increase in energy production on the public lands represents the most significant threat to mule deer populations as a result of direct loss of crucial habitat and disruption.[25] The BLM is left in a zero sum game of policy implementation.

An Emerging Opportunity for Innovation

Innovations in natural resource management often occur because field level managers and staff felt that there is simply no other way to get things done.[26] There is a growing sense from BLM staff that the status quo is no longer working.[27] Managing the public lands is inherently about managing conflict. Nie (2008, p 83) points out that "… our public land agencies have become the central brokers of conflict resolution, and [their] … resource planning processes are the dominant venues in which these conflicts are managed."[28] Combinations of resource

constraints, political impasse, fear of lawsuits, and a genuine desire to do what is best for the resource can push agencies to approach traditional decisions in new ways.

Declining populations of wildlife as a result of energy development are opening opportunities for innovation for the BLM. While some species, like the greater sage grouse, are at clear tipping points, others like mule deer are only beginning to show clear signs of population decline as a result of habitat loss and fragmentation. In both cases there are opportunities for employees at the field level to begin to change their approach, pushing back against organizational resistance and politics.

Despite its history of tight control and deep politicization, some suggest that the relative autonomy that has been created by the decentralized structure of the BLM provides an opportunity for staff members to take risk and advocate for change at the field level.[29] Today, the BLM is met with an increased desire by the American public to conserve non-commodity resources, a growing awareness of the value of the landscapes managed by the BLM, and a changing organizational demographic within the agency. The combination of these pressures has the potential to open opportunities for finding new and innovative approaches to traditional conflicts in the BLM. This thesis explores the organizational factors that make those outcomes possible.

Research Question

This thesis examines the operations of four BLM field offices in Wyoming and Colorado, searching for examples of the agency "doing better" at balancing conflicting resource and political priorities. The thesis explores a central research question:

> ***What factors appear to promote and constrain innovation in the management of resources at the field office level of the agency?***

This project defines *innovation as the agency doing something different than the standard approach and that solves the problem more durably.* BLM staff members were asked during interviews what decisions they felt were particularly different or successful in their office. It was not up to the author to define what made an

approach innovative or not; it was up to the BLM employee. Their responses suggest that innovative ideas involve managers and staff members that take organizational risk, and they tend to result in more effective and durable outcomes.

In approaching the central research question, this project uses a case study approach with four field offices of the BLM. Those cases are informed by an analysis of management documents and semi-structured personal interviews with managers and staff. The study seeks to identify and document examples where the field offices are being innovative and stepping away from the standard approaches of resolving the unavoidable conflicts of managing mule deer habitat and energy development on the public lands. Those examples provide guidance on the organizational dimensions that create an innovative environment.

The four case narratives in the thesis explore the following sub-questions:

- *The continued evolution of a federal lands agency*. What lessons does the BLM's history and culture provide for its ability to be innovative?
- *The process of making decisions in the BLM*. Are there cases where the different process approaches have resulted in different substantive outcomes? Why did they reach the outcome that they did? What enabled that new process to happen? What challenges were associated with those new processes for the agency?
- *Making decisions in a politicized environment*. In what ways does the BLM's decentralized decision-making process insulate local field offices from politics? How do BLM staff members find opportunities to be innovative in a political environment? What does it take to be successful in pushing ideas through those opportunities?
- *Building support for innovation through science*. In what ways does scientific understanding about the nature of the conflict influence innovation? In what ways does the challenge of balancing political and scientific values affect the process of crafting alternative directions?
- *Organizational lessons for the future of the BLM*. What are the cross-case themes that have promoted and constrained innovation? What can

the agency learn from those lessons that will make the BLM better able to manage the federal lands in the coming years?

This study seeks to satisfy the following objectives: (1) to identify and document where managers in the BLM are being innovative in their approach to making decisions in seemingly intractable natural resource conflicts, (2) to ascertain what is making innovation possible and what continues to stand in the way of managers within the organization being creative, and (3) to draw conclusions and offer guidance on policy and management changes that can improve the innovative environment of the organization that will make it more capable of meeting a complex and dynamic suite of challenges facing the public landscape in the coming decades.

Research Design and Methodology

This study uses a case study approach to explore and offer explanation of opportunities for organizational change and innovation in the BLM. To facilitate case study development and analysis the following research methods were used in combination:

- Document review of existing and relevant management documents within field offices;
- Literature Review of literature about the BLM's history and structure and public land politics;
- Semi-structured personal interviews with BLM managers and personnel about general stories of innovation within their management unit;
- Semi-structured personal interviews with state agency personnel and non-agency biologists about general conflict issues affecting mule deer management on the federal public lands;
- Semi-structured personal interviews with non-governmental organization staff members about perceptions of organizational change in the BLM.

Case Studies

This thesis uses the broad conflict of managing mule deer and fluid mineral exploration and development on the federal public lands to provide focus in those

cases. Chapter two explores the nature of this conflict in further detail. To explore these issues, the study compares four BLM field offices in the Greater Green River Basin (Table 1-1).

Table 1-1. BLM Field Offices included in study.

State Office	Field Office	Total Surface Acres	Total Subsurface Acres
Wyoming	Rawlins/Great Divide	3,500,000	4,500,000
	Rock Springs	3,600,000	3,500,000
	Pinedale	922,880	1,199,280
Colorado	Little Snake River	1,349,400	2,400,000

These four field offices were chosen based on the following characteristics:

- Completion of recent Resource Management Plan (RMP) and/or currently engaged in planning process;
- Physical attributes (including size, ownership complexity, ecosystems present, etc);
- Presence of conflicting priorities between mule deer habitat management and the development of energy resources (field office includes one or more of the large mule deer herd units within the state and has significant mineral resource development pressures).

Field offices are formalized action channels where decisions are being made by the agency at the field level. Allison (1971) describes that action channels are formal decision-making locations that serve to regulate access and participation, distribute power amongst actors, and establish timing.[30] Allison and Halperin (1972) describes them as "… regularized sets of procedures for producing particular classes of actions."[31] The BLM's formalized structure of devolving land use planning process (and in effect decisions) to the field level has created an action channel regarding the

management of the public lands. Those decisions are referred to as Resource Management Plans (RMP), and they are the formal land use plans that guide the management of the field level for fifteen to twenty years. Their creation and subsequent revision were mandated by FLPMA in 1976. The BLM follows a prescribed process of revising RMPs (Appendix H).

Based on this research and the analysis of the agency's history, it was possible to construct a conceptual model describing the factors that affect decision-making within the field office action channel (Figure 1-1). This conceptual model guided development of case studies.

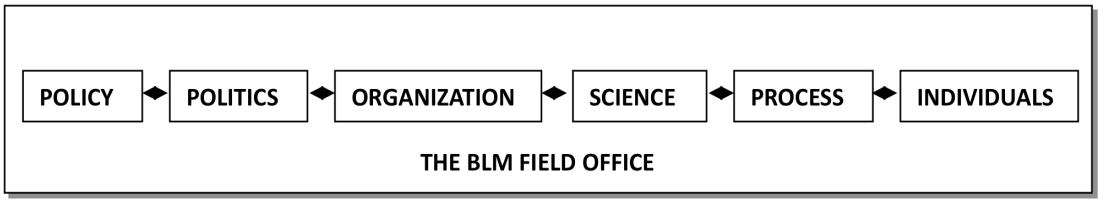

Figure 1-1. Factors affecting the BLM field office action channel.

Together, six broad factors affect decisions made by BLM employees. First, employees are bounded by specific *policy* – statute, directives, instructions – that affect the process and substance of decisions. These are limiting factors in creativity and are largely dictated to the organization by Congress and the administration rather than created internally. *Political influence* from the agency's constituency and the administration greatly affects the field office through both centralizing and decentralizing pressures. The BLM is inherently a political organization. Also, the *organizational culture* of the office influences the way employees approach problems and generate solutions. Each organization has a unique culture, and the BLM is no exception. Additionally, the nature of the understanding of the problem, through which *science* has an important contributing impact, generates the knowledge of the issue at hand and allows for a thoughtful process of comparing alternatives. Furthermore, the *processes through which decisions are made* affect the way problems are viewed and who participates in decision-making. Process significantly affects the ideas and alternatives that are brought to the table through enabling and moderating public participation. Finally, the BLM is not a monolithic

agency, and the role of *individuals* and their personalities greatly influence the office's environment and the ultimate decisions that are made.

Management Document and Literature Review

This study began with a comprehensive review of the management documents of the four field offices. A thorough review of these documents provided a necessary first step to exploring the research question. In each of the four field offices the following types of documents were reviewed:

- Most current draft and/or final Resource Management Plan (RMP) and accompanying National Environmental Policy Act (NEPA) documents;
- Previous Resource Management Plan (RMP);
- Major project decisions and accompanying NEPA documents;
- Documentation of NEPA Adequacy documents for proposed and approved small scale projects; and,
- Habitat Management Plans (HMP) for mule deer.

Agency-wide internal documents (Instruction Memorandum and Technical Bulletins) dealing with energy, wildlife habitat, and public process were also reviewed.

The review of these documents provided background and helped define the 'standard approach' used by the BLM. Understanding this 'standard approach' was necessary to begin to classify approaches in individual offices as being innovative.

Describing the BLM's history and culture required a literature review that provided the context for understanding the BLM as a decision-making body. To complete this task an extensive review of related texts, academic journal articles, and congressional records and documents was conducted. This review provided the context to explore the questions about the BLM's history, mission definition, unique culture, and politicization that are presented in chapter three.

Semi-Structured Personal Interviews

Semi-structured interviews were used to build narratives of innovation across the case study. For this study four major groups of individuals were interviewed to build a broad perspective across the mule deer case study (Table 1-2).

Table 1-2. Number of individual interviews by agency or organization.

Affiliation	Number of Interviews
Bureau of Land Management employees	18
State agency employees	5
Non-agency biologists	5
Non-Governmental Organization employees	6
Other public official	1

These interviews focused on gaining an internal perspective about innovation in field employees. Interviews were conducted with four distinct staff roles within the offices. First, each field office manager was interviewed. To supplement the perspective of the manager, interviews were requested with at least one staff member in each office having the following position title: (1) wildlife biologists; (2) range conservationists; and, (3) planners. Two interviews were conducted with former staff members in State Offices.[*] Personal interviews with these staff members and managers were conducted from October 2009 to January 2010.

This collection of perspectives was useful for a number of reasons. Managers offer office level perspective about balancing a multitude of priorities and conflicts across the resource area. They also hold deeper connection to the political establishment of the organization, offering important insight into the role of politics within the field office. The three staff roles all offered important perspective. Wildlife biologists and range conservationists are most familiar with the management of individual

[*] All BLM employees were offered and accepted confidentiality during the interview process. All quotes used in this thesis respect that confidentiality.

species, including big game, and vegetation, and therefore wildlife habitat, within each office. Their depth of knowledge on specific programs and impact analysis is critical. Planners are integral in the execution of public process within each office and were therefore chosen because of their familiarity with agency process and public engagement.

In an attempt to build a richer analysis of the broader case study, individuals outside of the BLM were also interviewed. These include: (1) state agency employees; (2) non-agency biologists; and, (3) non-governmental organization employees. The goal of the biologist interviews was to add contextual richness to the conflict narrative of mule deer and energy development and to provide perspective into the relationship between population managers (i.e. the states) and habitat managers (i.e. the BLM). Non-governmental organizations offer insight into the external factors associated with bureaucratic change and innovation. Additionally, a member of a western Governor's staff was interviewed about state level political involvement in BLM public process.

The interviews were conducted from July 2009 to January 2010. The interview questions and protocols used to interview these individuals are attached in the Appendices (Appendix C for Consent and Protocols, Appendix D for BLM Managers; Appendix E for BLM Planners; Appendix F for BLM Biologists and Range Conservationists; Appendix G for State Agency Employees, Non-agency biologists, and Non-governmental Organizations).

Interviews were recorded and transcribed by the author to include full-length quotes and overall perspective. No quantitative data analysis or coding of interviews was conducted; analysis was strictly qualitative in the building of case studies. These methods were the most valuable for the nature of this study, and they provide a base for future studies about the role of innovation in the BLM.

A few concerns about the rigorousness of these interviews should be noted. There should be slight concern over the issue of independence between observations, particularly within a field office. Even though staff members' responses were

confidential and anonymous, the environment of the office would undoubtedly influence the responses to interview questions of other staff members in the field office. However, the issue is not significant enough to disqualify responses.

Also, the period during which the interviews were conducted was during the first year of the Obama Administration. The agency was being influenced by the selection and confirmation of a new Secretary of the Interior, Director of BLM, and in many cases State Directors (including Wyoming). While staffing at the field office level, the focus of this study, is not politically appointed, the change of directives and management from the top level would certainly affect the perspective of field level staff. Additionally, State Directors do have influence over the employment of field managers.

Overview and Organization of the Thesis

The thesis is organized in seven chapters. The first chapter provides an introduction and overview of the research questions and study methodology. Chapters two and three are designed to provide the necessary background for the study. The first explores the dimensions of managing mule deer habitat and the push for energy development in the American West, ending with a definition of the standard agency approach used to balance the two resources. Chapter three provides an overview and discussion of the BLM, focusing on the role that the agency's history has played in developing a unique culture that affects the innovative environment of offices.

The central findings of the study are presented across three case study chapters. The role of process is highlighted in chapter four. It examines the case of the Little Snake River Field Office to explore the role that external involvement can play in fostering creativity and empowering agency staff members to defend new approaches. Chapter five takes the intensely political Pinedale Field Office and focuses on the continued importance of politics and control within the agency, including how some staff members are able to push back against upstream politics. In chapter six, there is a double focus on the Rawlins-Great Divide Field Office and

the Rock Springs Field Office, investigating the factors that constrain innovative thinking within the agency. These two offices exhibited lower levels of innovation.

The thesis concludes in chapter seven, offering an in-depth discussion of the findings of the study. It provides a cross-case analysis that includes the organizational dimensions that have promoted and constrained innovation within the case studies. Finally, it offers a series of policy and management recommendations designed to strengthen the BLM and the future management of the federal lands.

Notes to pages 2-17:

[1] Personal Interview, BLME 6, January 2010.
[2] Ibid, 56-57.
[3] James Muhn & Hanson R. Stuart, *Opportunity and Challenge: The Story of the BLM* (Washington, D.C: U.S. Government Printing Office, 1988), 48.
[4] James R. Skillen, *The Nation's Largest Landlord: The Bureau of Land Management in the American West* (Lawrence, KS: University Press of Kansas, 2009), 20-21.
[5] Samuel T. Dana & Sally K. Fairfax, *Forest and Range Policy: Its Development in the United States* (McGraw-Hill, 2nd ed., 1980), 187.
[6] Skillen, 8-9.
[7] Robert F. Durant, "Toward Assessing the Administrative Presidency: Public Lands, the BLM, and the Reagan Administration," *Public Administration Review*, March/April (1987): 181.
[8] Skillen, xi.
[9] Federal Land Policy Management Act of 1976, as amended. 43 U.S.C. 1702(c).
[10] Martin Nie, *The Governance of Western Public Lands: Mapping Its Present and Future* (Lawrence, KS: University Press of Kansas, 2008), 77.
[11] Ibid, 77.
[12] Herbert A. Simon, "Administrative Behavior and Contemporary Behavioral Science," in *Administrative Behavior* (New York: Free Press, 1975), 3rd edition, xxviii.
[13] Steven L. Yaffee, *The Wisdom of the Spotted Owl: Policy Lessons for a New Century* (Washington, D.C.: Island Press, 1994), 36.
[14] Simon, xxviii.
[15] Personal Interview, SAE 1, 5 August 2009.
[16] Personal Interview, MDB 1, 7 August 2009.
[17] Yaffee, 235.
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[19] Jesse Fernandes, et al., *Renewable Energy in the California Desert: Mechanisms for Evaluating Solar Development on Public Lands*, Masters Project: University of Michigan (2010).
[20] Hall Sawyer, et al., "Identifying and Prioritizing Ungulate Migration Routes for Landscape-level Conservation," *Ecological Applications*, 19, no. 8 (2009): 2020.
[21] Ibid.
[22] United States Department of the Interior (USDI), Bureau of Land Management (BLM), *Oil and Gas Statistics*, 22 Dec 2008 <http://www.blm.gov/wo/st/en/info/newsroom/Energy_Facts_07/statistics.html> (10 Aug 2009).
[23] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Record of Decision and Final Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Pinedale District (Sept 2008), 2-4.
[24] Hall Sawyer, et al., "Winter Habitat Selection of Mule Deer Before and During Development of a Natural Gas Field," *Journal of Wildlife Management* 70, no.2 (2006): 396-403
[25] Ibid.
[26] Julia M. Wondolleck & Steven L. Yaffee, *Making Collaboration Work: Lessons from Innovation in Natural Resource Management* (Washington, D.C.: Island Press, 2000), 9.

[27] Personal Interview, BLME 2, November 2009.
[28] Nie, 83.
[29] Skillen, xi.
[30] Graham T. Allison, *The Essence of Decision: Explaining the Cuban Missile Crisis* (Boston: Little, Brown, 1971).
[31] Graham T. Allision & Morton Halperin, "Bureaucratic Politics: A Paradigm and Some Policy Implications" in *Theory and Policy in International Relations*, Raymond Tanter and Richard H. Ullman, eds., (Princeton: Princeton University Press, 1972), 169.

2. The Case of Mule Deer and Energy Development in the American West

"A combination of fire suppression, oil-gas-mineral exploration and mining, predation, habitat fragmentation, spread of invasive species, drought, competition between species, livestock management and other human factors such as urban development have affected the habitats of mule deer."

- Western Association of Fish and Wildlife Agencies' Mule Deer Working Group[1]

The mule deer (*Odocoileus hemionus*) is a big game species that is emblematic of the American West. It represents an important piece of the region's cultural and ecological history, and it is one of the most significant species to sportsman, generating millions of dollars annually in local communities. As the contextual nature of the West has rapidly changed in the last century as a result of growing population pressures, unique challenges have emerged for the future management of mule deer. Chief among those is that posed by energy development, which is expanding rapidly on the federal lands.

The BLM lands are important for mule deer. Mule deer, like most wildlife species in the West, depend heavily on the habitat provided by the federal public lands. The lands managed by the BLM are particularly important for mule deer since the species depends heavily on sagebrush steppe communities for survival. The BLM has management jurisdiction over most of these lands, especially the crucial winter habitats that are necessary for survival.

This chapter provides background for the broad conflict that is used by this study to explore innovations in the BLM. First, it describes the study area used in this analysis – the Greater Green River Basin (GRB). Then it describes the state of mule deer across the West, detailing important biological characteristics and population trends within the study area. Additionally, this section describes the current push for oil and gas development on the federal public lands. That discussion leads to a review of the major impacts that development is having on mule deer populations,

and it concludes with a survey of the standard approaches that are being used by the BLM to balance the management of mule deer habitat and energy development.

Description of the Study Area

This thesis analyzes the actions of four BLM field offices within the GRB watershed. The GRB stretches across the heart of the Intermountain West, covering portions of Wyoming, Colorado, and Utah. It includes landscapes like the Upper Green River Valley in Wyoming, the Yampa and White River drainages in Colorado, and the Uinta Basins that stretch westward towards the Wasatch Range within Utah (Figure 2-1). The political boundaries of the four field offices included in this study limit the analysis to only portions of southwestern Wyoming and northwestern Colorado (Figure 2-2).

Figure 2-1. Watershed Map of the Greater Green River Basin, project area.

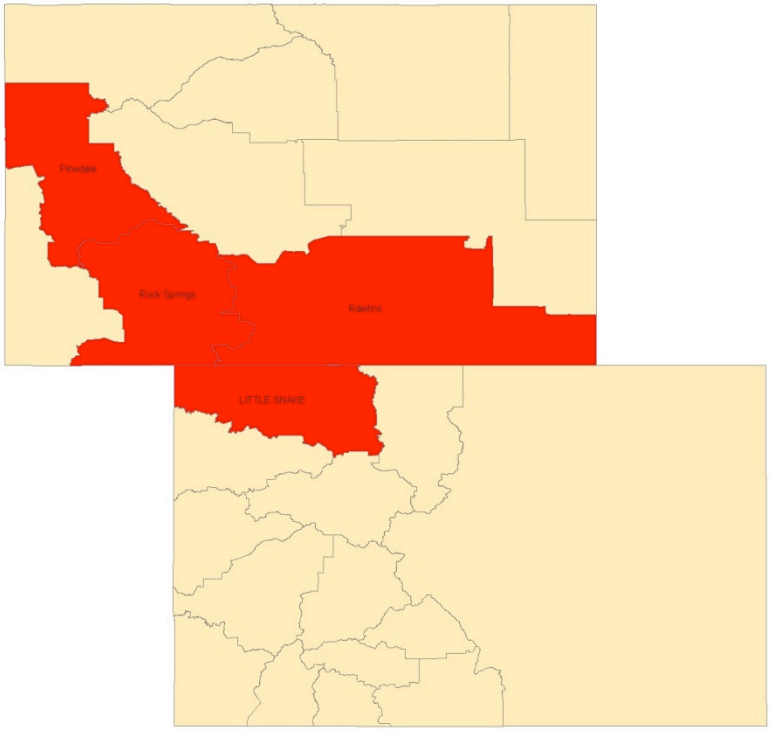

Figure 2-2. Location of BLM field offices in the study area (Wyoming and Colorado).

The region represents a unique assemblage of ecological biomes. It includes the high sub-tundra of the Uintas and Wind River Range, rich desert systems like those found within Wyoming's Red Desert, sage steppe in the Upper Green River Basin, and broken juniper shrubscape in Colorado's Piceance Basin. These systems provide critical habitat for some of the most significant mule deer herds in North America.

Additionally, the region's geology holds some of the largest energy reserves in the United States. Underneath the GRB's sagebrush plains there are tremendous reservoirs of natural gas, coal, oil, and oil shale. Closer to the surface, the region is becoming one of the most appealing for wind and solar energy production.[2] The BLM is the federal agency charged with overseeing the federal government's mineral leasing program. The presence of world-class wildlife and energy reserves has created considerable conflict within the Intermountain West.

The State of Mule Deer in the American West

Mule deer are critical piece of the cultural and ecological fabric of the American West. Long associated with the wild expanses of sagebrush hills, the deer are often recognized as a symbol of the frontier. The species depends on large, unbroken tracts of diverse shrub communities, the landscapes that dominated the early West.[3] To the extent that these habitats are fragmented by human development, mule deer struggle. For many, preserving the habitat of the mule deer serves in turn to protect the heritage of the American West.

Populations of mule deer are widespread. They occupy a diverse set of habitats types, but they are most commonly associated with sagebrush steppe communities. According to the Western Association of Fish and Wildlife Agencies' Mule Deer Working Group:

> Mule and black-tailed deer are distributed throughout western North America from the coastal islands of Alaska, down the Pacific Coast of California to southern Baja Mexico and from the extreme northern portion of the Mexican state of Zacatecas, northward through the Great Plains to the Canadian provinces of Saskatchewan, Alberta, British Columbia and the southern Yukon Territory. Consequently, mule deer occupy a wide diversity of climatic regimes and vegetation associations including coastal rain forests, icy mountains, prairie grasslands, Yukon River valleys, and deserts. By occupying this diversity of habitats, mule deer have developed an incredibly diverse array of behavioral and ecological adaptations that allow this species to persist in an ever-changing West.[4]

Depending on the location, mule deer can behave in fundamentally different ways, and that makes the selection of this study area significant. Within the GRB, deer are highly dependent on the vast expanses of intact sagebrush and other shrub communities for survival. Additionally, the connection of diverse seasonal ranges through migratory paths is essential to mule deer herds in the GRB.

Seasonal habitats are essential for the survival of mule deer. The dynamic topography of the GRB creates the need for animals to move across large distances by season. Deer take advantage of the rich vegetative communities found at higher elevations during the summer months, but because of the extreme snow and cold, the animals are forced to move down in elevation during winter months.[5] At low

elevations, they survive in the relatively low sagebrush hills where relief from snow depth and temperatures can be achieved.[6] This winter range is determined by most biologists to be the limiting factor, the habitat in least supply relative to others, for deer populations in the region.[7]

Migration routes serve to connect these habitats. They provide necessary transitional ranges that are also critical, providing the forage to compensate for the migratory stress, and they often serve as parturition areas.[8] Some migration routes can stretch more than one hundred miles.[9] Sawyer and Lindzey (2005, p 1269) argue that "…protecting migration routes and conserving seasonal ranges are essential for the long-term maintenance of [mule deer populations]."[10]

The health of all ranges is important to mule deer because they provide critical nutrition at critical periods. This work focuses on the habitats managed by the BLM for important reasons. As Sawyer and Lindzey (2005, p 1270) describe:

> Summer, transition, and winter ranges are equally important components of mule deer … [ranges]. The relative importance of each likely will change annually, but loss or degradation of one will not be compensated for by the others. Managers should recognize the importance of all seasonal ranges for maintaining healthy and productive mule deer … populations. Currently, summer ranges appear most secure because of their large size and relatively protected status within United States Forest Service (USFS) and National Park Service (NPS) lands. The mid- and low-elevation transition and winter ranges, however, occur on BLM or privately owned lands that have much more potential for direct habitat losses (e.g. subdivisions and energy development) and indirect habitat losses resulting from increased levels of human disturbance.[11]

Current Populations of Key Herds in the Study Area

Mule deer populations are struggling across the West. Populations have been declining since the latter third of the twentieth century as habitat has been disappearing.[12] Habitat loss results from suburban and rural sprawl, livestock management, fire suppression, traditional and renewable energy development, and invasive species.[13] While all of these are important, this case study focuses specifically on energy development, which presents the most significant threat to mule deer in the Intermountain West.

Wildlife populations are tracked by state wildlife agencies. They group populations into herd units. Herd units are defined as a population of animals that occupy a given geographic area and have less than a ten percent population exchange with neighboring units.[14] The herd units included in the following tables are formally established and indentified by the respective state wildlife agency. The herds included in the GRB are some of the largest and most important to sportsman within the Intermountain West.

A significant portion of the state agency's responsibility lies in the creation of population objectives for mule deer herds within their jurisdiction. Population objectives are meant to establish a balance between populations of mule deer and the available habitat, but they are also meant to create populations of animals that support adequate hunting opportunities. As a senior biologist with the Wyoming Game and Fish Department pointed out, population objectives do not always correspond to carrying capacity, defined in an ecological sense. They are often a number that is identified as being both socially and politically acceptable.[15] Objectives depend on maintaining hunt-able populations of wildlife. They also depend on available forage within the habitat, and for units that depend heavily on private lands for forage; landowners are an important determinant of how many deer are acceptable within that herd.

Descriptions of the populations, compared to objective, for each herd within the study area are listed below (Tables 2-1 and 2-2). The data covers the years of 2003-2008, and displays both post-hunt population estimates as well as herd unit population objectives. These numbers are from the respective state wildlife agency.

Table 2-1. Wyoming mule deer herds within the GRB, including post-hunt population estimates and population objectives for 2003-2008.*

HERD	2003	2004	2005	2006	2007	2008
Wyoming Range Herd						
Population	31,367	27,590	27,169	26,967	37,074	31,079
Objective	50,000	50,000	50,000	50,000	50,000	50,000
Sublette Herd						
Population	34,022	26,633	28,044	26,474	31,241	28,412
Objective	32,000	32,000	32,000	32,000	32,000	32,000
South Rock Springs Herd						
Population	4,900	6,900	7,300	7,400	7,100	7,400
Objective	11,750	11,750	11,750	11,750	11,750	11,750
Steamboat Herd						
Population	4,100	4,300	4,700	4,600	4,500	4,770
Objective	4,000	4,000	4,000	4,000	4,000	4,000
Baggs Herd						
Population	20,300	22,500	2,300	2,300	23,600	17,500
Objective	18,700	18,700	18,700	18,700	18,700	18,700

Table 2-2. Colorado mule deer herds within the GRB, including post hunt population estimates and population objectives from 2003-2008.†

HERD	2003	2004	2005	2006	2007	2008
Little Snake Herd						
Population	NA	2,260	2,950	2,450	1,440	1,800
Objective	13,500	13,500	13,500	13,500	13,500	13,500
Bear's Ear Herd						
Population	NA	47,490	40,740	43,030	40,360	36,600
Objective	37,800	37,800	37,800	37,800	37,800	37,800
Bookcliffs Herd						
Population	7,945	8,770	9,800	9,910	11,670	12,390
Objective	20,000	20,000	20,000	20,000	20,000	20,000

These herds are some of the most significant to sportsman and the local communities that depend on the revenue generated from hunting. If populations slip below objective, hunting opportunities are jeopardized. Some herd units have

* Numbers aggregated from Job Completion Reports prepared by regional offices of the Wyoming Game and Fish Department.

† Numbers aggregated from District Area Unit Reports compiled by regional offices of the Colorado Division of Wildlife (Includes DAU1, 2, 7, and 11).

already lost hunting opportunities as a result of populations declines. For example, in the Baggs herd in Wyoming, population declines have necessitated a reduction of five days from the hunting season, and the region has lost a general hunt area, which was especially important to family and out of state hunting opportunities. From 2001-2006, 3,154 hunters chased deer in this herd in 2008 the number was down by almost half to 1,900 licenses.[16]

A number of important herds are below population objectives. These include the Wyoming Range (WY), Baggs (WY), Sublette (WY), and the Bookcliffs (CO-UT) herds. These deer herds are critical to supporting local communities dependent on tourism, hunting, and other outdoor activities. As the Environmental Working Group points out, these diversified economic opportunities are critical to the rural West and are threatened by the effects of poorly designed oil and gas development.[17] And, the decline in hunting opportunities affects state wildlife agencies that have traditionally depended on license sales from deer to support the agency. Without these levels of revenue, state agencies will have to turn to the legislatures and general budgets for funding to support their work.

Increasing Demand for Energy Development

Development of mineral resources has expanded greatly in the last decades in the GRB.[18] Nearly ninety percent of the study area is now open to leasing for oil and gas development.[19] Blewer (2008, p 363) quotes a Wyoming Outdoor Council brochure about the Red Desert saying, "… the area is the focus of multinational oil, gas, and mining corporations. According to the [BLM], this pressure will continue to grow, with the industry hoping to turn southwestern Wyoming into the major natural gas producing region in the United States by 2015."[20]

Combined, the states of Wyoming and Colorado represent a significant portion of the nation's domestic energy production. The reserves found under these states attract companies from across the country and world. There are a number of major natural gas basins found within the study area (Figure 2-3).

Wyoming contributes significantly to the nation's energy production. According to the Energy Information Administration, Wyoming currently produces 10.84% of the nation's onshore natural gas.[21] In 2007 alone, Wyoming produced 1.92 trillion cubic feet (Tcf) of the total domestic 24.8 Tcf of natural gas.[22] Combined, Wyoming produces more fossil fuels than any other state.[23] Colorado produced over 1.2 Tcf of natural gas in 2007, approximately six percent of the total domestic production that year.[24] In March of 2009, the state produced 1,973 thousand barrels of oil.[25]

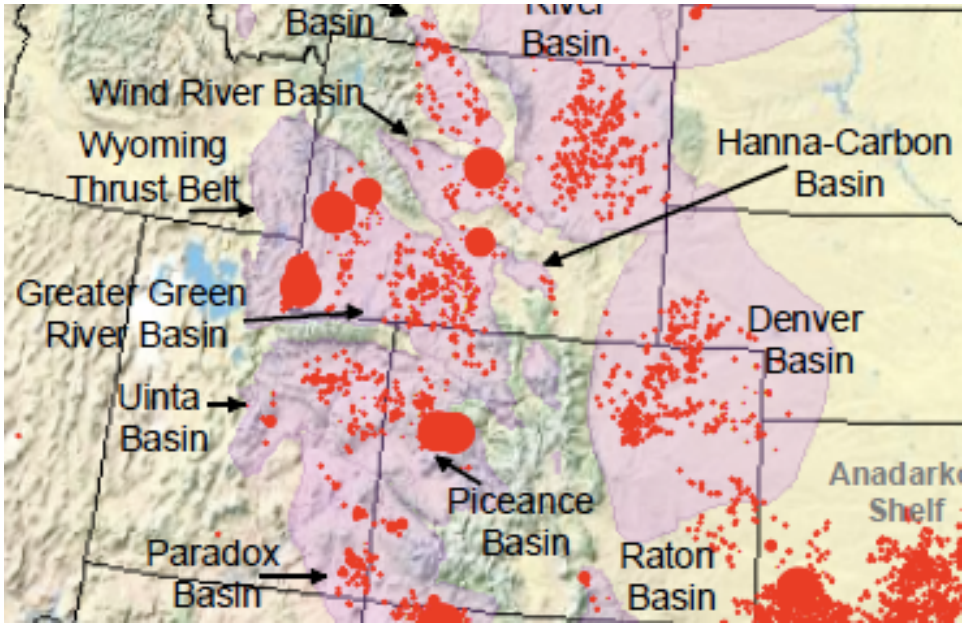

Figure 2-3. Major natural gas production basins in tri-state area (size of red dot corresponds to relative amount of gas in billion cubic feet).[26]

Primarily, development can be expected to continue in the Rocky Mountains because of the abundant resources that exist there. The Energy Policy and Conservation Act (EPCA) of 2000, amended by the Energy Policy Act of 2005, required the creation of an inventory of onshore oil and natural gas resources and the restrictions placed on their development. The Secretary of the Interior, coordinating with the Secretary's of Energy and Agriculture, was to present that inventory to Congress. The reports responding to that mandate have been completed by the BLM, and they include three phases of analysis. The third phase was published in 2008.

That inventory identified the relative percentages of land that are under varying degrees of development restriction. Three basins identified within that report are of interest to this study area. They are the Piceance-Uinta Basin, Southwestern Wyoming, and the Wyoming Thrust Belt. The report offers a summary of resources for each basin and development restrictions, which include stipulations attached to leases and Conditions of Approval attached to the Applications for Permits to Drill.

The EPCA analysis finds that 279 million acres of federal lands contain potential for oil and natural gas.[27] On these lands, there are 30.5 billion barrels of oil and 231.0 Tcf of natural gas technically recoverable. Fifty-nine percent of that natural gas and thirty-eight percent of the oil is administratively accessible.[28] According to the authors, "[t]he Inventory offers additional information for resource managers to identify areas of low oil and gas potential, but high potential for other resource (e.g., wildlife habitat) values or uses."[29]

Leasing Fluid Minerals: Process and Statistics

The Congress has prescribed the process for leasing and development of fluid minerals through a series of statutes. The Department of Interior is responsible for the implementation of these statues, and they have promulgated a series of regulations that guide development. Understanding the process is important to this study.

A preliminary investigation to identify potential resources for development is the first step for the production of fluid minerals.[30] Oil and gas operators interested in developing resources spend considerable time investigating the relative presence of fluid mineral resources across the geologic formations through a process of seismic testing and geophysical analysis. They must obtain a special use prospecting permit from the surface management agency, in this case, the BLM to do such activities.[31] They must submit a detailed plan of exploration with that permit to the BLM. The information generated by the exploration stage is used by operators to identify which lands they are interested in leasing for development.

The Mineral Leasing Act of 1920 (MLA) defines the leasing process on federal lands. Under the MLA, individuals and corporations are able to nominate parcels of federal land and then purchase, through a completive public auction, a lease to develop fluid mineral resources.[32] Each BLM state office conducts competitive, bi-monthly lease sales. These leases are held for a period of ten years, granting the lessee the right to the minerals owned by the federal government.[33] In effect, a lease is a property right to those resources.

Lands that are available and withdrawn to leasing under the MLA are identified in the BLM's land use planning process. The surface management agency conducts environmental review of oil and gas exploration through the development of an Environmental Impact Statement (EIS) during that planning process.[34] For proposed development projects that are large, including multiple wells, additional environmental review through an EIS is also done.[35]

In addition, during the planning process the agency makes decisions as to which stipulations will be attached to leases at the point of sale. The BLM defines a stipulation as "… a provision that modifies standard lease rights and is attached to and made a part of the lease."[36] These lease stipulations are often used to protect other resource values while production and development occurs. Operators are able to submit an application for waivers, modifications, or exception of the stipulations.

The total number acres under lease during the corresponding year in the states of Colorado, Wyoming, and Utah are shown below (Figure 2-4). This number includes both currently producing and non-producing leases.

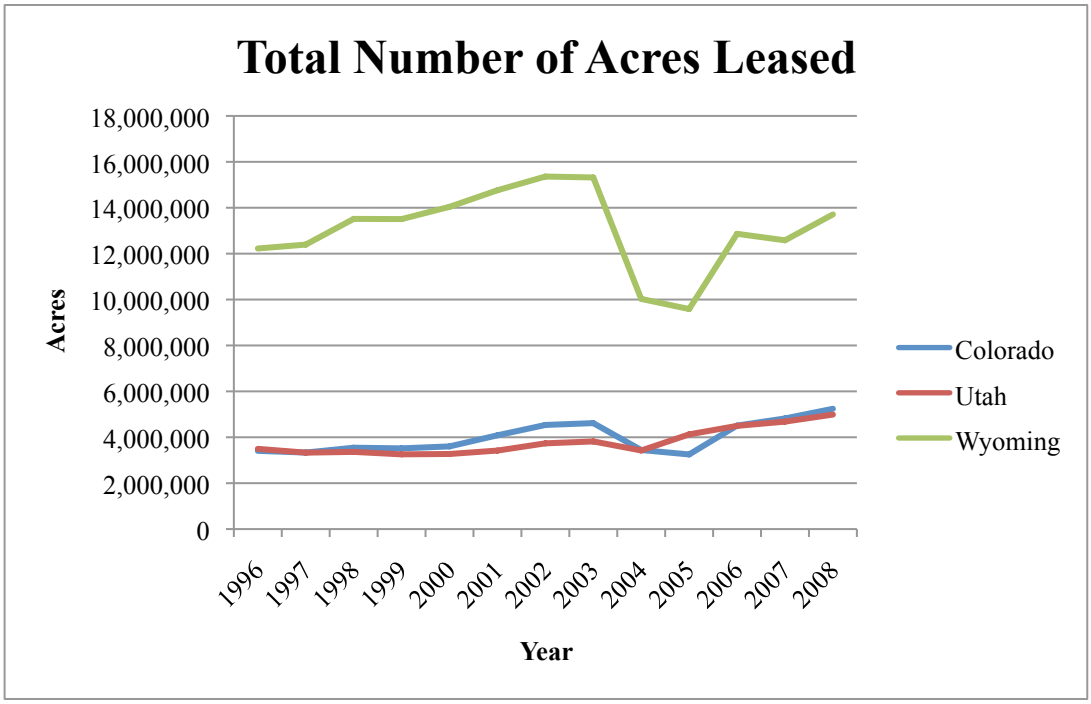

Figure 2-4. Total number of acres leased on the federal lands.[37]

Once an individual has purchased a lease, they are then required to submit an application for permit to drill (APD) to the Minerals Management Service (MMS), an agency in the Department of Interior.[38] The APD includes a drilling and surface use plan for the lease.[39] The MMS forwards the APD on to the land management agency for their review of impacts and subsequent recommendation. At that point, the surface management agency can attach Conditions of Approval (COA) that dictate specific actions that the operator can and cannot do during the production process. For example, the agency could limit the well pads to lands under a certain degree of slope. The APD's that were approved on federal lands by year from 1996 through 2007 in the states of Colorado, Wyoming, and Utah are shown below (Figure 2-5).

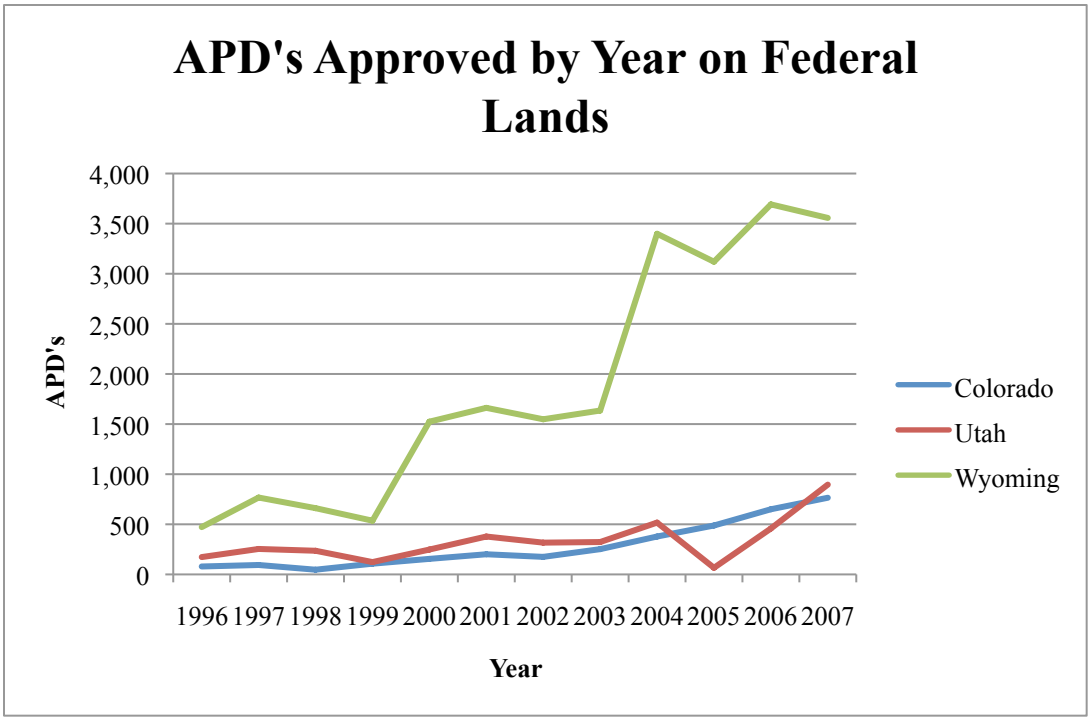

Figure 2-5. Number of Applications for Permit to Drill (APD) approved by year.[40]

Once the operator has obtained these permits, in addition to any state or local requirements, they are able to start, or "spud," a well. This stage is where operators use large drilling rigs to bore thousands of feet into the ground to access oil or gas. The number of wells started on federal lands across the same states by year is shown below (Figure 2-6). Once drilled, the hole is capped with a derrick and considered to be a producing rig. The total number of producing rigs in the same states over the time period is also shown (Figure 2-7). This number represented the total number of rigs in production that year, not a cumulative number of the total holes drilled.

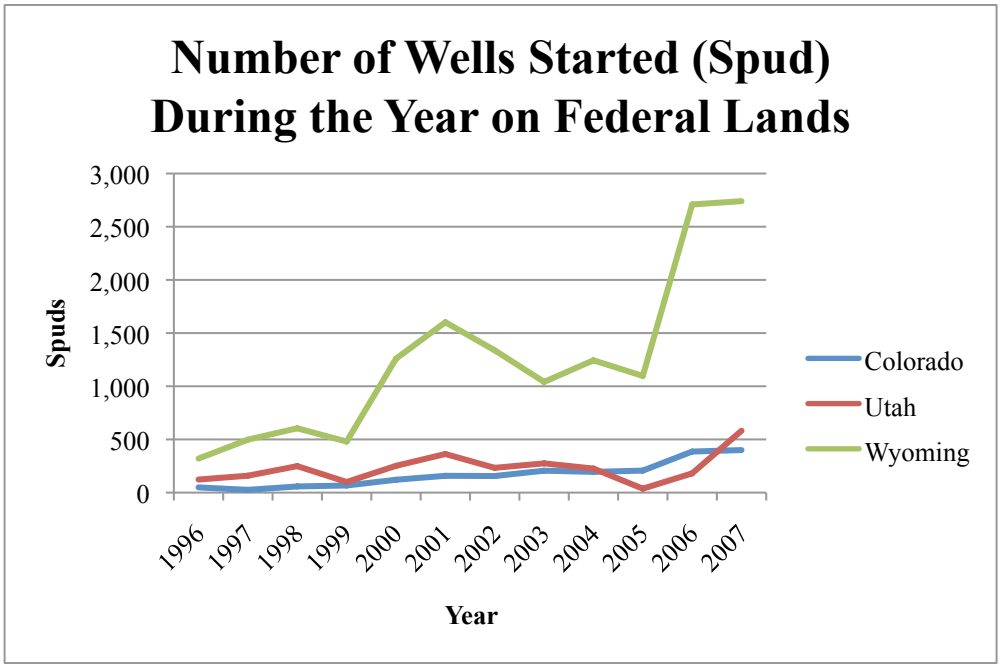

Figure 2-6. The number of wells drilled (spuds) on the federal lands by year.[41]

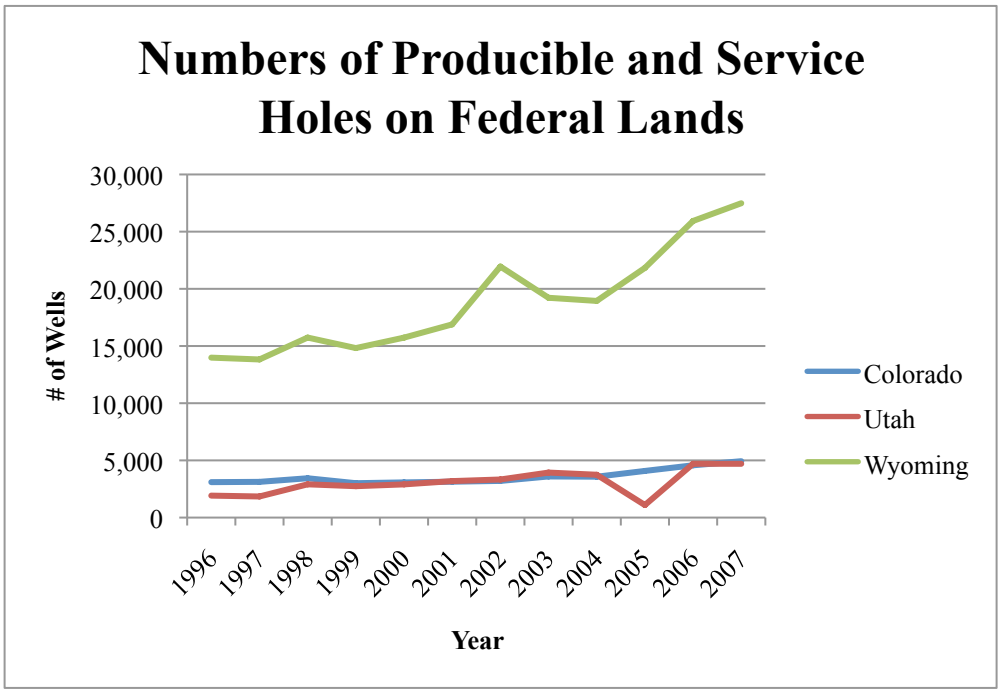

Figure 2-7. The number of wells producing oil and gas on the federal lands.[42]

Figure 2-8 offers a summary of this process. This figure is necessarily simplified but presents a general framework of decision points within the leasing process. This

summary only details the federal process. Individual states have different state regulatory bodies that affect the process. These are not included. This figure also provides a sense of the interaction between land managers and state wildlife agencies in the oil and gas leasing process.

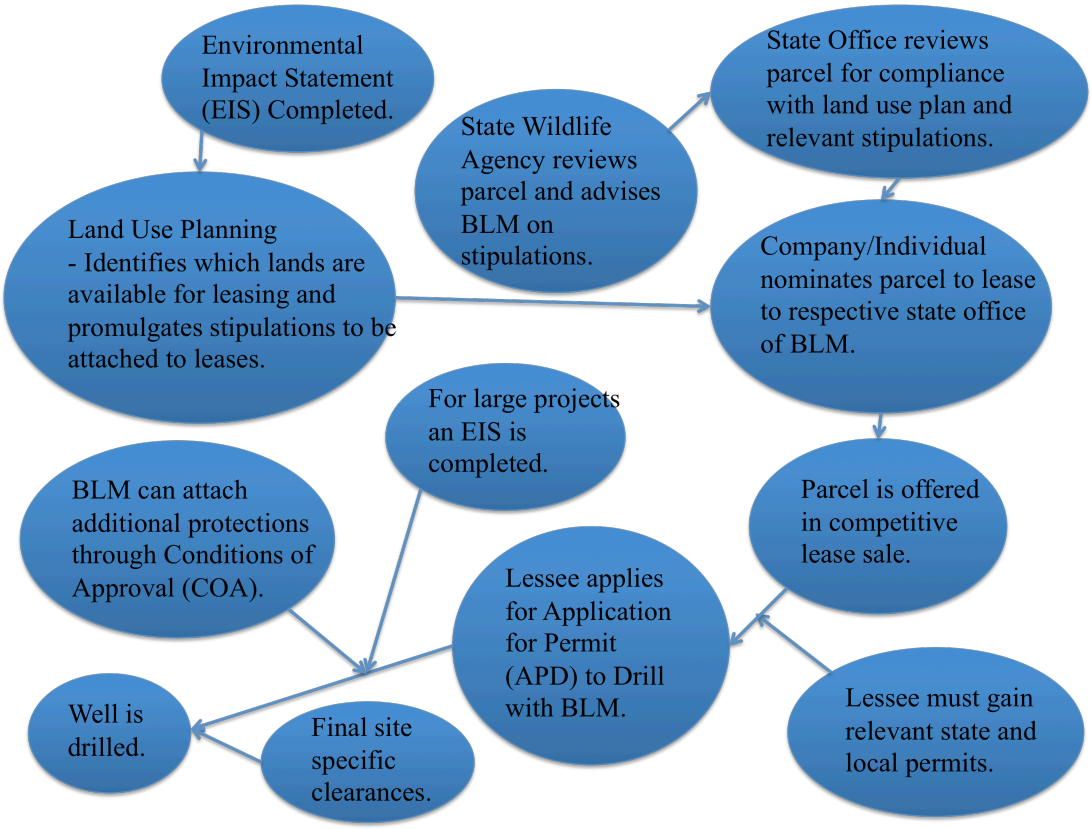

Figure 2-8. The BLM's formalized leasing process for oil and gas (Source: BLM).

The Impact of Energy Development on Mule Deer

The development of oil and gas resources affects the landscape. Mac Blewer (2008, p 372) describes the growth in development in the Red Desert region, "With 2,000 wells slated for the Atlantic Rim, and the continental divide, Fontanelle, Moxa Arch, and Jonah Field oil and gas drilling projects booming, the desert is changing."[43] Blewer (2008, p 363) goes on to write:

> Numerous oil, gas, and coal-bed methane exploratory wells, compressor stations, coal mines, and trona mines dot this region, linked together by a

> growing web of service roads, giant overhead power lines, and pipelines. Such development fragments wildlife habitat and can severely disrupt animal behavior and migration.[44]

According to a 2007 study by the Environmental Working Group, an environmental advocacy and information organization, the BLM had leased nearly twenty-seven million acres of wildlife habitat in Colorado, New Mexico, Wyoming, Montana, and Utah. Between the years of 2001-2007 15,376 new wells were drilled in the states of Wyoming, Colorado, and Utah.[45] By comparison, from 1996-2000 only 4,366 new wells were started.[46] In their inventory of natural gas leasing within important wildlife habitats in the West, the same report found that:

> In Colorado, Montana, New Mexico, Utah and Wyoming — the states leading the West's natural gas boom — BLM has currently leased drilling rights on an estimated 23 million acres of mule deer habitat … [and] additional acres of habitat … have been leased and drilled on state, private and Indian lands that are not included in this report.[47]

In research done on the importance of migration routes for ungulates, like mule deer, Sawyer, et al. (2009, p 2017) writes:

> Western Wyoming is a region where some of the world's largest mule deer populations coincide with some of the world's largest natural gas reserves. As the level of natural gas development expands across the region, large areas of mule deer habitat are rapidly being converted into producing gas fields, characterized by networks of access roads, well pads, pipelines, and other infrastructure that may impeded deer migration.[48]

Development has adverse effects on the viability of mule deer populations. Impacts include both the direct loss of habitat, and it includes the indirect loss associated with the increase in human activity that creates stress for deer.[49] As Sawyer, et al., (2006, p 402) point out, "Habitat losses, whether direct or indirect, have the potential to reduce carrying capacity of the range and result in population level effects."[50] Those impacst have found to be particularly acute on seasonal ranges, especially crucial winter ranges, and the migration routes animals use to move between those seasonal ranges.[51,52] These impacts can in turn affect the population viability of herds.

A number of studies in western Wyoming have demonstrated the consequences of habitat loss. Sawyer, et al., (2006) showed that drilling and production of natural gas

on crucial winter range significantly affects mule deer on the Pinedale Anticline. That study reported that twenty-seven percent of the declines in deer populations on the Pinedale Mesa were associated with gas development. That decline was associated with only a two percent direct loss of habitat.[53] Additionally, Sawyer, et al. (2009) found that the construction of infrastructure associated with oil and gas development areas with mule deer migration corridors will likely negatively affect the ability of animals to move from their seasonal ranges and to accumulate the energy necessary to move.[54]

Within the five Rocky Mountain States, there are 63.1 million acres of crucial winter range used by mule deer, 51% of which is on federal lands. 5.5 million acres of crucial winter range has already been leased. 10.6% of the federally managed crucial winter range has been leased to oil and gas development, and 19,445 wells have been drilled within those ranges.[55] According to Sawyer et al., (2002) the dramatic increase in energy production on the public lands represents the most significant threat to mule deer populations as a result of direct and indirect loss of crucial habitat and disruption.[56]

The BLM's Response to a Growing Conflict

The BLM engages in a public process of establishing management goals, objectives, and actions on the lands it manages. Through this process it develops the RMP (Appendix H). FLPMA declares that "[t]he Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and, when appropriate, revise land use plans which provide … for the use of the public lands."[57] RMPs are revised periodically. BLM regulations dictate, "[a] resource management plan shall be revised as necessary, based on monitoring and evaluation findings, new data, new or revised policy and changes in circumstances affecting the entire plan or major portions of the plan."[58]

The RMP planning process outlines the availability within the field office of fluid minerals, including oil, natural gas, and coal bed methane. Within the RMP, the agency outlines the specific areas that will be open for leasing to individuals and

companies. The agency can also determine that leasing will be in significant conflict of other resources, thereby sacrificing the agencies obligation to uphold the principles of multiple use and sustained yield that are promulgated by FLPMA. It can then designate those areas as unavailable for leasing, primarily through administrative designations like Wilderness Study Areas (WSA).[‡]

The total percentage of lands that are open to leasing of each field office in the study area is shown below (Table 2-3). Both surface and sub-surface acres are included. Furthermore, the tables show the total percentage of the planning areas that the most current RMP opens to nomination of leasing for fluid minerals (leases under standard terms and with any stipulation attached to the parcel were included).

Table 2-3. Acreage, by field and state office, open to leasing under the MLA.

State Office	Field Office	Total Surface Area	Total Subsurface Area	% Open for Fluid Mineral Leasing
Wyoming	Rawlins/Great Divide	3,400,000	4,500,000	97.9
	Rock Springs	3,600,000	3,500,000	95.9
	Pinedale	922,880	1,199,280	59.5
Colorado	Little Snake River	1,349,400	2,400,000	88.08[§]

The BLM makes decisions on stipulations that will be attached to each lease within the RMP process. There are a number of stipulations used by the agency to protect a variety of resource values. For example, a Controlled Surface Occupancy (CSU) stipulation is often used to protect slopes greater than a certain degree from oil and gas development. Timing limitations (TL) restrict activity during certain critical time periods and are often used to protect big game species from the stress associated with development.

Based on this extensive review of seventeen land use plans in the Intermountain West completed for this study, this thesis defines the standard approach to balancing

[‡] WSA's are administratively unavailable for fluid mineral leasing.
[§] This percentage is computed with the acreage prescribed under the draft RMP. This will most likely be different in value when the final RMP and ROD is published.

these priorities as the use of the timing limitation lease stipulations on mule deer crucial winter ranges. In virtually every case, the BLM uses this stipulation to protect mule deer from the stress associated with development. These timing limitations, often restricting drilling activity during high stress periods (typically November 15 through April 30), are applied to most crucial winter ranges throughout the study area. The stipulation prevents drilling from occurring during the winter season, but does not affect activities regarding production.

Wildlife biologists have expressed concern about this approach. They argue standard approach of using timing limitations on crucial habitats has a major limitation from a biological standpoint because it does not actually provide any protection from the disturbance of these habitats. Rather it simply restricts construction and drilling activity during sensitive time periods.[59] Additionally, it is a site-specific approach, and it does not think about the impact of disturbance and fragmentation across a landscape.[60]

Additionally, the leaseholder can apply to the BLM for an exception, modification, or waiver of the stipulation. The BLM often grants exceptions to seasonal restrictions if the BLM, in consultation with the state wildlife agency, feels that granting an exception would not adversely impact the deer population being protected.[61] These are often granted if mule deer are not present on the range due to a number of factors, including mild winter, minimal snow depths, etc.

Protecting crucial mule deer habitats with timing limitations is the standard approach of the BLM. The agency attaches those stipulations to leases through the land use planning process. It attaches them to all crucial big game winter ranges. The agency has used those limitations for migration corridors in a few cases. It is useful to use this framework as a standard by which to measure innovation. The next chapters will begin to explore cases where staff members have gone different directions from these standards.

Notes to pages 20-38:

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[2] Fernandes, et al (2010).
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3. Background and History of the BLM: Lessons for Innovation

"Both the National Park Service and the Forest Service are far more visible in the public eye than BLM … I think that BLM is just now having to catch up to the reality that those folks have had to deal with including their own management, and their relationship with the public – in particular environmental groups."

- BLM Staff Member, Little Snake River Field Office, Colorado

The BLM was established in 1946 in an attempt to amalgamate a vast and diffuse holding of public lands across the West under a single management framework. Unlike similar natural resource agencies like the United States Forest Service (USFS) that were built to reflect the growing values of a Progressive Conservation movement, the BLM grew from the regional values of the West that were dominated by resource use and extraction.[1] In the context of this work, there are lessons to be drawn from the BLM's history and culture that affect the ability of the agency to be innovative today. This chapter explores that story to better inform the assessment of opportunities for innovation in the agency.

History of the BLM as an Organization – The Years Before FLPMA

The BLM was created in 1946 by the decision of President Harry S. Truman to sign into law the Reorganization Plan Number 3 Act of 1946 that combined two existing agencies – the General Land Office (GLO) and the Grazing Service.[2] The Act placed the BLM in the Department of Interior, but it contained no formal mandate or statutory guidance for the new agency.[3] The decision placed nearly 400 million acres of the public estate in the hands of the fledgling agency at the time. Today, the BLM retains the management of nearly 256 million surface acres and 700 million acres of the federal government's subsurface estate.[4] *

The BLM carries the institutional legacies of both parent agencies. From its early

* The difference is a product of the Homestead Act of 1862, which severed surface and subsurface estate. This division continues to create conflict between surface owners and mineral proprietors across the West.

years, the BLM demonstrated the tension of combining one of the oldest federal agencies with the newest.[5] In 1812, the GLO was created under the Treasury Department, and its purpose was to assist the Treasury in the disposal and management of the public domain.[6] By comparison, the Grazing Service was created in 1934 by the passage of the Taylor Grazing Act (TGA) and was charged with managing the grazing of livestock on the nation's public domain.[7] It is useful to explore the history of these organizations more fully.

The General Land Office

The GLO remains an important part of the BLM story. Created in 1812 during the immediate years after the Louisiana Purchase, the GLO was a federal agency that promised to increase the efficiency of selling the public domain in order to finance and settle a growing country. From its creation in 1812 until the passage of the Homestead Act of 1862, the GLO operated with minimal statutory guidance. In fact, one of the only restrictions placed on the office was that Congress set the minimum price of $1.25/acre.[8] Throughout this period the United States continued to grow, pushing westward. This time period of federal land policy was generally dominated by acquisition of lands.[9]

The passage of the Homestead in 1862, the General Mining Act of 1872, and others, were the codification of the U.S. policy of disposal of the public domain lands and marked a substantial shift in federal land policy. The Homestead Act gave 160 acres of federal land to settlers with only the promise of residence, improvement and cultivation.[10] By 1890, the GLO was at the peak of its influence, with 123 field offices operating across the country.[11] In addition to the Homestead Act, Congress passed the General Mining Law in 1872, which granted priority to any mineral interests by creating a "…distinct class of public lands subject to exploration, occupation and purchase under certain conditions."[12] Disposal of the public lands was politically popular.[13]

Paul Culhane's review of the BLM provides some insight on the political importance of the GLO. He writes:

> Since the disposal of the federal land was a major national policy during much of the nineteenth century, the GLO was an important bureau in the federal government. Both the political background and prominence of GLO commissioners attest to the agency's importance. Of the twenty-eight commissioners …, sixteen were former state governors or U.S. Senators or Representatives, one was a former vice president of the United States, and another was a justice of the Supreme Court.[14]

Despite the political prominence of the agency, its management of the nation's public land was largely ineffective. The GLO employees were not technical experts and had little understanding of the scientific management. The duties of the GLO staff were largely clerical.[15] As historian Samuel Hays (1959, p 37) describes:

> Trained as lawyers, they had no large views of the possibilities of forest management, but adhered strictly to narrow interpretations of law and emphasized formal procedures rather than results. The custom of political appointments to the General Land Office hampered the selection of technicians.[16]

The federal government's lands were deteriorating as a result of the GLO's management. Corruption had become widespread by the end of the nineteenth century. Wondolleck (1988, p. 28) quotes Hays , "'… no one could cut through the entrenched inefficiencies' of a GLO that was 'hopelessly involved in a maze of political appointments, legalistic routine, and personal favoritism.'"[17]

By the end of the nineteenth century, the forces of the American West were beginning to change. Wondolleck (1985) and Hays (1959) argue that the policies that were created to settle the West were actually contributing to its destruction, both in terms of resource degradation and social order. With land disposal programs ran thousands of miles away in the nation's capitol, Westerners were taking advantage of the permissiveness of the laws and lack of agency presence to amass large swaths of land and claims to resources.[18] The public range was quickly becoming barren as a result of severe overgrazing, and the nation's forests were in turn being cut down to facilitate more grazing. Hays (1959, p 59) adds:

> Chaos and anarchy … predominated the open range. Congress had never provided legislation regulating grazing or permitting stockman to acquire range lands. Cattle and sheepmen roamed the public domain, grabbing choice grazing areas for their exclusive use, but competitors cut the wire.

> Resorting to force and violence, sheepherders and cowboys 'solved' their disputes over grazing lands by slaughtering rival livestock and murdering rival stockmen … Absence of the most elementary institutions of property law created confusion, bitterness, and destruction.[19]

The awareness of the destruction of the federal lands emerged in the early years of the twentieth century. The public land policy mantra became one of reservation and custodial management.[20] The USFS and National Park Service (NPS) were products of this shift, designed in part to protect the watersheds and natural wonders that many saw essential to the growing country. The designation of Yellowstone National Park in 1872 and the passage of the Forest Reserve Act of 1891[†] were important moments for the movement towards reservation of the federal lands.[21] Theodore Roosevelt embraced the philosophy of reservation and began an earnest movement of land conservation as a federal lands policy.

Solving the Grazing Conflict – A New Agency Emerges

Resolving the conflict on the range was difficult for Congress. However, the seriousness of destruction and the droughts of the early 1930's finally prompted congressional leaders to act.[22] In 1934, President Franklin D. Roosevelt signed into law the Taylor Grazing Act (TGA) in an effort to preserve the deteriorating western range and restore some semblance of order. In addition to formally ending the period of homesteading, the Act also created a new agency known as the Grazing Service.[23] It also declared grazing to be the "dominant use" on the public lands.[24] The Service was charged with "replac[ing] open grazing with a federal permitting program that formalized the informal grazing patterns."[25] The Act created Grazing Advisory Boards[‡] that allowed ranching interests to help set the grazing permits and fees within districts.[26]

While the Grazing Service did not quell conflict, it did establish order. It also created a legacy of capture in the agency. Ranchers dictated administrative policy

[†] The Forest Reserve Act of 1891 was the authorizing act for the early national forest reserves program, which would become that national forest system. Unlike the designation of Yellowstone, this was the first *system* of land reservation in the U.S (See Clawson, 28).
[‡] These Boards would eventually evolve into the Resource Advisory Councils currently used by the BLM.

through the Grazing Boards. Grazing permits were virtually never turned down, and the fees were kept well below the market price and often close to zero.[27] Ranchers believed that permits granted them property rights over the lands, a fact the Supreme Court finally had to remind them was not true.[28]

Professor Richard Cawley documented the influence of cattlemen on the management of public lands during this period. The intertwinement of the grazing industry and the Grazing Service was deep. In fact, for a brief period immediately following consolidation with the GLO, the stock growers actually paid for the BLM personnel salaries.[29] In his study of the Grazing Service Culhane detailed:

> Local stockmen's advisory boards contributed $200,000 … to the 1947 appropriations of $550,000 to help pay the salaries of local [employees.] Grazing Service employees were thus literally paid by the users they were supposed to regulate.[30]

The Grazing Service was seen as a defunct and incapable agency from both sides of the debate.[31] The conservation community alleged that they were giving away broad sweeps of public lands to ranchers, and the ranching community felt the Service imposed too much regulation on their activities.[32] Ranchers held tight control over the powerful Western lawmakers that dispersed funds through the appropriations process. Senator Pat McCarran (D-Nevada) was a particularly vocal critic of the Service, believing that the users of the land and not bureaucrats in Washington should dictate public land policy.[33] He and his colleagues used influence in the federal budgeting process to cripple the Grazing Service.[34]

With the passage and signing of the Reorganization Plan Number 3 Act in 1946 by President Truman, a new agency was created. The fledgling BLM brought with it all of the baggage of its parent agencies. It also had over 2,000 statutes governing its actions in managing the nation's public lands.[35] It was not until 1976, with the passage of the Federal Land Policy Management Act (FLPMA), that the agency would have a uniform mission and mandate. These early years meant that the organization would long be rooted in a deep confusion over its mission and a tight relationship with the resource user constituency and their elected officials.[36]

The BLM's Development of a Culture under a Multiple Use Mandate

From its creation in 1946 until 1976 the BLM operated under a myriad of confusing and often contradicting laws, leaving the agency no clear mission.[37] As a result, the agency found escaping the capture of traditional commodity groups difficult. Skillen (2009, p 37) writes:

> Whereas vague statutory missions had advanced the Forest Service's and National Park Service's administrative discretion and autonomy, the BLM's organization had left political power exactly where it had been under the GLO and the Grazing Service administration: with the livestock industry, the mining industry, the timber industry, and western states.[38]

Political capture by user groups was imminent. In its early years, few people in the country had much understanding or knowledge of the agency except for those with a direct economic stake in its decisions.[39] It would take the passage of FLPMA in 1976 to change four decades of understanding that grazing was to be managed as the dominant use of the federal lands.[40] However, building a constituency that would support this shift was difficult.

The Development of a Multiple Use Mandate

The first formal multiple use mandate for the BLM came in the 1960's. While the agency's first director, Marion Clawson, brought multiple-use values to the organization, there was no statutory authority for the BLM to abide by those principles.[41] The Congress, under the pressure of President John Kennedy's Secretary of the Interior, Stewart Udall, passed the Classification and Multiple Use Act of 1964 (CMU) as an attempt to give the agency some direction over the confusing network of statutory obligations. The CMU provided a loose mandate of balancing wildlife, recreation, soil, and water resources with the traditional priorities of range, minerals, forestry, and lands.[42] The passage of the CMU[§] was conditional on an agreement with the Chair of the House Interior and Insular Affairs Committee, Representative Wayne Aspinall (D-Colorado) – the law was to expire in 1970 upon completion of the report of Aspinall's Public Land Law Review Commission

[§] In addition to the CMU, Representative Aspinall also held the Wilderness Act and the Public Land Sale Act in his Committee until he received agreement for the PLLRC report (See Muhn, 111).

(PLLRC).[43]

The PLLRC published its report, *One Third of the Nation's Land* in 1970. The purpose of this study was largely a continuation of a recurring theme in the public lands debate about whether or not the federal lands should be retained or dispersed to the states or individuals. The findings included a deep unease for the ability of the BLM to effectively manage the public domain given its lack of mission and incomprehensible statutory framework. Additionally, it reiterated a persistent and deep concern for the condition and health of the nation's public range.[44] The lack of firm regulation of the stockman was continuing to hurt the productivity of the land. Most importantly, the PLLRC suggested that the federal lands be kept in federal control, and not dispersed to private interests or the states.[45] These findings set the stage for a new debate in Congress over the direction of the BLM.

With the passage of the FLPMA in 1976, known as the BLM's "Organic Act," the BLM finally had a clear mandate from Congress. First, FLPMA boldly stated that the public lands would remain in federal ownership, partially quelling the ownership debate. FLPMA also declared the formal policy of the BLM to be "multiple use."[46] According to the BLM, "… FLPMA proclaimed multiple use, sustained yield, and environmental protection as the guiding principles for public land management."[47] The political context of managing the federal lands was changing.

Shifting Constituencies and Their Impact on the Agency

Changing the direction of the agency required a constituency that had a demand for a different future of the BLM, and the environmental movement filled that role during the 1960's and 1970's. To this growing movement, the public lands were not just a frontier to be conquered or a deposit of natural resources. The BLM's stark canyon country and sagebrush deserts were landscapes that offered the wilderness experience, provided habitat for fish and wildlife, and were a recreation playground. With the passage of FLPMA in 1976, BLM leaders had a new mandate and the political cover of a constituency to begin to move the agency in a different direction.

1976 also brought the political leadership that was necessary for a shift. President

Jimmy Carter's election in 1976 meant a renewed focus on the public lands in the West. Under the leadership of President Carter's Secretary of the Interior, Cecil Andrus, the BLM would use FLPMA as a justification for bolstering the agency's environmental and planning priorities, moving away from its traditional programs.[48] At the same time, the maturing environmental group was using new legal tools – offered through the passage of the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA) – to demand greater accountability over the management of the federal lands.[49] Additionally, the public lands would become core to the solution for a national energy crisis during the late 1970's.[50] These new constituencies began to partly neutralize the century old control of the public domain and the BLM held by the ranching community.

By the early 1980's the BLM's mineral estate was becoming politically important. There were new findings of vast deposits of coal as well as the oil and gas potential across the public domain. These discoveries were coupled with the election of President Ronald Reagan in 1980. The combination laid the cornerstone for a new and equally powerful constituency that would take hold of the agency – the energy industry.[51] Under the promise of economic opportunity and reduced government meddling in local public lands decisions, President Reagan and his Secretary of the Interior, James Watt, begin to fundamentally reshape the BLM. Their interpretation of FLPMA was much different than President Carter's. As a result, devolved decision-making and the development of mineral resources became powerful themes of the public lands debate.[52]

As Professor Richard Cawley explains, the political shift in 1980 was fueled by the development of the Sagebrush Rebellion.[53] The movement began after the passage of FLPMA in 1976 and was fueled by local interests in the Western states who had hoped that the BLM's lands would be transferred to private or state ownership, thereby diminishing federal control and presence in the West. The movement was bolstered by the Carter Administration's implementation of FLPMA as a number of cattlemen in Western states felt that their interests were being passed over in favor of protection of environmental resources.[54] A number of states legislatures, beginning

with Nevada, passed bills claiming stake to the federal lands between 1977 and 1981.** During the 1980 presidential campaign, Governor Reagan proudly claimed himself to be a 'Sagebrush Rebel.'[55] Once elected, the President and Secretary Watt aimed the Rebellion's energy squarely at the BLM.[56]

The Reagan Administration focused their efforts at decentralizing managerial decisions and authority in the BLM. According to Durant (1992, p 52), "… Reagan appointees at the Department of Interior proselytized and rushed to advance the President's four 'd's': debureacratization, deregulation, decentralization, and devolution of federal responsibilities to the state."[57] The Administration felt that the BLM during the Carter years had become arrogant and disconnected from local interests. The Reagan Administration felt that decisions would be more responsive to industry, both cattle and energy, at the local level.[58] It also appeased the Sagebrush Rebels.

As the both the Carter and Reagan stories display, presidents have had an important influence on the agency. Rottinghaus and Maier (2007, p 81) argue that with the growth in the 'administrative presidency,' presidents regularly use unilateral actions in the area of public land management to "…nimbly sidestep congressional and bureaucratic intransigence by pursuing their goals administratively rather than by statute […]."[59] President Reagan and H.W. Bush used executive orders and proclamations to shift federal land policy away from environmental protection and in favor of mineral resource production and other forms of development.[60]

During President Bill Clinton's Administration, public lands issues played a prominent role in the administrative and political discourse. Clinton appointed former Arizona Governor, Bruce Babbitt, to the Secretary of the Interior post. Under Babbitt's direction, the BLM moved back towards an interpretation of FLPMA that placed the agency's environmental priorities on par with resource commodity uses.[61] As a result, the agency landed in the middle of a festering debate between

** In the end, Arizona, New Mexico, Nevada, Utah, and Wyoming passed "Sagebrush" laws. Wyoming expanded theirs to claim rights to the lands managed by the U.S. Forest Service in addition to the BLM lands. Governor Bruce Babbitt (D-Arizona) vetoed the bill signed in his state (See Cawley, 1993).

conservationists and commodity groups about the proper role of the federal lands at the close of the twentieth century. By now, both were powerful national movements.

The Clinton Administration took on the development interests in the halls of the Congress. They attempted to reform the General Mining Act of 1872 and the federal grazing programs during the 103rd Congress,[††] but the support of Western Senate Democrats held by the ranching and mineral industry was strong. Those members threatened to withhold support for the President's budget unless the administration abandoned their plan to increase fees.[62] Once again, the powerful commodity groups had won. The 1994 Republican take-over of Congress thwarted further reform attempts.

Nonetheless, public opinion about the use of the federal lands had shifted by the 1990's, altering the distribution of power. Growing populations in the "new West" and interest in the public lands as a recreation resource was re-defining who cared about these landscapes.[63] There was now a different constituency for the management of the BLM lands. President Clinton recognized that fact when he used the Antiquities Act of 1906 to designate of the Grand Staircase-Escalante National Monument in the southern part of Utah, the first National Monument BLM would manage.[‡‡] That designation, and the addition of thirteen other National Monuments, totaling approximately five million acres by the end of the Clinton Administration, would mark a new focus of investing the BLM with protected landscapes.[64] Clinton and Babbitt would also create the National Landscape Conservation System in 2000 in a continued attempt to reinvent organizational culture in the BLM.[65] For many observers, the "Bureau of Livestock and Mines" had become the "Bureau of Landscapes and Monuments."[66]

The years after the passage of FLPMA demonstrate the importance of politicization, constituency and the tension between a centralized and decentralized governance

[††] In the President's Budget, the Office of Management and Budget had proposed increasing the fees for grazing permits from $1.86 to $8.70/AUM and placing a 12.5% royalty on hard rock minerals that were extracted under the General Mining Act (See Skillen, 145-151).
[‡‡] President Clinton signed Proclamation No. 6920 on the North Rim of the Grand Canyon on September 18, 1996. He was joined by Secretary Bruce Babbitt and Vice President Al Gore.

structure within the BLM. These three factor have had important influences on the agency. Skillen (2009, p 10) describes:

> Even though western congressmen and the BLM's commercial clientele continued to fight for decentralized management, two different centralizing pressures, one internal and one external to the agency, punctuated the BLM's history. The first pressure came from leaders in the executive branch who wanted to integrate and coordinate the agency's planning and management activities. These leaders were steeped in the Progressive Era and New Deal conservation tradition that emphasized shielding public land decision making from political pressure. They pressured for more scientific planning and management programs that would give the agency greater control over its commercial clientele. […] The second centralizing pressure came from various interest groups. Commercial land users had long demanded decentralized management, because historically this had favored liberal resource patronage. Conservation and environmental groups, on the other hand, generally advocated more centralized, professional management, arguing this would favor the public interest over the private economic interest.[67]

Building a Sense of Identity in the BLM Employee

The history of the BLM has played an important role in shaping the agency's culture. The development of a common culture and sense of identity within employees of the BLM followed a different path than other federal resource agencies. In his work, James Wilson (1990, p 91) argues that organizational culture is the "persistent, patterned way of thinking about the central tasks of and human relationships within an organization."[68] Each organization has a unique culture that defines its personality and influences its actions.[69] Organizational culture provides the glue that can hold a diffuse organization together, and it is important to understanding and predicting the behavior of a public agency. Ouchi (qtd in Durant, 1992, p 265) explains:

> Industrial organizations can, in some circumstances, rely to a great extent on socialization as the principal mechanism of mediation or control … It is not necessary for these organizations to measure performance to control or direct their employees, since the employees' natural [socialized] inclination is to do what is best for the firm.[70]

For example, the USFS was an agency that was effective at building a strong sense of organizational mission and culture. That ability is credited to the agency's first

chief, Gifford Pinchot, who built an organization based on his notions of the "conservation" of resources as a scientific discipline and steeped in the progressive conservation era values of his time.[71] Through a variety of techniques – from building a network of forestry schools to transferring employees across forest units around the country – the agency created a deep sense of dependency in its staff on the organization. In the Forest Service, an employee found everything they needed – family, community, and professional achievement.[72] The agency was also built with roots in the scientific paradigm of resource management, where staff members were considered to be technical experts in forest management.[73] For scholars of public management, the USFS is a textbook case of building culture in a public agency.

However, organizational culture became a significant barrier to the USFS as the context around managing national forests changed. Cultural pressures were about maintaining control and consistency over a decentralized system of national forests.[74] Despite trying to escape the capture through internalizing professionalization, the influence of the timber industry still held the control over the agency though the Congressional Appropriations process. The success of the agency came to be measured in board feet, and agency leadership happily complied with requests of getting the cut out of national forests in the years after the Second World War in order to maintain their budgets. Nonconformity and speaking out was highly discouraged by staff members. For staff, getting ahead in the agency meant getting in line with leadership.[75] The strong sense of culture ultimately became a significant barrier for the agency to solve complex problems, as Professor Steven Yaffee (1994) pointed out in his work on the spotted owl controversy in the Pacific Northwest.[76]

For a variety of reasons the BLM has never succeeded in building the adherence to a similar sense of identity and culture. The BLM was not created in the image of the progressive conservation values, and there was no clear vision about what role the agency would play in the federal lands management framework. Additionally, the BLM did not have a charismatic leader, like Pinchot, who nurtured the agency in its early years. Marion Clawson, the first director under President Truman, served only until 1953 when President Dwight Eisenhower quickly replaced him in favor of

someone more responsive to industry.[77] Unlike the USFS, political appointees populated the leadership positions of the BLM.[§§]

From the beginning, the BLM was not a scientific, professional organization that sought to insulate the agency from political processes. Decisions were intended to reflect the wishes of local users. The GLO and the Grazing Service were both dominated by a philosophy that local users were best able to dictate management of the lands.[78] Staff members for the Grazing Service were most often members of the ranching community rather than scientifically trained professionals.[79] The Grazing Advisory Boards that were created by the TGA controlled the Grazing Service staff. As a result the Service rarely challenged the stockmen.[80] These principles followed the BLM through the early years after the merger.

The 1950's and 1960's saw the growth of professional scientific values in the BLM. As a young men returned home to the West, a growth in college enrollment at the land grant universities brought new programs in range management.[81] Culhane (1981) describe that these programs began training a new BLM employee, which would become a driving force in changing the priorities and policies of the agency as a whole.[82] Muhn and Stuart (1988) explain:

> During the 1950's and 1960's, a new breed of employee entered BLM. He – or she – has college training in natural resources management, usually a degree, plus membership in a professional society (the Society for Range Management was founded in 1948; the Society of American Foresters was founded 1900). They brought with them new educational backgrounds, new attitudes, and stronger multiple use philosophies – and soon clashed with old-timers from the GLO and Grazing Service.[83]

Skillen (2009, p 33) notes that "… during the 1950's the BLM begin developing a professional esprit de corps in its range program, expanding the agency's ambition for professional autonomy."[84] Despite a more educated and professional staff, the agency found that it was still challenged by a lack of a constituency for the conservation of the BLM's other natural resources, and it had limited scientific tools

[§§] Historically, the Chief of the USFS was an agency person who worked their way up the organization. The appointment of Jack Ward Thomas by President Bill Clinton in 1993 to the Chief position was the first time in the history of the organization that the position had been politically appointed (See Nie).

for making better decisions.[85] Without the basic information, including general surveys of the current range condition, it was difficult for staff to push back against stockmen and their congressional allies. The agency set out to fill in those gaps during a range adjudication process from 1953-1967 that reevaluated grazing allotments based on the BLM's expertise rather than the Grazing Advisory Board's estimates.[86] Skillen (2009, p 74) argues that, by 1966, the BLM had become an organization more deeply resembling the professionalization of the Forest Service.[87]

The agency was solidly building its case for more autonomy from stockmen and Congressional politics during the 1960's. At the national level, leaders had created a new "Multiple Use Advisory Board." Based on the information gathered during the adjudication process, the agency embarked on the creation of a plan titled "Project 2012." The purpose of the project was to build a long-term vision for the range management program into the next fifty years.[88] Sally Fairfax notes that, while the project was not terribly significant in its change to on the ground management, it was symbolically important in demonstrating a new professional agency.[89] This professionalization was reflected in how the BLM managed the range, setting off a number of enraged cattlemen decrying the abuse of administrative discretion.[90]

Dana and Fairfax (1980, p 230) describe that the absence of attention on the BLM attracted a unique type of employee:

> In spite of the BLM's orphan status, a hardy band of professionals was attracted to the agency by the magnitude of its tasks and the responsibilities and opportunities which they presented. These dedicated souls were willing to endure low pay, low prestige, and public indifference or outright hostility in order to live on and manage the public lands of the West.[91]

In 1966 the BLM also redesigned its organizational structure. BLM Manual Section 1213.37 published in July of that year created "Resource Area Offices."[92] These offices were created during a statewide reorganization process from splitting apart the district offices that had been created in the BLM's early years and would become known as "Field Offices." The BLM put a single "Division Manager" in charge of managing these areas, giving them significant latitude and discretion.[93] As Dale Andrus (qtd. In Muhn & Stuart, 1980, p 117) explained, "[c]riteria used to identify

Resource Area boundaries were kind and amount of workload, geographic barriers, political subdivisions, and watershed basins." [94] This reorganization built a staff within resource areas that were highly independent, and were well below the political influences of Washington. It opened the door for entrepreneurial staff to be able to push new ideas to problems.

The agency's reorganization was followed by two events in the early 1970's that changed the nature of public lands management. The first was the passage of the National Environmental Policy Act (NEPA) in late 1969, which significantly affected the nature of tasks that BLM employees were asked to complete. NEPA required the agency to create "detailed [environmental impact] statements [for all] … major federal actions significantly affecting the quality of the human environment …"[95] Agency staff now needed to complete detailed scientific documents that detailed the impacts associated with their decisions, like allowing grazing on the federal lands. It also affected the political power of the user groups through litigation. The second event was a decision by a court. In *Natural Resources Defense Council, Inc v Morton* in 1972, a D.C. Circuit Court sent the BLM back to drawing board to prepare 144 separate Environmental Impact Statements (EIS) for grazing.[96] Every resource area was no responsible for compiling these EIS's. Most importantly, this sent a message that the public was demanding greater transparency and accountability from the agency about its management actions. It also meant that the agency needed new expertise to analyze the complex impacts of their decisions.

The 1970's were a period of diversification for the BLM staff. The agency began to hire recreation specialists, regional economists, wildlife biologists, and planners that greatly expanded the expertise and broadened the perspective of staff. Muhn and Stuart (1988, p 159) describe:

> The number and type of employees in BLM increased as the Bureau's environmental responsibilities increased. [For example,] BLM's cultural resources staff grew from one specialist at the Denver Service Center in 1970 to more than 120 (one in almost every field office) only 5 years later. Total employees in the Bureau rose from 4,300 in 1970 to 9,600 in 1980, while its budget increased from $118 million to $588 million.[97]

NEPA fueled a transformation in the BLM, requiring different skills and a broader staff that was more capable at interacting with a broader public. By 1976, the agency wide orientation for new employees included participants with 56 different occupational skills and more women and minorities than ever before.[98]

The passage of FLPMA and the Public Rangelands Improvement Act (PRIA) in the 1976-1978 period offered the BLM an opportunity at stability. The agency's staff finally had a clear mandate from Congress and the public; however, the implementation of these statutes under the Carter Administration initiated a tumultuous period in public lands politics.[99] Those years were dominated by a growing professionalization and expertise in the BLM staff as the agency attempted to develop new land use plans, complete EIS's, and manage the public rangelands in a more sustainable manner. The users of the public lands did not embrace this new BLM employee, and the implementation of these statutes by the Carter Administration is widely credited for initiating the Sagebrush Rebellion.[100]

The election of President Ronald Reagan in 1980 would significantly affect the BLM's organizational culture. Reagan and Secretary Watt felt that BLM staff had become distance from and arrogant towards the local interests in the Western States. As Durant (1992, p 53) points out, the Administration response was that BLM staff needed to be "good neighbors" and "consult, coordinate, and cooperate" with local ranchers, municipalities, and other users.[101] In some ways, this directive would make the task of field managers easier – rather than engaging in complex land use planning decisions and data analysis, they could return to the old face-to-face consultation that had been the norm before FLPMA.[102] Skillen (2009, p 125) argues that the Watt agenda was really about "… increase[ing] domestic resource production by removing regulatory barriers, reach[ing] out to Sagebrush Rebels in western states, and provid[ing] more decisive leadership by eliminating lengthy procedural obligations."[103]

By the end of the Reagan Administration, the Interior appointees had disbanded most sense of culture in the BLM. Durant (1992, p 266) explains:

> By the end of the Reagan presidency, the [BLM] exhibited far less of the normative coherence necessary for [culture] to develop and be effective mechanisms for bureaucratic mediation, control, and accountability. The influx of disparate professions in the late 1970's, the absence of a common pre-service socializing experience, chronic underfunding and staffing, and the tardiness of its "organic statute" made the BLM an organization lacking *espirit de corps*, rife with professional antagonisms and worldviews, and driven by horizontal (i.e. clientele) rather than vertical loyalties.[104]

Furthermore, a Government Accountability Office (GAO) report in 1988 found that the Reagan Administrations had shrunk the BLM staff by more than twenty-five percent, and the agency was highly understaffed and underfunded, especially amongst its range and resource specialist positions.[105] In sum, the BLM was an agency that had returned to its historical pattern of clientele relationships and had lost significant expertise in managing its resources.

BLM Culture in the Recent Years

President George H.W. Bush had been elected in the fall of 1988 committing himself to the "environmental President." In many ways, his Interior Department policies were a continuation of the Reagan era philosophy of eliminating barriers to resource users, but his BLM Director, Cy Jamieson, and Interior Secretary, Manuel Lujan, also focused on rebuilding some of the professionalism and culture that had leaked from agencies like the BLM during the previous eight years.[106] The agency once again embarked on its planning and inventory processes that had been cut significantly during the Reagan years, and it was meaningfully focusing on recreation and fish and wildlife habitat resource programs. According to Skillen (2009, p. 139), it was a series of "symbolic and incremental changes."[107]

Upon election in 1992, the Clinton Administration aimed to significantly re-shape the culture of employees in the BLM through a process of nationalization. Secretary Babbitt focused the administration's efforts on incorporating the principles of ecosystem management into land management, hoping to scale up decision-making to ecosystem levels and break traditional iron triangle constituencies.[108] Babbitt argued that ecosystem management was a continuation of the desires of increasing scientific and professional decision-making process within the BLM.[109] As was

previously described, the administration also used the designation of fourteen national monuments and the creation of a National Landscape Conservation System to invest BLM managers with a series of high quality landscapes that were managed to protect ecosystem resources.[110] As Skillen (2009, p 157) argues, "… not since the Kennedy administration had there been such a concerted effort to alter the BLM's mission and identity toward a more centralized and ecosystems-oriented approach."[111]

The agency staff did not embrace the efforts of the Clinton Administration. Most felt that Babbitt, and Clinton's aggressive BLM Directors, had directly challenged the standard way of doing business without offering a detailed alternative for field level employees. The principles of ecosystem management felt complex and too academic to meet the day-to-day challenges that they were facing in their field office.[112] The agency leadership – particularly in the state and Washington offices – experienced high turnover and failed to provide field staff a consistent vision.[113] The end of the Administration left BLM employees with new managerial requirements, bigger and more national constituencies, and more contentious public hearings.

The 2000 election brought different leadership perspective to the agency. The Bush Administration focused their efforts at centralizing decision-making in the BLM, regularly running both high-profile and routine decisions through the Washington office and Interior Department.[114] The Administration's insistence that the White House would set multiple use policy guidance limited the ability of field managers to implement other pieces of the complex FLPMA mandate.[115]

Centralized decision-making was coupled with series scandals at high levels in the Interior Department and BLM during the Bush years. A series of abuses of discretion and blatant misconduct in the administration had crippled the morale of BLM's staff. Skillen (2009, p 171) describes:

> …Scandals, along with the micromanagement by the Washington office, did nothing to boost the BLM's already sagging morale. The agency's staff satisfaction surveys in 1995 and again 1998 had revealed frustration among

> employees across the entire spectrum of the agency's program areas. While no comparable data emerged during the Bush administration, there were other indicators of low agency morale. In a 2007 assessment by the Partnership for Public Service and American University's Institute for the Study of Public Policy Implementation, the BLM received low employee satisfaction scores, ranking 157 out of 222 agencies.[116]

In 2004, the Interior Department's inspector general conducted a study of work environments and conduct through a series of interviews with field level BLM staff. That report (qtd in Skillen, 2009, p 172) explained:

> Participants in our group meetings revealed that they felt trapped – afraid to complain about the workplace environment or expose poor administration and employee misconduct. According to one participant, "If you tell management what they don't want to hear, you are punished. There's little or no confidentiality." Others were so discouraged and bitter that they openly expressed suspicion and skepticism about out intentions for meeting with them and about the evaluation overall. On meeting participant explained, "We live in a culture of fear."[117]

Certainly, these feelings within the federal workforce extended beyond just the Interior Department; however, they provide a clear sense of the morale of the agency by the end of 2008. Employees at the field level felt a powerful hand in decision-making from high levels in the administration, and they had a clear sense that if they did not follow that direction they would face retaliation.[118] It would not be considered a culture of innovation.

What Does the BLM's History Imply about Innovation?

The BLM's history provides important insights into the opportunities for employees at the field level to be innovative. Three important themes surface from this chapter's exploration of the BLM's history and culture. First, decentralization in the BLM's structure provides opportunities for field staff to resist centralized conformity in decisions. Also, politicization persists in the agency and remains a difficult barrier for staff members proposing new approaches, and to push through difficult politics, staff members need political cover to advance change. Last, there is a demonstration that managers and staff need for a constituency for that supports and defends change in the political process.

First, despite repeated centralization attempts from both Democratic and Republican administrations, *the BLM remains a highly decentralized organization*. As a result, the field and state offices maintain relatively high levels of autonomy and independence from administration pressures. That means that Department of Interior and BLM officials in Washington have limited control over regularized decision-processes and staff, opening the door for entrepreneurial staff members to use their discretion in devising new solutions to conflicts in their particular resource area. The organization's history demonstrates that, perhaps more than any other federal lands agency, the BLM is not a monolithic agency, but rather it is a loose collection of employees that operate in relative political isolation.

The BLM's decentralized structure provides the space for innovation. Tight control, either through directives or organizational socialization, promotes consistency and conformity. The inability of administrations to exercise complete control over the field offices and the lack of a strong sense of culture makes innovation more possible among the staff members at the field level. A decentralized structure provides the autonomy and independence necessary for managers at the field level to try new approaches and be entrepreneurial. Staff members can identify issues that are not being adequately addressed and then have the space to bring different alternatives to the table. Since the BLM spent so much time without a clear mandate or mission, this is exactly the culture that has always been a part of the agency – using the available information to build durable solutions for local areas. This is inherently about innovation.

The impact of *shifting politics is an important constraining factor* on the ability of field level employees to promote innovation solutions. The history of the BLM demonstrates that the statutes guiding the management of the BLM lands are broad and they can be interpreted in a myriad of ways to meet the political objectives of administrations. Perhaps the clearest example was the fundamentally different interpretation of the directive in FLPMA during the Clinton and Bush (43) administrations that requires the Secretary of the Interior to "…by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of

the public lands."[119] Whereas in the Clinton years that meant a series of new regulations and reforms to protect lands from grazing and mining, the Bush Administration took the perspective that reclamation could reverse the consequences of such activities.[120] The erratic shifts in statutory interpretation of FLPMA have greatly affected the clarity of purpose and desire for staff members to take organizational risk in fulfilling their tasks. Rather it has promoted the philosophy of caution and adherence to standard protocol.

Escaping the entrenchment of capture by politically powerful commodity groups remains a perennial challenge for the agency, particularly at the field level. Despite a growing awareness of the BLM's landscapes and an increasingly powerful national environmental lobby, most BLM field offices still reside in small, rural communities in the American West. Places like Vernal, Utah, or Craig, Colorado, or Rawlins, Wyoming, are very different than Denver or San Francisco. BLM staff members and their families live and work in these small communities that depend on grazing, oil and gas development, and timber for economic opportunity. Employees find themselves under tremendous social pressure from these local community leaders.[121] At a national level, the continued dearth of reform of the General Mining Act of 1872 and Public Rangelands Improvement Act of 1978 are testament to the continued connection to power that commodity groups hold in the Congress. These forces are providing powerful inertia against change. Managers and staffs at the field level are confronted with both when attempting to innovate.

The proliferation of lawsuits filed by the environmental community also promotes caution by employees within BLM field offices. The increasing awareness of the degradation of the Western landscapes and growth in population centers in the West has meant that more people are interested in the health and quality of the lands BLM manages. These forces were coupled with the passage of a series of environmental statutes in the 1960's and the 1970's that have provided the legal tools for environmental groups to hold agencies like the BLM accountable. The use of these statutes by environmental groups to dictate management at the BLM has become the norm. This litigious culture invites resistance towards approaching conflicts in new

and different ways because field offices do not want to become visibly challenged in court and appeals processes as those challenges consume scarce resources and energy.

These two forces – commodity interests dominated through congressional power and environmental interests dictated through the courts – constrain BLM employees in straying far from traditional approaches. This lesson informs the search for innovation because it means that for an employee at the field level, there is a real need for political cover to push back against centralizing political and legal forces. Employees need a reason to push back, and they need a guarantee that they will not expose themselves in a way that could result in loss of discretion or control. As the employee surveys and 2004 GAO report also demonstrate, the BLM culture is also one of fear in challenging managerial decisions. Employees at the lower levels of the agency also need cover to protect themselves from retaliation. A search for innovation should look for places of possible political cover that can be capitalized.

Innovation requires a constituency to support it. Significant changes in the BLM's history have occurred most often because someone wanted to see management of the federal lands change. By definition, constituency requires reciprocal support. More specifically, the BLM provides a good or service, like a grazing permit, to a user, and in return the user supports the agency in the political process, garnering greater Congressional support and appropriations. Traditional commodity groups have provided the most persistent form of constituency for the BLM. The movement towards incorporating non-commercial resources on the BLM lands beginning in the 1960's was a product of a demand from environmental groups, recreationalists, and wilderness advocates that wanted the public lands to be managed in a different way. As the BLM has grown, the community of interested parties in the management of the federal lands as also expanded. A broader constituency has the opportunity to encourage innovation because it provides greater access to political power from interests beyond the traditional supporters of ranching and mining.

Constituency is important in the context of innovation. The agency's history has demonstrated that change requires a demand for a different alternative, and it

requires the support of a constituency in the political process to defend that change. In places where a strong constituency for change exists, there should a greater possibility for employees to take risks and advocate for new and different approaches.

These themes of decentralization, politicization, and constituency provide a rubric to engage to analysze of the series of case studies in this thesis. Finding innovation is about looking at opportunities for employees at the field level to capitalize on moments where politics and constituency support a shift in management direction. Attempts at the field level to find new and creative solutions often meet the dedicated resistance of organized constituencies of status quo. Successful innovators must be necessarily skilled at constructing the political cover to push new ideas through the entrenchment. The BLM's history and culture informs the difficulty of that happening, and it provides the necessary lenses to search for moments of change within the organization.

Notes to pages 42-64:

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[1] Skillen, 3
[2] Muhn & Stuart, 54.
[3] Ibid, 55.
[4] Skillen, 2.
[5] Muhn & Stuart, 55.
[6] U.S. Department of Interior (USDI), Bureau of Land Management (BLM), "*Public Lands History*," <http://www.glorecords.blm.gov/Visitors/PublicLands.asp> (4 April 2009).
[7] U.S. Department of Interior (USDI), Bureau of Land Management (BLM), "*Detailed History*," 26 Mar 2007 <http://www.blm.gov/wo/st/en/info/About_BLM/History.html> (4 April 2009).
[8] U.S. Department of Interior (USDI), Bureau of Land Management (BLM), "*Public Lands History*," <http://www.glorecords.blm.gov/Visitors/PublicLands.asp> (4 April 2009).
[9] Marion Clawson, *The Federal Lands Revisited* (Washington, D.C., Resources for the Future, 1983), 15.
[10] U.S. Department of Interior (USDI), Bureau of Land Management (BLM), "*Public Lands History*," <http://www.glorecords.blm.gov/Visitors/PublicLands.asp> (4 April 2009).
[11] Ibid.
[12] Ibid.
[13] Clawson, 21.
[14] Paul J. Culhane, *Public Land Politics: Interest Group Influence on the Forest Service and the Bureau of Land Management* (Baltimore: Johns Hopkins University Press, 1981), 79.
[15] Ibid, 80.
[16] Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Cambridge, MA: Harvard University Press, 1959), 37.
[17] Wondolleck (1988), 28.
[18] Ibid, 26.
[19] Hays, 59.
[20] Clawson, 29-32.
[21] Clawson, 28.
[22] Gary Bryner, *U.S. Land and Natural Resources Policy: A Public Issues Handbook*, (Westport, CT: Greenwood Press, 1998), 28.
[23] Culhane, 84.
[24] The Taylor Grazing Act of 1934, as amended. 43 USC § 315.
[25] Bryner, 30.
[26] Culhane, 85.
[27] Jeanne N. Clarke & Daniel C. McCool, *Staking out the Terrain: Power and Performance Among Natural Resource Agencies* (Albany: State University of New York Press, 1996), 162.
[28] Bryner, 154.
[29] Richard M. Cawley, *Federal Lands, Western Anger: The Sagebrush Rebellion and Environmental Politics* (Lawrence, KS: University Press of Kansas, 1993), 74.
[30] Culhane, 45.
[31] Cawley, 45.
[32] Ibid, 45.
[33] Culhane, 87
[34] Clarke & McCool, 162.

[35] U.S. Department of Interior (USDI), Bureau of Land Management (BLM), "*Public Lands History*," <http://www.glorecords.blm.gov/Visitors/PublicLands.asp> (4 April 2009).
[36] Skillen, 69-70.
[37] Clarke & McCool, 161.
[38] Skillen, 37
[39] Ibid, 164.
[40] Culhane, 89.
[41] Muhn & Stuart, 58.
[42] Ibid, 110-111.
[43] Ibid.
[44] Clarke & McCool, 165-166.
[45] Muhn & Stuart, 117.
[46] U.S. Department of Interior (USDI), Bureau of Land Management (BLM), "*Detailed History*," 26 Mar 2007 <http://www.blm.gov/wo/st/en/info/About_BLM/History.html> (4 April 2009).
[47] U.S. Department of Interior (USDI), Bureau of Land Management (BLM), "*Federal Land Policy Management Act of 1976: How the Stage was Set of the BLM's Organic Act*," 2001 <http://www.blm.gov/flpma/organic.htm> (14 April 2009).
[48] Skillen, 112-113.
[49] Dana & Fairfax, 236-237.
[50] Clarke & McCool, 166-167.
[51] Muhn & Stuart, 56.
[52] Clarke & McCool, 167-168.
[53] Cawley, 1-20.
[54] Robert F. Durant, *The Administrative Presidency Revisited: Public Lands, the BLM, and the Reagan Revolution*, (Albany: State University of New York Press, 1992), 104-105.
[55] Ibid, 20.
[56] Clarke & McCool, 168-169.
[57] Durant (1992), 52.
[58] Ibid, 59.
[59] Brandon Rottinghaus and Jason Mair, "The Power of Decree," *Political Research Quarterly*, vol. 60, no. 3. (June 2007): 81.
[60] Ibid.
[61] Skillen, 149.
[62] Ibid, 145-151.
[63] Nie, 16-17.
[64] Skillen, 150-155.
[65] Heath Nero, *Protected Landscapes and Multiple Use: BLM's National Monuments and Conservation System*, Masters Thesis, The University of Michigan, (2009).
[66] Skillen, 163.
[67] Ibid, 10.
[68] James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1990), 91.
[69] Ibid.
[70] Durant (1992), 265
[71] Herbert Kaufman, *The Forest Ranger: A Study in Administrative Behavior* (Baltimore: Johns Hopkins Press, 1960).
[72] Ibid.
[73] Wondolleck (1988), 30.

[74] Wilson, 97
[75] Kaufman, 124-128
[76] Yaffee, p 256-258.
[77] Tom L. Fleischner, *Welfare Ranching: The Subsidized Destruction of the American West*, eds. G. Wuethner and M. Matteson (Washington D.C.: Island Press, 2002), 37.
[78] Culhane, 84.
[79] Ibid.
[80] Ibid.
[81] Ibid, 92.
[82] Ibid.
[83] Muhn & Stuart, 106.
[84] Skillen, 33.
[85] Ibid.
[86] Ibid, 40
[87] Ibid, 74.
[88] Ibid, 58
[89] Dana & Fairfax, 230-231.
[90] Clawson, 23.
[91] Dana & Fairfax, 230.
[92] Muhn & Stuart, 117.
[93] Ibid.
[94] Ibid.
[95] The National Environmental Policy Act of 1969, as amended, 42 USC § 4332(C).
[96] *Natural Resources Defense Council v Morton*, 458 F.2d 827 (D.C. Cir. 1972).
[97] Muhn & Stuart, 159.
[98] Ibid, 166.
[99] Ibid, 206.
[100] Durant (1992), 53; Muhn & Stuart, 206; Skillen, 122.
[101] Durant (1992), 53.
[102] Skillen, 125.
[103] Ibid.
[104] Durant (1992), 266.
[105] Skillen, 135.
[106] Ibid, 138-139.
[107] Ibid, 139.
[108] Ibid, 143.
[109] Ibid, 159.
[110] Nero (2009).
[111] Skillen, 157.
[112] Ibid, 161-162.
[113] Ibid, 162.
[114] Ibid, 167.
[115] Ibid, 188.
[116] Ibid, 171-172.
[117] Ibid, 172.
[118] Ibid ,173.
[119] The Federal Land Policy Management Act of 1976, as amended, 43 USC § 1732(b).
[120] Skillen, 187.
[121] Clarke & McCool, 164.

SECTION II: Case Study Narratives

The following section presents four case studies that explore innovations within the field offices included in this study. Each chapter presents an overview of the office and describes the office's decision-making environment and its impact on innovative outcomes. The information for the case studies was collected by semi-structured personal interviews and document analysis, as described in the methodology section.

4. The Little Snake River Field Office: Engaging Partners and the Public in Decision-making

"There was an engaged community here that wanted to [get involved in the RMP revision process]. And, [the Field Manager] was willing to go there. You don't necessarily have that everywhere – a community that says we really want to be involved, and all of the way into the details of this thing if we can. It has to start there … In some ways, yes, we are breaking some new ground here."

~ BLM staff member, Little Snake River Field Office, Colorado[1]

Community-based collaboration in the Resource Management Plan (RMP) revision process in northwest Colorado presents a compelling narrative about opportunities for innovation in the BLM. The Little Snake River Field Office (LSRFO) participated in an open process of engaging a broad spectrum of stakeholders through a process known as the Northwest Colorado Stewardship (NWCOS). The result has been a creative and innovative approach to dealing with the public involvement aspect of land use planning, and the draft and final RMP present fundamentally new approaches to balancing resource development and big game habitat protections.[2] One LSRFO staff member in the office noted during an interview, "I would like to think that we are resourcefully innovative in some of the things that we are doing [here]."[3]

The Little Snake River Field Office

The LSRFO planning area covers 4.2 million acres of the northwestern corner of Colorado, stretching from the Flat Tops Wilderness near Steamboat Springs across the West Slope and down into the high deserts and labyrinth canyons of Dinosaur National Monument. The region's diverse ecological biomes provide valuable habitats for wildlife, numerous recreation resources, and support livestock grazing. Together, 1.3 million surface acres are administered by the BLM, supplemented with an additional 1.1 million acres of subsurface estate underlying state and private lands (Figure 4-1). The planning area includes Moffat, Routt and Rio Blanco Counties,

and the major municipalities in the field office include the cities of Craig and Steamboat Springs, Colorado (Table 4-1).[4]

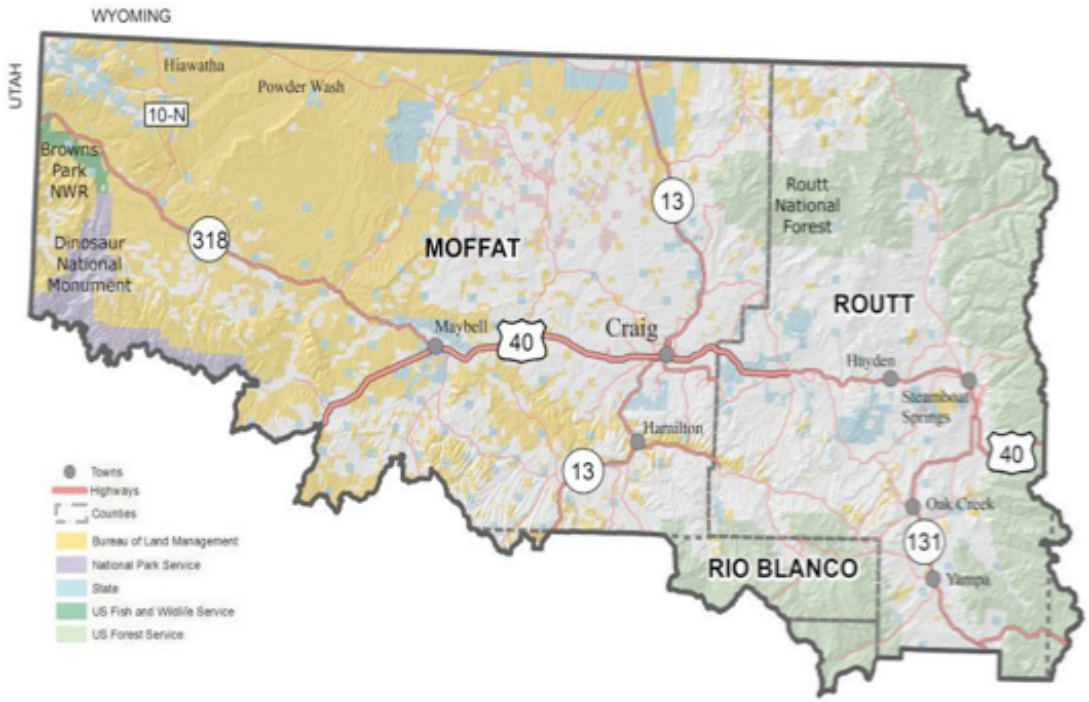

Figure 4-1. Map of Little Snake River Field Office in northwest Colorado.[5]

Table 4-1. Acres administered by the BLM in the LSRFO, by county.[6]

County	Approximate total acres in county	BLM Administered surface acres	Percent of county total managed by LSRFO
Moffat	3,025,000	1,285,200	43
Routt	1,512,000	59,900	4
Rio Blanco	2,062,000	4,300	0.2
Total Acreage	6,598,000	1,349,400	21

Mule Deer Resources

Wildlife resources provide critical support to the local communities in the planning area. Mule deer are especially important. In the draft RMP the BLM recognizes the value of mule deer to sportsman and in turn local economies, identifying them as a high economic/recreational value species.[7] They also attempt to identify the changes in value to local economies as a result of changes to mule deer populations in the

socioeconomic analysis. The 1989 RMP briefly notes the value of mule deer in the Little Snake River planning area:

> Because the Little Snake Resource Area supports an extraordinarily large number of mule deer, a rapidly expanding elk herd, varied small game, varmint, and furbearer populations, and consists of large consolidated blocks of readily accessible public land, the area remains one of the most highly regarded locations in Colorado for sport hunting.[8]

The LSRFO contains crucial habitats for a number of sagebrush obligate wildlife species. For one, some of the largest intact populations of the greater sage grouse in Colorado can be found here.[9] In terms of mule deer, the 2007 Draft RMP identifies a total of 228,460 acres of crucial mule deer winter range within the planning area (Figure 4-2).[10] Summer ranges are mainly across the western portion of the planning area (Figure 4-3), and comparing the two maps gives a sense of the migration dependency of the populations within the planning area. In addressing the unavoidable impacts of its proposed RMP in 2008, the LSRFO summarizes concerns about human disturbance within these crucial habitats:

> The short-term use of big game severe winter range, birthing areas, and/or migratory corridors for energy and minerals, Right of Ways, and cross-country OHV use could impair the long-term productivity of big game populations by displacing animals from primary habitats and removing components of these habitats that might not be restored for more than 20 years.[11]

Overall, mule deer populations in the planning area are considered healthy. Populations are generally close to the objectives set by the Colorado Division of Wildlife (CDOW). As one staff member noted, "our mule deer population here is doing fine."[12] However, habitat stresses are growing across the planning area, which is causing some concern by staff within in the office.

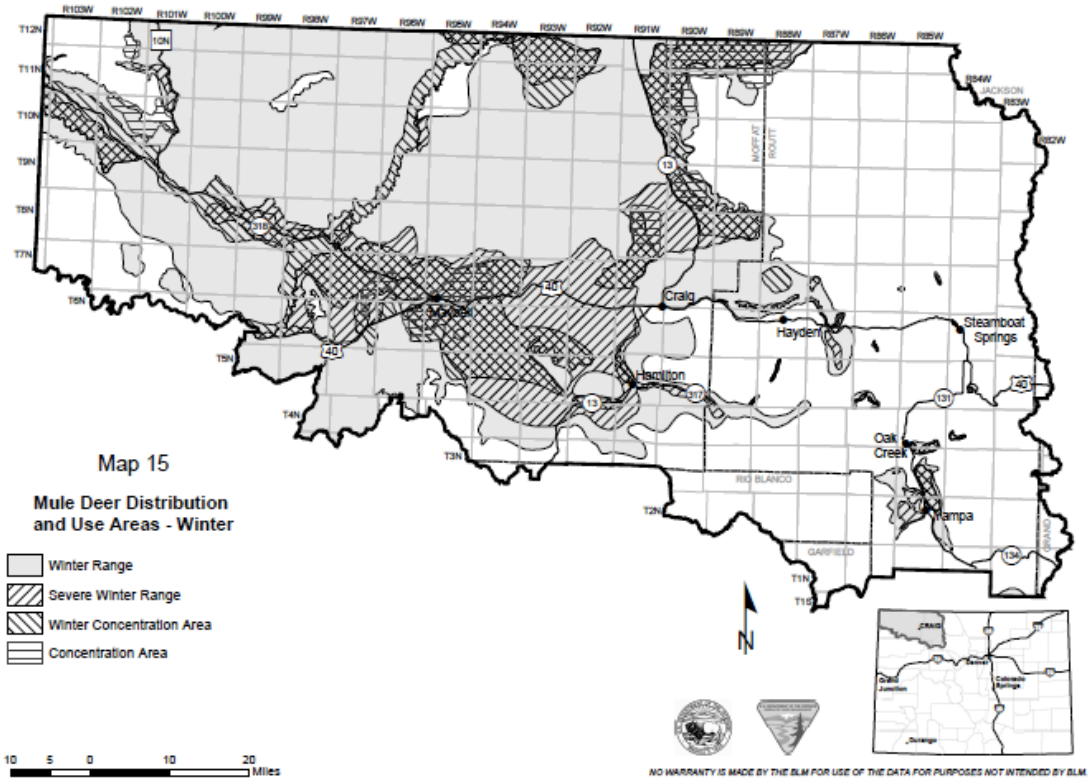

Figure 4-2. Map of mule deer winter distribution, provided by BLM.[13]

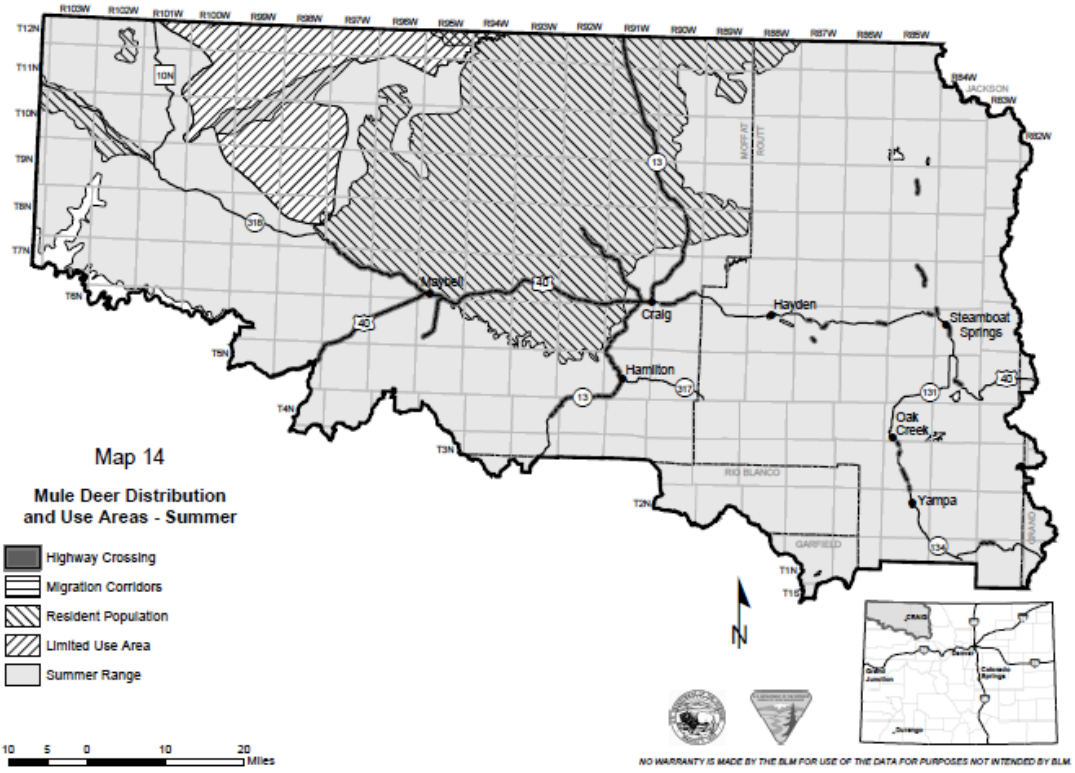

Figure 4-3. Map of mule deer summer range distributions, provided by the BLM.[14]

Energy Development in Northwest Colorado

Energy resources are well distributed throughout the LSRFO planning area. There are many areas with oil and gas potential within the field office (Figure 4-4). However, in many ways the LSRFO is unique from the field offices that surround it. Notably, the office has considerably lower potential for energy development when compared to the large development projects in abutting offices. A BLM staff member described:

> We are in a bit of a donut hole of oil and gas development here [in the LSRFO]. We have Vernal to the west – thousands of wells. We have Rock Springs, Rawlins, Pinedale to the north – tens of thousands of wells. And, we have the Piceance Basin to the south with tens of thousands of wells. We only have about 600 operating wells… in this whole field office. And, that is all mineral ownerships – BLM as well as private.[15]

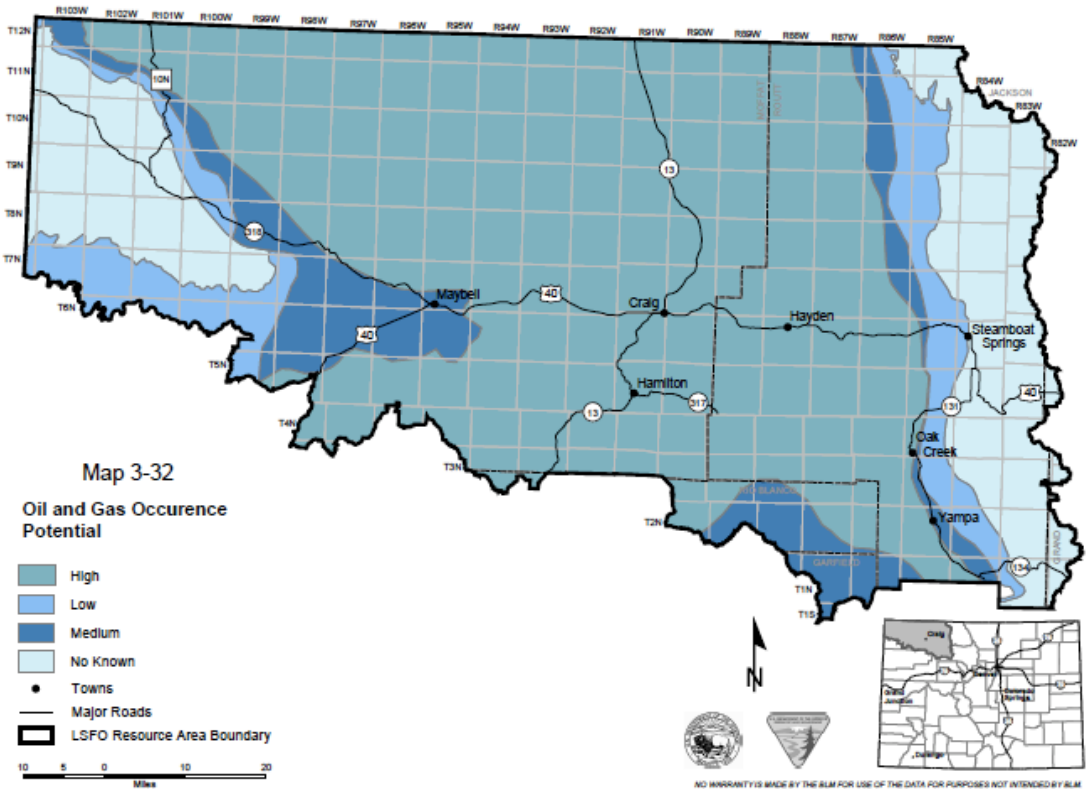

Figure 4-4. Oil and gas potential within the LSRFO, provided by the BLM.[16]

The RMP establishes the leasing categories of those resources within the planning area (Figure 4-5). This explains the areas that are unavailable to leasing, and which stipulations are attached to the leases for parcels that are nominated. Timing limitations are included under the seasonal limitations category of the legend. Based on other offices, this map shows a more restrictive environment for development. One BLM employee explained that the timing limitations across the office have made it particularly difficult for companies to compete with areas around the office because they have to spend so much time with their drilling rigs out of the ground.[17] A number of current leases exist as of January 2004 (Figure 4-6). Leases on BLM lands are identified by the light gray category.

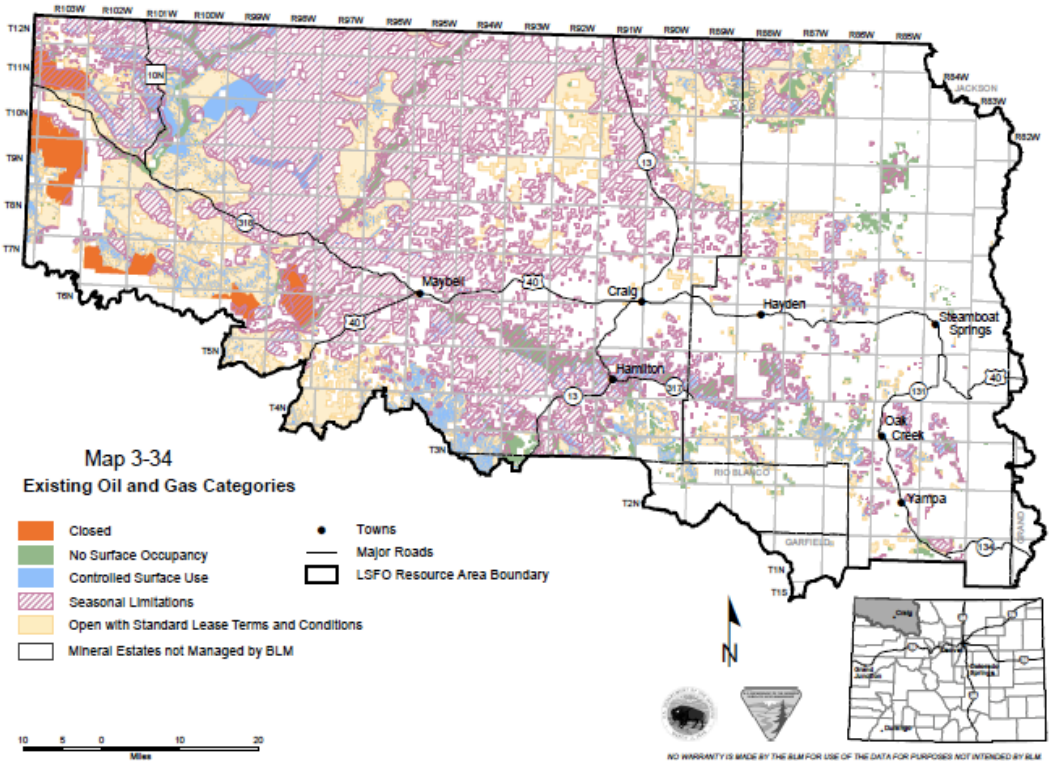

Figure 4-5. Existing development categories for oil and gas, provided by the BLM.[18]

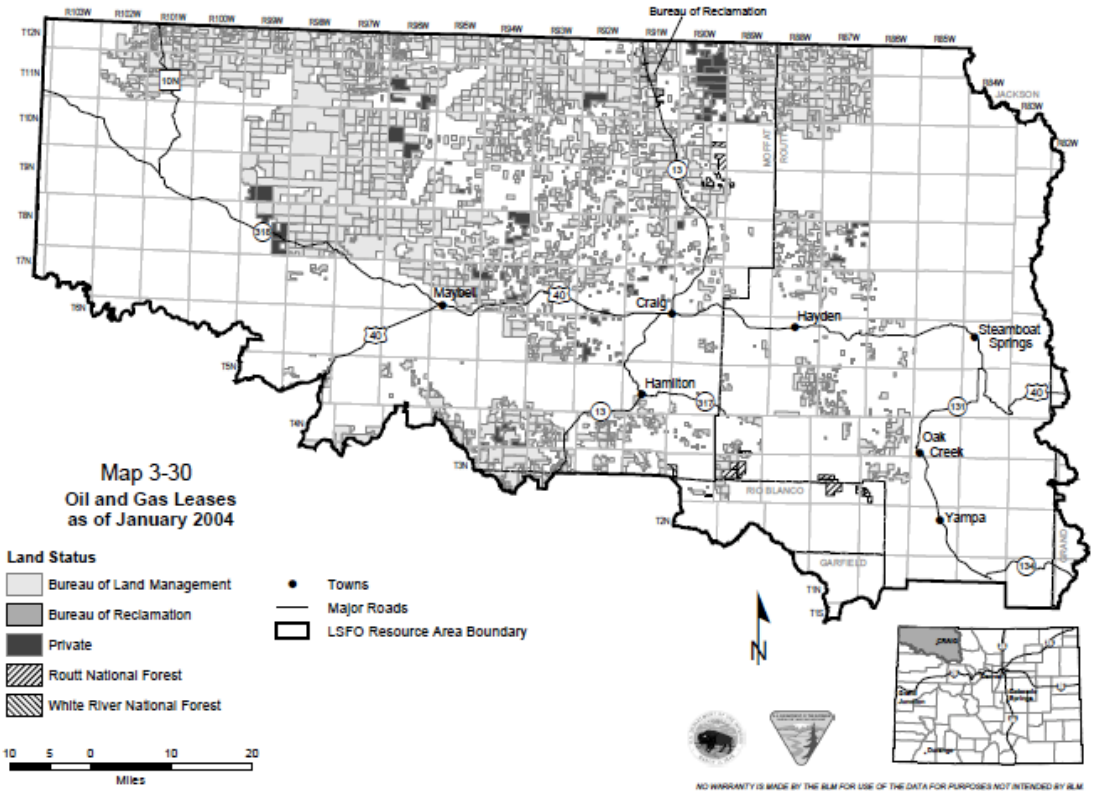

Figure 4-6. Existing oil and gas leases as of January 2004, provided by the BLM.[19]

Getting Started in a New Way

Building an Environment for Change

The LSRFO published its Notice of Intent (NOI) to open the revision process for its RMP in the winter of 2004. That process provided the space for a conversation by interested parties concerning the future management of the Little Snake River planning area. The context through which that discussion emerged contained three factors – there was the political space to operate under the radar, there was a growing consensus that the status quo was not working, and there was an emerging crisis with the potential listing of the sage grouse under the ESA. These factors created a more productive environment in the LSRFO for finding innovative solutions to the traditional public land conflicts.

First, there was the *political space to try something new in the field office*. From the beginning, the LSRFO was not garnering the political attention of nearby offices. The decreased potential for energy development affects the political climate of the

office – large resources attract the large energy companies that have deeper connections with political power. That fact was particularly true during the Bush Administration.[20] The smaller resource plays in the LSRFO have tended to attract smaller Colorado based drilling and production companies. With smaller companies developing the resources, there is less political control and centralized pressure from above, providing more space for the staff in the field office to be creative and work in nontraditional ways. A BLM employee noted:

> We have not encountered the political pressure from the top. You could go down and talk with the staff in the Glenwood Springs Field Office and ask them about the Roan Plateau and you might get a different answer, but in this office we were left alone to do our own thing.[21]

Constraining pressure comes from the judicial branch as well. While commodity groups hold power in the Congress and administration, environmental groups have traditionally used litigation as a tool to challenge administrative process and influence decisions made by agencies. This pressure, like political centralization, can serve to greatly constrain the innovative atmosphere within federal agencies. The LSRFO has also not been challenged in courts like other field offices. A staff member described:

> In this particular office we are not in the litigation crosshairs [like] some other agencies and even some other field offices in the BLM. We are not regularly targeted by Western Watersheds, Center for Biological Diversity, or the Forest Guardians. I think that adds to some of the willingness to try some different things. We are not one of these offices that every single decision that we issue gets appealed. It just does not happen here.
>
> The field office that I started at was … in a lot more litigious environment. That certainly led to some management caution for certain things, but it is a very different atmosphere in the Little Snake. […] We are getting out on the ground doing things and getting support for that.[22]

Second, there was *a growing sense that the status quo was not working*. More people within the agency were recognizing that the timing limitations, the traditional stipulation used to protect big game habitat, were not effective. While there was less development potential in the LSRFO than areas surrounding it, there was still a

concerted push by operators to expand the current levels of production. Increase in production would mean an increase in the size and scale of development, potentially affecting wildlife habitat.

Employees conveyed the growing sense of the ineffectiveness of the use of timing limitations to protect crucial big game habitats across the set of interviews conducted within the office. For example, in response to why the office was exploring new and different approaches to protecting wildlife habitat a staff member responded:

> The realization has been developing as we have been seeing [oil and gas] development around the West that seasonal restrictions are good but you can go about developing all of the oil and gas resources with current lease stipulations and with those seasonal restrictions in place … [you] still have significant impact on sagebrush habitats simply in terms of the amount of fragmentation that would take place.[23]

Timing limitations are viewed as ineffective by many because they still allow for the direct disturbance of habitat. These stipulations restrict activities associated with drilling during sensitive time periods, most often between November and April. Production associated activities are still allowed during that period. One staff member pointed out:

> That is how the BLM has traditionally managed to try to protect species like mule deer. We put timing restriction on their winter range, but really all that does is protect [them from construction] during that winter … [T]here is still a [habitat] disturbance, [and] it can affect the long-term productivity of that habitat.[24]

The fact that the timing limitations were not working was matched with another emerging concern in the agency. The staff member went on to explain:

> There are two things that led us to where we are at [in terms of the RMP]. One of them would be [that] wouldn't appear necessarily that our traditional approach has been effective at protecting a wide class of species. Certainly our mule deer population here is doing fine, but in other places across the West mule deer aren't doing as well. […] Timing restrictions protect the animals for that season but it does nothing to protect their habitat. [However], what mainly got us here has nothing to do with mule deer but has

> to do with the fact that the greater sage grouse has garnered so much attention over the last ten years. Really, I think that with all the attention that the greater sage grouse has gotten has … forced the BLM and cooperating agencies to focus on needing to do something different than what the [agency] has traditionally done. […] But, [that] certainly is going to have an impact on all of the species that use sagebrush and certainly that is important habitat for mule deer.[25]

Lastly, as this staff member's observation points out, *there was an emerging crisis* that brought a community of interested parties together. The growing fear of listing the greater sage grouse under the Endangered Species Act did present a compelling case for the agency to think about changing its management approach of sagebrush habitats. When external pressures emerge, like the threat of an endangered species listing or declining populations of a species that has high economic value, it can present a compelling case for the agency to rethink their approach. It can also create the incentive for communities or interest groups to push the agency towards a different direction. An emerging crisis can often break through the traditional positional stalemate and necessitate innovation and creative thinking.[26]

The Role of an Engaged Community

The growing consensus that traditional approaches were not working and the threat of an emerging crisis were matched by a community that was ready for a more active role in the management of the planning area. Local communities depend heavily on the federal lands; whether it is recreation, grazing, or energy development these resources are critical to the home communities of the LSRFO.[27] The opportunity presented by the RMP revision process sparked the interest of community members to engage with the BLM. All three counties were interested in participating, but Moffat County took the lead. Particularly, Moffat County government expressed interest in the opportunity to directly participate in the decision-making process, from the initial scoping process to final approval.

Moffat County is a textbook county of the western U.S. where commitment to rural, independent values runs high. In addition, it is a strong advocate for increasing energy development on the public lands in northwest Colorado.[28] When the Notice

of Intent (NOI) was published in the Federal Register in the winter of 2004, the county had close connections in Washington.[29] The Secretary of the Interior at the time, Gale Norton, was originally from Colorado and had worked closely with the county during her long political career in Colorado. A BLM staffer noted:

> Moffat County had some very powerful contacts back in Washington. They had the Assistant Secretary on speed dial. They knew her very well. They knew Kathleen Clark [, the Director of the BLM,] very well. They knew Gale Norton very well. So, when they told all of these folks back in Washington that they wanted to do this collaborative process, they really got the support to do so.[30]

In response to the NOI, the Moffat County Commissioners saw an opportunity to influence the BLM process. They proposed a pair of approaches that would allow them access to the process and in turn a chance to affect the decisions. First, they proposed a concept of a 'landscape trust' where the county would essentially take over the management of the public lands located within their political boundaries.[31] Even with the friendly Administration back in Washington, this was not an option. FLPMA firmly states that the federal lands are to be retained in federal ownership and managed by the federal government for purposes of multiple use. Lawyers with the Interior Department told them that was not an option.[32]

The county explored other ways to increase their involvement in the process after the trust idea was rejected. In 2002 the Moffat County Commission and Land Use Board formally proposed an alternative process grounded in community based collaboration to the BLM.[33] A BLM staff member in the office observed:

> Once they got [the idea of a landscape trust] shot down, they said well if we can't get that done, then we at least want to sit at the table and influence the process. So, [this collaborative process] was really initiated by Moffat County's desire to get more influence in public lands management, but at least they had the foresight to realize that it was not going to fly if it was just Moffat County telling the BLM what to do. They needed a broader range of stakeholders [to be credible].[34]

At the same time, BLM was working closely with the state wildlife agency, the Colorado Division of Wildlife (CDOW). CDOW was playing an active role as a partner to BLM in a number of ways. One employee explained:

> Our relationship with [CDOW] is very strong – particularly on the ground level. We have CDOW biologists in here [often] and talk to them a lot. And, in Colorado in general, like with [oil and gas] on sights they join us out there. Additionally, all oil and gas lease sales – we are actually going over parcels with CDOW before we put them up for auction. We don't always come to the same place of whether we should or shouldn't offer this or what are the adequate stipulations, but we sure do talk about it ahead of time. We end up deferring a lot of them based on some of the input.[35]

That shared relationship meant that biologists within both agencies were regularly working together, building trust and respect in each other's opinions.

The BLM's Response to a Collaborative Process

The BLM responded to the county's desire to engage in a collaborative revision process by offering training in the practice of community collaboration. At the time, the BLM's National Training Center in Phoenix ran a program called the Partnership Series, which was designed to build the collaborative capacity of agency staff and the community stakeholders. The BLM invited a broad audience to the training:

> [W]e invited sixty some community members from Moffat and Routt counties – everything from doctors, to oil and gas companies, to wild horse advocates – to come to this training which talked about how to collaborate in a public land forum. From that, folks said, "Hey we like this - this is a good deal, let's form ourselves into a group." … From that the Northwest Colorado Stewardship was formed.[36]

Joint training played an important role in the creation of this different process. As Carlson (1999, p 191) describes, "Even when participants agree to come to the table, they may only have experience with traditional ways of negotiating and making decisions."[37] As Wondolleck and Ryan (1999, p 118) point out, "[often] as collaborative approaches … [emerge,] agency officials … find themselves in unfamiliar terrain."[38] Without this combined experience of going through a joint training, participants in non-traditional processes often fall back into traditional

adversarial models of interaction.[39] This training session also allowed the opportunity for stakeholders to decide whether or not a collaborative process fit their needs, and this built immediate ownership in the process.

Despite the contentious response the proposal received from across the environmental advocacy community,[40] the county's proposal to engage in a more open process was eventually met with an open mind from the LSRFO manager and state leadership.[41] Interviewees expressed that the field manager, John Husband, appeared to genuinely feel that a more open process would result in a better product and build the relationships necessary to implement the final plan more effectively.[42] Field managers have the strong incentive to default to the standard operating procedures of revising the plan because it requires less work and exposes managers to less risk from retaliation from the state office.

Field managers do have limited discretion since an RMP is not a field office document. Ultimately, the State Director must sign off on the final plan.[43] Managers up the line must be willing to allow for different processes to happen. One staff member noted that the support that the county and their partners had in Washington was a key factor to them getting the support to begin crafting an alternative process.[44]

A New Process Built Around the Needs of the Community

NWCOS was formally established in March of 2003;[45] however, it was not convened by the BLM. The county government and partners convened the group. The initial members of the group began by developing a joint set of rules that would guide their interaction through the RMP revision process.[*] The formal working document, known as the NWCOS Protocols, was agreed to by a consensus of the diverse set of participants in August of 2004. In that document they also defined their mission: "By seeking early, diverse, and collaborative input, NWCOS seeks to improve public lands decision-making by promoting commonly held values."[46]

[*] A complete list of signatories and the organization they represent can be found in Appendix I.

Because NWCOS was not convened by a federal agency, it was not required to be formally chartered under the Federal Advisory Committee Act (FACA). The Keystone Center, a professional mediation firm based in Keystone, Colorado, to facilitated their process. Despite not being bound by a charter, they adhered strictly to the principles of open and public meetings.[†47] A three member planning committee led the group. One member each represented the resource use community, the environmental/cultural resource community, and the public at large.[48] BLM and the local government unit also had ex-officio members on the Planning Committee.[49] The role of the Planning Committee was ensure that the mechanics of the process were addressed, including creating agendas and distributing notice of meetings.[50] All decisions of the Planning Committee were subject to review by the full NWCOS.[51]

The process attracted nearly 140 participants from the community, state, and national audiences throughout its duration.[52] Membership that formally agreed to the Protocols included political leaders, conservation organizations, oil and gas operators, retired community members, off-road vehicle organizations, ranchers, and representatives from state and federal agencies (Appendix I).[53] Participation in NWCOS was open to any interested parties in the community.[54]

The BLM still used the traditional method of granting cooperating agency status to other governmental units within the area. These formal cooperating agencies participated in the process under the formal framework established by the Council on Environmental Quality (CEQ) to participate in the NEPA processes. These cooperating agencies participate with the BLM during the process as members of the EIS team.[55]

BLM played an active role in the work of NWCOS; however, they did not participate in the consensus decision processes of the groups. They engaged as a stakeholder at

[†] Although it should be noted that the LSRFO is also home to a Resource Advisory Council (RAC) that is fully chartered under FACA and plays an important role in advising the agency in its decision-making. However, the RAC was not mentioned by any of the staff interviewed in this research as being particularly important to the work on the field office in terms of innovation.

the table rather than in a formal role. The NWCOS Protocols outlined the key responsibilities of the BLM within the process:

> (1)Work closely with NWCOS to assist them in achieving their goals but abstain from participating in the consensus process when seeking advice; (2) Provide information and resources to NWCOS as reasonable; (3) Immediately inform NWCOS of any options that NWCOS is considering that conflict with federal statutes or BLM policy; (4) Not use NWCOS as BLM's sole source of public input; and, (5) Listen carefully to NWCOS input, particularly when a consensus represents the full diversity of concerns on an issue, and respond formally or informally to the group as to what BLM plans to do with this advice.[56]

A central concern by many federal agency participants within these types of processes is maintaining their role as formal decision-makers.[57] Federal agencies are required to make formal decisions regarding federal resources and cannot delegate that authority to community groups like NWCOS. Carlson (1999) points out that this can be a common place of frustration by both participants in collaborative processes and agencies involved in them.[58] In an attempt to address those mutual expectations, the Protocols state that the "… creation of NWCOS does not reduce or alter the legal decision-making authority of any agencies or organizations participating in this effort. NWCOS is an advisory group that provides input but is not the decision-maker."[59] The LSRFO notes, "[c]ommunity based planning should in no way be interpreted as an effort by the BLM to transfer decision-making authority."[60]

The interaction between the formal BLM process and NWCOS is important. Figure 4-7 describes both the formal process of revising BLM RMP's and the various roles that NWCOS played in that process. The creation of NWCOS did not change the formal process of revising the RMP; it simply changed the way in which the public was engaged in that process. The LSRFO (2007) notes that "[f]rom informal and formal scoping exercises, to engaging in an exercise to envision the future conditions of public lands and how to realize that vision – NWCOS [was] working closely with the BLM."[61]

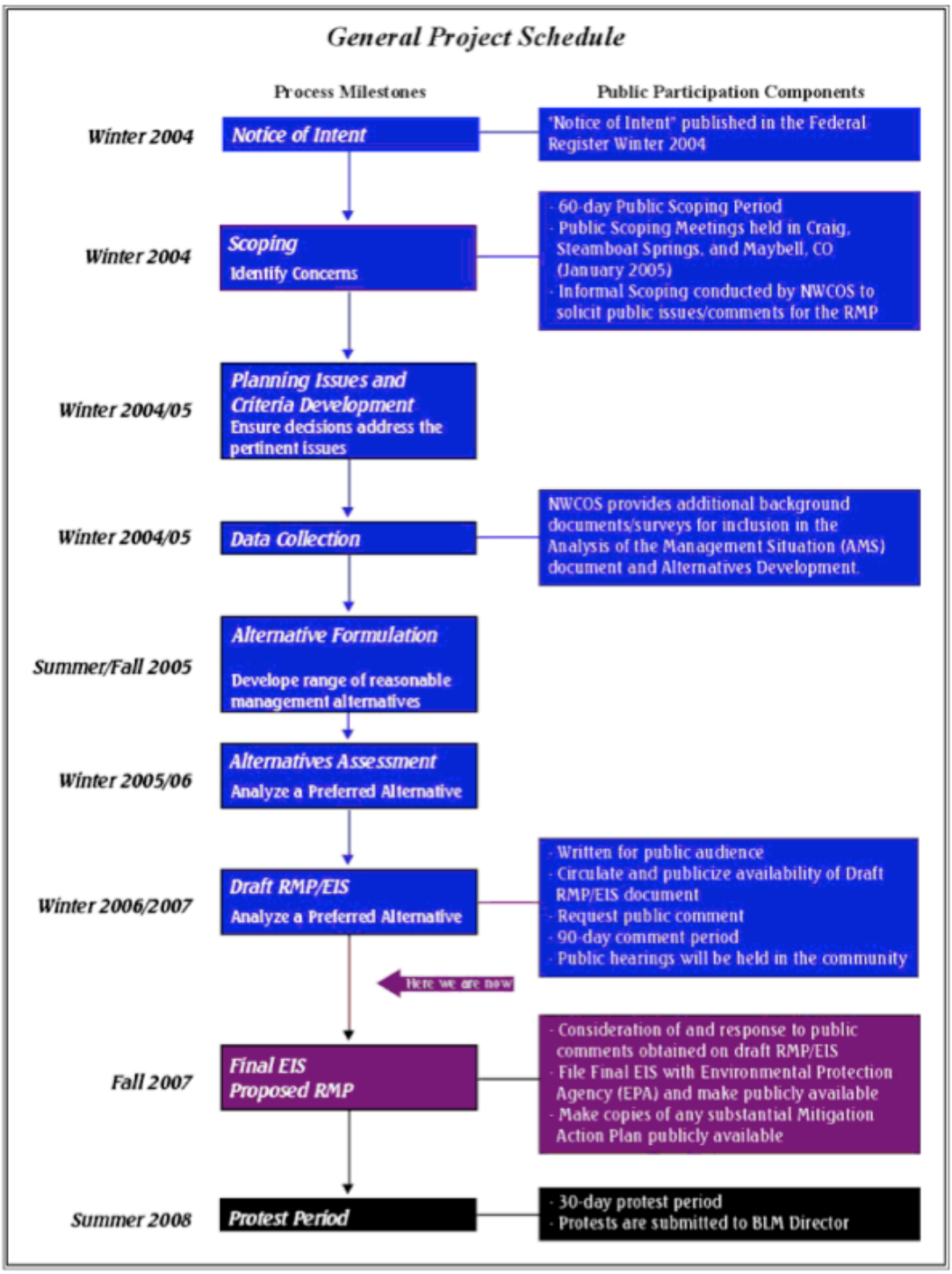

Figure 4-7. General project schedule for Resource Management Planning revision process in Little Snake River Field Office.[‡62]

[‡] As of March 2010 the LSRFO was still at the stage between Draft and Final RMP. The process has taken considerably longer due to extensions granted for the office to engage in the NWCOS process.

NWCOS's Planning Committee identified a number of major accomplishments. They were particularly proud of the opportunities for the group and the public to see and comment on the document drafts that were previously unavailable to stakeholders and the submission of consensus scoping comments generated during their Informal Scoping process.[63] The fact that NWCOS was able to provide input and sit at the table during the generation of alternatives after the formal scoping would become critical in promoting the alternative approaches that would emerge in the Draft RMP.[64]

From the beginning this group sought to be a force of change in the way that decisions were being made on the public lands of northwestern Colorado. In addition to empowering community members in the RMP revision process, NWCOS boldly stated that one of their guiding principles was to support and "encourage innovation."[65] In the end, their role was a driving factor in creating a new and creative approach to managing the habitat of big game species, like mule deer, on a landscape with energy development.

Delivering Innovative Results through the New Process

Towards a Landscape Approach for Habitat Management

The NWCOS process delivered significant results. Not only did NWCOS create a new model for empowering local communities and stakeholders in the public lands decision-making process, it also resulted in a new approach of balancing the development of energy resources with the protection of big game habitat in the LSRFO. This approach was crafted as part of the draft RMP, and it is fundamentally different than any other in the agency.[66] It meets both aspects of this research's definition of innovation.

The combination of an environment that was conducive to innovation and an engaged constituency that demanded something different meant that the BLM was able to move in a different direction. Regionally, there was a growing concern that the standard approach of using timing limitations on crucial habitats has a major limitation from a biological standpoint because it does not actually provide any

protection from the disturbance of these habitats.[67] Additionally, it is a site-specific approach and does consider the impact of disturbance and fragmentation across a landscape.[68] In the LSRFO's RMP revision process BLM staff began to rethink these traditional approaches by focusing more on the landscape dimension:

> In our new RMP we are trying to get around this … by focusing on and trying to get at the fragmentation issue more so than the timing issue. […] In new RMP we will try to limit the amount of disturbance that occurs in an area, and we are not going to care as much about what time of year that disturbance takes place. I have been very supportive of this approach, and I believe that in the long term it is going to get us more benefit than just protecting the animals that are on the range in the winter.[69]

This new approach was published in the 2007 draft RMP that was released in January titled "Improving and Managing Sagebrush Habitat Functionality by Limiting Fragmentation." The primary goal was to help maintain large blocks of functioning sagebrush steppe communities by minimizing the fragmentation created by development. The approach uses an incentive driven program for operators that caps the maximum surface disturbance and rewards best practices by operators by lifting timing limitations and allowing for year around drilling on projects.[70] As one staff member noted, granting these exceptions to timing limitations would be a significant incentive to oil and gas producers in the LSRFO:

> [Oil and gas operators here] do have trouble when they are competing with other bigger development areas up in Wyoming or south of us down in [the] Piceance [Basin] keeping rigs. Because they just work through this narrow window that they have and can operate in and when they are off they are sent to places that they can drill year around.[71]

As an initial part of the program, the agency – in coordination with CDOW - identified two types of sagebrush habitats that were of particular concern due to the amount of development pressure. They define these as 'Medium Priority' and 'High Priority' habitats. Under these categories the most critical sagebrush habitats are included, including important big game habitats – crucial winter ranges and areas with migration corridors. Those big game habitats were included "… at the request of and through consultations with the state wildlife agency…"[72] New leases in these

areas would still be issued with the standard timing stipulations. These distinctions would become important during revisions between the draft and final RMP.

Operators proposing new projects within the LSRFO would be encouraged to opt-in to a program that aimed to minimize the amount of direct habitat disturbance and fragmentation for both existing and new leases. When operators opted in, they would be required to keep the amount of disturbance below a percentage cap, attempting to keep large amounts of functional sagebrush blocks intact. Agency officials felt the opt-in approach was their only option for engaging operators since requiring participation by operators on existing leases would be difficult due to the conveyance of property rights associated with the sale of an oil and gas lease.[§73] If an operator chose to opt-in to the program they would be required to abide by two general criteria to receive the exceptions of timing limitations.

The first criterion of the agreement was for the operator to design a project area where they plan to develop their leases. That could be a single lease, it could be more than one lease, or it could be a federal unit. Then they would be required to keep the disturbance associated with oil and gas development (including well pads, roads, pipelines, exploration facilities, etc.) to less than 5% of that project area on high and medium priority habitats.[74] Once the cap was reached, successful reclamation of disturbed areas must be completed and approved by the BLM before new disturbance can occur under a no-net-gain of disturbance philosophy.[75] This principle would also apply to areas of existing development.

Second, the operator was required to present the BLM with a plan of development for those leases that included more than just one or two wells. A significant problem faced by field offices is that operators come to the agency with one Application for Permit to Drill (APD) at a time.[76] This serves to further fragment the habitat because it precludes a landscape level design perspective that allows the agency to cluster

[§] Lease stipulations are attached to individual leases at the point of the lease sale, and the agency is not able to change the conditions of those leases after the point of sale. To do so would essentially result in a taking of private property rights. Nearly all staff members interviewed identified this fact as a significant barrier to changing the standard BLM approach to integrating habitat protection measures in oil and gas projects.

wells, consolidate infrastructure, combine rights of ways for transmission lines, etc. A staff member described:

> [W]e told them that we really wanted to hear what they were going to do for the next year or two. And, we wanted them to show us a strategy in that plan of development for reducing fragmentation and protecting big blocks of sagebrush. This is a bit of a subjective criteria – it is a bit tough for us to assess or judge, but what we are essentially doing is giving out gold stars for these plans of development. We are going to look at it and say, 'Look, they have clustered wells over here - gold star. Look, they have used existing rights of way for a road here instead of building a new one - gold star. Oh, but look, they could really cluster these two wells and drill directionally over here.' We would go back to the operator and say that we think you could do a few more things here and use some best management practices here that would protect habitat. So, it is a back and forth, working with the operator to get this plan of development in a place that they can earn a lot of gold stars from BLM. Then we can reward them for keeping their disturbance below 5% and showing us a strategy that is going to reduce fragmentation, so now we will grant an exception to their timing stipulations.[77]

From there, the BLM would be required to sign off on the plan of development before the operator would be granted the exception to the timing limitations.[78] The agency would also require an active monitoring plan to assess the compliance with disturbance threshold and conditions of approval. If operators exceeded the disturbance threshold at any given point, their exceptions to timing limitations would be rescinded. Additionally, past compliance would factor into decisions to grant new exceptions.[79]

Adapting the Plan to New Understanding and Information

Between the draft and final RMP stages there was a significant growth in understanding about the impacts of energy development on wildlife species, especially sagebrush obligate species. The LSRFO was involved in developing place based research on sage grouse, and the scientific community was publishing a number of studies across the West in late 2006 and early 2007.[80] Some of the most significant pieces on sage grouse emerged at this time, and the publication of Sawyer, et al., *Winter Habitat Selection of Mule Deer before and during*

Development of a Natural Gas Field, in 2006 was especially important. The science provided the rationale for staff members to push for a more aggressive program at reducing fragmentation in sagebrush habitats. A staff member explained:

> [The changing science] really was the spur for us to change … and it was enough for us to lobby people up the line in BLM to say, "Hey, State Office we have some science here, we need to increase our No Surface Occupancy buffer for sage grouse leks. Look Washington, we have some science here; we need to be able to increase the [big game] areas that we are protecting with timing limitations." That science really allowed us to make that case.[81]

As of early 2010, the LSRFO has not yet published the final RMP. The Colorado State Office has been briefed, and they did not request any changes. The office is now in the process of taking the document to the Director of the BLM and the Secretary of the Interior.[82] These delays were, in part, due to the change of administration.[83] Nonetheless, the staff members interviewed shared how a number of the dimensions of the "Improving and Managing Sagebrush Habitat Functionality by Limiting Fragmentation" approach would change.

Most notably, the approach has shifted from an incentive-based, opt-in program across the board to being mandatory on all new leases within the field office. Due to the legal issues associated with already existing leases, it will remain opt-in for those leaseholders. The incentive for lifting timing limitations will still be there for existing leaseholders. However, any new lease in the LSRFO now mandates the participation of operators in the program.[84]

The new science and involvement of the state wildlife agency has also allowed the justification for the agency to become much stricter on their protection of high priority sagebrush habitats that represent the most critical areas for wildlife. In these areas, the disturbance cap will now be limited to 1% of the lease, still with the no-net-gain principle. For medium priority habitats – all lands within a 4-mile radius of a sage grouse lek, all sage grouse winter ranges, all big game severe winter ranges for all three species, and all big game migration corridors – will have a mandatory 5% disturbance cap. The medium priority habitats include approximately 80-85% of the planning area.[85] These will be required for all new leases in the office:

> For new leases we are throwing the carrot away and we are just going to have the stick. And, it is going to be that operators are now mandated to a 5% or 1% - depending on whether it is high or medium priority sagebrush habitat – to keep the disturbance to those levels as well as the same requirement to hand us a plan of development that shows us a strategy for leaving large blocks intact and reducing fragmentation.[86]

This approach is fundamentally different than any other field office in the BLM.[87] While some offices have used a capped disturbance, no other office has combined this unique approach of using incentives, planned development, and protection of critical sagebrush habitats. A staff member elaborated:

> I have not heard anything like it in the BLM – even though surface disturbance limitations are becoming increasingly popular. They are being used in Wyoming a lot; they are being used in a lot of field offices now that are seeing oil and gas development. So, a disturbance cap is not such a new idea, but granting an exception to timing limitations and also requiring that plan of development that demonstrates a strategy to limit fragmentation is pretty new. We think it is going to help.[88]

This approach represents a truly innovative approach to balancing two priorities that FLPMA tells the agency it should manage for – the development of mineral resources, and provision of fish and wildlife habitat. There were critical components about the process used to get here that made it possible.

Moving From Process to Ideas

The more open process of public involvement that was embodied by NWCOS presented a number of opportunities for both the community and the agency. It resulted in different outcomes than would have existed had the agency gone through the traditional BLM process. This was possible because the new process brought ideas to the table that would not be in play had the agency tightly controlled the alternative generation process. One staff member noted:

> [NWCOS] has been a very open process. We have had a lot – I mean many, many, many, many – meetings with either just the interested public or the agencies, including DOW, where we would just talk about these things. Kick them back and forth in terms of developing an approach that is not just the

> seasonal restriction approach. [That is how we got to the] approach that went forward in our draft plan.[89]

External pressure played a strong role in pushing the agency towards this approach. As was noted, the approach that appeared in the draft plan and was retooled slightly for the final RMP was a product of two cooperating agencies – the Colorado Division of Wildlife (CDOW) and Moffat County - working to find a viable alternative. Their involvement at all stages, through NWCOS, was central:

> [During the NWCOS process,] the cooperating agencies – we deal with five cooperating agencies that signed up for this process. Moffat County government as well as CDOW spent a lot of time together fleshing out this approach and they came to us with the approach that we have in the draft.
>
> It was really the willingness of two partners to come up with … the approach to preserve wildlife habitat, as well as, and I will be honest with you, Moffat County is a very pro-development county and their motivations was just as much granting those timing exceptions. They wanted to see more oil and gas development, so they were happy that we would be able to grant year around drilling for these operators. Regardless of their motivation they got together with CDOW to hammer out what turned out to be this approach.[90]

The end product of this process was a new and innovative approach by the BLM. The process dimension was a significant contributing factor to that occurring. NWCOS, at its core, was successful in fulfilling its goal of encouraging innovation because it brought more knowledge, more perspective, more experience, and therefore more ideas to the table. As one employee noted:

> The NWCOS group really started these discussions. And, even though they did not come to any consensus on any wildlife habitat protection approach – there just was not that space there for agreement for conservation groups and oil and gas development – but they got some good ideas flowing.[91]

When pushed back on whether or not the fact that the presence of so many stakeholders at the table benefited the opportunity to find new ideas and potential that would not have been on the table otherwise, another staff member responded, "I think, you could safely say that. [L]ike I said, some of the stuff that came out of

those discussions with NWCOS is in our proposed RMP. So, there was certainly some benefit to that."[92]

Fundamentally, the process also built understanding between the parties. That understanding allowed participants to move past their positions on issues and begin to think about new ways to solve the challenges that were facing the communities. Through that transformation, the public gained a deeper understanding of the agency and the people that work there. A BLM staff member in the office noted:

> Going through the process of developing, trying to develop an RMP with the input that NWCOS had to the process was challenging. There were benefits to having done that in that it … [was] probably the most effective way that the BLM could illustrate how complex all of our management decisions are and how hard it is to develop a RMP that truly meets our multiple use mandate that Congress has given us. And, also it was a way – I think that it really opened the eyes of people of just how tough of a job this is. So, that was certainly a benefit of going through NWCOS the way that we did.[93]

A number of staff members noted that a new level of understanding will benefit the community and the agency as they begin to move past this process and towards implementation of the RMP.[94] A broader network of partners that have ownership in this plan and its approach will mean a series of more productive relationships into the future for the BLM. Those relationships may begin to lay the foundation for greater public trust of the BLM.

The Challenges of a New Process and Their Constraints on Innovation

A more open exercise of engaging diverse stakeholders in a resource decision-making process presents a number of challenges for the agency. During interviews staff members talked at great length about the challenges that NWCOS presented during the RMP process. Based on those perspectives it became clear that simply choosing to engage in a collaborative community planning process is not a guarantee that the agency's decisions are going to be inherently innovative. It takes committed individuals and demonstrated leadership to make a new process successful. These factors were present in the LSRFO. This section describes the major challenges and how staff in the LSRFO navigated them.

Building Ownership and Managing Expectations

Successful processes are ones in which participants feel a strong sense of ownership in the process and its outcomes and where everyone at the table has a clear sense of the role they play. Based on research conducted on a number of planning processes in the USFS, Wondolleck (1985, p 354) argues that there are two broad challenges most public resource agencies face when engaging in a more open and collaborative process. First, there is always a significant need for skills and informed training in the techniques of managing process, and second, there is most often a resistance encountered within the agency to trying something new due to the threat of losing decision power and control.[95] These challenges were present in the case of NWCOS.

BLM's response to the desire of Moffat County to more actively participate in the RMP process was important. In the case of NWCOS, the BLM started by focusing on building the collaborative capacity of their staff and the broader community. While the initial idea of involving a broader range of interests came from outside the agency, their response, through hosting the Partnership Series, was particularly effective because it was framed as an opportunity to see if this more collaborative approach fit the needs of this community. By comparison, if the field manager had decided what process was best for the community, there would have been distrust in the agency and a lack of ownership in the process.[96] When the stakeholders did decide that NWCOS was the best situation for them, they were equipped to participate because of the training that BLM offered, but it was still their process.[97] The atmosphere was one that promoted creativity and innovative risk taking rather than inviting cynical participation in yet another government hearing.[98]

This process also benefitted from the persistent commitment of agency staff in continuing to define and manage expectations.[99] Staff members' efforts provided the necessary understanding for the process to continue, and it was integral to allowing the process to affect the outcomes in a meaningful way. Without this commitment, the process could have failed from a lack of shared expectations and therefore trust at any given point. For all the positive, creative energy that is generated in collaborative community processes, they can also create a feeling amongst

participants that they have more decision authority than they actually do hold.[100] Managing the realistic expectations of all participants can be a challenge for agencies. A staff member pointed to the fact that:

> The group wanted to be involved in every single step of the resource management plan development process. For example, they wanted to see the impact analysis and they wanted to give feedback on that. That is something that is rarely done in BLM. You can get a group involved in fleshing out some alternative maybe, but letting them in on the impact analysis made people really nervous.[101]

Addressing the resistance challenge can be more difficult for employees. Doing things differently is commonly resisted by individuals that are saturated by the culture of the individual office and organization. Whether they fear a lack of control or simply having to do more work to figure it out, many staff members prefer to stick to the standard way of doing business.[102] Additionally, doing things differently invites conflict and controversy, which is highly undesirable for staff members. As one BLM employee described, "The last thing a field manager wants to do is pick up the phone with an angry state director on the other end of the line."[103] Additionally, staff members often feel that opening the process simply makes it easy for interest groups to sue the agency later.[104] These pressures can represent a common barrier to collaborative processes that involve federal agencies.[105]

Interviewees commented on the relatively low levels of cultural resistance within the LSRFO towards a new approach. However, one staff member did comment how resistance could become a challenge in another office:

> Some offices probably get a hard time doing collaborative, stakeholder involvement type processes. Sometimes it is viewed as a risk. It is the thinking that if you let them into the room and process, it just opens the door for them to sue you later. Or, that it is not worth the time or money to go around in circles with this community group. We didn't get that from our State Office or Washington. We really got support for this process. But, I think that in other situations and other offices where you have a different state director or even a field or district manager, and there is a group of employees that say they want to do something collaboratively and want to get

> stakeholders involved to get some creative energy for new solutions, you might get some push back.[106]

This process had important support from higher levels in the organization. Often, this is not the case.[107] Organizational support from higher levels in the organization is key to encouraging managers and staff members to take risks at the field level. Moffat County had strong connections during this process inside the Department of Interior. Those connections, coupled with being below the political radar, meant that staff in the LSRFO could feel more confident that management at higher levels would not immediately shoot down a new approach. A staff member noted the uniqueness of their case:

> I think [the connections Moffat County had in Washington] played a large role in us getting the support we needed. If Moffat County had not of had all of those friends, maybe we would have gotten a different reaction. Because [they] said that they really wanted a voice in public lands management – they wanted to talk to environmentalists, they wanted to talk to oil and gas operators, they wanted to talk to all of these different interests and come up with some approach that is acceptable to everyone in the community - Washington said they supported them in that. That is the reason that we got more money than probably we would have, and maybe the support that we did get.[108]

The Importance of Individuals and Leadership from Managers

Interviews with staff members demonstrate the tremendous importance of individuals at the local level. Without individuals in the office that want to make a new process work and want to use that new process to find different solutions to problems, innovation is not possible. The NWCOS process happened, and it achieved the outcomes that it did, because key individuals within the office supported it and were willing to champion it up the line. The field manager was particularly important in this context. One staff member felt this was particularly true in the LSRFO saying, "I really get a sense that as we as line specialists hear about other approaches or think this may be a good thing to try, that we have good management support as long as we can demonstrate that we have a reasonable

chance of success."[109] Wondolleck and Yaffee (2000, p 185) describe the importance of effective individuals at the field level:

> Individual personalities can make a huge difference, particularly in agencies like the Forest Service [and BLM,] where a considerable amount of discretion exists at the ground level. Every Forest Service employee knows the difference that a change in the forest supervisor can make. Such staff changes can open a window of opportunity for changing the way the decisions are made; they are a seam in the bureaucratic wall.[110]

The support for innovation from the field manager matters substantively and procedurally. The openness and patience of the field manager, John Husband, to a different approach was particularly important. Those factors provided the space for interested stakeholders to come together, and in turn, it brought a richer inventory of ideas and perspective to the agency's revision process than otherwise would have been achieved. His comfortableness with relinquishing control over that process and the generation of management alternatives was a critical step in overcoming the traditional bureaucratic obstacles to innovation. The result was a fundamentally different approach to resolving a common challenge in the management of sagebrush habitats within the planning area. Asked about what made it possible for the LSRFO to achieve a different result, a staff member offered:

> You need a mix of elements. We had a county that really wanted to work and were very proactive about getting involved, and we had a field manager that was very receptive to collaboration. You could get another manager besides John Husband and this just would have not gone anywhere. But, since he was willing to move forward, we had the right recipe there for a collaborative exercise.[111]

Leadership from a field manager is critical, but it also takes committed individuals throughout the office to achieve change. A new process may open the door of opportunity, but it takes skilled, energetic, and committed individuals in line specialists positions for the agency to actually realize those opportunities. Interviews with staff members underscored that need.

Individuals matter, but more specifically, the right individuals matter. Based on comparisons across the four case studies in this study, it also appeared that there was

a healthy balance of staff members in the LSRFO that had worked in the office for a long period of time and individuals who were relatively new to the office and/or BLM. This provides a positive balance of institutional knowledge and the eagerness to take risks that newer employees often possess.[112]

It should also be noted that the persistence of individuals and their commitment to a new process and the opportunities that it creates can be an important antidote to organizational resistance. For example, during the process of the LSRFO generating the draft document, the Planning Committee of NWCOS expressed interest in seeing and being able to comment on the impact analysis section of the RMP/EIS. This section is at the core of the BLM's process of comparing and selecting alternatives. Traditionally, it has been highly guarded by the agency. In the LSRFO, managers were open to the idea that the NWCOS Planning Committee brought forward:

> We did get [some push back] from the State Office [in terms of making documents available to participants,] and they said that is not the way we do things. My field manager and I asked why, and they could not answer that question. So, we just kept pushing it and saying that if they could tell us a problem here then we will think about it, but otherwise we do not see a problem letting folks see things like the impact analysis – it is not pre-decisional. It just made folks higher up really nervous. When it came right down to it they could not find a problem with it, so we just did it.[113]

Staff in the LSRFO effectively navigated the challenges of a new process. They managed expectations for participants and staff members, pushing energy towards idea generation and data collection rather than positional arguing. Second, they supported the process locally and built the commitment and trust that was essential for the process to persist.[114] Managers were also quick to defend the process and its outcomes upstream in the organization.

The role of individuals is particularly important in the BLM. The more decentralized structure of the BLM in comparison to other federal land agencies accentuates the impact that one or two committed individuals, particularly at the manager level, can have on the decisions made by the agency. Whereas other agencies, like the USFS,

have strong centralizing forces, the BLM managers often operate with considerable autonomy. One staff member interviewed described:

> By and large, BLM is so bottom-up, in my opinion, and there is much more autonomy with local field managers than just about any other federal agency that I can think of, and I think that yields to some of BLM's ability to adapt and adjust to its various local constituent.[115]

New Process Consumes Agency Resources

Field offices face resource challenges by moving away from traditional approaches, both procedurally and substantively. It takes more time and more resources for staff members to engage in activities outside of their standard operating procedures. Learning new tasks can be time consuming. RMP revision processes are, from the start, already costly processes for field offices. They consume large amounts of staff time and take it away from more routine tasks of interfacing with communities (e.g. processing oil and gas lease applications or managing grazing permits). Given the already high cost, there needs to be a significant reason for the agency to change when it will cost more. One staff member explained what it took in the LSRFO:

> There was an engaged community here that wanted to [be at the table]. And, [a manager that] was willing to go there. You don't necessarily have that everywhere – a community that says we really want to be involved, and all of the way into the details of this thing if we can. It has to start there. But, you also have to have willingness on management to open things up because it slows you down. It really does.[116]

The gatekeepers of resources – both time and money – are the administration officials in Washington.[**] To devote even more time and resources to engage in a process that costs more requires significant and diverse support to defend an increase in the revision budget. Committed individuals must support innovation upstream. In an interview, a staff member addressed this concern:

> Budget and schedule are always barriers to creative thinking and collaboration. … We had to go back to Washington many, many times to beg

[**] Both are ultimately decided by the Appropriation Subcommittees on Interior and Environment in the Congress.

> for more money for our collaborative effort and beg for more time to work with our cooperators on this proposal. That is certainly a barrier, but we got the extra time and money. It was not something that was insurmountable. If a Field Office can make a good case for it – we have a state wildlife agency and a pro-development county that are coming together to create a balanced approached to protect wildlife habitat – I don't care who is in the White House they are going to say that is a good deal.[117]

With higher levels of support and budget, the expectations that the process would be successful were raised. However, the nature of collaborative process is one of uncertainty. In regard to the approach created in the LSRFO draft RMP a staff member observed:

> I am not sure that I would classify it as a constraint, but I would say that it has been more of a concern of uncertainty. This is a new approach and I think that this has been looked at pretty heavily by a lot of people because of that. It has raised more questions than a typical RMP or management action would have probably typically garnered. If we had gone with the traditional BLM approach it would not have garnered as much attention or raised as many eyebrows. There have certainly been people that question whether this will work and are worried that there are no guarantees that this is going to protect anything. Which, I guess, you have to expect when you do something that breaks away from traditional management.[118]

The LSRFO employees interviewed demonstrated a great deal of pride in their new RMP. Nonetheless, staff members were quick to caution, and rightfully so, that what happened in the LSRFO should be not be seen as a panacea solution to promoting innovation within every field office. One staff member explained:

> I don't think that every BLM office that is looking at RMP revisions is going to be willing – or even should go – to this extent because there are so many things to manage in terms of just the time committed to listen to everybody, try to bring everyone along, make sure everybody is up to speed on what has been done before they started attending meetings, or whatever. [And, the amount of time you spend] managing expectations. Just because a group like that might come up with [an idea to go in this direction] doesn't mean that we always can [go there] by our policy or the law. There are a lot of things like that. In some ways, yes, we are breaking some new ground here, [but, it has taken a lot of work and commitment].[119]

Lessons from the Little Snake River Field Office

There are a number of lessons to be drawn from the LSRFO that inform this study's search for innovation in the BLM. The development of a collaborative exercise, NWCOS, was a unique and innovative opportunity for engaging non-traditional partners. Through the role NWCOS played in the RMP revisions, it presents a compelling case that process matters to promoting new ideas and creative solutions within field offices. While NWCOS was a creative way for the agency to engage an interested public and to meet the letter and the spirit of the law of both FLPMA and NEPA, the results of that process are equally telling. The office's strategy of attempting to limit fragmentation and protect large blocks of sagebrush, embodied in the final RMP, is fundamentally different than any other solution in the agency. Process was the contributing factor.

More specifically, there are conclusions that can be drawn from the LSRFO:

- *There was an environment for change in the LSRFO.* Most importantly, the fact that the alternative that the office wanted to pursue was in line with the political context at the time, namely because Moffatt County had influential ties to high level officials at Interior at the time, opened the space for staff members to be entrepreneurial. Additionally, the quiet blessing of a new process from high-level officials in the Department of Interior helped keep the office below the radar, an important enabling factor in this case. A growing sense that the status quo was not working also necessitated the search for a different solution to preserving big game habitats in the face of development. Both of these conditions were brought to urgency by the emerging crisis of rapidly declining sage grouse populations across the West and the threat of the bird's listing under the ESA. These conditions provided important context to provide the space and the need to do things differently.
- *There was a mixed constituency for change.* Moffat County wanted to be actively involved in the RMP revision process, and they were willing to make the commitments to the agency that they would support a new and different process up the line with their contacts in the Interior Department. Both were

important. The CDOW also provided an important degree of support, and was willing to work with non-traditional partners in crafting a new and different approach. In the LSRFO, the constituency was broad, they were making non-traditional arguments, and they had access to political power, making them effective.

- *External pressure encouraged the BLM to change its approach.* This narrative supports the suggestion that external influence is a driving factor of pushing the agency towards different process and outcomes. External pressures may be a more significant driver than factors internal to the BLM. In the LSRFO, it was outside organizations – namely Moffat County and the CDOW – that provided the impetus and opportunity for staff to explore alternatives to status quo. They also brought the ideas to the table.
- *A more open process meant more partners at the table and that resulted in new ideas that would not otherwise been possible.* Redesigning the process of bringing stakeholders into the RMP revision process was central. The greater access to ideas accomplished two tasks. It enriched the process of crafting alternatives, meaning that alternatives that would not otherwise have been available to the agency were on the table. Second, the information garnered through this process allowed the agency to make more informed decisions in selecting an alternative. This shared development of alternatives built a common understanding of the problem and resulted in a better outcome. Participants were focusing on common vision for the management of the resources.
- *The agency acknowledged and embraced new science.* When new understanding emerged around the impact of development on sagebrush obligate species, the office used that science to retool their approach and defend it upstream. Their flexibility and willingness to change their approach as the science changed resulted in a better environment for future innovation. The science also validated the need to change the management approach.
- *Individuals matter.* External pressure can push the agency towards change, but it takes entrepreneurial staff members to focus that external pressure

towards building better alternatives. Providing focus takes committed individuals that want to see better and more durable outcomes that are innovative in solving the common set of challenges facing the agency and the community. The LSRFO story offers firm evidence that whatever process or institution is designed, it is the meaningful commitment to a new process by talented individuals who have the judgment to see windows of opportunity that is most essential to promoting innovation in a bureaucracy. This was true of both the process and the outcomes.

- *Leadership provided the support for staff members to take risks.* The field manager and staff in the LSRFO made the process better able to produce the outcomes that it did. They were receptive to new ideas from participants and focused on building ownership in the process and effectively managing expectations of all participants. NWCOS belonged to the participants. That focus pushed the creative energy of participants towards idea and alternative generation and away from positional conflict. Second, they supported the process locally and built the commitment and trust that was essential for the process to persist. More importantly, they were quick to defend the process and the outcomes from it upstream in the organization. They offered the support that was needed to gain the necessary resources and time that it took to complete the process and move towards a final RMP.
- *Being innovative takes more resources and time.* To seek innovative outcomes through a different process, the agency and the management of the field office has to be willing to embark on a process that takes longer and costs more. It takes the willingness to defend the office's actions upstream and build diverse support to get those extensions granted. BLM was willing to do that in the case of the LSRFO, and they ended up in a different place in the draft RMP than they would otherwise have been.

These important themes emerge from the LSRFO story. These insights present a compelling case that explain why and how the LSRFO was able to do something different than the standard agency-wide approach and solve the problem in a more durable way.

Notes to pages 69-102:

[1] Personal Interview, BLME 1, November 2009.
[2] Personal Interview, BLME 3, November 2009; BLME 1, November 2009.
[3] Personal Interview, BLME 3, November 2009.
[4] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), "*About Us: Little Snake River Field Office*," 15 Apr 2010 <http://www.blm.gov/co/st/en/fo/lsfo.html> (20 Apr 2010).
[5] Ibid.
[6] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Analysis of Management Situation for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Apr 2005), 1-3.
[7] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Jan 2007).
[8] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Record of Decision and Approved Resource Management Plan for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District, (1989), 13.
[9] Charlie Meyers, "Drilling Moves Closer to Our Doorstep," *The Denver Post*, 8 October 2008 < http://www.denverpost.com/ci_10663447>.
[10] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Jan 2007), 4-59.
[11] Ibid, 4-243.
[12] Personal Interview, BLME 4, November 2009.
[13] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Analysis of Management Situation for the Little Snake River Resource Area.* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (April 2005), Map 15.
[14] Ibid, Map 14.
[15] Personal Interview, BLME 2, November 2009.
[16] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Jan 2007), Map 3-32.
[17] Personal Interview, BLME 2, November 2009.
[18] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Jan 2007), Map 3-34.
[19] Ibid, Map 3-30.
[20] Personal Interview, BLME 10, November 2009.
[21] Personal Interview, BLME 2, November 2009.
[22] Personal Interview, BLME 2, November 2009.
[23] Personal Interview, BLME 1, November 2009.
[24] Personal Interview, BLME 4, November 2009.

[25] Personal Interview, BLME 4, November 2009.
[26] Chris Carlson, "Convening," in *The Consensus Building Handbook*, ed. Lawrence Susskind, Sarah McKearnan, and Jennifer Thomas-Larmer (Sage, 1999), 172-173.
[27] Personal Interview, BLME 1, November 2009.
[28] Personal Interview, BLME 2, November 2009.
[29] Personal Interview, BLME 2, November 2009.
[30] Personal Interview, BLME 2, November 2009.
[31] Personal Interview, BLME 1, November 2009.
[32] Personal Interview, BLME 2, November 2009.
[33] Northwest Colorado Stewardship, "Final Protocols for the Northwest Colorado Stewardship," 18 Aug 2004 <http://www.nwcos.org/7101.html>.
[34] Personal Interview, BLME 2, November 2009.
[35] Personal Interview, BLME 1, November 2009.
[36] Personal Interview, BLME 2, November 2009.
[37] Carlson, 191.
[38] Julia M. Wondolleck & Claire M. Ryan, "What Hat Do I Wear Now?: An Examination of Agency Roles in Collaborative Processes," *Negotiation Journal* (Apr 1999): 118.
[39] Ibid.
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[41] Personal Interview, BLME 4, November 2009; BLME 2, November 2009; NGO 1, July 2009.
[42] Personal Interview, BLME 2, November 2009.
[43] Personal Interview, BLME 10, November 2009.
[44] Personal Interview, BLME 1, November 2009.
[45] Northwest Colorado Stewardship, (2004).
[46] Ibid.
[47] Northwest Colorado Stewardship, "About Us," 13 Aug 2006 <http://www.nwcos.org>.
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[49] Northwest Colorado Stewardship, (2004).
[50] Northwest Colorado Stewardship, (2006).
[51] Northwest Colorado Stewardship, (2004).
[52] Northwest Colorado Stewardship, (2006).
[53] Northwest Colorado Stewardship, (2004).
[54] Personal Interview, BLME 1, November 2009.
[55] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), "Community Based Planning," 13 Sept 2007 <http://www.blm.gov/co/st/en/lsfo/plans/rmp_revision/rmp_cbp.html> (16 Apr 2010).
[56] Northwest Colorado Stewardship, (2004).
[57] Personal Interview, BLME 10, November 2009.
[58] Carlson, 195-196.
[59] Northwest Colorado Stewardship, (2004).
[60] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), "Community Based Planning," 13 Sept 2007 <http://www.blm.gov/co/st/en/lsfo/plans/rmp_revision/rmp_cbp.html> (16 Apr 2010).
[61] Ibid.
[62] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), "General Schedule," 13 Sept 2007

<http://www.blm.gov/co/st/en/lsfo/plans/rmp_revision/rmp_gen_sched.html> (16 Apr 2010).
[63] Northwest Colorado Stewardship, (2006).
[64] Personal Interview, BLME 4, November 2009.
[65] Northwest Colorado Stewardship, (2004).
[66] Personal Interview, BLME 1, November 2009.
[67] Personal Interview, BLME 4, November 2009.
[68] Personal Interview, BLME 1, November 2009.
[69] Personal Interview, BLME 4, November 2009.
[70] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Jan 2007), 2-16.
[71] Personal Interview, BLME 1, November 2009.
[72] Personal Interview, BLME 1, November 2009.
[73] Personal Interview, BLME 2, November 2009.
[74] Personal Interview, BLME 2, November 2009.
[75] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Jan 2007), 2-17.
[76] Personal Interview, BLME 1, November 2009.
[77] Personal Interview, BLME 2, November 2009.
[78] Personal Interview, BLME 1, November 2009.
[79] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Little Snake River Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Little Snake River District (Jan 2007), 2-17.
[80] Personal Interview, BLME 1, November 2009.
[81] Personal Interview, BLME 2, November 2009.
[82] Personal Interview, BLME 2, November 2009.
[83] Personal Interview, BLME 2, November 2009.
[84] Personal Interview, BLME 1, November 2009.
[85] Personal Interview, BLME 2, November 2009.
[86] Personal Interview, BLME 2, November 2009.
[87] Personal Interview, BLME 1, November 2009; BLME 4, November 2009.
[88] Personal Interview, BLME 2, November 2009.
[89] Personal Interview, BLME 1, November 2009.
[90] Personal Interview, BLME 2, November 2009.
[91] Personal Interview, BLME 2, November 2009.
[92] Personal Interview, BLME 4, November 2009.
[93] Personal Interview, BLME 4, November 2009.
[94] Personal Interview, BLME 1, November 2009; BLME 3, November 2009.
[95] Julia M. Wondolleck, "The Importance of Process In Resolving Environmental Disputes," *Environmental Impact Assessment Review* 5 (1985): 354.
[96] Personal Interview, BLME 2, November 2009.
[97] Personal Interview, BLME 1, November 2009.
[98] Carlson, 196.
[99] Personal Interview, NGO 1, July 2009.
[100] Wondolleck & Yaffee, (2000), 233.

[101] Personal Interview, BLME 2, November 2009.
[102] George C. Edwards, *Implementing Public Policy* (Washington, D.C.: Congressional Quarterly Press, 1980), 107-113.
[103] Personal Interview, BLME 17, August 2009.
[104] Personal Interview, BLME 3, November 2009.
[105] Wondolleck & Yaffee (2000), 60-61.
[106] Personal Interview, BLME 2, November 2009.
[107] Personal Interview, BLME 1, November 2009.
[108] Personal Interview, BLME 2, November 2009.
[109] Personal Interview, BLME 3, November 2009.
[110] Wondolleck & Yaffee, (2000), 185.
[111] Personal Interview, BLME 2, November 2009.
[112] Personal Interview, BLME 5, January 2010.
[113] Personal Interview, BLME 2, November 2009.
[114] Personal Interview, BLME 2, November 2009
[115] Personal Interview, BLME 3, November 2009.
[116] Personal Interview, BLME 1, November 2009.
[117] Personal Interview, BLME 2, November 2009.
[118] Personal Interview, BLME 4, November 2009.
[119] Personal Interview, BLME 1, November 2009.

5. The Pinedale Field Office: The Challenges and Opportunities of Political Control in the BLM

"The thing that constrains innovative thinking is politics."

~ BLM staff member, Pinedale Field Office, Wyoming[1]

This chapter examines what is perhaps the most politically-visible unit in the study area, the Pinedale Field Office (PFO), and explores the role politics have played in affecting the innovative decision-making environment during the most recent revision to its land use plan. The centralizing pressure created by political influence can create a highly constraining environment for field level staff. That centralizing pressure was felt in the PFO. Due to the tremendous significance of the energy resources found in the planning area, the Pinedale RMP was one of seven RMPs that the Bush Administration placed on its high priority list for the agency to complete before the end of President Bush's second term.[2] Despite the high levels of politicization and centralization of decision-making, the PFO staff pushed through a surprising alternative, placing nearly half of the planning area off limits to future leasing. According to the BLM, those areas contain more than eighty-percent of the crucial mule deer range.[3] The factors that made this shift possible are particularly interesting in the context of this study.

The Pinedale Field Office

The PFO located in the middle of Wyoming's Upper Green River Valley (UGRV), a broad basin of sage steppe holding up the Wyoming Range to the west, the Wind River Range to the east, and opening into the high Colorado Desert to the south (Figure 5-1). The BLM is responsible for 928,137 surface acres in the resource area and 1,144,477 acres of subsurface mineral estate (Figure 5-2).[4] The planning area contains some of the largest natural gas fields (i.e. the Pinedale Anticline and Jonah Field) in the country and the oldest, most developed oil plays in the state (i.e. the Big Piney-Labarge complex). It is also home to some of Wyoming's most significant big game herds, air and water resources, famous outdoor recreation areas, and sits at the

southern end of the Greater Yellowstone Ecosystem, the world's largest intact temperate ecosystem.[5] The planning area includes Sublette, and Fremont Counties, and the major municipalities in the field office include Pinedale, and Big Piney, Wyoming.[6] The 2000 census put the population of Pinedale at 1,412 and Big Piney at 408.[7] The county population sits just above 5,000 people.[8]

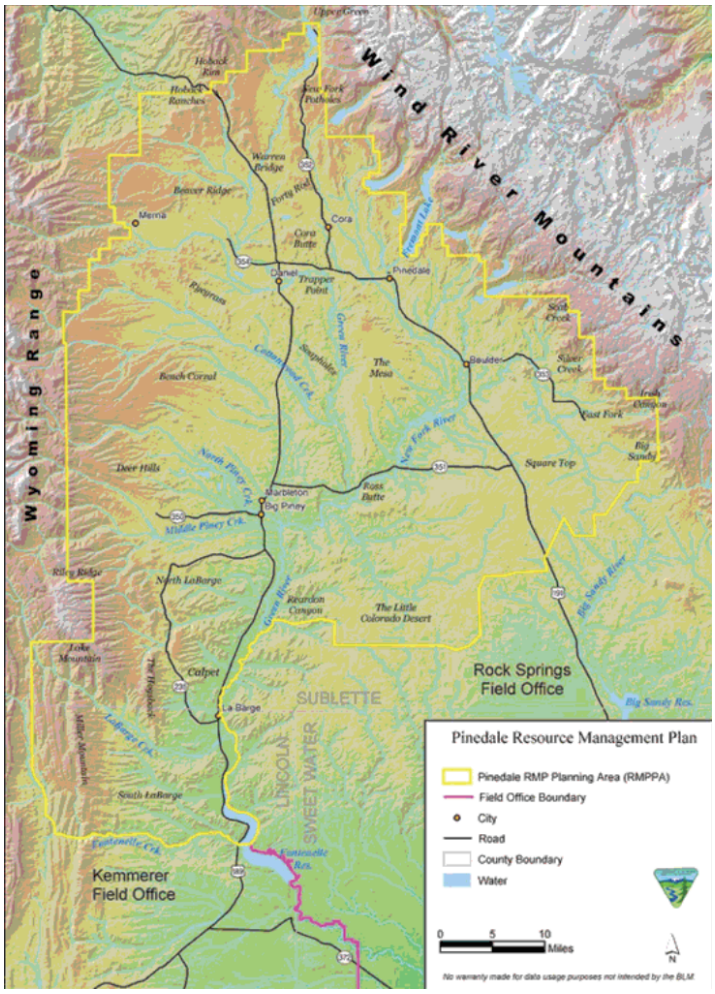

Figure 5-1. Landscape map of PFO in western Wyoming.[9]

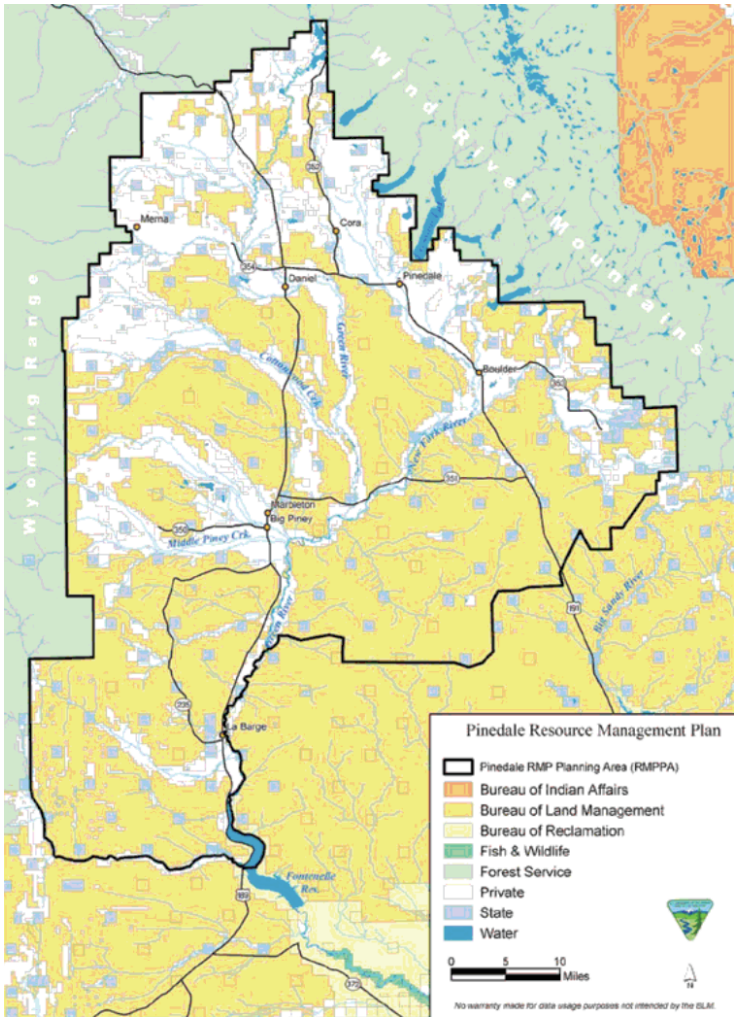

Figure 5-2. Land ownership within the Pinedale planning area.[10]

Mule Deer Resources

The big game populations in the UGRV are some of the most diverse and impressive in the world. Mule deer, pronghorn antelope, moose, elk, bighorn sheep, and mountain goat are all present. Mule deer are the touchstone species of the Valley. Hall Sawyer, a wildlife biologist, says, "The mule deer herds of western Wyoming represent a world-class wildlife resource."[11] During the winter, the UGRV supports more than 32,000 mule deer.[12] The Wyoming Range and Sublette herd units are two of the largest in Wyoming. In addition, these large populations of wildlife attract hunters in significant numbers. The 2008 Draft RMP indicates that more than 40,000 hunting days are accumulated each year.[13] On average, each hunting day contributes $100.27 of value to local communities.[14]

The PFO contains a number of the crucial habitats that are essential to the functioning of regional big game populations. Mule deer in this area depend heavily on migration to access crucial habitats throughout the seasons and spend up to half the year in transition ranges.[15] They migrate 40 to 100 miles each way from the surrounding mountain ranges into the bottom of the UGRV (Figure 5-3).[16] Most of the crucial winter ranges are on public lands. According to the 2008 draft RMP, BLM lands provide a majority of the winter range for mule deer in the UGRV. On public lands alone, there are 319,300 acres of crucial mule deer winter range, and 92,260 of those acres overlap with current oil and gas fields (Figure 5-4).[17]

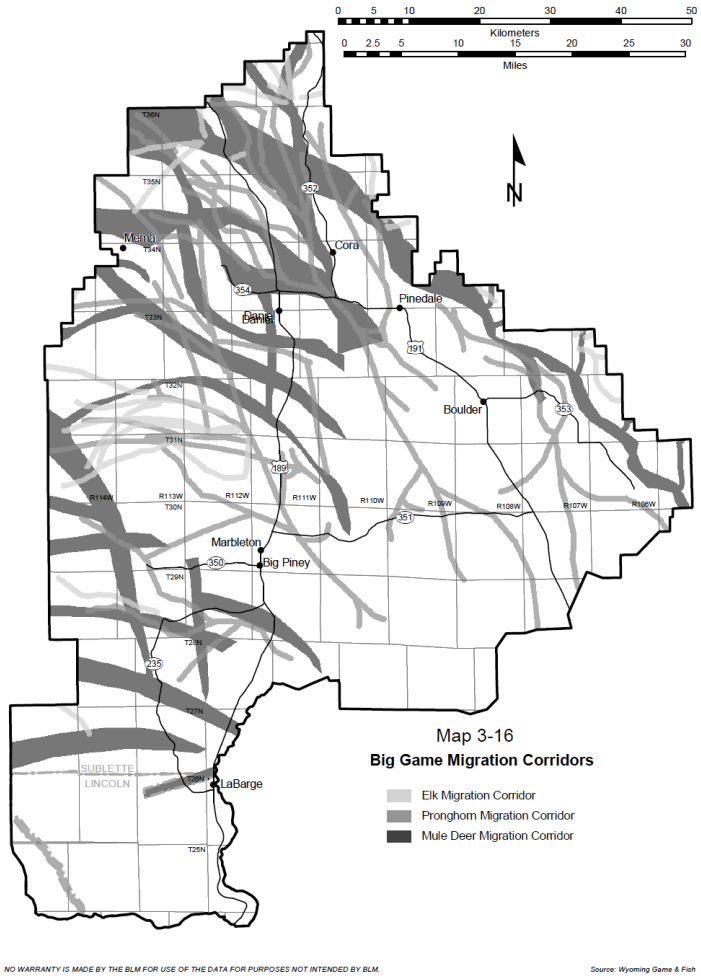

Figure 5-3. Big game migration corridors in the PFO, as provided by the BLM.[18]

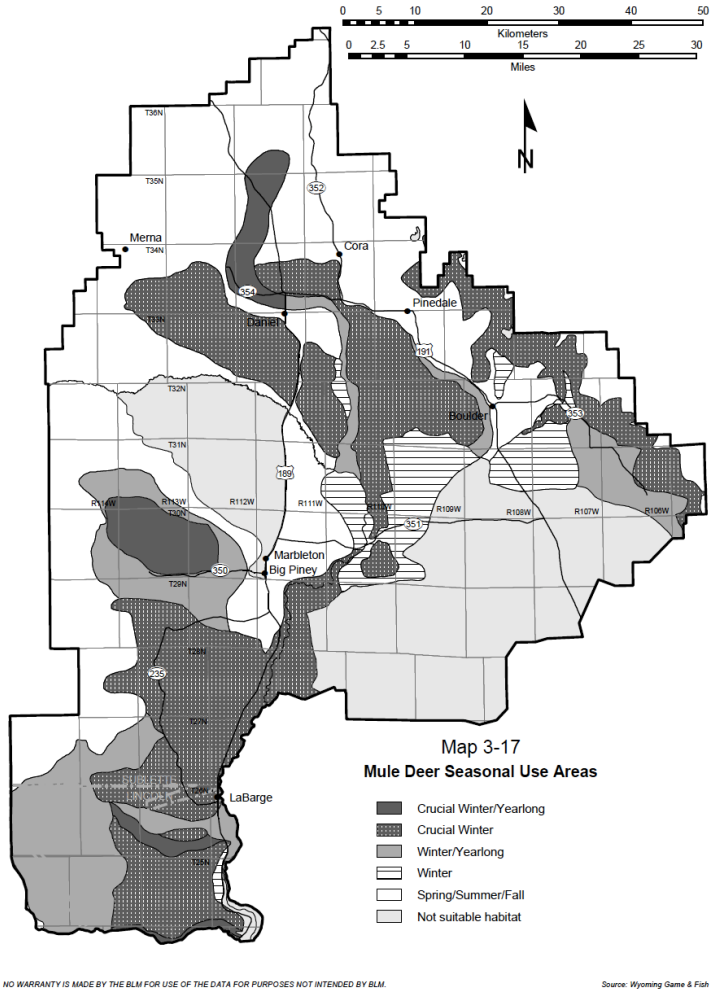

Figure 5-4. Mule deer crucial habitats in the PFO, as provided by the BLM.[19]

The BLM recognizes the value of these crucial habitats and the potential consequences of their decline. Disturbances of these habitats associated with oil and gas development will have long term consequences for the future productivity and use of them. According to the 2008 draft RMP:

> The impacts of human activity, including those related to minerals development and recreation, on big game crucial winter range include loss of habitat and forage occurring from surface-disturbing activities at any time of the year, and displacement and physiological stress as a result of human presence and activity during the winter. […] As densities of wells, roads, and facilities increase, habitats within and near well fields become progressively less effective until most animals no longer use these areas. […] There is no scientific information that supports that the mule deer herd would maintain its occupancy in these areas if oil and gas activities increase over time.[20]

Overall, populations of mule deer in the PFO are on a stable to slightly declining trend. Both major herd units are below the population objective established by the Wyoming Game and Fish Department (WGFD). Sawyer, et al (2005) indicate that habitat stress due to energy development, suburban and rural sprawl, poor grazing practices, and human population expansion is continuing to accelerate in the UGRV.[21] The extent to which habitat disturbance increases, mule deer populations will be in jeopardy of further decline.

Energy Development in the PFO

The PFO holds some of the largest energy development projects in the West. There are a number major oil and natural gas fields within the Pinedale planning area (Figure 5-5). The Jonah Field-Pinedale Anticline complex is the largest in the planning area and produces more natural gas annually than almost any other onshore field in the country. In the southwest corner of the planning area, the Big Piney-Labarge complex is one of the oldest fields in Wyoming, with the first oil discovery in the area dating back to 1902.[22] There are currently over 1,500 wells in the field.[23] From 1996-2006, the planning area produced over five trillion cubic feet (Tcf) of natural gas.[24] The fields are also significant drivers of economic activity in the planning area. Oil and gas activity produces, on average, more than one hundred million dollars of the tax revenue per year in Sublette County, Wyoming.[25]

Natural gas development is a newer discovery in the Pinedale area. Development on the Jonah Field was initially authorized in 1994 with the publication of the "McMurray Company Field Natural Gas Development" environmental assessment.[26] The wells authorized in that assessment would be the beginning of the Jonah Field, and in 2006 the BLM authorized the Jonah Infill project. Development on the Pinedale Anticline Project Area (PAPA) was authorized in a 2000 EIS Record of Decision. A 2008 Supplemental EIS (SEIS) authorized an expansion of the PAPA project of 4,339 new wells, with an average of 232 new wells per year.[27]

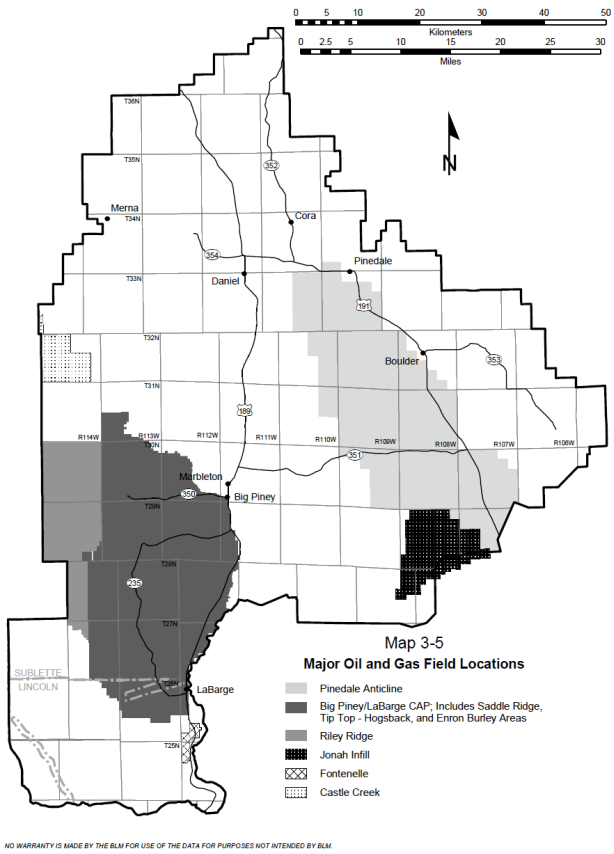

Figure 5-5. Major oil and gas field locations within the PFO.[28]

There is potential for tremendous growth in the development of energy resources in the field office. The BLM is projecting for significant expansion in development of conventional natural gas through 2020 (Figure 5-6). The most aggressive growth is projected to be centered on both the Jonah Field and the Pinedale Anticline and in the west side of planning area. Southern Wyoming has a large amount of development (Figure 5-7, with the PFO planning area highlighted).

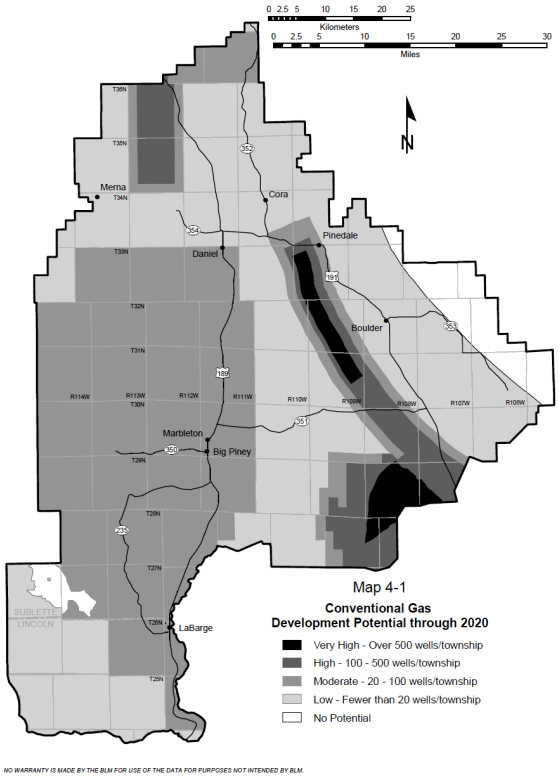

Figure 5-6. Projected natural gas development through 2020 in the PFO.[29]

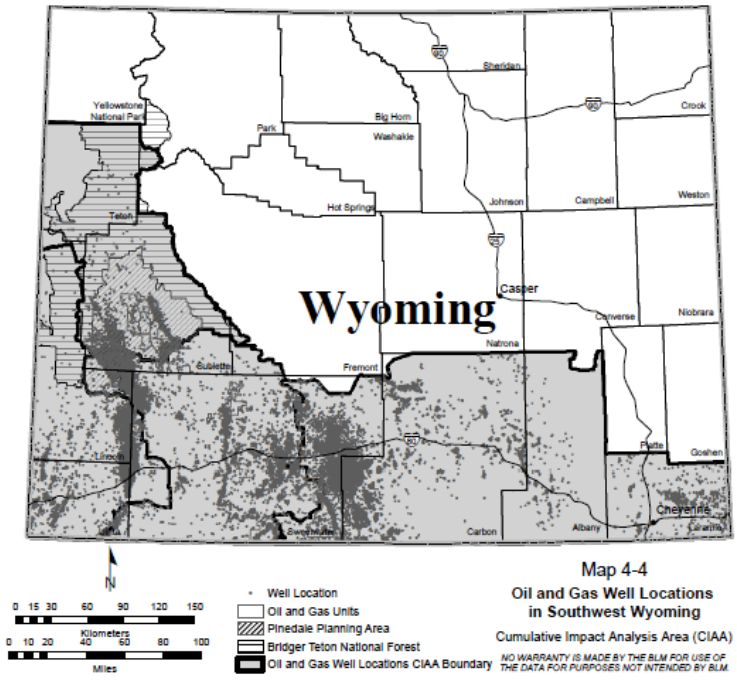

Figure 5-7. Well locations across southwestern Wyoming, with the PFO highlighted in the upper left of the shaded area.[30]

The RMP published in 2008 established which areas are available and unavailable for lease nomination by the public under the Mineral Leasing Act. It also established the corresponding stipulations that would be attached to leases offered in each area (Figure 5-8). Comparing Figures 5-8 and 5-4, the latter depicting crucial wildlife habitats, illustrates the areas with potential conflicts between the two resources within the planning area.

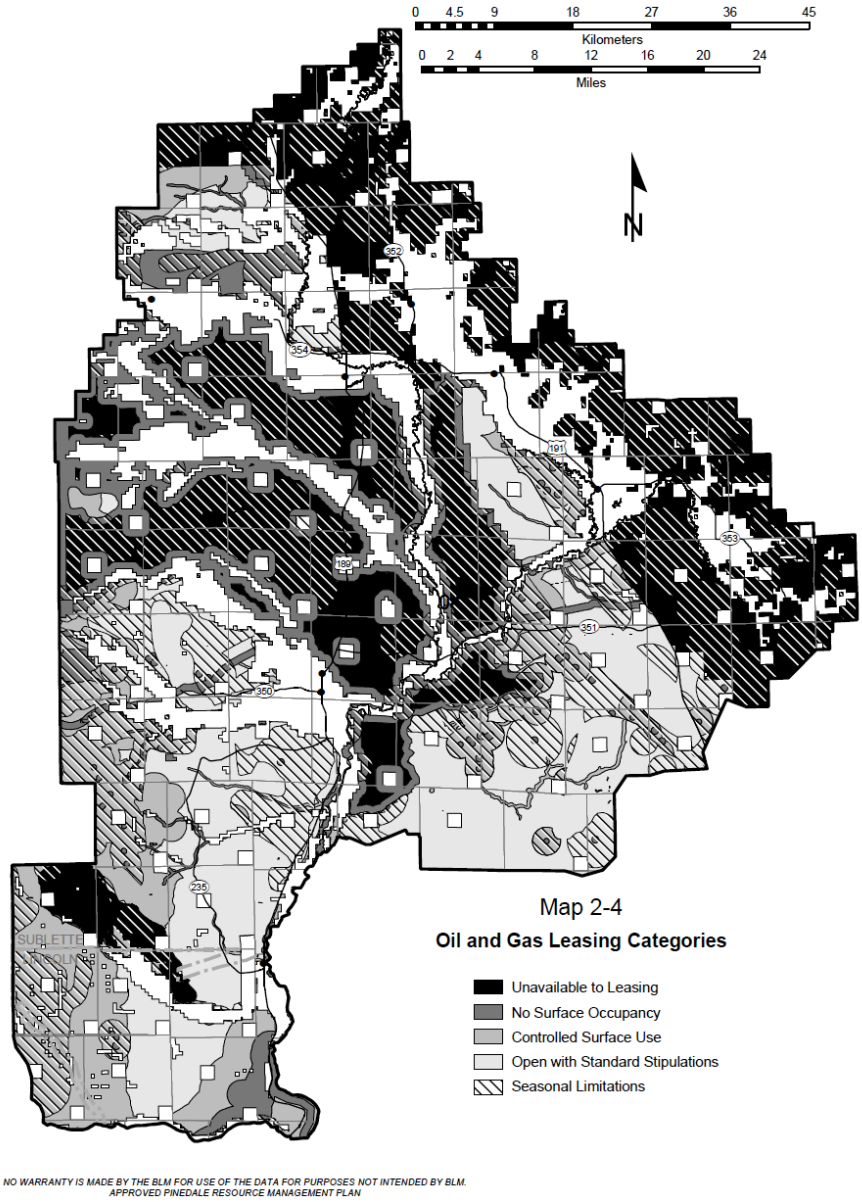

Figure 5-8. Leasing categories in the ROD for the PFO.[31]

Revising the RMP: Getting Started In a New Way

The PFO published a Notice of Intent (NOI) in February of 2002 to revise its existing RMP that had been published in 1988. That NOI launched a seven-year process through which the agency solicited public involvement, inventoried resources, and conducted analysis on the future direction of management in Pinedale. Three events affected the context of this process – the environmental resources in the planning area were being negatively affected by development, the failed Pinedale Anticline Working Group process created serious distrust in the agency, and the Wyoming political establishment was supporting the concerns of local residents about future development. These three factors led to a deeply politicized process.

Framing the Emergence of a Community in Conflict

The development of oil and gas resources in the PFO has created a deeply divided community. On one side, the development of these resources has brought jobs, economic certainty, and unprecedented tax revenue to this small, rural county. Those revenues are being used to build new schools, roads, swimming pools, and hotels; however, that growth also had a cost. As development on the Jonah Field-PAPA has grown rapidly in the last decade, conservation groups have focused the energy of national environmental movement on Sublette County, Wyoming. For these groups Pinedale had become the story of how not to develop oil and gas resources.[32]

When the agency published the NOI to revise the RMP, the integrity of the Valley's environmental resources was already being significantly challenged by the current development. The publication of the Sawyer, et al. (2006) Sublette Mule Deer Herd Study was the beginning of the awareness of the cost that natural gas production was having on other resources that were important to the residents of Wyoming. By 2008, the Wyoming Department of Environmental Quality and Department of Health had issued its third warning in the course of a month that ozone pollution had reached "unhealthy" levels, as defined by the Environmental Protection Agency, as a result of extraction activities on the Pinedale Anticline and Jonah Field.[33] Community leaders were also arguing that increases in crystal methamphetamine use

and domestic violence in Wyoming's rural communities had skyrocketed as a result of the increases in energy development.[34]

Wyoming makes significant contributions to the nation's energy production. According to the Energy Information Administration, to date Wyoming currently produces 10.84% of the nation's onshore natural gas.[35] The Pinedale Anticline and Jonah Field account for almost three percent of the total U.S. production and over half of Wyoming's annual production of natural gas.[36] In his 2008 letter to Senator Jim Bingaman (D-NM), Chairman of the Senate Energy and Natural Resources Committee, concerning S. 2229, Wyoming Governor Dave Freudenthal (D) notes "… the estimated ultimately recoverable reserves in the nearby Jonah Field and Pinedale Anticline are 12 Tcf and 25 Tcf respectively."[37] Resources like this do not attract small extraction companies. A staff member in the office explained:

> These are large companies - we are not talking about 'Joe's Gas Drilling Service' out here – we are dealing with the BP's, the Shell's … these are the majors out here, and they are making billions of dollars on these gas fields.[38]

The Pinedale Anticline Working Group

The BLM in Pinedale, as part of its 2000 ROD for the EIS that had authorized the natural gas development on the PAPA, had also attempted to create a new citizens advisory council. The 2000 ROD created the Pinedale Anticline Working Group (PAWG), populated by community members as an element of an adaptive management strategy on the Pinedale Anticline. The objectives of the plan included determining the effectiveness of the mitigation strategies, providing rapid response to modifying mitigation strategies, monitoring cumulative impacts, and allowing for stakeholder participation. It also established six individual monitoring plans for resources.[39] PAWG, and its associated Task Groups, would guide these tasks. At the time, the prospect of widespread development across the 225,000 acres of the Pinedale Anticline brought with it high levels of uncertainty, and an adaptive management structure could provide for better management in the face of uncertainty.

Community members felt that the BLM was genuinely interested in assembling a

group of citizens to track the impacts of development and offer the agency guidance. In the *High Country News*, Linda Baker, an environmental advocate living in the Upper Green River Valley, says that her first thought about the concept of PAWG was that it was "mind-blowing."[40] That year also brought new political leadership to Washington with the election of George W. Bush and Richard Cheney, a Wyoming native. The new administration promised an era of conservation focused on the "… [f]our C's – communication, consultation, and cooperation, all in the name of conservation …"[41] The new administration was also strongly in support of an adaptive management approach in Pinedale.[42]

PAWG was formally organized by Secretary of the Interior, Gale Norton, for the first time shortly after 2000. In this early iteration, the group was not chartered under the FACA. It included nine members representing specific interests (Table 5-1) and a series of Task Groups that focused on specific resource issues (both will be explored in further detail later).[43] More than one hundred Wyoming residents had volunteered to be involved in the Task Groups.[44] A BLM employee described in a 2005 article in the *Casper Star Tribune* that, "This is an experiment, but it is something that the agency very much wants to succeed. There is no template for the adaptive management process and how to implement the public into the process. We are very committed to having this work correctly."[45]

The ROD split the responsibilities of its adaptive management strategy between the agency and PAWG. Mechanically, the 2000 ROD placed the burden of monitoring the impacts of the new wells on the agency. The PAWG was charged with assisting in the development of monitoring plans and overseeing their implementation of mitigation measures as well as offering advice based on the data that was being collected on the Anticline. Combined, this approach could allow the BLM to be more responsive to changing landscapes and thereby able to change management course more adeptly.

It quickly became apparent that one of the central problems was that the group's members had the perception that they had more authority than they were actually allowed.[46] A consultant with Yates Petroleum Company was quoted in the *High*

Country News saying, "They jumped off immediately and decided they would also start advising on the NEPA process and all sorts of other things and that's where [PAWG] kind of got astray."[47]

The work of PAWG was almost immediately challenged in court. Yates sued the Department of the Interior, arguing that PAWG had violated the FACA. The Department of Justice concurred and issued an opinion requiring the BLM to order PAWG to cease all of its work, despite allowing drilling and production activities to continue on the Anticline.[48] All of PAWG's work was thrown out by BLM, including the work of the Task Groups. The U.S. District Court of Wyoming ultimately dismissed the Yates complaint, but the mood in Pinedale about the authenticity of BLM's intention had seriously soured. The BLM tried again in 2004, establishing a new charter for the group, and this time they decided to organize the group under FACA. By that point, hundreds of wells had already been drilled across the Anticline.[49]

The new PAWG had a number of characteristics, as outlined in its 2004 Charter. That document outlined the group's purpose as to "… develop recommendations and provide advice to [BLM] on matters pertinent to the oil and gas development of the Pinedale Anticline area, as described in the Pinedale Anticline Environmental Impact Statement (EIS) and [ROD]."[50] The group would again be populated by nine members, appointed by the U.S. Secretary of the Interior (Table 5-1). All members were required to reside in Wyoming, and would serve 2 year terms. Members could be removed or reappointed at the discretion of the Secretary. Ex-officio membership was also granted to the U.S. Fish and Wildlife Service (USFWS), Environmental Protection Agency (EPA), USFS, and U.S. Army Corps of Engineers (USACE). The group would choose its own chair. The group was tasked with, "[providing] advice and recommendations to the BLM Pinedale Field Office Manager on monitoring efforts related to the oil and gas development of the Pinedale Anticline area as described in the Pinedale Anticline EIS and ROD."[51] All decisions and recommendations were required to be made through consensus, and PAWG was to report to the PFO manager.

Table 5-1. Membership and represented interest in the PAWG.[52]

Number of Representatives	Represented Interest
1	State of Wyoming, Office of the Governor
1	Town of Pinedale
1	Oil/gas operators active in PAPA
1	Sublette County Government
1	Statewide or local environmental groups
1	Landowners within or adjacent to PAPA
1	Livestock operators within or adjacent to PAPA
2	Public at Large

The 2004 Charter details the following duties for the group:

> […] (1) the setting of goals and objectives for the monitoring of field development, (2) the drafting of monitoring plans needed to validate predictive models used in the EIS, and (3)[assess] the effectiveness of the mitigation measures contained in the Record of Decision for the Pinedale Anticline EIS. The PAWG will provide advice and recommendations on these matters to the BLM, but the final decisions will be made by the Pinedale Field Manager, or BLM Wyoming State Director.[53]

The Charter describes that PAWG is authorized to engage in the following activities, to the extent authorized by statute and regulation:

> […] (1) gather and analyze information developed by the TGs or from other sources, (2) hear public testimony, and (3) foster communications within the region regarding the activities associated with oil and gas development in the Pinedale Anticline EIS area.[54]

Finally, the Charter specifically authorized the creation of Task Groups, focused on specific issues. The Task Groups would be established by the BLM and PAWG, and each Task Group would also be subject to the regulations of FACA. All recommendations or information generated by these groups would be used by PAWG to advise the BLM.[55] Task Groups focused on air quality, cultural and

historic resources, reclamation, socio-economic resources, transportation, water, and wildlife.

After reorganizing in 2004, it did not take long for problems to emerge between the group and the BLM. By not halting drilling in addition to the PAWG's work during the Yates challenge, many participants felt that their involvement was not important to the agency. With hundreds of wells already drilled, Brandenburg (2005) argues that the delay in fully implementing the adaptive management program seriously damaged its adaptive design. It also hurt the relationships between participants and the agency that would be necessary to build an effective collaborative effort in Pinedale.[56]

The issue of winter drilling on the Anticline brought the problems between the agency and group members to light. Operators on the Anticline had repeatedly asked the BLM for exceptions to the timing limitations attached to their leases, arguing that drilling all year was necessary to remain competitive. Since the PAPA lies in the heart of crucial winter range for mule deer, timing limitations were being used to protect the animals from stress. Before being disbanded, PAWG had been involved in discussions concerning winter drilling, allowing time on their agenda. When the issue came back to the BLM in late 2004, PAWG put the issue on the agenda of their upcoming meeting, only to have it pulled by the PFO manager, Prill Mecham. Mecham said allowing the group to consider these decisions in the past had been "… a BLM mistake."[57] The *Casper Star Tribune* explained:

> Mecham said the agency thought the group was getting away from its core mission and the specific duties outlined in the group's charter and Anticline decision document. Those duties include developing monitoring plans, assessing monitoring information and then recommending appropriate changes to mitigation in the field.[58]

That winter the BLM granted an exception, allowing operators for the first time to drill all winter. During the same period, PAWG came up with a management plan for protecting crucial mule deer habitats that garnered unanimous support from members, but the field manager at the time refused to accept it and put forward his own.[59] Kirby Hedrick, and at-large member of PAWG, resigned in a public walkout

shortly after those decisions. He was quoted in the *Casper Star Tribune*:

> I get the view the BLM doesn't really wish this group existed and have taken a "don't confuse us with your views" mentality. I see a concerted effort by the BLM to not draw on the best guidance available … I think this is a big opportunity being missed because [the group's] intellectual capital is not drawn in an effective way. I'm sorry, but I'm very disappointed. We joined because we feel like we could make a difference, but I sense the group no longer feel like we're making a difference. We're wondering why we are spending our time on this.[60]

In the coming years, a number of critics would echo Hedrick's concerns, and many PAWG members resigned. The perception of BLM holding tight reins over the agenda of PAWG was also damaging.[61] Steve Belinda, a former BLM employee in the PFO, reports that field office employees were instructed early on in the PAWG process that the "…[gas] companies were the clients. Rollin Sparrowe, a former PAWG member, insisted that "[m]any BLM employees tried to do what was right [in the PAWG process, but] … were overruled from either Cheyenne or Washington."[62]

In the end, PAWG had little substantive consequence on the agency's course of action in Pinedale. Sparrowe called it a dishonest effort from the start.[63] The perception of BLM's ignorance caused serious distrust of the agency by community members. As one University of Wyoming researcher pointed out, "…there are real public trust problems that emerge when groups like PAWG are empanelled and then ignored."[64] In June of 2009, the Theodore Roosevelt Conservation Partnership filed suit against the BLM for not changing management as a result of the monitoring that had been done, arguing that it had failed to fulfill the duties it promulgated for itself in the ROD.[65]

Protecting the Wyoming Range

Growing concern about the environmental costs and pace of oil and gas development in the PFO was generating interest in Wyoming's political establishment to protect some of the region's environmental resources. In an effort led by the late U.S. Senator Craig Thomas (R-WY), a diverse coalition of environmentalists, sportsmen, union members, business owners, political leaders, and other concerned citizens were advocating for the U.S. Congress to set aside 1.2 million acres of land managed by

the USFS in the nearby Wyoming Range from future oil and gas leasing and exploration. This broad coalition was energized by a growing concern about the industrialization of the Upper Green River Valley.

Thomas began drafting legislation in May of 2007. Thomas passed away in June of 2007 due to complications of leukemia, and Governor Dave Freudenthal (D-WY) appointed John Barrasso (R-WY) to fill the seat.[66] Senator Barrasso resumed work on S. 2229 and introduced the bill in the fall of that year. The legislation had two clear objectives. First, it created the Wyoming Range Withdrawal Area (WRWA) that would be unavailable for future leasing under the MLA. Second, it established measures "… to allow for the retirement of existing oil and gas leases within the [WRWA]…"[67]

The *Wyoming Range Legacy Act* was passed by the U.S. Congress and signed by President Barack Obama as part of the *Omnibus Public Lands Bill*, S. 22, in 2009.[68] It was led across the finish line by the Congressional delegation of perhaps the nation's most pro-oil and gas state.[*] The spirit of the bill and its support by Wyoming's conservative political establishment was a clear message of the breadth and depth of the mood in Pinedale. The growing dissatisfaction with the BLM and rapid development of energy resources came together to put the BLM, and the PFO in particular, in the middle of a growing national debate.

Focusing Energy on Charting a New Course

As the PFO began its process of revising its RMP in 2002, there were a number of factors that promised to make the task difficult. The BLM was suffering from an acute lack of faith in the public's eye about its ability to complete a draft plan that would satisfy any one, much less every one. The morale of the staff was low and the staff was turning over at a rapid pace.[69] If the final plan landed on either side of the development versus preservation spectrum, the agency was guaranteed a lengthy protest process and most certain legal action by industry or conservationists. After

[*] Both U.S. Senators Barrasso and Michael Enzi (R-WY) supported the bill and voted in favor of S. 22. U.S. Representative Cynthia Lummis (R-WY) did not support the bill and voted against House concurrence on S. 22.

engaging in its formal scoping requirements and publishing its Management Situation Analysis (MSA), the PFO released its draft RMP and EIS in February of 2007. It solicited public comment on that plan in the following months.

The draft contained four alternatives for the future management of the planning area. Those alternatives were based, in part, from feedback generated during the scoping process.[70] The four alternatives were bookmarked by a "no action alternative" and a dominant use/full development alternative, opening all lands within the planning area to fluid minerals leasing. Alternative three was considered to be the "Conservation Alternative," setting aside relatively large blocks of sensitive wildlife habitat from the pressure of energy development and opening only about half of the planning area to fluid mineral leasing. The final alternative was considered the agency's "Preferred Alternative," which landed about half way between the conservation and full development alternatives in terms of areas available to leasing and protection of habitats.[71]

As the agency released its draft management plan, a new field manager, Chuck Otto, was also walking in the door. Otto was the third manager in the last seven years for the PFO, and he was not from the PFO originally, making him a bit of an 'outsider.'[72] His arrival resulted in a measurable shift in the politics of the office,[73] and he brought a deeper conservation perspective to the office.[74]

Delivering Innovative Results

When asked what they thought was particularly different or successful in terms of managing mule deer and energy development in the PFO, all four staff members interviewed identified the move from the agency preferred alternative to the conservation alternative between the Draft and Final RMP stages of the revision process. The conservation of critical wildlife habitats had become an issue that could provide an opportunity for the agency to rethink its approach. One staff member explained:

> We just went through the RMP revision [process here in Pinedale], updating our land use plan for the area. And, one of the issues that was extremely

> important [in that process] – aside from the huge amounts of natural gas we are taking out of this country – was mule deer habitat.[75]

In talking about the decision to shift from the agency preferred alternative to the conservation alternative another staff member noted:

> It became clear to [the new field manager] that we needed to do more than just the minimal necessary to maintain some sort of balance to oil and gas development and still maintain the wildlife resources that Wyoming – and especially Western Wyoming – is known for. To do so, we backed off the preferred alternative and brought the conservation alternative forward, which took about 50% of the resource area and made it unavailable for leasing. [The unavailable areas were] based primarily on critical mule deer range, critical pronghorn range, core sage grouse areas, and migratory corridors for moose and mule deer and pronghorn … and balanced that against where the oil and gas development was occurring. When you boil that down, … [t]hat 50% that is no longer available for leasing contains probably about 85% or 90% of the critical mule deer winter range that occurs in the Pinedale Field Office.[76]

Indeed, that shift represented a significant departure from the standard agency approach in Pinedale and across the BLM at the time. For example, the Rawlins-Great Divide RMP revision process was completed over the same period and more accurately reflected the political priorities of late 2008,[77] making nearly ninety-eight percent of the planning area available to fluid mineral leasing. As was explained in chapter two, this was the standard for RMP decisions during this time period.

This shift represents a clear example of the field manager and staff members in the PFO taking a deliberative organizational risk and pursuing a different alternative in the RMP. Important factors contributed to the possibility of this happening. In that regard, the story of the PFO offers some important lessons in the power of transformative individuals in bureaucracy, the need for building political cover when taking risks, and the emergence of seams of political opportunity for field level bureaucrats. These are explored below.

Pushing Back against Difficult Upstream Politics to Advance Change

BLM staff members within the PFO were facing three challenges to innovation. The first was a difficult political climate that did not facilitate risk taking. The second challenge they faced was the need for valid a reason to change management, and that meant identifying why the status quo was no longer working and building an alternative. Finally, given the acute politicization of the BLM decision-making process in the PFO, staff members needed to find political cover to shepherd change through the upstream politics.

A Difficult Political Climate

2007 was a difficult time to be working at the field level in the BLM for anyone desiring to affect any shift from a standard approach. The Bush Administration was adamant on centralizing decisions and maintaining tight control over decisions made in field offices. This presented a formidable challenge to staff members interested in pursuing new approaches to resolving local problems. The agency was rewarding behavior that stayed in line with what directives from Washington were promulgating as the "right way" to do things.[78] For staff members at the field level difficult upstream politics and well established procedural norms for revising RMPs were not inspiring organizational innovation, but rather they were promoting consistency and compliance with the standard approach. One interviewee quickly responded, "The thing that constrains innovative thinking is politics."[79]

In Pinedale, the centralizing pressures from Washington were further complicated by industry's tight watch over its actions. The four major companies on the Jonah Field and Pinedale Anticline had significant stakes in the decisions affecting natural gas development. By now, companies had invested a large amount of capital in the development in Pinedale and were achieving tremendous financial benefit, accelerated by sky-rocketing energy commodity prices. With so much at stake, industry was threatened by anything that strayed far from the expected BLM response. Industry's close connection to the administration was helpful:

> [In] the BLM, [the prospect of change] is a political issue. There is a huge amount of pressure that comes from these companies. When we do

> something they do not like, they do not come to us, they go to the Secretary and say, "Do something about those people in Pinedale, they are messing us up." And, it is hard to push against that. When the Secretary says what we are going to do, that is what we are going to do.[80]

The PFO was engaging in its land use revision planning process in a highly constrained atmosphere. It was easy to fall into a pattern of pre-selecting agency defined solutions. Finding and building new and creative alternatives within the process was burdensome and exposed the office to retaliation from the Wyoming State Office and Washington.

Based on his work with the USFS, Yaffee (1994) explains that these formal processes of revising agency land use plans were designed by Congress to insulate professional, scientific decisions from political meddling.[81] However, the reality of resource planning can often be quite the opposite. In response to the statement that these formal process are designed to inform management decisions based on professional scientific judgment, a staff member in the PFO responded, "Really? These are scientific decisions? They tend to be political ones."[82]

Finding a Reason that Validates Change

With both difficult politics and a constraining process, there needed to be a reason for staff members to advocate for a change in course in the PFO. The growth of the scientific literature on the impact of development on wildlife in Pinedale provided that reason. From 2002 to 2008, a number of important scientific studies investigating the consequences of large scale oil and gas development on sage grouse, mule deer, and pronghorn were heightening the concern about the future management of sagebrush ecosystems within the scientific and wildlife advocacy communities. From their perspective, the development in Pinedale could not proceed on the current course without seriously damaging the long-term productivity of its wildlife populations. A staff member commented:

> There was a lot of science going on here before we even wrote [the RMP]. There was a lot of research going on for mule deer about how this development was affecting those populations and how it was affecting sage

> grouse. The Anticline is the model for understanding the disturbance level for these animals.[83]

The studies that were published demonstrated that the standard approach was not working. The 2006 publication of Hall Sawyer, et al.'s *Sublette Mule Deer Herd Study* showed that the direct and indirect loss of habitat was more damaging to the population viabilities of big game than stress during critical time periods.[84] As one staff member put it, "[The Sawyer, et al. work] absolutely changed the context. Both the Bureau biologists as well as the Wyoming Game and Fish biologists recognized that we had some very good science to apply towards the problems that we are facing in Pinedale."[85] Another staff member described:

> I think it was because we were out on the edge with some of the stuff that we wanted to do in the RMP. They are political decisions, [and] if you are going to propose something a little off the beaten path, you had better have some science to back it up. When [people in the State Office or Washington] ask you, you need to be able to say this is why we want to go a different direction, and it has to be something believable. I think – and it is not just Hall Sawyer, it is Allison Lyons and some of the other people like Joel Berger that were doing the studies – but having that available was helpful. Even though we did not tie what we did exactly to those studies, but it was the knowledge that these people are for real and they are scientists and they are finding that there is a problem and here is what we want to do about it.[86]

Staff members who were spending a great deal of time out in the field were seeing the impacts that thousands of wells were having on wildlife.[87] It was becoming clear to them that a new management direction was going to have to be grounded in an landscape-level approach that went above an APD by APD decision process. A staff member described:

> [W]e are trying to go above and beyond the timing restrictions. Timing restrictions only really work if you do not have a lot of other pressures because obviously when you are taking out the habitat, it does not matter that the activity is going outside of the sensitive time period, but you are taking away their habitat and [causing an] ongoing disturbance. By limiting the amount of disturbance and the amount of the habitat that is removed we are trying to create areas that can support a bit of an increase in populations while these other areas are recovering.[88]

The growth in scientific understanding was matched by a public that was ready for a change. There was a broad and politically meaningful constituency that staff members felt would support their decision to change the course of management in the PFO.[89] That fact was demonstrated by the interest in protecting the nearby Wyoming Range. Both the failure of PAWG and noticeable degradation of the UGRV's wildlife, air, and water resources were causing widespread concern that went beyond the agency's traditional environmental critics.[90] Large-scale development was beginning to have real consequence on the surrounding communities and residents' way of life. Development was fundamentally changing the small rural towns in the Valley that had seen little change over the previous one hundred years.[91] A staff member explained that it was confluence of factors that brought an impetus for change:

> People were starting to see – we were getting close to town with development – and people were starting to see it. We were having a huge air quality issue with it at the same time. People were worried. The public was kind of fed up with the ever-increasing amount of development. And, we had some scientific information to fall back on that said that we really are impacting these species. It was [that] combination of things. And, it was managers being able to see that if we continued down that path it wasn't going to get better, and we were able to convince them.[92]

Despite these growing forces for change, there was still substantial push back from the traditional agency clienteles, especially the energy industry. Conversations with staff members in the PFO, as illustrated by the quotes in this chapter, revealed real battle scars from these individuals as they began to push back against the status quo. Large companies had taken advantage of a permissive administration and a diffuse public to make considerable money on the Jonah Field and Pinedale Anticline. They were not going to walk away from those profits without a fight. They fought against researchers, BLM staff members, and anyone else that got in the way.[93] Noting the importance of the science conducted on the Anticline, a staff member commented:

> Well the irony of [that research] happening here – there was a lot of debate, because when [those projects] first got started [they] were funded by industry. Because of that very fact, industry was very involved in the

> analysis portion [of the research], and if it had been somewhere else, there may not have been so much debate and scrutiny, and there may not have been the difficulty that some of the researchers have had to go through. I spoke quite a bit with [one researcher] when he was going through his research … [H]e went through incredible scrutiny by industry, and it became personal attacks, and it became very ugly and difficult for him personally. I think it was because it happened here, because of the gas field, because of the amount of political power that industry has. So it is a double edge sword. The research and its results are not welcomed with open arms necessarily. Certainly, we as professionals try to use that to move towards more progressive and innovative thinking, but really it is about whether or not you have support.[94]

Building Political Cover

Due to the high level of politicization within the PFO, staff members needed political cover to advance a different approach to balancing resources. The growing awareness that the status quo was not working and the emergence of some important scientific understanding provided cover for PFO staff to look at different options in the RMP revision process. Most importantly, it allowed them to begin to think about an approach that was grounded in a landscape perspective of planning development and protecting important wildlife habitats. Changing direction in a fierce political environment was going to require some cover, and staff at the time felt that the growing bank of scientific information and pressure from conservation groups could provide that cover. A staff member in the office offered this response about the shift:

> We decided [in Pinedale that] we have this Jonah Field that is incredibly intensively developed, and we have this Anticline in the middle of the Mesa which is our traditional mule deer winter range, [that is also intensively developed.] But, we decided that not the whole Pinedale Field Office needs to look like that. We need to have some diversity, and in order to sell it up the line we called it "diversity on a landscape scale." So, what we did in Pinedale is that we closed some areas to mineral leasing, and some large areas. We met some resistance on that because they aren't all the 'best' mule deer areas, but they were the ones that we could do. They were the ones that we did not have all the existing leases and development. You can't just make that all go away once it is there; you have to look somewhere else. And, so

> we did. … [For] most of the main migration corridors we were able to provide an unleased area – the famous Trappers' Point is unleased. [T]he whole west edge of the Mesa that leads down to Rush Butte and that country, we were able to withhold that from leasing and provide that route – essentially all the way from Jackson [Hole] down into the Red Desert and the Little Colorado. And, also along the Wind River front – there is a defined mule deer migration route that crosses that country – we were able to withhold that area, and some other habitats on the west side of the field office, from oil and gas leasing as well. That was a long process, and it was very stressful, but we were able to get it done in the end. I think that is unique. I can't think of another BLM office that has withheld areas from leasing on that kind of scale. And, that is what we hung them on. [The need to protect] mule deer, pronghorn, and sage grouse habitat – that is how we were able to make those [changes] stick.[95]

Another staff member explained this shift towards a landscape approach in the new RMP:

> What we were able to do with our overall RMP [was important.] Because of the intensity of development of the gas fields – the [Pinedale] Anticline, Jonah [Field], and Labarge area – and the growing thought that the seasonal restrictions were not necessarily working in those areas, [resulted in the] Anticline [taking] a very different approach and had areas where [those stipulations] were not implemented for sage grouse and big game. In other areas, they are being implemented for the most part. But, because we had that approach for the intensely developed areas we were able to take a more conservative approach for some of the areas that didn't have a lot of gas … [In those places,] not only are we implementing the standard timing limitations but we are also trying to look down and take a more landscape approach where we are trying to look that the amount of surface disturbance and habitat fragmentation. [We are] looking at how the vegetation patterns are [changing] across the landscape and looking for other options and approaches when that well permit comes in [the office].[96]

In Pinedale, the political cover came from a number of places. First, it was the science that allowed line specialists at the field level to argue a need for change. Second, it was a constituency that would support the agency in taking a different approach, and in the case of Pinedale, it happened that the affected community had

close ties to the administration at the time.[†] Constituency can provide cover in two ways. They demand change from the agency, and they support the agency and defend that change in the political context in the future. As one staff member explained, "… about ninety percent of the public comment that we got really wanted to ensure that wildlife habitat was protected in the future."[97] Political cover also comes in the form of support of key political decision-makers. That support was an essential strategy for building an opportunity to take a risk and be innovative in Pinedale. It was broad in this case:

> Obviously politics is a big factor when it comes to some of these actions. We had to have a lot of support [above us]. We had the Governor of Wyoming's support, the State Director in the Wyoming State Office for BLM, [and others]. There was a lot that was given so there was a lot that was expected in return. If you don't have that kind of support, it is a lot more difficult to do these out of the box, large-dollar innovative things. Most [operators] do not want to have to pay to implement these things because it is taking money out of their profits.[98]

Another staff member explained what facilitated the shift:

> Staff people matter, but you need some sort of leadership at the management level to take staff ideas and move them up the chain, so [Chuck Otto] was able to do that at the field level. Bob Bennett, the State Director in Wyoming, recognized those were good ideas and was then able to support [Otto] when it moved up to the Washington level.[99]

Capitalizing on the Arrival of a Rare Moment of Opportunity in the Agency

Opportunities like the one used to shift RMP alternatives in Pinedale are infrequent in public agencies. There were a number of factors that created that moment Pinedale. The arrival of a new field manager in the PFO and a unique seam in the higher levels of the BLM and Interior Department were important factors. In addition there were committed and patient line specialists in the PFO that were

[†] Sublette County is a solidly Republican voting block in a very conservative state, and the Bush Administration had two influential Wyomingites involved in the energy issues at the time. The first was the Vice President who had tremendous influence at the Interior Department (See Skillen 165-168), and the second was the Director of the Minerals Management Service (MMS), Randall Luthi, who was the former Speaker of the Wyoming House of Representatives and rancher in Lincoln County, immediately to the west of Pinedale (The previous MMS Director, Rejane Burton, who had resigned in 2007 was also from Wyoming).

willing to be persistent in their call for change and waited for the right moment to push it through.

A New Field Manager

The arrival of Chuck Otto, the new field manager, in Pinedale was one of the factors that built a window of opportunity for change. Given the high turnover in staff and managers that the PFO had been experiencing as a result of the highly politicized environment, the arrival of a manager that was focused on providing a vision for moving forward was important.[100] It was exactly the point in the RMP process that a renewed sense of purpose in the office was needed. Otto was able to fill that role in the office. A staff member explained the importance of timing in the case of the Otto's arrival:

> Well I think one of the key things was timing in Pinedale. … There was already a good amount of development that was ongoing when [the new field manager] arrived here. […] When he first got to Pinedale, it was the opportune time. There had been severe criticism of the Bureau about how management actions were being taken care of in the PFO. We were losing mule deer habitat and the mule deer populations were suffering as a result of it. […]
>
> When [he] did arrive we were in the midst of revising the RMP for the PFO. All key decisions in the Bureau are derived from the RMP. When [he] arrived the plan had already – the preferred alternative for the plan was really an industrial development alternative type of alternative. It still made most of the FO area available for oil and gas leasing. […] It became clear to [him] that we needed to do more than just the minimal necessary to maintain some sort of balance to oil and gas development and still maintain the wildlife resources that Wyoming – and especially Western Wyoming – is known for.[101]

Another staff member explained:

> Staff people matter at the field level, and [Chuck Otto's] arrival in Pinedale was really opportune. […] He has a fairly conservation-minded lean to where things needed to go, and you need some sort of leadership at the manager level to take staff ideas and move them up the chain.[102]

The PFO had been suffering for a number of reasons, but one was that they did not have an effective leader that provided a cohesive vision around which the staff could rally.[103] Good field managers bring staffs together behind a common vision for the office. A staff member commented:

> A good Bureau staff itself does not have a cohesive vision of where the office is going. That was [the manager's] job to try and bring all of the staffs together and provide a joint vision of where we might go. Luckily we had the RMP that was able to provide that vision.[104]

It takes energetic and risk-taking individuals within the agency to use those elements of political cover to build momentum for innovative approaches. Otto was one of those people. A staff member explained:

> I think we have some managers up the line that could see the bigger picture, and they could see – [based on the] studies going on that showed a forty-six percent reduction in mule deer use on the winter range on the Mesa – [that] it is hard to argue [that] away. [They] could see [what could result] if that was to happen everywhere because our other big gas field, down in Big Piney-LaBarge area, is another traditional winter range. The deer still use that area but there is no one who knows how many deer there would be if there were not a thousand gas wells down there. Now, we have an application to drill another thousand wells, and there is nobody that knows at what point the threshold is that the deer throw up their hands and say, "Alright I am out of here. I am going somewhere else." That is different for each individual animal, but on a population basis nobody knows where that cut off is that the animals just abandon the habitat, until it is done, and then it is done – there is no going back.[105]

As a staff member explained, "Innovation is about risk taking. You need to have a field manager that is willing to go off the beaten path with you and make some decisions that may not be the ones that we have made before."[106] Employees need to have a vision of where the office and the agency are going and how their work can contribute to a new future. Effective managers in the agency recognize that and help empower their staffs to fulfill that role.[107] In the process, the agency is beginning to think differently and is moving towards an environment of empowered and informed innovation.

In addition to the arrival of Otto, there were important changes happening within the BLM and Interior Department. The politics of the situation were changing rapidly. As another staff member observed:

> There were a lot people that tried to champion a different approach for a very long time that really did not get anywhere. I think that in the end, [the Wyoming] Game and Fish played a large role, and the Governor's office played a very large role in how [this opportunity] came to be. A lot of it was politically driven. … This area – and not that other field offices do not have world-class wildlife resources – but, Pinedale really does, and we also have world-class gas resources. Because the two intersected during this very critical [political] time, I think that is [why we got done what we did].[108]

A Seam in the High Levels of the Organization

The Bush era at the Interior Department represented one of the most centralized periods of decision-making in the agency since the Reagan Administration. Virtually all decisions were approved or confirmed by the Secretary or Assistant Secretary, from appointments to individual Resource Advisory Councils to final decisions on RMPs.[109] A former State Director of Idaho, interviewed by Skillen (2009, p 167) noted, "People at the very local level are getting phone calls from these political people within the (Interior) department, saying what to do."[110]

Innovation was not rewarded nor desired within the administration at the time. Bush appointees in the Interior Department felt threatened by the independence of field managers that emerged during the late years of the Clinton administration. In 2003, then BLM Director Kathleen Clarke (qtd in Skillen, 2009, p 188) said during a speech to the Interstate Oil and Gas Compact Commission that she had been "… dealing with an agency that I think lost some discipline, lost some accountability, did a lot of freelancing … Individual priorities were pursued. Individual agendas maybe were allowed to take hold and personal interpretation of how things should be done became an issue … Frankly, the toughest thing in Washington is to get the word down from the top."[111] She would later retract and apologize for those statements, but it demonstrated the administration's goal of tightly controlling the actions of the

agency.[112] Local people solving local problems in the agency signified a lack of control.

By late 2007, the administration's tight control over lower levels of the agency as well as the national public support for the President and administration were waning. In the Interior Department, and the BLM in particular, a number of high profile scandals had shifted the upstream political landscape, and deflated the morale of staff members.[113] From steering lucrative mineral leasing deals towards former employers of senior officials, to political tampering with scientific reports to keep species off the Endangered Species Act, and even to an eventual sex and drug scandal in the Minerals Management Service, the Interior Department had seriously been challenged.[114] In testimony before the House Subcommittee on Energy and Resources in late 2006, Inspector General Earl Devaney (qtd. In Skillen, 2009, p 171) reported: "Simply stated, short of a crime, anything goes at the highest levels of the Interior Department. Ethics failures on the part of senior Department officials – taking the form of appearances of impropriety, favoritism, and bias – have been routinely dismissed."[115]

In March 2006, Secretary of Interior Gale Norton had resigned, a result of growing controversy about her role in the ethics violations at Interior and her ties to the politically damaging Jack Abramoff scandal.[116] More important than her resignation, was the man the administration brought in to replace her at Interior, Dirk Kempthorne. Norton's background at the Mountain States Legal Foundation, a private property rights legal firm founded by former Secretary of the Interior James Watt, had made her a protégé of the far right and an abrasive rebuke to the Babbitt era at Interior.[117] By comparison, Kempthorne, the Republican Governor of Idaho, brought with him a much quieter and pragmatic approach to the position. A staff member interviewed commented:

> We had recently changed Secretaries of Interior from Gale Norton to Dirk Kempthorne, and that was definitely a major shift in political attitudes back [in Washington]. Although they were [both] Republicans, they were definitely different stripes of Republican. Kempthorne was looking for a way

to buffer the criticism that the Bureau was getting from its oil and gas leasing and development policies.[118]

Seizing the Moment

About six weeks after the arrival of the PFO's new field manager, Chuck Otto, the Assistant Secretary for Lands and Mineral Management at Interior, C. Stephen Allred, visited the PFO to take stock of the criticism of events occurring on the Anticline. The significant declines in mule deer populations, political pressure from Wyoming's popular Democratic Governor, Dave Fredeunthal, and the growing concern over possible listing of the sage grouse under the Endangered Species Act were putting the agency on edge. The unraveling of the PAWG and serious criticism being leveled at the agency from the community was adding to the situation's toxicity. Allred was looking for potential solutions to the growing criticism.[119]

As a staff member explained, the PFO used the opportunity to its full potential. They knew that the high level support of Interior was going to be necessary for a substantial shift in direction in Pinedale, like moving from the preferred alternative to the conservation alternative in the draft RMP.[120] As the PFO staff toured the Assistant Secretary around Pinedale, they took the opportunity to impress upon him their desire to make that shift, detailing the benefits that would result while allowing oil and gas leasing to continue in areas of high oil and gas potential. Most importantly, development on the high value Pinedale Anticline and Jonah Field would continue without change, and companies that had already purchased leasing and were developing the natural gas resources would not be severely affected.[121] No doubt, that fact was important politically:

> One of the reasons that we were able to go forward with our unavailable areas [under the conservation alternative] is that the areas where the gas fields already were – we did not make an attempt to constrain those. We said, "Okay, there is a huge amount of gas coming out of here, and a huge amount of money, and they are employing a huge amount of people, so let's let that continue." You cannot get in front of that. It is just not something that you can fight. The perception is that it is free enterprise and that we should not be constraining industry by doing that sort of thing and that is pervasive [in this agency].[122]

The staff explained to the Assistant Secretary that in a new plan, BLM could begin to buttress some of the criticism it was receiving in Wyoming and nationally with tangible protections and investments in wildlife habitats. The traditional approaches were no longer adequate in their eyes. Those actions could help build a better balance of uses in Pinedale that would benefit the agency as a whole.[123] The Assistant Secretary's visit was essential and resulted in the PFO gaining the upstream support it needed to move forward with the shift in RMP alternatives. An employee acknowledged:

> As a result of our conversations, Stephen Allred actually thought that was a great idea. He had thought it would be wonderful to try and protect some of the migratory corridors. That was actually one of the first things that he said to [us] when he got there, that he was really looking for something progressive to do on wildlife. We were able to jump on that opportunity and were also able to include [virtually] all of the crucial winter ranges that occurred in Pinedale as part of that. Stephen Allred took that back to Secretary Kempthorne, and they essentially approved it. Normally you don't have to go the Secretary of Interior for changing an alternative in a Resource Management Plan, but the fact that [we] already had support from our State Director, who was Bob Bennett at the time, helped. [E]verything sort of coincided at the right time.[124]

Committed Line Specialists That Waited For the Right Time

It is not just the field managers that make a difference, however. It is also the resource specialists and staffers in the field office that wait patiently for moments that allow them to achieve change in the organization, and it is staff members that do not take no for an answer when their ideas are initially rejected. Both were the case in the PFO. These individuals often care deeply about the resource and land. One employee observed that in Pinedale "… [w]e have a number of staff people – both biologists and planners – that are passionate about the resource out there and are more than willing to work through the process."[125] These are the people that use the cover provided by bold management and good information to sell change up the line in the organization. One staff member explained the tense moment of doing that in the Wyoming State Office:

> I will never forget the last briefing I stood in with the State Director, at the time, [when] we were between draft and final EIS, and we wanted to double the area that would be unavailable for leasing. I was briefing them and trying to carry this [idea] forward because [ultimately] these are the State Director's documents … [and] it is his decision. I was standing there with my maps and data sheets – all the important guys were sitting around the table – and I was giving this briefing about, "Okay, so we would like to withhold this Ryegrass area from leasing and here it is on the map and here are the reasons. And, then we would like to withhold this Wind River front area and here at the reasons why." I was halfway through, and [the State Director] interrupted me and said, "I am not convinced." I stood there and thought, "Well, what do I do now because in a few minutes, I am going to ask you for some more." What do you do? I went on, and continued through the briefing, continuing to explain what we wanted to do. The field manager was there and stood by me and said, "Yes, this is what we want to accomplish and here are the reasons why." At the end of the briefing we came out and it was done and they decided "Yes, this is the way we want to go." It was a high stress moment for me.[126]

The state of affairs in the Interior Department and BLM had sullied agency morale in the years leading up to 2007. These were not times that encouraged organizational risk taking by field staff. The PFO, in particular, left a trail of helplessly disgruntled and burnt out former staff members.[127] Some, like Steve Belinda, who had worked as a wildlife biologist in the PFO, quit the agency and went to work for a conservation organization, working to change the BLM from the outside.[128] Skillen (2009, p 172) reports, "The Bush administration certainly did not create these working conditions within the Interior Department, but the administration's close supervision of career employees and its forceful direction of field management decisions did increase the fear among employees …"[129]

The staff that remained in the PFO, some of whom were interviewed for this study, were able to persist in these working conditions because they were energetic about their work and passionate about the resource. They were committed to making change. These individual characteristics were necessary to stand up in the Director's conference room and go toe-to-toe with a State Director on changing the course of direction of an RMP, thereby achieving a different approach in Pinedale. The

persistence of individuals who are committed to finding new and more effective solutions was central to the outcome in Pinedale. When asked if there were individuals in the field office that made a significant difference in the result that was achieved, one employee responded honestly:

> I agree that individuals matter, and I think one of them was me – I understand that is not a charitable thing to say. [However,] someone has to – because we went through three field office managers in the course of developing this plan – there had to be someone that stuck with it. We had a lot of influence from the Washington office and they sent people out here to "help us," and that was also a very stressful period of time. It was a few members of the team that stuck with it. It was very locally driven. It was people in this office that wanted it to happen and did not let it die.[130]

A Changing Demographic of the BLM Employee

Organizational resistance can be a powerful barrier to innovation. Commitment to organizational norms and the standard way of doing business are most persistent in staff members that have been in the agency for long periods of time. Those levels of resistance were not as powerful in the PFO because of the high level of turnover that was bringing in younger staff members who had a fresher perspective. A staff member explained:

> It is changing a lot - especially in the office here where we have a lot of turnover, but in some places you have the old guard. I see a difficulty of, "This is how we have always done it. I have been here for 25-30 years - my whole career. I have never had a problem with this before, so why are you bringing it up?" I think that becomes a problem in some places. The whole idea of change [becomes a problem]. I think in a place like here where you do have a lot more turnover and you have a lot of hiring of younger, fresher minds, it is a lot different in that regard.[131]

In the PFO, there is a clear sense that the demographic of the BLM employee is changing, and that change is facilitating a shift towards new alternatives for the agency. At the end of one conversation, the interviewee offered some comments on the agency and the prospect of embracing a more innovative future at the field level. These comments are telling because they reflect the deep history of a politicized and captured agency but also signal an important shift in tone that was expressed in many

of this research's interviews. Views similar to this employee were especially apparent in new staff members. The employee said:

> I think that the BLM is changing a lot. I have not worked here for an incredibly long time, and every day I become more and more knowledgeable about the history of the BLM. But, I think that because the BLM started out as a range management entity, that a lot of that still comes into play in different places. I heard something interesting [in the office] the other day – that our focus here is energy. Another office's focus may be grazing, or it may be wild horse and burro management. Every place has its own major direction. I think that even though we are [a] multiple use [agency] – and I think this becomes one of the biggest problems – that you become so focused on your main priority that you end up not really managing as much by [the principles of] multiple use as we are supposed to. You become focused, and then the politics of that industry drive what is going on [in the office]. A lot of people in other offices, like in Lander where it is a lot more grazing focused and the grazing industry has a very strong political connection, and that plays – can play – a very large role in how you manage the field. And, it is not always in the best interest of the public. We are a public agency. We are managing these permits – managing all sorts of things – [and] we should be looking at it holistically. Not because we are forced to change a practice or a policy or because somebody is politically well connected, but because we know it is the right thing to do.[132]

The views of that employee bring together the themes of this chapter. The BLM is a political agency where strong influences of the administration and its ideology can constrain field level employees at times. Politics will continue to be a constraining factor for employees that take the persistent challenges that face field offices and attempt to come up with new and different solutions to them. Political pressure can limit staff members' ability to take risks and going beyond the standard agency approach. Nonetheless, the story in Pinedale reflects an optimism that committed individuals with the judgment to sense seams in the political wall can use their knowledge and persistence to build a more innovative environment for the future of the BLM.

Lessons from the Pinedale Field Office

There are a number of lessons that can be drawn from the PFO case that informs this study's search for innovation in the BLM. First, the Pinedale case offers a compelling argument that change, even in a fiercely political agency with tight top-down control, is possible. Despite these difficult upstream politics it is still possible for staff members at the field level to craft new and innovative solutions to solving local problems. The shift from the agency preferred alternative to the conservation alternative during the RMP revision process resulted in the agency landing in a fundamentally different than had they followed the standard approach.

More specifically, there are a number of lessons that can be drawn from the PFO narrative:

- *A product of the decentralized structure of the BLM, field offices are unique, and the pressures that affect staffs are specific to that office.* The events that took place in Pinedale and the context of that office created a unique chance at finding an innovative solution to the problem. Each case of innovation is driven by the specific resources that are in question, the people in that office, and the political context of that moment. A staff member described, "…there is not a magic formula for advancing change within the bureaucracy."[133] Nonetheless, the organizational factors that promoted innovation in Pinedale can also contribute to changes in other places.
- *There was a highly constraining and politicized environment in the PFO.* The large gas resources and the power of the companies that were extracting them in the PFO created an environment of acute politicization and the pressure to ensure that access to those resources was being provided. As a result, the administration was highly constraining the actions of local managers at the time, often politicizing routine decisions and routing them through the White House. Straying from the traditional path meant possible retaliation from officials higher in the administration and from industry.
- *There was a broad and political meaningful constituency in the local communities that supported change.* As one staff member put it, change was

possible because "… Pinedale had been under such intense scrutiny and criticism."[134] There was a broad and deep demand in the public for a different approach that would more accurately balance the management of resources, and that demand went beyond just traditional critics of the agency. This was a product of the deteriorating integrity of the environmental resources in the UGRV, including air and water pollution, wildlife habitat losses, and impacts to visual resources. Increases in social problems, like substance abuse and domestic violence, were also challenging the communities as a result of the influx of oil and gas rig crews. The collapse of PAWG also fueled a growing consensus that the BLM was not being responsive to the concerns of the local public. Communities desired a different course in Pinedale, and they were connected to sources of political power at the time, which meant that they would support the agency up the line.

- *In a politicized environment, entrepreneurial staff members need political cover to defend change upstream in the organization.* Political cover provides the support for risk taking individuals at the field level to push change through a politicized environment. In the PFO, that political cover came from two places. The first was a growing understanding of the problem that made the status quo unacceptable. Staff members were able to use science to necessitate and defend a shift in course. Second, the cover provided from high level management in the agency, especially the field manager, meant that field level employees had the internal cover to advocate for change. Those higher level managers would protect staff members from professional retaliation, and they defended the change to the administration and its allies.
- *There are fleeting moments of opportunity for achieving change.* These moments are windows in the upstream politics that allow entrepreneurial staff members to take risk and move the agency in a different direction. During the Bush Administration, decision making was highly constrained, and as a result there was little insulation from upstream politics at the field level. The

shift in political priorities that resulted from changes in the Interior Department after Secretary Norton's resignation opened the door for field staff to put forth a different RMP alternative. The PFO staff capitalized on the visit of Assistant Secretary Allred to convince him that their plan would meet the objectives of the agency and the administration. These moments are infrequent in bureaucracy.

- *Field managers play an important role in advancing change within the office and upstream in the organization.* The field manager in the PFO, Chuck Otto, provided the support for resource specialists needed to take risk that was critical to the ability for individuals to capitalize on those moments of opportunity. In Pinedale the arrival of a new manager that took the time to build vision within the office and support staff members' ideas. He built the energy that was necessary to encourage them to take risks and advocate for finding new solutions. He also supported those ideas as they moved up the chain. Despite a period of low agency morale, the efforts made by a committed manager helped to facilitate innovation.
- *Committed line specialists are important tools for change.* Effective field managers are important, but the presence of committed line specialists who are smart and care deeply about the resource are also crucial components to achieving change in the organization. In the PFO, there were a number of these individuals who were persistent in their call for change and used the moment of opportunity to achieve it effectively. Those nodes of smart and passionate individuals in institutions were critical across the board to achieving change.
- *The organizational culture of the organization is changing.* More young, professionally trained employees that care deeply about the resources are entering the agency than in the years past. In the PFO, the high staff turnover facilitated that change. These new individuals have a different sense of organizational mission and purpose than the old guard staff does, and they are using it to advocate for change. Some, like Chuck Otto, reach leadership

positions in the agency and use their position to facilitate a different working environment that would have been encountered in previous BLM offices.

These themes present a case that the agency was able to embark on a different alternative for managing the Pinedale planning area despite high degrees of politicization and centralizing decision-making pressures.

Notes to pages 107-145:

[1] Personal Interview, BLME 10, November 2009.
[2] Personal Interview, BLME 9, November 2009.
[3] Personal Interview, BLME 9, November 2009.
[4] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), "*About Us: Planning in the Pinedale Field Office*," 2 Oct 2009,<http://www.blm.gov/wy/st/en/programs/Planning/rmps/pinedale.html> (20 Apr 2010).
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[7] U.S. Census Bureau, "Profile of General Demographic Characteristics: 2000," *Census 2000*, 2000 <http://censtats.census.gov/data/WY/1605661580.pdf> (20 Apr 2010).
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[10] Ibid, Map 3.6-1.
[11] Sportsman for the Wyoming Range, "*Why Defend the Wyoming Range*," 30 Mar 2009 <http://wyomingrangesportsman.orgpage.php?D=ct_20060603073358> (22 Apr 2010).
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[15] Ibid, 3-129.
[16] Ibid, 3-129.
[17] Ibid, Map 3-16.
[18] Ibid, Map 3-16.
[19] Ibid, Map 3-17.
[20] Ibid, 4-218-4-219.
[21] Sawyer, et al (2005), 1266-1267.
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[24] Ibid, 3-40.
[25] Ibid, 3-41.
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[28] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Pinedale Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Pinedale District (Aug 2008), Map 3-5.
[29] Ibid, Map 4-1.
[30] Ibid, Map 4-4.
[31] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Record of Decision and Approved Resource Management Plan for the Pinedale Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Pinedale District (Nov 2008), Map 2-4.
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[45] Gearino, (2005).
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[58] Gearino, (2005).
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[62] Huntington, 10.
[63] Huntington, 11.
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[75] Personal Interview, BLME 10, November 2009
[76] Personal Interview, BLME 9, November 2009.
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[84] Sawyer, et al. (2006), 1266.
[85] Personal Interview, BLME 9, November 2009.
[86] Personal Interview, BLME 10, November 2009.
[87] Personal Interview, BLME 12, November 2009.
[88] Personal Interview, BLME 12, November 2009.
[89] Personal Interview, BLME 10, November 2009.
[90] Personal Interview, NGO 6, July 2009.
[91] Personal Interview, NGO 6, July 2009.

[92] Personal Interview, BLME 10, November 2009.
[93] Personal Interview, BLME 10, November 2009.
[94] Personal Interview, BLME 12, November 2009.
[95] Personal Interview, BLME 10, November 2009.
[96] Personal Interview, BLME 12, November 2009.
[97] Personal Interview, BLME 9, November 2009.
[98] Personal Interview, BLME 12, November 2009.
[99] Personal Interview, BLME 9, November 2009.
[100] Personal Interview, BLME 9, November 2009.
[101] Personal Interview, BLME 9, November 2009.
[102] Personal Interview, BLME 9, November 2009.
[103] Personal Interview, BLME 9, November 2009.
[104] Personal Interview, BLME 9, November 2009.
[105] Personal Interview, BLME 10, November 2009.
[106] Personal Interview, BLME 10, November 2009.
[107] Personal Interview, BLME 11, November 2009.
[108] Personal Interview, BLME 12, November 2009.
[109] Skillen, 167.
[110] Ibid.
[111] Skillen, 188.
[112] Ibid.
[113] Skillen, 167-172.
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[117] Skillen, 166.
[118] Personal Interview, BLME 9, November 2009.
[119] Personal Interview, BLME 9, November 2009.
[120] Personal Interview, BLME 9, November 2009; BLME 10, November 2009.
[121] Personal Interview, BLME 9, November 2009.
[122] Personal Interview, BLME 10, November 2009.
[123] Personal Interview, BLME 9, November 2009.
[124] Personal Interview, BLME 9, November 2009.
[125] Personal Interview, BLME 9, November 2009.
[126] Personal Interview, BLME 10, November 2009.
[127] Personal Interview, NGO 5, July 2009.
[128] Huntington, 11.
[129] Skillen, 172.
[130] Personal Interview, BLME 10, November 2009.
[131] Personal Interview, BLME 12, November 2009.
[132] Personal Interview, BLME 12, November 2009.
[133] Personal Interview, BLME 10, November 2009.
[134] Personal Interview, BLME 9, November 2009.

6. The Rawlins and Rock Springs Field Offices: The Persistent Challenges of Innovation within the BLM

"Innovation and controversy go hand in hand. In the BLM there is a deep commitment to an incentive structure that attempts to dampen down controversy."

~ NGO Staff Member, Wyoming[1]

Innovation remains a persistent challenge for field level staffs in the BLM. Employees face numerous incentives that promote conformity and consistency over organizational risk taking. This chapter explores two cases where innovation was more difficult to identify – the Rawlins-Great Divide Field Office (RFO) and the Rock Springs Field Office (RSFO). Both offices are located in the southwestern corner of Wyoming and have faced unique challenges in the management of their resources. They are both high conflict offices where the presence of world-class wildlife and energy resources creates management challenges for BLM employees.

This chapter presents narratives from both the RFO and the RSFO, exploring the persistent challenges faced by staffs at the field level in the BLM. The RFO story touches briefly on a recent partnership that has resulted in new developments in understanding and managing big game migration corridors. It explores the varying impact of politicization on the incentive structure for employees advocating a different approach to traditional conflicts. The chapter has two sections, the first exploring the RFO and the second RSFO. The chapter concludes with lessons from both cases.

The Rawlins-Great Divide Field Office

Placing the Rawlins-Great Divide Field Office on the Landscape

The RFO covers approximately 12.5 million acres of the high plains in southern Wyoming, stretching from the Nebraska border on the east into the Red Desert of southwestern Wyoming. It is one of the largest field offices in the BLM. The region encompasses a diverse set of ecological biomes, including cold high deserts and

sagebrush steppe of the Great Divide Basin, the short grass prairies of eastern Wyoming, and the high mountains of the Snowy Range and Sierra Madres Mountains (Figure 6-1). The BLM administers approximately 3.5 million acres of surface estate and an additional 1.2 million acres of subsurface estate underlying state and private lands (Figure 6-2).[2] Most of the public land stretchs across the western portions of the planning area. The planning area is home to some of the most remote desert complexes in the United States and significant wildlife populations that thrive in the region's wide-open space. The planning area includes the Wyoming counties of Laramie, Albany, Carbon, and Sweetwater. Major cities include Cheyenne, Laramie, Saratoga, and Rawlins.[3]

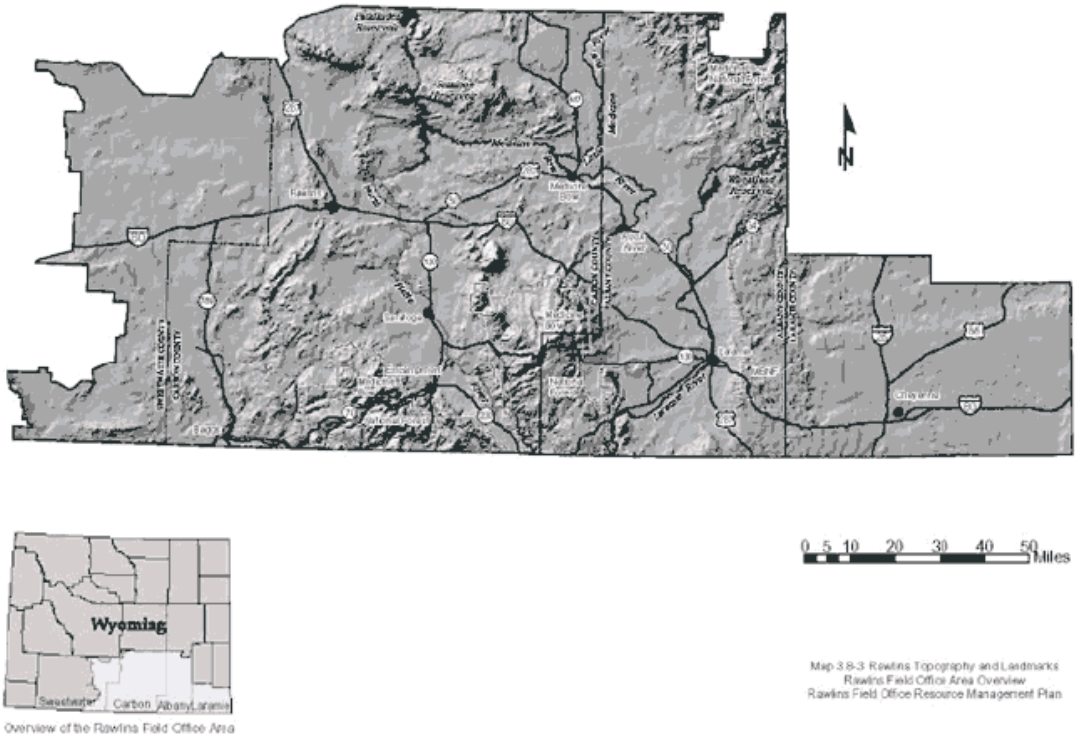

Figure 6-1. Geography and major landmarks in the RFO, provided by BLM.[4]

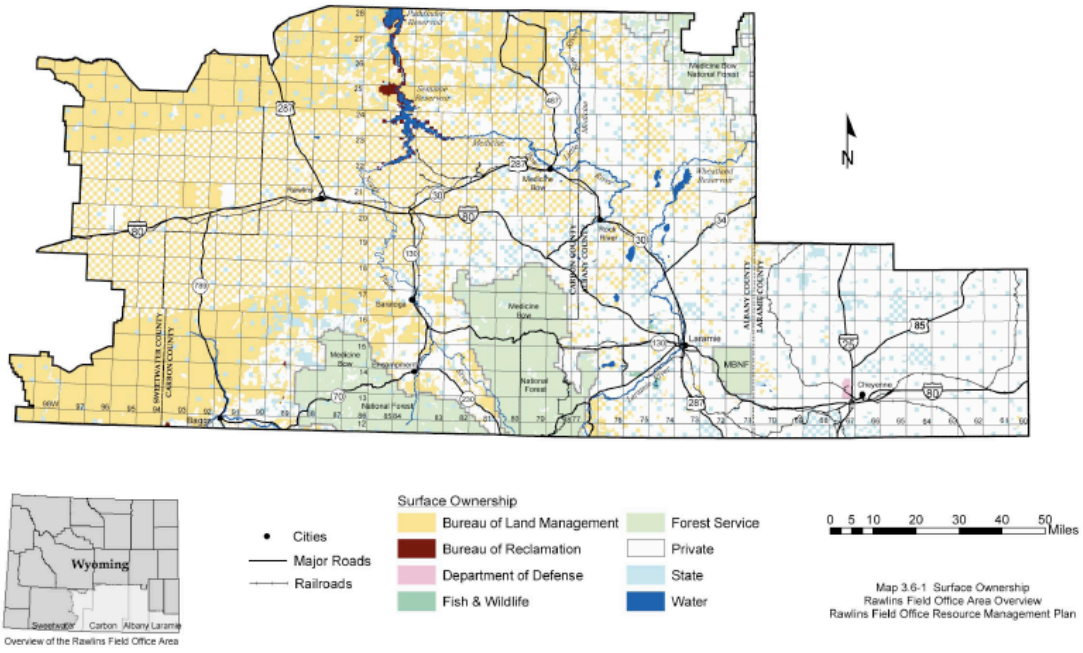

Figure 6-2. Surface ownership within the RFO, provided by BLM.[5]

Mule Deer Resources

The wildlife resources in the RFO reflect the extreme variability in habitat, and the big game populations in the planning area are noteworthy in Wyoming. The Baggs mule deer herd unit in the south-central portion of the planning area is one the largest herd units in the state. Every fall, the hunting opportunities offered in the RFO bring significant numbers of sportsman to the local communities and sagebrush hills of the region. The draft RMP notes:

> When numbers for antelope, mule deer, and elk are combined for similar-sized geographic units, the harvest data for the Sierra Madre/Snowy Range area within the RMPPA are similar to those for the Sublette region around Pinedale, which is considered to be the most productive big game region in the state. In addition, recreational days and the economic benefits associated with hunting were 50 percent higher for the Sierra Madre/Snowy Range area when compared with those for the Sublette region.[6]

The RFO contains large areas of crucial habitats that are essential to the functioning of regional wildlife populations. Mule deer in the RFO utilize a diverse set of seasonal habitats and rely heavily on migration to survive the variable climate of the region. The high mountains of the Sierra Madres and Snowy Range provide

valuable summer range for deer, and the surrounding high sagebrush breaks hold deer throughout the winter months. Migration between these habitats is essential.[7] The field office contains 1,468,885 acres of crucial winter ranges, and 368,700 of those acres are administered by the BLM (Figure 6-3).[8]

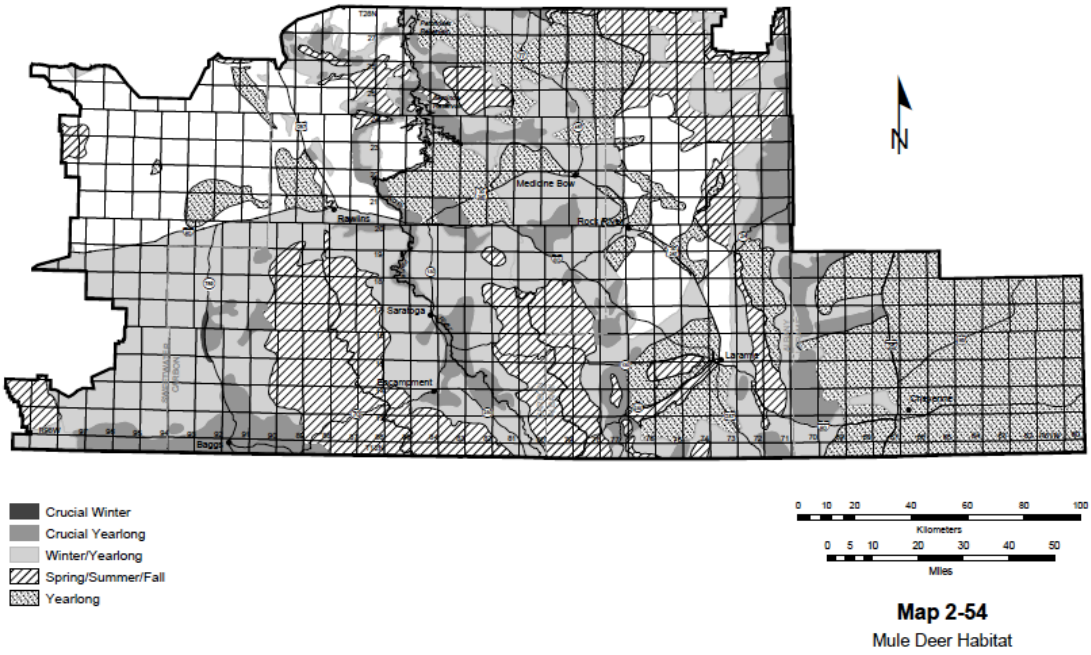

Figure 6-3. Mule deer crucial habitats in the RFO, as provided by the BLM.[9]

The RFO recognizes the value of these critical habitats in their draft RMP. They note:

> Loss of crucial winter range along valley bottoms and movement being restricted by transportation corridors and other fences are limiting factors to growth in mule deer herds. In some locations, such as the Little Snake and North Platte River valleys, conditions of crucial winter range are generally fair to poor. Plant communities are heavily used and shrublands are being taken over by juniper woodlands. Although summer habitats are in better condition, shrublands in many locations are becoming more mature and decadent, with mountain shrubs and aspen converting to predominantly sagebrush. […] In addition to their habitat, other mule deer management issues include restrictive fencing, increased disturbance and stress due to industrial development and recreational off-road vehicle use, expansion of chronic wasting disease, and housing encroachment into historic habitat, particularly in the Laramie Range and the upper Platte River Valley.[10]

Overall, the populations of mule deer in the RFO are stable to declining. This is partly due to a significant winter weather event in 1992-1993 that severely affected the population of mule deer in the region.[11] The Baggs, Laramie Mountains, Sheep Mountain, and Shirley Mountain herd units within the planning area are below population objectives, as established by the WGFD. The Platte Valley herd unit is above objective.[12] Sawyer, et al. (2009, p 2017) argues:

> [The RFO] is a region where some of the world's largest mule deer populations coincide with some of the world's largest natural-gas reserves. As the level of natural gas development expands across the region, large areas of mule deer habitat are rapidly being converted in ton producing gas fields, characterized by networks of access roads, well pads, pipelines, and other infrastructure that may impede deer migration [and access to critical habitats].[13]

Energy Development in Southern Wyoming

The RFO makes significant contributions to the nation's energy production. In 2001, the field office made up eleven percent of Wyoming's natural gas production and seven percent of the state's oil production.[14] The natural gas, coal-bed methane, and traditional oil field project areas are some of the most expansive in Wyoming[*] and are mainly located in the western portions of the planning area (Figure 6-4). The major projects are contained in the Great Divide Basin, with the largest fields being the Atlantic Rim, Continental Divide, Wamsutter Arch, and Washakie Basin.[15] As of 2003, there were 2,690 wells drilled in the RFO, and development has continued rapidly since that date.[16] During fiscal year 2001, the RFO contributed sixty-two million dollars of tax revenue to local, state, and federal governments from oil, gas, and coal production.[17] Development supports a number of "boom towns" in the western portion of the planning area, including communities like Wamsutter.

[*] Based on 2000 data, three of Wyoming's top twenty-five producing gas fields are located in the RFO (see draft RMP, RFO, p 3-38).

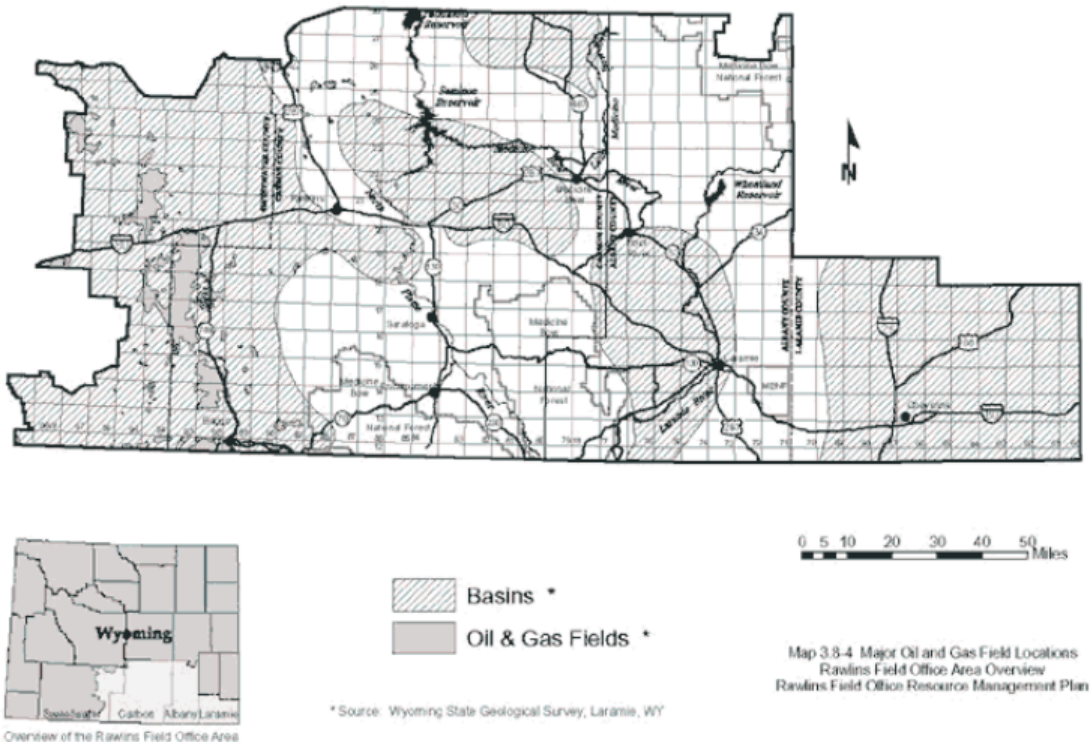

Figure 6-4. Major oil and gas project areas and basins in the RFO, as provided by BLM.[18]

The RMP, published in December 2008, established the areas within the planning area that are available for leasing nomination by individuals under the Mineral Leasing Act (Figure 6-5). Relatively small portions of the field office are unavailable. It also established the corresponding lease stipulations that are attached to individual leases within each area. It is particularly useful to compare Figure 6-5 to 6-3 to see where conflicts between big game habitat and energy development are most likely to occur within the RFO.

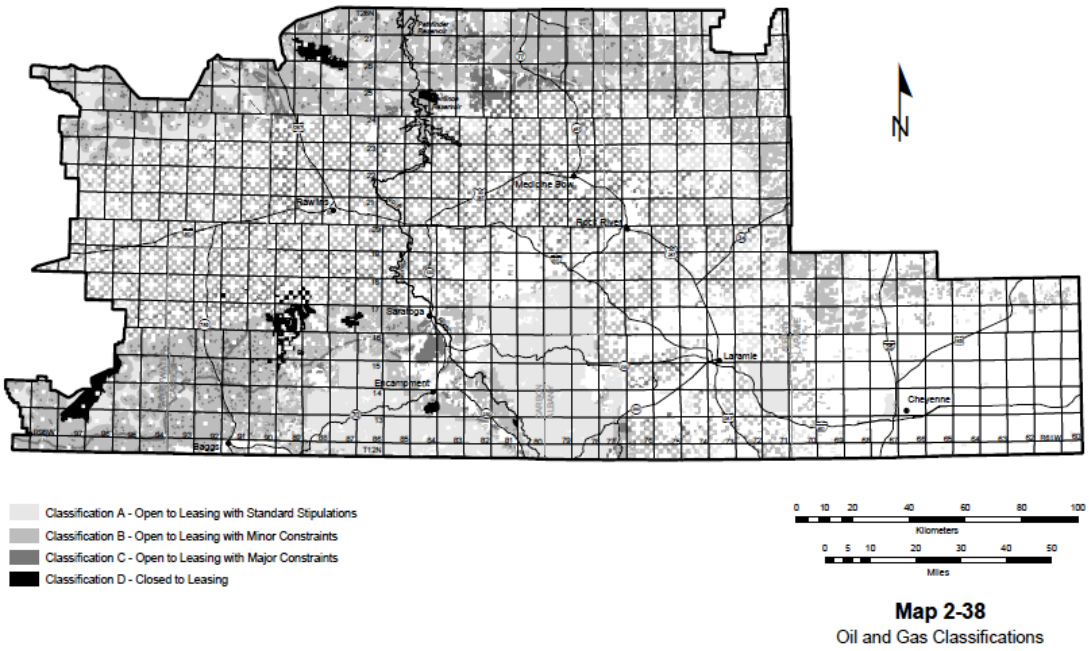

Figure 6-5. ROD leasing categories for the RFO, provided by BLM.[19]

The Challenges of Getting Started in a New Way

The RFO published the ROD for its RMP in December of 2008. The RMP represented a classic example of the BLM's standard approach to resolving conflicting priorities, making available nearly ninety-eight percent of the planning area to lease nomination under the Mineral Leasing Act. The plan calls for the development of over nine thousand wells and over two thousand miles of associated roads, utility lines, and associated development.[20] Nearly universally, the plan uses timing limitation stipulations to resolve the conflicting priorities between big game habitat and energy development. In that document, the agency describes that under this plan, "[T]here are approximately … 235,019 acres of mule deer crucial range that would be directly impacted by areas that are identified for oil and gas and coalbed methane development."[21] Only the timing limitation mitigates those conflicts. This RMP is by definition the standard approach.

A number of factors contributed to the decision-making environment of the RFO. Most importantly, the RFO sits below the political radar and has no politically meaningful constituency demanding a change from the agency that goes beyond the traditional critics of the agency (i.e. standard environmental organizations). Second,

there is an acceptance of the status quo within the staff of the field office. No staff members indicated a concern that the agency's standard approach was not proving effective at balancing wildlife resources and energy development during interviews. Moving forward will require leadership recognizing that there is a problem and building the environment where line specialists feel comfortable taking organizational risk and advocating for innovative solutions.

Operating Below the Political Radar

The RFO sits below the political and legal radar of nearby field offices. Unlike those surrounding offices, the RFO has not been targeted as much by national environmental groups in the political and legal context. Anyone who has driven across Interstate 80 in southern Wyoming can attest to the fact that the landscapes of the RFO make for poor rallying cries for environmentalists and conservation groups. The vast expanses of high deserts and sagebrush steppe are not as marketable for campaigns as places like the Wyoming Range or Steamboat Mountain to the West. Most of the advocacy community has focused on the Adobe Town complex in the far southwestern corner of the planning area. That area is currently designated as a Wilderness Study Area (WSA). The Biodiversity Conservation Alliance and Wyoming Outdoor Council have been the most vocal in the RFO, including the drafting of a complete alternative in the most recent RMP revision process. The management changes offered by these organizations were largely along traditional wilderness and endangered species arguments. Additionally, these organizations challenge nearly every decision by the BLM and have limited access to political resources, and therefore it is easy for staff and leadership to write them off.

To a degree, the decision to lease parcels of BLM land on the Atlantic Rim changed the political stakes. The Atlantic Rim ROD authorized the development of two thousand coalbed methane wells across an area of about two hundred thousand acres south of Rawlins. The agency admitted in the ROD that the infrastructure associated with the project would create "an industrial setting" on the Atlantic Rim.[22] According to the BLM, the plan would "…have adverse impacts to suitable habitats for many wildlife species."[23] Some of the most significant mule deer populations in

the planning area move across the Rim on established migration corridors to access crucial winter ranges near Dad, Wyoming. The Atlantic Rim project brought a broader coalition of sportsman groups to the table. Those interests appealed the decision to the Interior Board of Land Appeals (IBLA) and ultimately filed suit against the Department of Interior in U.S. District Court over the plan in 2007.[24] This broader coalition created a broader base of political interests in advocating a different solution. Unfortunately, this coalition arrived after the critical alternative generation period of the revision process had been completed, limiting their ability to advance innovative approaches in the RMP.

Unlike the LSRFO, where the office was also operating below the political radar, there has been not been a politically meaningful community that has pressed for change in the RFO. Unlike the PFO, the constituency that has emerged as been unable to connect issues to political power and therefore offer support for the agency in the political process. The interests that are present in the office are not making the politically salient arguments as clearly as in the PFO, like air and water pollution, social problems, and access to blue collar hunting opportunities. Those non-traditional arguments (i.e. beyond the traditional wilderness, endangered species issues) appear to connect constituencies with the political establishment because the appeal to politically powerful moderate urban voters in these states.[†] Constituencies need to have access to these power structures to be valuable for the agency.

The connection to non-traditional issues has been difficult for interest groups in the RFO for a number of reasons. Most of the development has been in extremely sparsely populated areas, and the large population centers within the planning area have diverse economic interests and do not rely on energy development as greatly for their economic well-being. There has been no support for changing course from U.S. Senators Barrasso or Enzi (R-WY) or U.S. Representative Cynthia Lummis (R-WY, At Large).[25] Without a consistent and politically meaningful constituency for change that has political connections, there is little support for taking risks that might

[†] For example, the *Wyoming Range Legacy Act* was politically popular in Wyoming's larger communities, like Rock Springs, Green River, Laramie, and Cheyenne. This made it politically feasible for members of the delegation to move the bill.

bring unnecessary and unwelcome attention to the field office from managers up the line.

A Feeling that the Standard Approach is Working

Staff members in the RFO feel that the standard approach is working. As long as staff members and managers do not feel like there is a problem with the standard approach, there is no collective sense of urgency amongst employees that they need to change course. In a political agency where there is already a tremendous burden to comply with a maze of statutes and regulations, it takes a significant investment of time and motivation from employees to change the management course in the office. One staff member said:

> The politics and changes from Washington often decrease the motivation of staff members in the office to advocate something different. If you want to change something, you have to strike out on your own because the managers are not willing to do that.[26]

That motivation is significantly decreased by a belief that standard agency approach is working. Unlike the other field offices that were included in this study, the interviewees in this field office did not express a sense that timing limitations were not working to protect the wildlife resources. A BLM employee argued that the RFO culture is less willing to take risks and try to change the status quo because they do not feel that those approaches are not working.[27] The same is true for the nature of the process of making decisions. Staff within the office feel that the standard approach of engaging the public in decision-making works. A staff member expressed that, "After 30 years, I think the system works pretty well. I wouldn't suggest it is broken." One BLM staff member remarked:

> Complying with [the laws and regulations] eats up resources, eats up time, eats up dollars, it eats up a lot of things. That drives people nuts, but if you work in the Bureau for any length of time you get used to that because those are the rules of the game. Do they in some cases preclude certain activities from occurring? I would say yes, but it is not like we are precluding entire segments of the resource base that we have. We manage to find a way – in most cases – to provide for the opportunity to allow for the development, to

> provide for that extraction of the resources. It is not always pretty. It is not always the best for some of the best of the non-extractive resources at the time, but you have to get used to that. And, the public has to get used to the fact that there are tradeoffs. That's what we deal with here. And there is always the court system. We certainly have appeal procedures and protest procedures into the system underneath the court system that allows the public when they think we are not making the right decision. If you understand that and you accept that as part of the democratic process you will be okay.[28]

Changing approaches requires the leadership of the office to recognize there is a problem and build staff incentives to promote creative thinking. They must help build an environment where staff members feel comfortable taking initiative and pushing forward a change in approach.[29] This does not seem to be occurring within the RFO because there is no sense that timing limitations are inadequate up the line. As one employee explained, "Leadership role is to change the old way of thinking. It is up to leadership to say that we are not using yesterday's science."[30] That staff member went on to note:

> You need leadership. You need people coming in and recognizing that these are issues. You need leadership all the way from the President to the Secretary of Interior, and in our case the Director of the BLM. You have a lot of people that are at the top and looking down across the landscape and asking how we work this and sustain it on the ground. Let's just take fifteen years ago when the sage grouse was not an issue on anyone's radar. You could go out and drill wherever. There were people who did some studies and recognized there were sage grouse out there, but nobody knew what the impacts of drilling were on the birds. But, now through leadership, […] they can now see how that is an issue.[31]

Small Scale Change on the Atlantic Rim: Advancing Understanding

Despite the lack of innovation at the resource planning level, there is a story that has emerged in the RFO that demonstrates interesting thinking in promoting science in the area of migration corridors. The BLM has engaged in a partnership with oil and gas operators on the Atlantic Rim to identify and map mule deer migration corridors across the Atlantic Rim. This work has been conducted by a private environmental research and consulting firm, Western Ecosystems Technology in Cheyenne, Wyoming. The lead researcher was Hall Sawyer. It is designed to use quantitative

tools that would make it more possible for the operators and agency to design more effective plans of development across the landscape that would result in less damage to the integrity of crucial habitats.

Both the BLM and the oil and gas operators have funded the project. As one BLM staff member explained:

> We have also entered into some rather extensive mule deer collaring studies – primarily on the Atlantic Rim - those studies are jointly funded by the Bureau and the cooperator – the proponent of the project. We are not just getting the negatives of the oil and gas development, but we are also getting dollars from them and provided by them to do things on-sight that will help us make better decisions down the road. And, it will help us adapt to the situation – change the management if we need to do so.[32]

The work, recently published in *Ecological Applications*, promises to significantly change the way that the BLM and oil and gas operators plan development projects on a landscape with crucial wildlife habitats.[33] The work has resulted in a more complete understanding of the importance of multiple migration routes and the presence of key transition ranges that deer use to rest and refuel along migration patterns.[34] The knowledge of these habitats and the detailed mapping that the research produced allows the agency and operators to prioritize well pad and infrastructure locations in areas that will have less impact on deer.[35]

Despite its value, the research has reminded the agency of its uneasy relationship with the oil and gas industry. Throughout the conversations there was a persistent uneasiness that the agency was viewing industry as a client. One staff member explained the concern industry has had about the BLM using the science they paid for against them in the future:

> Anadarko agreed to help us to do the studies as did Double Eagle – those are the two major ones. Anadarko was the major funder to help do these initial studies. The basis on that was – when you do an EIS and you make a decision on the most available data. And, in this particular area there wasn't a lot of available data, and even then, you make a decision, but then you ask whether or not we can get better data. That is when the companies came in and said hey, we will actually help you get better data as we move through

> this area, so the team has been extremely beneficial because then you have everyone working. On the flip side, the companies are concerned that we don't use the data against them that they are paying for, but the data is what the data is.[36]

While the joint work on the Atlantic Rim has created new understanding that will make it easier for the agency to make better decisions in the future, it is not exactly a case of the agency being innovative. The research was proposed and funded by industry. The BLM agreed to participate in and jointly fund the project. Rather than innovation, this story demonstrates the persistent challenge of BLM employees in moving past thinking about the industry as a client that they must please. This demonstrates a continued capture in the agency that makes risk taking in the area of oil and gas development difficult.

The Rock Springs Field Office

Placing the Rock Springs Divide Field Office on the Landscape

The RSFO covers approximately 5.4 million acres of land across the southwest corner of Wyoming, stretching from the high Little Colorado Desert in the north, down to the Little Mountain area and canyons of Flaming Gorge on the Colorado and Utah borders (Figure 6-6). Elevations range from 6000 to 9500 feet above sea level.[37] The high desert and sagebrush step ecosystems in the field office support robust populations of wildlife, diverse recreational activities, and important grazing areas of livestock production.[38] The field office manages 3.6 million acres of surface acres and 3.6 million acres of federal mineral estate.[39] The RSFO contain a complex intermingled land ownership pattern known as the "checkerboard." A map of ownership patterns in the office was unavailable. The planning area includes the Wyoming counties of Lincoln, Sweetwater, Fremont, Sublette, and Uinta. It includes the major municipalities of Rock Springs and Green River, Wyoming.[40]

The most current RMP in the RSFO was published in October of 1997. One major amendment to that RMP, the Jack Morrow Hills Coordinated Activity Plan, was published in July of 2006. The field office is currently seeking appropriations

through the Congressional budget process to engage in the full RMP revision process.[41]

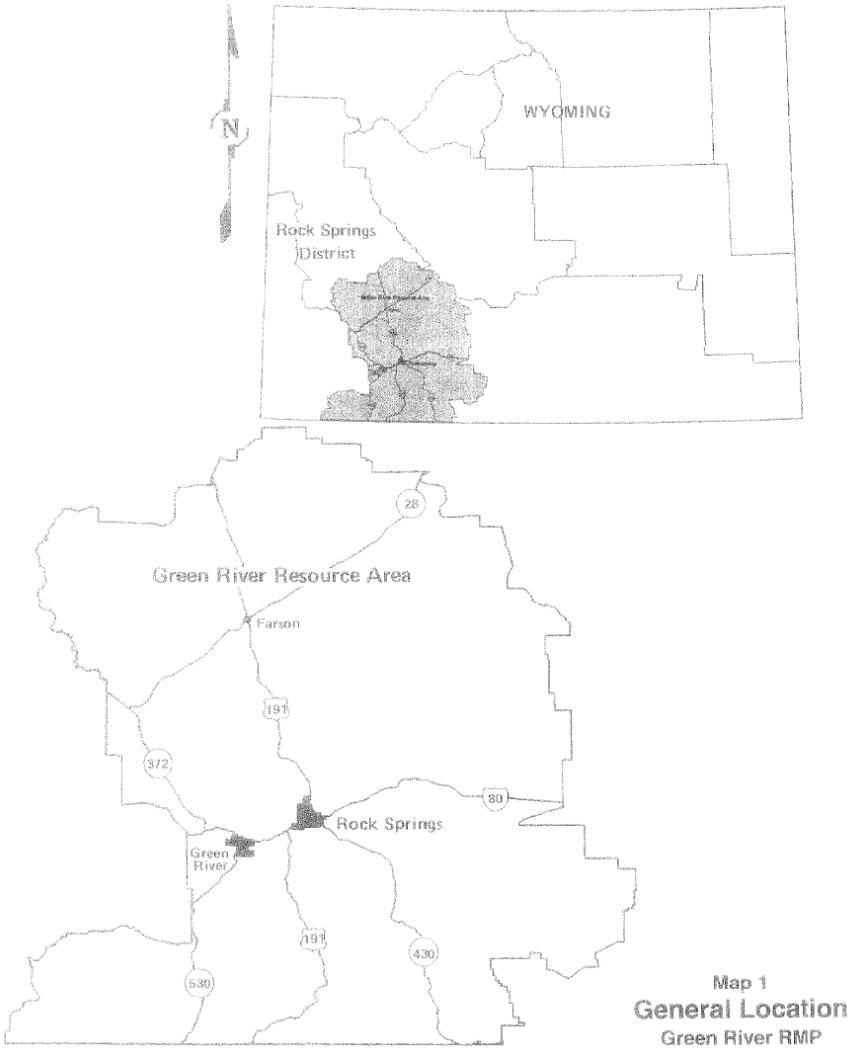

Figure 6-6. Location of the RSFO, provided by BLM.[42]

Mule Deer Resources

The RSFO planning area supports a diverse and large wildlife community, including the big game species of moose, elk, mule deer, and pronghorn antelope. Mule deer are one of the more significant species in the area by population size. According to the 1996 FEIS for the RSFO RMP, there are approximately 12,600 deer that winter in the planning area, and approximately fifty-five percent on the planning area

contains crucial ranges for big game species.[43] Most of the winter habitat in the field office is centered on the sagebrush breaks along the Green River, Jack Morrow Hills, and LaBarge area. Deer depend on migration routes to move between crucial ranges within the office, but there is less available data about the herds in this office than the others considered in this study.

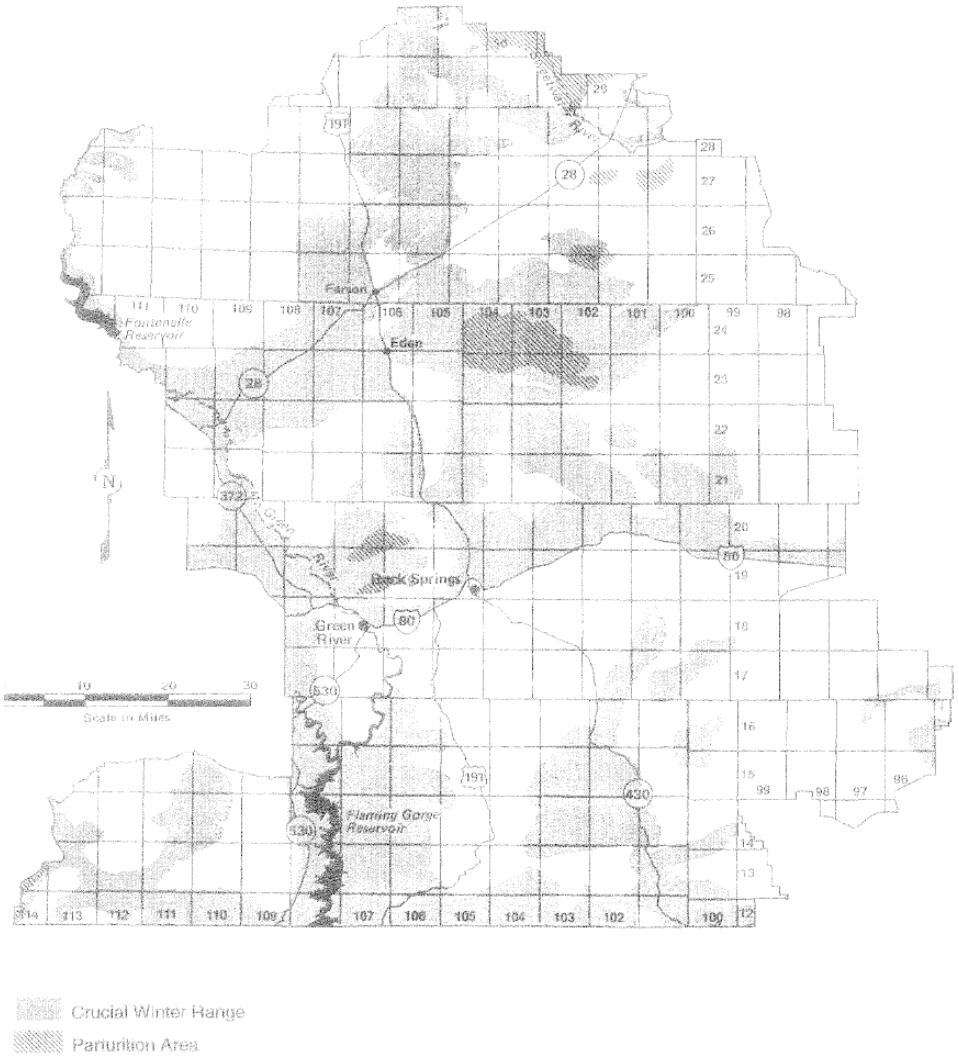

Figure 6-7. Big game crucial winter ranges within the RSFO, provided by BLM.[44]

The mule deer resources in the planning area are important economic contributes to the regional communities. The 1997 FEIS documents that in 1990 total direct expenditures by big game hunting in the RSFO reached approximately $3.3 million.[45] Big game hunting has grown in popularity in the region since that data was collected, and the southern areas of the field office remain some of the most successful hunt areas for trophy mule deer in Wyoming.[46]

The two major herd units within the RSFO are at or slightly below population objectives set by WGFD. The South Rock Springs herd is below objective while the smaller Steamboat herd unit is slightly above objective. Habitat losses will potentially accelerate declines in population of mule deer within the planning area. These are a major concern for wildlife biologists working in the area.[47]

Energy Development in the RSFO

The RSFO holds tremendous fluid mineral resources. Major fluid mineral production is centered on the Moxa Arch that runs along the western border and the Rock Springs Uplift that extends down the south-central portion of the planning area.[48] The Washakie, Great Divide and Sand Wash Basins dot the eastern portions of the planning area. Significant production began in the 1940's and 1950's due to increases in exploration technology, but development has steadily increased in every ten-year period since that point.[49] Cumulatively, the RSFO had produced 3 Tcf of natural gas and 170 million barrels of oil through 1989.[50] Production has steadily increased since that date.

The RSFO also boasts tremendous deposits of coal, oil shale, and trona (sodium carbonate). The world's largest underground trona mines sit underneath the field office, centered around the towns of Green River and Rock Springs. Those mines produce an average of thirteen million tons of trona each year.[51]

The Challenges of Charting a New Course

Unlike other cases in this study, the RSFO has not engaged in management activities that are meaningfully different from the standard agency approach. The RSFO was the only office included in the study that has not completed an RMP revision process

within the last five to seven years, which substantially impacts this analysis since most major cases of innovation found in this study were brought forward during that revision process. Innovation needs an opportunity. There are three factors that appear to constrain the degree of innovative thinking in the RSFO – the impact of BLM's policy of revising RMP's that limits the ability of field staff to rethink management actions outside of revision processes, the fact that the office operates in a highly politicized environment without a clear and politically meaningful constituency for change, and finally the recent management turnover in the office has meant a less clear mission as an office during a transition period. It can be concluded that the management atmosphere within the office is less innovative than others included in this study.

The Constraints of the BLM's RMP Revision Process

The confining process of revising land use plans in the BLM can explain the relative lack of innovative approaches in the RSFO most clearly. Once an RMP is published it guides the management of a field office's resources for a substantial period of time. FLPMA requires the BLM to revise land use plans when appropriate.[52] By contrast, the USFS is required to revise its forest plans every fifteen years. There is no similar uniform mandate of how often these plans should be revised in the BLM, and most plans last more than twenty years before being revised. There are minimal opportunities to change the management prescriptions within RMP's once they are published. As one BLM staff member explained:

> The primary barrier [to innovation] is how our management decisions of lands, our RMP's, are developed. They guide all of our management decisions for a period of 15-20 years. [If] what you are proposing can fit within what those management guidelines are, then I would say that there really aren't any barriers [to being innovative]. But, if what you are proposing falls outside of those management prescriptions then it can be difficult because if you have to change to something that is outside the RMP, then you have to amend the RMP. I am not saying that there are barriers within our agency to do it but there are some constraints, it definitely takes some time to go through the amendment process and it takes money, so there are some budget constraints.[53]

Given these challenges, employees at the field level are often resistant to advocating for a fundamentally different approach than the one prescribed by the RMP. The incentive structure promotes ideas that stay within the RMP, and at the field level that is primarily a budget constraint. Amendments and revisions to RMP require funding, and the gatekeepers of those funds are far above field staff members and the local problems they face. The RMP process is not dynamic enough to deal with changing understanding and issues.

Most innovative solutions that have been identified by this study were products of narrow moments within the RMP revision process. The RMP is the most important decision point for a field office.[54] The revisions process is the window of opportunity to innovation because it temporarily removes the classic constraints to innovation – it is the moment when all ideas can be on the table. The RSFO published its RMP in 1997, meaning that the actions of field level employees have been tied to the decisions made in that RMP since that period. This significantly constrains the innovative capacity of these employees. The prospect of a revision process should mean an increase in the ability of the agency to find innovative solutions in the RSFO.

A Difficult Political Climate

The RSFO operates in an intensely politicized environment due to the significant resources present in the planning area. Most commonly, this environment has created a contested debate between the role of access to energy resources and the preservation of natural landscapes of wilderness quality. Unlike in the PFO, no broad and politically meaningful constituency has emerged within the planning area to demand a change of course from the BLM. Resource degradation within the RSFO has been more dispersed than places like the PAPA and Jonah Field, and there is deeper reliance on the energy industry for income and employment within Sweetwater County. Without the support of a broad constituency, field staff do not have the support to take organizational risks in the management of the resources in the planning area. The separate development of the Jack Morrow Hills (JMH) RMP Amendment provides a telling example of this deep politicization.

The JMH area is a 547,632 acre complex of lands in the northern portion of the Rock Springs planning area that make up part of the Red Desert (Figure 6-8).[55] The EIS project planning area is centered around Steamboat Mountain. In 1961, the National Park Service had requested that Congress designate a significant portion of the Red Desert as a National Monument, including Steamboat Mountain, the Boar's Tusk, and the Sand Dunes.[56] The area is home to the largest desert elk herd and active dune system in North America.[57]

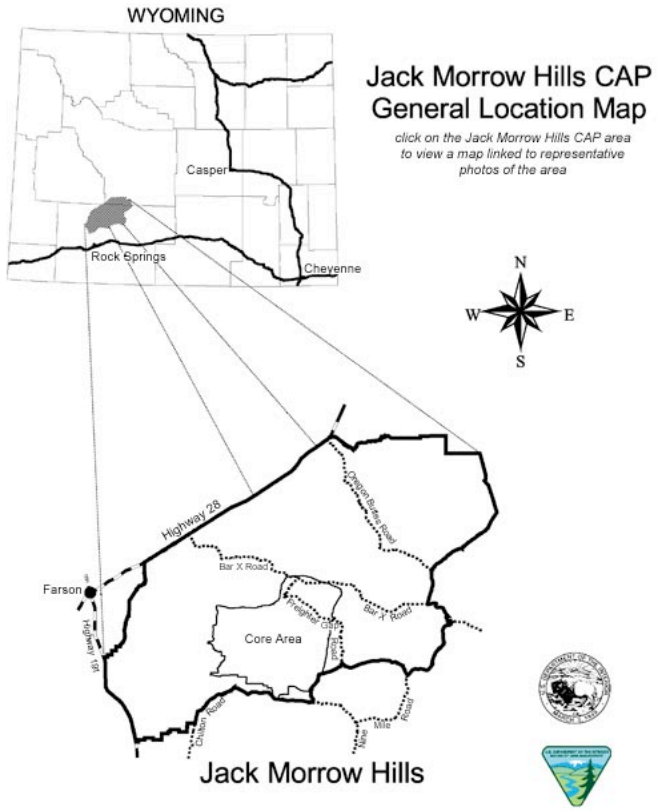

Figure 6-8. Location map for the Jack Morrow Hills, provided by BLM.[58]

The JMH conflict is rooted in FLPMA's 1976 requirement that the BLM survey and inventory wilderness quality landscapes of five thousand acres or greater for possible inclusion under the National Wilderness System.[59] The RSFO completed these requirements and offered recommendation for twelve wilderness study areas in 1991.[60] A year later, the RSFO published its draft RMP that included these areas, and during the scoping process, public comments had favored a number of special

protections for the Red Desert portions of the planning area.[61] Dissatisfied with the extent of protections offered by that plan, a coalition of environmental and wilderness groups offered a "Citizens Wilderness Proposal for Wyoming BLM Lands," including enlarged wilderness study areas put that plan forward for Congressional designation.[62] It did not gain traction in Congress due to the lack of support from Wyoming's Congressional delegation.[63]

In 1997, the RSFO signed the ROD on the Green River Resource Area RMP, but the office deferred mineral decisions in the area surrounding the Jack Morrow Hills. The RMP concluded that the agency would deal with those decisions by conducting a separate RMP amendment, called the Jack Morrow Hills Coordinated Activity Plan (JMHCAP).[64] In February of 1998, the RSFO issued the Notice of Intent to prepare that amendment, but later that year the agency began offering oil and gas leases within the JMHCAP study area. The Wyoming Outdoor Council protested those leases and a month later the agency halted its leasing in those areas and put in place a temporary moratorium on leasing until the amendment could be completed.[65]

In September of 2000 the RSFO released the draft EIS for the plan. That plan generated nearly 13,000 comments, the most comments ever received by the BLM on a single project in Wyoming. Close to ninety-three percent of comments supported the conservationists' "Citizen's Red Desert Protection Alternative."[66]

In late 2000, Secretary of the Interior Bruce Babbitt visited the Red Desert. He concluded that the BLM needed to restart the amendment planning process for the JMHCAP, and said that he favored a plan under which the agency would move forward with the draft's conservation alternative rather than the preferred alternative. Blewer (2008, p 368) quotes Babbitt at a public hearing in Lander, Wyoming, as saying, "I want to call a time-out in this process and take a step back … I say with great confidence that surely we want the [BLM's environmental analysis] process to begin with the presumption that we can protect this landscape."[67] In December he codified that position, issuing a memorandum to the BLM Director instructing the BLM to choose the conservation alternative in a supplemental EIS process.[68]

Wyoming's response to Babbitt's directive was a predictable anger. Wyoming Governor Jim Geringer (R), the state's Congressional delegation (R), and a coalition of energy companies pressed the Department of Interior to immediately halt the implementation of the conservation alternative and supplemental EIS process. A coalition of conservationists and tribal members requested that the new Secretary of the Interior, Gale Norton, allow them to participate in the negotiations.[69] The new administration partially overturned Secretary Babbitt's directives and decided in 2001 that the agency would draft a supplemental draft management plan that would once again contain a full range of alternatives.[70] Wyoming's politicians were eager to see the Bush Administration support increased leasing in the JMH. In 2002, a group of legislators in the Wyoming State Legislature introduced a Joint Resolution calling on the BLM to include plans for expansion of mineral development in the JMH.[71] Wyoming elected a new, Democratic, Governor the same year.

That supplemental plan was published in February of 2003. It included increased oil and gas leasing within the JMH area and contained a limited number of alternatives within the plan, nearly all of which included development.[72] Specifically, it called for the development of more than 200 oil and gas wells.[73] Conservationists and tribal leaders rallied their base, generating 69,000 public comments on the draft plan. Ninety-eight percent of those comments supported the "Citizens Wildlife and Wildlands Protection Alternative," a proposal similar to the previous Red Desert Protection Alternative.[74]

The agency went forward with its preferred alternative in 2004 and issued the FEIS that emphasized the development of fluid mineral resources within the planning area.[75] Wyoming Governor Dave Fredeunthal (D) took a different stand than his predecessor and challenged the plan for its administrative vagueness and the potential consequences on wildlife and the integrity Red Desert's wild country.[76] The ROD that was published in July of 2006 from the JMHCAP included a minimum of 255 fluid mineral wells to be drilled in the planning area.

The JMH story is a classic example of the centralizing pressure of field level decisions that has been historically common in the BLM. Rather than allowing the

RSFO to conduct its own RMP amendment process, both the Clinton and Bush Administration placed the JMH process on the national political radar. This highly politicized environment highly constrains staff at the field level from taking organizational risks because those risks invite increased controversy that is not desirable by upstream managers. Under these pressures, field level employees often play it safe by adhering strictly to standard procedures. Despite growing interest in different solutions, political pressure still constrained innovation.

Management Turnover in the Office

Prior to the series of interviews that were conducted for this study, the RSFO experienced a change in field managers. Transitions have important consequences for the environments in field offices. Lance Porter had been selected to replace retiring field manager, Hank Castillion. One employee in the office remarked that the arrival of Porter in the RSFO has brought big changes to the atmosphere of the office.[77] His arrival has also been matched by an increase in the number of young, ambitious resource employees joining the office's staff, according to the same employee.[78] Both have the potential to create an opportunity in the long run for employees to be more innovative.

Effective managers can create working environments where staffs feel comfortable taking risks and being creative in solving problems.[79] One BLM employee noted that it is the role of the field manager to "inspire and defend line specialists and office staff."[80] In the case of Porter, line specialists within the office feel particularly comfortable with his management style because he has a resource management background in the agency, building credibility amongst other line specialists in the office.[81]

The management and staff changes in the RSFO promise to build a long-term environment of change, and may promote an environment of innovation. Nonetheless, interviewees suggested that in the short-run there has been a process of learning about each other and building relationships within the office. This has

meant a short-term reluctance to take on projects or management actions that are substantially outside of the standard way of doing business.[82]

Lessons from the Rawlins and Rock Springs Field Offices

There are a number of lessons that can be drawn from the stories of the RFO and RSFO. While neither office has been as successful in finding new and different approaches to traditional challenges as the LSRFO and PFO, both narratives offer insight into the persistent challenges faced by entrepreneurial staff members at the field level in the BLM. The challenges center around two large themes – policy constraints and management practices.

There are a number of conclusions that can be drawn from the RFO and RSFO stories. They include:

- *Operating below the political radar creates space for innovation but does not guarantee it.* Operating below the radar can create satisfaction in the standard approach and decrease the motivation for individuals to advance different solutions. While being below the political radar can often create a space for the agency to be creative, it also means that external pressures are not pushing the agency to do better and think harder about its choices. These external pressures can be important motivators for innovation. A decentralized structure can provide an opportunity to be innovative, but it takes initiative and dedicated risk taking to make that happen.
- *Without a constituency for change, employees lack the incentive to take risk.* Taking risks in the agency requires support behind a reason to change. The BLM has most often been pushed to change because of the emergence of a community or organized group that pushes the agency to rethink its approach. That constituency serves both a function of demanding a different approach and supporting the agency and staff in taking risks by defending them upstream. In both the RFO no organized and politically meaningful constituency that was broader than the agency's traditional environmental critics emerged to push the BLM. Only the traditional pro-use and pro-

environment interests are present. In places where innovation has occurred, powerful moderate voters from local communities that are non-traditional participants in federal land debates emerged. In the RSFO, there was a growing interest in finding a different solution, but the political pressure of the situation constrained their effect. The fact that both field offices are large and remote and that most oil and gas activity is taking place away from communities can explain this lack of an organized constituency.

- *Perceiving there is a problem is the first step to crafting innovative solutions.* The first step to creating a space for innovation is a recognition that the process and current management actions are not working. In the cases where innovation has occurred there is a deep sense that the traditional way of doing business was not going to be effective at balancing the conflicting priorities of managing mule deer habitat and energy development. In both of these field offices there was no recognition that was the case. Ultimately, it is up to effective managers to identify problems that need attention and then focus staff members on problem solving.
- *The infrequency of land use revision process limits opportunities for innovation.* The current process for revising RMP's creates only small windows of opportunity for individuals to advance innovative solutions. Once an RMP is completed, it can take many years before staff members again have an opportunity to advance a different solution. Most of the cases of innovation within this study have occurred during that revision process, and in the case of the RSFO, when the land use plan was published more than ten years previous, field level employees were locked into those decisions and had little space to be innovative.
- *A highly politicized environment can create reluctance for employees to take risks.* The BLM remains a political organization, and this fact in deepened by a view that energy companies are clients. Without the cover of political support and management at higher levels in the organization, there is no incentive for an employee at the field level to take risks in promoting innovation in a highly politicized environment. This has most certainly been

the case in the RSFO. A politicized environment without access to political cover promotes conformity and consistency rather than innovation.

These insights inform the broader challenges faced by field staff in advocating innovative approaches within the BLM. Innovation remains a difficult task for BLM employees.

Notes to pages 150-174:

[1] Personal Interview, NGO 2, January 2010.
[2] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Analysis of Management Situation for the Rawlins-Great Divide Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rawlins-Great Divide District (Jan 2003), 1-1.
[3] Ibid, 1-1.
[4] Ibid, Map 3.8-3.
[5] Ibid, Map 3.6-1.
[6] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Rawlins-Great Divide Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rawlins-Great Divide District (Jan 2008), 3-147.
[7] Sawyer, et al (2009), 2017.
[8] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Rawlins-Great Divide Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rawlins-Great Divide District (Jan 2008), 3-149.
[9] Ibid, Map 2-54.
[10] Ibid, 3-148.
[11] Ibid, 3-148.
[12] Wyoming Game and Fish Department, "*Big Game Job Completion Reports*," 2007 <http://gf.state.wy.us/wildlife/biggamejcr2007/index.asp> (17 July 2009).
[13] Sawyer, et al. (2009), 2017.
[14] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Rawlins-Great Divide Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rawlins-Great Divide District (Jan 2008), 3-38.
[15] Ibid, 3-38.
[16] Ibid, 3-38.
[17] Ibid, 3-73.
[18] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Analysis of Management Situation for the Rawlins-Great Divide Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rawlins-Great Divide District (Jan 2003), Map 3.8-4.
[19] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Record of Decision and Approved Resource Management Plan for the Rawlins-Great Divide Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rawlins-Great Divide District (Dec 2008), 2-38.
[20] Blewer, 371.
[21] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Proposed Resource Management Plan and Final Environmental Impact Statement for the Great Divide Resource Area,* Prepared by the U.S. Department of the Interior, Bureau of Land Management, Rawlins District (Dec 2008), p 4-534.
[22] Dustin Bleizeffer, "The Next Battleground," *The Casper Star Tribune*, 4 Sept 2007 <http://www.trib.com/articles/2007/09/05/news/wyoming> (7 Apr 2009).
[23] Ibid.

[24] Ibid.
[25] Personal Interview, NGO 3, July 2009.
[26] Personal Interview, BLME 7, January 2010.
[27] Personal Interview, BLME 7, January 2010.
[28] Personal Interview, BLME 6, January 2010.
[29] Personal Interview, BLME 7, January 2010.
[30] Personal Interview, BLME 5, January 2010.
[31] Personal Interview, BLME 5, January 2010.
[32] Personal Interview, BLME 6, January 2010.
[33] Sawyer, et al (2009), 2020-2023.
[34] Ibid, 2020.
[35] Ibid, 2021.
[36] Personal Interview, BLME 5, January 2010.
[37] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), "*About Us: Rock Springs Field Office*," 26 Apr 2010 <http://www.blm.gov/wy/st/en/field_offices/Rock_Springs.html> (27 Apr 2010).
[38] Ibid.
[39] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Record of Decision and Approved Resource Management Plan for the Green River Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rock Springs District (Oct 1997), 2.
[40] Ibid, 2.
[41] Personal Interview, BLME 13, November 2009.
[42] Ibid, Map 1.
[43] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Final Environmental Impact Statement and Proposed Resource Management Plan for the Green River Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rock Springs District (Mar 1996), 347.
[44] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Record of Decision and Approved Resource Management Plan for the Green River Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rock Springs District (Oct 1997), Map 15.
[45] Ibid, 337.
[46] Personal Interview, NGO 3, July 2009.
[47] Personal Interview, BLME 13, December 2009.
[48] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Final Environmental Impact Statement and Proposed Resource Management Plan for the Green River Resource Area*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rock Springs District (Mar 1996), 326.
[49] Ibid, 326.
[50] Ibid, 327.
[51] Ibid, 328.
[52] The Federal Land Policy Management Act of 1976, as amended. 43 USC § 1712 (a).
[53] Personal Interview, BLME 4, November 2009.
[54] Personal Interview, BLME 9, November 2009.
[55] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), *Final Environmental Impact Statement for Jack Morrow Hills Coordinated Activity Plan*, Prepared by the U.S. Department of Interior, Bureau of Land Management, Rock Springs District (July 2004), i.

[56] Friends of the Red Desert, "Desert History," 2010 <http://www.reddesert.org/history/index.php> (3 May 2010).
[57] Jeff Gearino, "Governor Calls for Hills Protection," *The Casper Star Tribune*, 27 June 2003 <http://trib.com/news/state-and-regional/article_3bd0d49f-aa0f-5a53-af6a-55c8e796770d.html> (3 May 2010).
[58] U.S. Department of the Interior (USDI), Bureau of Land Management (BLM), "Location Map: Jack Morrow Hills," 17 June 2008 <http://www.blm.gov/wy/st/en/field_offices/Rock_Springs/jmhcap/map.html> (3 May 2010).
[59] The Federal Land Policy Management Act of 1976, as amended. 43 USC § 1782 (a).
[60] Blewer, 368.
[61] Friends of the Red Desert, "Desert History," 2010 <http://www.reddesert.org/history/index.php> (3 May 2010).
[62] Blewer, 368.
[63] Ibid.
[64] Ibid.
[65] Friends of the Red Desert, "Desert History," 2010 <http://www.reddesert.org/history/index.php> (3 May 2010).
[66] Blewer, 368.
[67] Ibid.
[68] Friends of the Red Desert, "Desert History," 2010 <http://www.reddesert.org/history/index.php> (3 May 2010).
[69] Blewer, 369.
[70] Friends of the Red Desert, "Desert History," 2010 <http://www.reddesert.org/history/index.php> (3 May 2010).
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[72] Friends of the Red Desert, "Desert History," 2010 <http://www.reddesert.org/history/index.php> (3 May 2010).
[73] Gearino (2003).
[74] Blewer, 371.
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[76] Gearino (2003).
[77] Personal Interview, BLME 15, January 2010.
[78] Personal Interview, BLME 15, January 2010.
[79] Wondolleck and Yaffee (2000), 185.
[80] Personal Interview, BLME 15, January 2010.
[81] Personal Interview, BLME 16, January 2010.
[82] Personal Interview, BLME 13, November 2010.

SECTION III: Cross Case Analysis and Conclusions

The following section provides the cross-case analysis and conclusions that emerge from this research. It also includes a series of policy and management prescriptions that stand to benefit the BLM in the future.

7. Cross-Case Conclusions and Recommendations

"I think in my view this is true of the agency. I think BLM is – and some people might snicker at this externally – but, I think BLM is more willing to innovate and try new and different things than other land managing federal agencies, and I particularly think that of this office. I really get a sense that we as line specialists hear about other approaches or think this may be a good thing to try, that we have good management support as long as we can demonstrate that we have a reasonable chance of success. The BLM has a bit of a risk taking culture built into it, and I think that really helps as we might happen to try some things that might be a little new."

- BLM Staff Member, Little Snake River Field Office, Colorado[1]

This thesis explored the question:

> ***What organizational factors appear to promote and constrain innovation in the management of resources at the field office level in the BLM?***

Searching for innovation in the BLM is inextricably linked to the agency's history, organizational culture, the politicization of its duties, and the nature of the management challenges facing staff members at the field level. The future of public lands management promises to be increasingly complex in its issues, and the public debate over the use and management of the nation's public lands will be crowded. Emerging challenges, like declining populations of wildlife, are opening opportunities for innovation. This thesis aimed to document cases of innovation in the agency and describe what made them possible, hoping to provide a set of lessons that would make finding future innovative solutions more viable.

This work argued that achieving organizational change has been historically difficult for the BLM. Throughout the organization's history it has been challenging to step far from the interests of the agency's traditional constituencies and their powerful political allies.[1] The growth of the environmental movement in the 1960's challenged the traditional paradigm, and their use of litigation to influence administrative process has further challenged the BLM. As a result, the BLM has

often been left in a zero sum game of conflicting priorities and tight and shifting political control. This centralized environment has most often resisted innovation.

While exploring the central research question, this study sought to meet the following objectives: (1) to identify and document where managers in the BLM are being innovative in their approach to making decisions in seemingly intractable natural resource conflicts, (2) to ascertain what is making innovation possible and what continues to constrain managers within the organization from being creative, and (3) to draw conclusions and offer guidance on policy and management changes that can improve the innovative environment and make the BLM more capable of meeting a complex and dynamic suite of challenges facing the public landscape in the coming decades.

This chapter addresses those objectives. It focuses on the factors that have promoted and constrained innovation across the four case studies. Secondly, it offers a series of policy and management recommendations for building an environment that is more conducive to innovation in the BLM.

A Cross-Case Analysis of the Factors that Promote and Constrain Innovation

This study found that despite the agency's history of tight control and capture, in some places, committed managers and staff members at the field level are encountering a common set of organizational factors that make innovation possible. Across the landscape, capable BLM employees are working with interest groups, users, and communities because of a realization that the standard agency-defined approach is not working. In some cases, they are crafting innovative procedural and substantive solutions. However, this study also found that in some field offices, innovation is still proving difficult, and that a number of factors constrain the ability of employees to pursue different ways of doing business. This section offers a summary of those organizational factors that were found to have promoted and constrained innovation across the four field offices.

This study used the broad case of integrating mule deer habitat management and energy development on BLM lands to analyze the potential for innovation. The

study found two cases – in the Little Snake River and Pinedale Field Offices – where agency employees have crafted unique solutions to the conflicts that have emerged. In both the Rawlins and Rock Springs Field Offices, employees have felt less need to change their approach and faced a more difficult political environment towards innovation. These results offer important insights.

Based on these broad observations, a more complete synthesis of the specific organizational factors that promoted and/or constrained innovation across the four field offices was compiled (Figure 7-1). Nine organizational factors emerged that directly contributed to innovation, and they are explored more fully following the figure. They are displayed in order of importance within the figure, based on the analysis of the author in relation to which factors appeared to be most influential in promoting or constraining innovation. This analysis was based on an evaluative criteria that was created to rank the importance of each factor within the matrix. Within the matrix a [++] indicates that the organizational factor facilitated the innovative outcome achieved within the office, a [+] indicates the presence of the organizational factor in the office, a [-] indicates the lack of presence of the organizational factor within the office, and a [--] indicates that factor was a constraint to innovation. These assessments were made by the author based on the interview data that generated each case study and the cross-case analysis portion of the thesis.

Organizational factors that were found to promote or constrain innovation within case studies.	BLM Field Office			
	Little Snake River FO	Pinedale FO	Rawlins FO	Rock Springs FO
Staff members recognize there is a problem that needs attention (i.e. an emerging crisis like threat of ESA listing of sage grouse).	++	++	+	+
Employees recognize that there is a problem with the standard approach and feel there is a need to change.	++	++	--	-
Employees feel that there is a political space to take organizational risk.	++	--	+	--
There is a constituency for change present that demands a different approach from the agency and supports that change above the field office.	++	++	--	--
Presence of political cover for employees:				
There was available science that employees could use to defend changing course (i.e. Sublette Herd Study).	+	++	+	--
Field managers supported and defended entrepreneurial staff members' ideas at the state and national level.	+	++	+	+
Advocates found access to cover from high-level officials in the administration that support changes from above the field level.	++	++	--	-
Stakeholders are actively involved in the generation of alternatives during the land use planning process.	++	-	-	-
Field managers were effective at building a cohesive vision within office.	+	++	+	-
Persistent employees found a unique moment of opportunity within the organization where changing course was possible.	+	++	-	--
Demographic shift in the office employees towards younger staff members with natural resource backgrounds.	+	++	+	+

Figure 7-1. Summary of the cross-case organizational factors present in the four case studies and their impact on innovation.

More specifically, the following organizational factors were found to be influential in relation to the innovative environment of the field offices:

Recognition of a Problem Needing Attention: An Emerging Crisis

Emerging crises are important motivators for individuals and organizations. Population declines in the greater sage grouse have created an emerging crisis across the West that has brought heightened attention to the health and functionality of sagebrush ecosystems. The growing fear of listing the greater sage grouse under the Endangered Species Act did present a compelling case for the agency to think about shifting course on the management of sagebrush habitats across the study area. When external pressures emerge, like the threat of an endangered species listing or declining populations of species that have high economic value, it can present a compelling case for the agency to rethink their approach. It also presents a focusing opportunity for communities or interest groups to push the agency towards a different direction. A sense of an emerging crisis can break through the traditional positional stalemate and necessitate innovation and creative thinking.[1]

The threat of the sage grouse being listed was a pertinent factor across all four of the case studies. Some field offices have more significant populations of the bird and greater development pressures that are threatening their habitat, and in those cases, the threat was particularly salient. In the cases of the LSRFO, RFO, and PFO, this sense of an emerging crisis was particularly powerful in moving the agency towards a more innovative environment, but it was also a consistent theme of conversation across all four sets of interviews.

Recognition that there is a Problem with the Standard Approach

Innovative solutions most commonly occurred because someone in the office saw a problem with the way that the agency was approaching the problem. The sense that the traditional process was not working was the most effective factor that explained innovation across the four cases. In this case, that was the recognition that timing limitations were not an effective tool at protecting mule deer habitat in the presence

of energy development. The first step to creating a space for innovation is recognizing that the process or management action is not effectively addressing the problem. In the cases where innovation has occurred, there was a deep sense at the early stages of the RMP revision process that the traditional way of doing business was not going to be effective at balancing the conflicting priorities of managing mule deer habitat and energy development.

Employees in both the LSRFO and PFO recognized that the standard approach was not working and attempted to find new solutions to the problem. This was facilitated by the scientific studies that were being conducted on both mule deer and sage grouse within the planning areas. For example, the Sublette Mule Deer study in Pinedale presented a compelling case that the agency needed to do something differently. The same was true for the sage grouse studies that were being published in the LSRFO. As one staff member in the LSRFO said:

> [W]e have a great deal of local research on sage grouse within our field office over the last ten years, and I think having that research data certainly has helped in this process. [That] research and history has shown that – hinted at – traditional management is not the best way to do things. Given that, within the BLM and within our cooperating agencies there was a lot of interest to do something different to manage sagebrush obligate species.[2]

In the LSRFO there was also a sense that the traditional process of engaging the public in the RMP revision was not effective. That feeling led to openness on the part of the field manager that a new process, like NWCOS, was credible. One employee said, "We have a field manager that is very receptive to collaboration. […] He felt like we needed to be better about involving the public in our decisions and explaining the way we do our business."[3]

Employees in the RSFO and RFO did not express a similar assessment that the standard approach of using timing limitations was not working. Nor, did the employees feel that the traditional public involvement process was inadequate. As one employee in the RFO put it:

> We manage to find a way – in most cases – to provide for the opportunity to allow for the development, to provide for that extraction of the resources. It is not always pretty. It is not always the best for some of the non-extractive resources at the time, but you have to get used to that. And, the public has to get used to the fact that there are tradeoffs. That's what we deal with here. And there is always the court system. We certainly have appeal procedures and protest procedures into the system underneath the court system that allows the public when they think we are not making the right decision.[4]

It is infinitely more difficult to achieve a different solution when it appears that the current approach is working.

Employees feel that there is a Political Space to take Risk

If employees feel like the traditional approach is not working, they need to have the space to creatively solve problems. When field offices operate below the political and legal radar, there is more space for staff members to be entrepreneurial in finding unique solutions to problems. Employees feel that they can make riskier decisions because they are less likely to be challenged. A decentralized structure provides this space. The BLM has historically faced difficult political pressure from administrations and interest groups. These pressures tend to promote caution and conformity to standard and safe approaches. Particularly in a politicized environment, taking risks and being innovative puts staff members at risk within the organization. This research found that operating below the political radar made innovation more possible for field level employees, but it did not ensure that innovation would occur.

Across the four case studies, employees agreed that the field level was the place that innovation most commonly occurred within the BLM. The field office provides the optimal space for innovation because it allows committed employees to craft problem-solving solutions outside of the political spotlight. As one staff member explained:

> As you go up in the organization, change happens more as a result from political pressure or those sorts of things. At the field office level I think you find people who are trying to work out what they think is going to work best on the ground for where they are. Whereas if you go up in the organization,

> you find more change being driven more by an overall vision of how things ought to be and then try to fit this into the on-the-ground situation. Those do not always jive.[5]

Decentralization had interesting effects across the four studies. The innovative approach designed to limit habitat fragmentation in the LSRFO serves as a prime example of the opportunity for innovation that is created when employees have the political space to be entrepreneurial. Cooperating agencies – Moffat County government and the Colorado Division of Wildlife – brought out of the box ideas to the table, and the employees were more able to incorporate them into the RMP revision process because they were out of the political spotlight. The quiet blessing of NWCOS by officials high in the organization also brought less attention to the office, and granted them more money and time than they would have otherwise received.

The LSRFO has not garnered the same attention by industry and interest groups that surrounding offices have felt. This is due, in part, to the lower resource development pressures that occur within the office, and that decreased potential for energy development affects the political climate. Large resources attract the attention of large energy companies that have deeper connections with politically powerful players.[6] The smaller resource plays in the LSRFO have tended to attract smaller Colorado based companies. With smaller companies developing smaller resource plays, the result has been less political control from above, particularly Congressional officials, and less litigation from environmental groups. These forces provided the space that was necessary for the staff in the field office to be creative and work in nontraditional procedural ways with partners in their RMP process. That process led to innovative results.

By comparison, employees in the PFO and RSFO did not feel like they were operating below the political radar, and that made the task of innovation inherently more difficult. Because of the national stakes created by large oil and gas resources, both offices are highly politicized. Unlike the LSRFO, employees in these offices felt more constrained by the political environment.

Administrations attempted to centralize and control decisions within these offices, and the highly politicized environment often hurt agency morale and entrepreneurial spirit.[7] These pressures constrain innovative thinking because there is less space for employees to be creative and take risks in proposing different ways of doing business without facing consequences from upper management. To navigate these politicized environments, staff members needed the political cover to shield them from pushback if they were going to advocate for a different alternative. In the PFO, staff members were successful at putting forward an innovative solution despite the high levels of politicization because they found that political cover. That was not the case in the RSFO.

Decentralization creates the space for innovation, but it does not alone ensure that innovation will occur. At the same time that the LSRFO came up with a fundamentally different process and plan, the employees in the RFO also had significant political space yet did not come up with an equally innovative result. In contrast, innovation did appear in a highly politicized environment in the PFO. While operating under the radar can create a space for the agency to be creative, it also means that external pressures are not pushing the agency to do better and think harder about its choices. These external pressures can be important motivators for innovation. In sum, a decentralized structure can provide an opportunity to be innovative, but it takes initiative and dedicated risk taking to make that happen.

While a decentralized structure has been an important facilitating factor for innovation in some of these cases, there are legitimate concerns about this structure as well. The very things that this work identifies will promote innovative problem solving at the field level – greater autonomy by managers and staff, decentralized decision-making, increased involvement by local communities - also promote capture. As one employee described:

> By and large, BLM is so bottom-up, in my opinion, and there is much more autonomy with local field managers than just about any other federal agency that I can think of, and I think that yields to some of BLM's ability to adapt and adjust to its various local constituents.[8]

Balancing these pressures is difficult for the agency.

A Constituency that Demands and Supports Change

Chapter Three explained that organizational change in the BLM has most often occurred when there was an active constituency demanding and defending a change. That constituency was broad and deep enough to be politically meaningful and connected to political power structures. Across the four case studies, constituency for change was an important theme. The field offices that had an active, engaged, and broad community of interests that was making the case for a different outcome and using the political process to support that change were more innovative environments. Those places had unique and diverse coalitions of interests that were making politically salient arguments for change, and they attracted interest from the political establishment. These coalitions were also able to bridge traditional and non-traditional constituencies. Again, this underscores the need for an active external pressure to push the BLM to do better and think harder.

The LSRFO provides a strong example of the role that an engaged community can make in the RMP process. Moffat County wanted to be actively involved in the revision process, and they were willing to make the commitments to the agency that they would support a new and different process up the line with their influential contacts in the Interior Department. Both were important. The CDOW also provided an important degree of support and scientific credibility to the change, and they were willing to work with non-traditional partners in crafting a new and different approach. The BLM could feel confident that their new approach would be supported in the political process. The presence of these constituencies made innovation more possible and greatly facilitated the changes that were made in that office.

Pinedale provides another example of the importance of an active constituency. There was a broad and deep demand in the public for a different approach that would more accurately balance the management of resources in the PFO. That feeling was a direct product of the deteriorating integrity of the environmental resources in the

Pinedale area. Movements, like the one to protect the Valley's Wyoming Range from future oil and gas drilling, signified the deep commitment that local citizens had to seeing a different approach in Pinedale. The commitment of Wyoming's Republican Congressional delegation to move the bill signified the connection to power that these interests held. The crumbling of PAWG also fueled a growing consensus that the BLM was not being responsive to the concerns of the local public. Communities desired a different course in Pinedale, and these communities were making arguments that attracted political sources of influence.

Without a broad constituency for change, employees may lack the incentive to take risk. In both the RFO and RSFO no broad, diversely organized, and politically meaningful constituency emerged to push the BLM in a different direction. Only the very traditional pro-development and pro-environmental interests are present, meaning that the agency's traditional critics were making traditional arguments. The organizations that were demanding change were the same groups that were challenging and appealing every decision the BLM made, and they had very limited connection to the political establishment in Wyoming. In these circumstances, it can be easier for managers and staff members to write off their concerns. The fact that both field offices are large and remote and that most oil and gas activity is taking place away from communities can explain this lack of a diverse constituency with non-traditional participation.

Constituency has been the complementary component to the BLM's decentralized structure that has historically led to capture in the agency. In many ways, the organized communities, like Moffat County, represent another form of capture in the BLM. Responding to pressures from communities, interest groups, and other parties must be done with caution and a keen eye to the broader public interest. However, in a setting where these groups adhere to the strict principles of collaborative and democratic decision-making, these groups can be valuable to the agency because they serve to protect the agency against capture.[9]

Using Political Cover to Advance Innovative Ideas in a Politicized Environment

Given the deep politicization in which BLM field offices operate, entrepreneurial staff members need political cover to push through the difficult politics above the field office. Political cover provides either insulation or organizational support for risk taking that individuals at the field level need to advance change through a politicized environment. This research found three broad categories of political cover that employees were able to use – increased scientific understanding of the problem that endorsed a new approach, the support from field managers who defend staff members and their ideas, and access to high-level officials in the administration that support changes.

First, the increased understanding of the problem rooted in scientific studies that showed the standard approach was not working provided important cover for BLM employees in the LSRFO and PFO. In the PFO, there was a growing understanding of the problem that made the status quo unacceptable, including publication of studies like the Sublette Herd Study that demonstrated declines in deer populations as a result of energy development. Staff members were able to use science to introduce and defend a shift in course. As one staff member explained:

> I think it was because we were out on the edge with [the alternative] that we wanted to do [in the RMP process]. They are political decisions, but if you are going to propose something a little off the beaten path, you had better have some science to back it up because when they ask you, you need to be able to say this is why. And, have something believable.[10]

This was also true in the case of the LSRFO. In that case, the increased scientific information dealt predominantly with sage grouse. A series of studies and the publication of a statewide sage grouse habitat plan provided the necessary cover for the field office to defend changes to their habitat fragmentation plan in the RMP, making habitat protections stricter. While some advances in scientific understanding occurred in the RFO, employees did not use it to advance fundamentally different solutions. It was present in the office, but it did not facilitate innovation in a way similar to the PFO and LSRFO.

Second, field managers that fulfill the role of "inspiring and defending"[11] their employees provided another important form of political cover. The cover provided from high-level management in the agency, particularly field managers, means that field level employees had the internal support to push forward change. Those managers are able to protect staff members from professional retaliation, and they defend the change to the administration and its allies. One staff member explained that innovation was about "… risk taking. You need to have a field manager that is willing to go off the beaten path with you and make some decisions that may not be the ones that we have made before."[12]

Employees across all four offices felt confident that their manager would support them and their ideas. Interviews with employees in both the PFO and LSRFO particularly felt that their managers would defend them upstream if they proposed a new solution, and in those cases, the political cover provided by field managers facilitated the office's ability to reach innovative solutions.

Lastly, across the cases there were times when individuals had access to key administration officials that made taking organizational risk more possible. The support of individuals in the state office and Washington office meant that field staff members had considerably more latitude in exploring alternatives that otherwise may be off limits. Knowing that the Assistant Secretary or Director already supports them and their ideas calms employees who may be concerned about making headlines by pursuing non-traditional approaches.

The connections that Moffat County had in the LSRFO case are especially poignant examples of the difference that having support at the highest levels of the organization can make. This support can help shield the office from constraining influences of political pressure, and in fact it creates an opportunity for change. Since innovative processes consume greater resources and time, this support was necessary. As one staff member described:

> Because Moffat County said that they really wanted a voice in public lands management – they wanted to talk to environmentalists, they wanted to talk to oil and gas operators, they wanted to talk to all of these different interests

> and come up with some approach that is acceptable to everyone in the community, Washington said they would support [them and us] in that [process]. That is the reason that we got more money than probably we would have, and maybe the support that we did get.[13]

The Assistant Secretary's visit to the PFO was another case of gaining support from high levels in the organization. As one staff member put it, "Normally you do not have to go to the Secretary of Interior for changing an alternative in an RMP."[14] A similar level of support from high-level officials was not present in the RFO and RSFO.

Innovation Occurs when there is Active Stakeholder Participation in Alternative Generation

The processes through which decisions are made greatly affect the outcomes. Focusing on the process component of decisions prior to the substance component creates a more innovative environment and brings to light substantive solutions that would have otherwise not been possible.[15] Actively involving stakeholders had a number of important consequences for innovation in these cases.

In the LSRFO, the Northwest Colorado Stewardship (NWCOS) process provided for more active involvement of stakeholders throughout the RMP revision process. NWCOS brought more people and therefore more ideas to the table during the scoping and alternative generation stage of the process. In this case, external parties were a constructive factor in innovation because they were involved in creating alternatives. It was outside organizations – namely Moffat County and the Colorado Division of Wildlife – that provided the impetus and opportunity for staff to explore alternatives to status quo. And, these partners brought a new plan to the agency, an iteration of which is now in the RMP. These external pressures affected both the process and substance of the RMP revision.

NWCOS was critical to redesigning the process by bringing diverse stakeholders into the RMP revision process. The greater access to ideas accomplished two tasks. It enriched the process of crafting alternatives, resulting alternatives that would not have been otherwise available to the agency. Second, the information garnered

through this process allowed the agency to make more informed decisions in selecting between the alternatives. This process built a common understanding of the problem and resulted in a better outcome because participants were focusing on a common vision for the management of the resources.

Other field offices in the study did not reach similar procedural innovations. One exception was the Pinedale Anticline Working Group (PAWG) process in the PFO. PAWG's purpose was narrowly framed to provide assessment and feedback on the monitoring and mitigation plans on the Pinedale Anticline project. It was not designed to facilitate involvement in other agency activities, like RMP revisions. When PAWG tried to stray far from those objectives, the agency quickly pulled them back to their central task. Consequently, they were not at the table during the alternative generation point in the RMP process like stakeholders were in NWCOS. However, PAWG's failure did facilitate the creation of community that was interested in change, which led to a later innovative decision in the agency.

Redesigning the RMP process to engage stakeholders can be cumbersome. To seek innovative outcomes through different process managers must first be willing to embark on a process that may take longer and cost more. It takes the willingness to defend the office's actions upstream and build diverse support to get those extensions granted. The LSRFO was willing to do those things, and they ended up in a different place substantively than they would have been otherwise.

Shared Vision within Field Office

Field managers play an important role in advancing change at the field level. They provide the internal support needed for line specialists to take risk and propose creative alternatives. One way managers promote an innovative, risk-taking environment is by taking time to build a shared vision within the office that supports informed thinking and creative ideas. This shared vision is resource-centered and focused on the unique nature of the planning area and the office's staff. These efforts made by a committed manager can facilitate innovation, even in an organization with low employee morale. One staff member explained: "A good

Bureau staff itself does not have a cohesive vision of where the office is going. That [is] the [field manager's] job to try and bring all the staffs together and provide a joint vision of where we might go."[16]

There were two cases in this study in which a field manager facilitated a shared vision that supported innovation. First, the field manager and staff in the LSRFO supported a new process that was better able to produce innovative outcomes. They were receptive to new ideas and focused on building ownership in a new process. Their reception to this new process was grounded in a shared vision of what an effective public decision-making processes should look like. Managers were willing to slow the process down considerably and defend it and its outcomes upstream in the organization because they genuinely felt like it was the best way for the BLM to involve the public in the LSRFO.[17]

Second, the field manager in the PFO provided support for his staff. That support was needed by line specialists in the office to capitalize on moments of opportunity that made change possible. His timely arrival was met with a set of dedicated staff members. Otto focused his efforts on continuing to provide support as ideas moved up the chain, and his conservation perspective made the innovative result in that office more possible.

Similar visions did not emerge in the RFO and RSFO interviews. While staff members in both offices had a clear sense of their duties and responsibilities, they were not as vocal about their shared sense of purpose in the office. That vision could easily emerge in the future. For example, the field manager in the RSFO is quite new to the office. Given time and dedication, a shared vision can develop.

Capitalizing on Unique Moments of Opportunity

Brief periods of opportunity enabled dedicated individuals to push new ideas through the organization. These moments can be infrequent, but they provide a seam in the bureaucracy and politics that allow entrepreneurial staff members to take risks and move the agency in a different direction. The presence of opportune moments must be met with persistent individuals who recognize and seize it.

The shift from the preferred alternative to the conservation alternative during the RMP revision process in Pinedale was facilitated by a very specific opportune moment. The shift in political priorities after Secretary of the Interior Gale Norton's resignation opened the door for staff to put forth a different alternative in the RMP. That shift was matched by the arrival of a new, conservation-minded field manager. The PFO's new manager and staff used a visit by Assistant Secretary Allred to sell the conservation alternative to top levels within the agency. If these three events had not occurred so closely together, the result likely would have been different.

Individuals in the PFO saw the opportunity presented by this moment and were able to use it to achieve change. As one employee noted:

> It takes tenacity and a thick skin [for line specialists] to push through. You cannot just sit there and complain. You need to find people that are willing to listen to you and willing to stick their neck out for you. You cannot take no for an answer. If that is the case, you have to wait – find another opportunity – and try again.[18]

Across the other three case studies, the importance of specific opportunities was more difficult to ascertain. While not as important as in the PFO, the LSRFO was also able to gain the support that they needed to engage in NWCOS and propose their sagebrush habitat plan because of a very specific set of politics, namely the connections that Moffat County had in Washington. The Partnership Series hosted by the agency did provide a unique moment where stakeholders decided that they wanted to engage in a collaborative process. No similar moments of opportunity emerged in Rawlins or Rock Springs. In fact, the lack of innovation in the RSFO was almost singularly attributable to the fact that they had not undergone an RMP revision process in the last ten years. This study found that the most important moment for staff members to affect change is during an administrative decision process, most commonly the RMP process in the BLM.

Changing Employee Demographics

The BLM's organizational culture is unique when compared to other federal agencies. Unlike other natural resource agencies, the BLM has never built a similar

sense of culture, identity, or mission for a number of reasons that are explored in chapter three. Organizational culture is relevant to innovation. BLM's more diffuse sense of organizational culture limits the centralizing socialization pressures that can constrain innovation. Nonetheless, like any organization, the BLM has accumulated a guard of old line staff members who were trained in a much different time of range conservation and management. These employees often answer calls for change with, "I have been here for thirty years, and we have always done it this way."[19] New thinking can quickly lose out under that paradigm.

This research found that there is a clear sense that the demographic of the BLM employee is changing, and that change is also facilitating a shift towards new alternatives for the agency.[20] More young, professionally trained employees that care deeply about the resources are entering the agency than in the years past. More of these new employees are also entering the agency with backgrounds in diverse natural resource fields.[21] Today's BLM staff includes small-game wildlife specialists, fisheries technicians, Native American cultural interpreters, and employees that represent a number of other new fields.[22] This shift is occurring across all four of the field offices.

In the PFO and RSFO, high levels of staff turnover have greatly accelerated demographic change. New individuals have a much different sense of organizational mission and purpose than do old-line staff. This new culture is deeply grounded in place and in a scientific experimentation paradigm. Some of these new staff members, like Chuck Otto in Pinedale and Lance Porter in Rock Springs, are reaching leadership positions in the agency. From those positions they are able to facilitate a different working environment than would have been encountered in previous BLM offices.

In sum, the study of the BLM shows that *innovation can occur in a decentralized agency when there is a need to change, the politics allow for it, and when there is an active constituency that supports and defends change in the political process*. These lessons informed the search for innovation across the four case studies.

Policy and Management Recommendations for the Future

This work brings to light a number of recommendations from both the policy and management dimensions. These recommendations can work to make the BLM environment more conducive to innovation.

Policy Recommendations

- *Maintain the BLM's decentralized structure*. Autonomy of field offices is a unique quality to the BLM and important enabler for innovation. This research found that when employees feel that they have political space, they are more able to be creative and try new approaches. A more centralized decision-making structure limits the ability for staff members to identify issues and solve local problems in new ways. However, the downside to a decentralized structure is that the increased autonomy and flexibility creates an opportunity for capture by local interests. This research found that preventing capture should remain a concern of policymakers and managers.
- *Resist the call for more prescriptive policy.* Narrowly prescribed statutes limit the innovative capacity of staff members because they narrowly define the actions available. Congress' role should be to provide the sideboards and policy goals and allow local managers to decide how to get from point A to point B. This is an environment that produces innovative results because it recognizes that a one-size fits all approach does not work. As one employee pointed out, "… there is no magic solution to advancing change in a bureaucracy."[23] Interviews suggested that unique processes and solutions to the problems facing field offices emerge because individual staff members can identify problems, inform decisions, and solve those problems locally. In the cases where innovation occurred, staff members all highlighted the uniqueness of the context that promoted change.
- *Sharing innovative approaches across the BLM and its lands*. Field offices are doing innovative things, but those approaches are not being spread to other offices. In fact, most times, staff members in one office have little idea about how the adjacent office is approaching the same problems. A

comprehensive review should focus on documenting the innovative solutions that are occurring in field offices, and then providing best practices that can be used by other managers to build more innovative environments.

- *Provide greater flexibility in participation guidelines for formal process.* This research found that more active involvement of stakeholders in administrative process led to more innovative outcomes. If more people at the table mean that more ideas are in play, there needs to be more latitude for field managers to create processes that recognize the innovative value that public participation carries. That said, process must start at the field level. Mandating a new process would be just as constraining, so policy should allow for greater opportunities for field managers to engage in non-traditional public process. However, new processes must continue to reflect the broader, national public interest in the federal lands and ensure fair and equal participation.
- *Make the RMP process more dynamic.* Innovation occurred in the cases where information demonstrated that the traditional approach was not working. The scientific process is highly dynamic and new information that leads to more informed decisions is generated every year. Unfortunately, the current regulations and statutes governing RMP revisions create a schedule that only allows for new information to be incorporated through major revision or amendment processes. These opportunities occur every fifteen to twenty years under the current structure. Staff members at the field level need a more dynamic land use planning process that can adjust to changing information and understanding. One chance to move innovative ideas every twenty years is not the most effective structure.

Management Recommendations

The following recommendations are particularly useful for current field managers in the Bureau that are interested in creating more innovative environments in their field office:

- *Build the collaborative capacity of staffs and communities.* Innovation occurs when more people are at the table, but effective participation requires training in the requisite skills that make collaborative process more successful. Programs like the Partnership Series are particularly useful in building the capacity for individuals to participate in more collaborative forums.
- *Engage the community in the BLM's activities*. The active participation of an organized constituency pushed the BLM towards innovation in a number of the cases. Given BLM's history of capture, building broad support beyond the traditional clienteles will be essential for ensuring that innovation is mission centered. Additionally, implementation and future decision-making will be more effective with a broader understanding of the BLM.
- *Be attentive to changing science.* Effective decision-making in the management of natural resources is grounded in science. Managing complex systems requires attention to the changing understanding of those systems. Innovative decision making is requires accurate and current understanding of the resource and tradeoffs associated with management actions. Managers are more able to recognize that the standard approach is not working when they are more informed.
- *Be willing to listen and give time to ideas from staff members.* Managers are particularly successful in creating an innovative environment when employees feel comfortable thinking critically and creatively about the management challenges facing the planning area. Line specialists are experts in their areas and know the resource intimately. Give ideas big and small the time they deserve, and assist staff members in pushing new ideas upstream in the organization.
- *Hire competent people and leave them where they are.* Staff members are advancing innovative solutions because they feel an attachment to the landscape and communities and want to do what is best for those places. Do not detach them from the landscape and community that they care about. Additionally, this research identified that younger staff members with more

diverse backgrounds are facilitating innovation within field offices because they are bringing with them new skills and understanding.

- *Take time to build a shared vision for the office that goes above the statutory obligations.* Employees are more willing to invest time and energy in their work when they feel a sense of purpose that goes beyond their job description and duties. Managers should give employees a sense of purpose for their job, and ask them to join the process of creating that vision. Those processes build an environment where innovation is more possible.
- *Defend staff members and their ideas upstream.* If a manager fosters an environment where line specialists are comfortable taking risk and proposing innovative solutions within the office, they should make sure to defend the employee and the idea upstream in the organization. Across this research, employees demonstrated appreciation for their managers when they supported them above the field office level, and they felt more confident in taking future risk.
- *Provide opportunities for staff members to meet with other field office staffs.* Greater access to ideas fosters innovation, and they can come from a variety of places. Since each field office tends to operate in isolation without knowing what is happening in offices around them, creating more opportunities for sharing ideas and knowledge across field office boundaries is advantageous.
- *Convene groups from diverse backgrounds to share in the problem solving discussion.* Innovation occurs when people from diverse backgrounds come together in non-traditional ways to think about problems and attempt to create solutions. While some BLM employees may worry about letting non-traditional partners into the decision-making room, there are real benefits that accrue to the agency and the public when more people sit around the table and work to solve problems.

Areas of Future Research

This research points to the fact that more work is warranted in understanding the factors that promote innovation in the BLM. These areas include:

- *Quantitative survey of BLM demographics.* This research signaled a shift in the demographics of the BLM, and a more quantitative analysis would be advantageous. Questions include: In what specific ways are BLM employee demographics changing (e.g. Educational level and background, urban v. rural background, etc)? What does the BLM employee in 2010 look like (e.g. race, sex, regional background, etc)?
- *Organizational innovations at a national level within the BLM.* This study highlighted a number of opportunities for innovation at the field level, but the national context for innovation is much different, especially in regard to politicization. Some interviewed for this study indicated that the National Landscape Conservation System would be an example of innovation at the national level.[24] Questions could include: Are there any examples of innovation at the national level in the agency? What appears to promote and constrain those cases of innovation? Are those factors different than at the field level?
- *Innovation in politicized versus less-politicized resource programs of the agency.* This study focused on innovation in one of the most political programs of the BLM (energy production), but it may be that innovation is more able to occur in other areas. Questions could include: Does the management of resources that are intense national political debates (e.g. energy production on public lands) change the context in some ways for innovation?
- *Community participation in resource planning.* Increased participation of stakeholders was found to promote innovation in this study, but understanding what makes that participation effective is interesting. Questions could include: What makes for effective engagement with local communities within field offices? What types of process are the best? Who should participate? Who should convene? How should the BLM participate?

Notes to pages 179-181:

[1] Skillen, 8-9.

Notes to pages 182-201:

[1] Carlson, 172-173.
[2] Personal Interview, BLME 4, November 2009.
[3] Personal Interview, BLME 10, November 2009.
[4] Personal Interview, BLME 6, January 2010.
[5] Personal Interview, BLME 1, November 2009.
[6] Personal Interview, BLME 10, November 2009.
[7] Personal Interview, BLME 9, November 2009.
[8] Personal Interview, BLME 3, November 2009.
[9] Wondolleck & Yaffee (2000).
[10] Personal Interview, BLME 10, November 2009.
[11] Personal Interview, BLME 15, January 2009.
[12] Personal Interview, BLME 10, November 2009.
[13] Personal Interview, BLME 2, November 2009.
[14] Personal Interview, BLME 9, November 2009.
[15] Wondolleck (1985), 342.
[16] Personal Interview, BLME 9, November 2009.
[17] Personal Interview, BLME 10, November 2009.
[18] Personal Interview, BLME 12, November 2009.
[19] Personal Interview, BLME 5, January 2009.
[20] Personal Interview, BLME 5, January 2009; BLME 12, November 2009; BLME 15, December 2009.
[21] Personal Interview, BLME 12, November 2009.
[22] Personal Interview, BLME 5, November 2009; BLME 12, November 2009.
[23] Personal Interview, BLME 10, November 2009.
[24] Personal Interview, NGO 2, January 2010.

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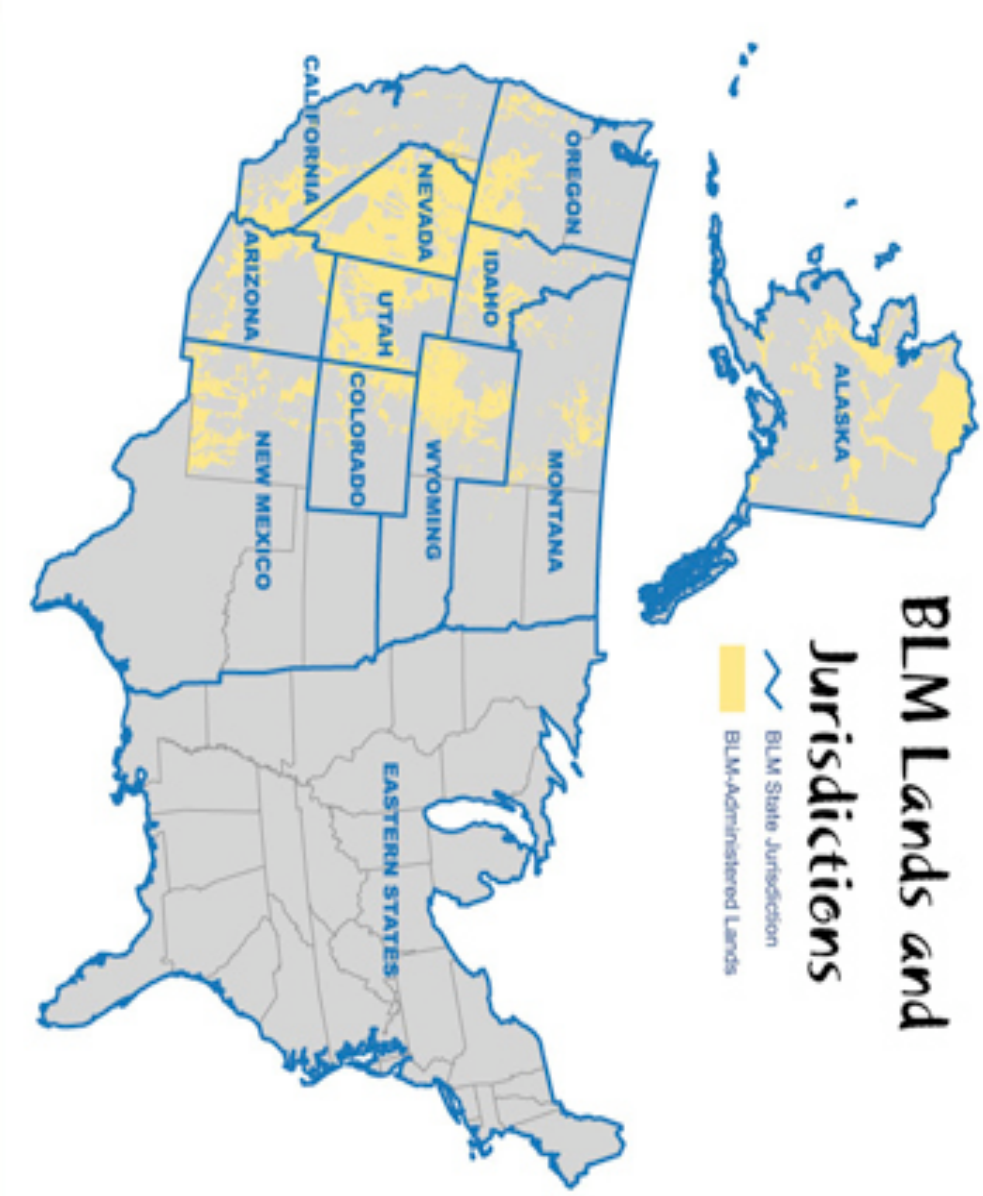
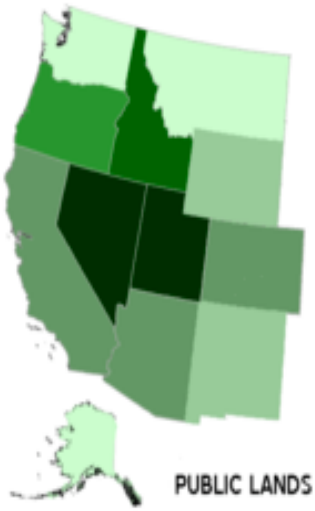
Appendix A: Map of All Lands under BLM Jurisdiction



c

Available online:
http://www.blm.gov/education/LearningLandscapes/menu/states/index.html

Appendix B: Acres of Public Land, by State



	percentage of total land area	NFS land in million acres (1,000 sq km)	BLM land in million acres (1,000 sq km)
NEVADA	76.1%	5.9 (24)	48.0 (194)
UTAH	70.2%	8.2 (33)	29.9 (121)
IDAHO	60.5%	20.5 (83)	11.9 (48)
OREGON	46.2%	15.7 (64)	15.7 (64)
CALIFORNIA	35.4%	20.8 (84)	15.2 (62)
COLORADO	34.4%	14.5 (59)	8.4 (34)
ARIZONA	32.2%	11.3 (46)	12.2 (49)
WYOMING	29.5%	9.2 (37)	18.4 (75)
NEW MEXICO	29.4%	9.4 (38)	13.5 (55)
MONTANA	26.5%	17.0 (69)	8.0 (32)
ALASKA	25.7%	22.0 (89)	87.0 (352)
WASHINGTON	22.7%	9.3 (37)	0.4 (1.6)

PUBLIC LANDS HELD BY THE NATIONAL FOREST SERVICE AND THE BUREAU OF LAND MANAGEMENT

Source: http://www.wildlandfire.com/docs/2007/western-states-data-public-land.htm

Appendix C: Consent Form and Interview Protocol

CONSENT FOR EXPERIMENTAL PROCEDURE/ RESEARCH STUDY:

1. **Title of the research project**
Innovation in the BLM: Insights from the Integrating of Mule Deer Management and Oil and Gas Leasing

2. **Names of the researchers**
Clayton Elliott, MS Student, School of Natural Resources & Environment, University of Michigan. .

3. **Description of the research**
The overall purpose of this research is to identify the opportunities and challenges federal land managers encounter when developing and implementing management strategies for mule deer in the face of energy development on the Western public lands. It specifically focuses on innovation.

4. **Description of human subject involvement**
Subjects will answer questions through personal interviews. Interview questions will focus on the management strategies of mule deer within the office. It is mainly focused on the policy, political, scientific, process, and organizational factors that resulted in the outcomes present in the published working documents. For example, a question may ask, "What do you feel is particularly different or successful in your office?"

5. **Length of human subject participation**
For personal interviews, the length of participation will be approximately one hour. The total time for interviews is from July of 2009 until February 2010.

6. **Risks & discomforts of participation**
There are no risks.

7. **Measures to be taken to minimize risks and discomforts**
Participants can discontinue the interview whenever they feel uncomfortable or they can choose not to answer any questions that make them uncomfortable.

8. **Expected benefits to subjects or to others**
Although there may be no direct benefits to you, this systematic assessment of the unique opportunities and challenges of the nature of mule deer management on the West' public landscape will benefit policy-makers and natural resource managers at the federal level by helping to inform the development and implementation of new policies and programs intended to advance land management.

9. **Costs to subject resulting from participation in the study**
The costs of the study are borne by the investigator only.

10. **Payments to subject for participation in the study**
No payment to participant is provided.

11. **Confidentiality of records/data**
You will not be identified in any reports on this study. Records will be kept confidential to the extent provided by federal, state, and local law. However, the Institutional Review Board or university and government officials responsible for monitoring this study may inspect these records. There is no eventual disposition of identifiable information. Any audiotapes and questionnaires will be archived for future reference. The records will be destroyed by December of 2010.

12. **Availability of further information**
If significant new knowledge is obtained during the course of this research which may relate to your willingness to continue participation, you will be informed of this knowledge.

13. **Contact Information**
Principle Investigator: Clayton R. Elliott, MS Student, University of Michigan, 307-272-6298. Research Advisors: Dr. Julia Wondolleck, 734-764-1570 and Dr. Steven Yaffee, 734-763-5451

14. **Required IRB Contact Information**
Should you have questions regarding your rights as a research participant, please contact the Institutional Review Board, 540 E. Liberty Street, Suite 202, Ann Arbor, MI 48104-2210, (734) 936-0933, email: irbhsbs@umich.edu.

15. **Voluntary nature of participation**
Your participation in this project is voluntary. Even after you sign the informed consent document, you may decide to leave the study at any time without penalty or loss of benefits to which you may otherwise be entitled.
You may skip or refuse to answer any question that makes you feel uncomfortable.

16. **Documentation of the consent** (A copy MUST be provided to the subject)
One copy of this document will be kept together with the research records of this study. Also, you will be given a copy to keep.

17. **Audio/Video Recording of subjects**
An audio tape recorder will be used. The data recorded will be analyzed and used in the study, and will be archived for future reference. However, the recording is not a mandatory part of the involvement in the study.

Please sign below if you are willing to have this interview recorded (specify audio or video). You may still participate in this study if you are not willing to have the interview recorded.

_____

Signature Date

( ) Please check to acknowledge the retention of the data collected by this study, as described in point 11.

18. **Consent of the subject:**
I have read [or been informed] of the information given above. Mr. Clayton Elliott has offered to answer any questions I may have concerning the study. I hereby consent to participate in the study.

Only employees over the age of 18 are able to participate in this study.

ADULT SUBJECT OF RESEARCH

_____

Printed Name Consenting signature

DATE: _____

Appendix D: Interview Questions and Protocol for BLM Managers

First, thank you for the time out of your busy schedule. I am excited to talk today about the management of mule deer on the BLM lands, particularly with regard to the conflicts presented by the presence of energy development. My interest is not in re-hashing the long story about the BLM failures on the issue. I am hoping to identify where the BLM is beginning to think differently about resolving the conflicting management priorities of wildlife habitat and energy development, particularly by thinking about what is enabling those actions and the barriers that still stand in the way. Based on conversations that I have been having with people, it appears that the Field Offices may be where the greatest innovation is occurring along these lines. I am particularly interested in this research to tell the stories about these places and hope to draw lessons and tools for other places to emulate these approaches.

I was planning on recording this phone call for my own research purposes. Will that be okay with you? This interview can be completely confidential at your request.

What is your background in the agency? How long have you been in ____ field office?

What would you point to in your FO as being particularly different or successful in terms of managing mule deer in the face of energy development or mule deer in general? Why did you identify those cases? (trying to pull out a definition of innovation)?

Who or what has enabled these approaches to happen?

Where in the FO has this not occurred? What has prevented these cases from being as successful as the ones that you pointed to before?

What could be occurring but is not? Why? What are the barriers to thinking differently/being innovative on the issue of mule deer management?

What would it take to push through?

Is there anything that you would like to tell me that we haven't covered?

Thanks so much for your time. I appreciate your thoughts and insight. I wanted to make sure that it would be okay with you to ask these questions of staff members in

the FO, especially environmental planners, range conservationists and wildlife biologists.

Appendix E: Interview Questions for BLM Planners

First, thank you for the time out of your busy schedule. I am excited to talk today about the management of mule deer on the BLM lands, particularly with regard to the conflicts presented by the presence of energy development. My interest is not in re-hashing the long story about the BLM failures on the issue. I am hoping to identify where the BLM is beginning to think differently about resolving the conflicting management priorities of wildlife habitat and energy development, particularly by thinking about what is enabling those actions and the barriers that still stand in the way. Based on conversations that I have been having with people, it appears that the Field Offices may be where the greatest innovation is occurring along these lines. I am particularly interested in this research to tell the stories about these places and hope to draw lessons and tools for other places to emulate these approaches.

I was planning on recording this phone call for my own research purposes. Will that be okay with you? This interview can be completely confidential at your request.

What is your background in the agency? How long have you been in ____ field office?

What would you point to in your FO as being particularly different or successful in terms of managing mule deer in the face of energy development or mule deer in general? Why did you identify those cases? (trying to pull out a definition of innovation)?

Who or what has enabled these approaches to happen? Would you describe the process that your office used to get to this point?

Where in the FO has this not occurred? What has prevented these cases from being as successful as the ones that you pointed to before?

What could be occurring but is not? Why? What are the barriers to thinking differently/being innovative on the issue of mule deer management?

What would it take to push through?

Is there anything that you would like to tell me that we haven't covered?

Thanks so much for your time. I appreciate your thoughts and insight. Who else in your office would you suggest that I talk to for this study?

Appendix F: Interview Questions for BLM Biologists and Range Conservationists

First, thank you for the time out of your busy schedule. I am excited to talk today about the management of mule deer on the BLM lands, particularly with regard to the conflicts presented by the presence of energy development. My interest is not in re-hashing the long story about the BLM failures on the issue. I am hoping to identify where the BLM is beginning to think differently about resolving the conflicting management priorities of wildlife habitat and energy development, particularly by thinking about what is enabling those actions and the barriers that still stand in the way. Based on conversations that I have been having with people, it appears that the Field Offices may be where the greatest innovation is occurring along these lines. I am particularly interested in this research to tell the stories about these places and hope to draw lessons and tools for other places to emulate these approaches.

I was planning on recording this phone call for my own research purposes. Will that be okay with you? This interview can be completely confidential at your request.

What is your background in the agency? How long have you been in ____ field office?

What would you point to in your FO as being particularly different or successful in terms of managing mule deer in the face of energy development or mule deer in general? Why did you identify those cases (trying to pull out a definition of innovation)?

Who or what has enabled these approaches to happen? What is your perception about the role of changing science in getting us to that point?

Where in the FO has this not occurred? What has prevented these cases from being as successful as the ones that you pointed to before?

What could be occurring but is not? Why? What are the barriers to thinking differently/being innovative on the issue of mule deer management?

What would it take to push through? Is it just more understanding?

Is there anything that you would like to tell me that we haven't covered?

Thanks so much for your time. I appreciate your thoughts and insight. Who else in your office would you suggest that I talk to for this study?

Appendix G: Interview Questions for State Wildlife Agencies

First, thank you for the time out of your busy schedule. I am excited to talk today about the management of mule deer on the BLM lands, particularly with regard to the conflicts presented by the presence of energy development. My interest is not in re-hashing the long story about the BLM failures on the issue. I am hoping to identify where the BLM is beginning to think differently about resolving the conflicting management priorities of wildlife habitat and energy development, particularly by thinking about what is enabling those actions and the barriers that still stand in the way. Based on conversations that I have been having with people, it appears that the Field Offices may be where the greatest innovation is occurring along these lines. I am particularly interested in this research to tell the stories about these places and hope to draw lessons and tools for other places to emulate these approaches. Your perspective within the state wildlife agency is particularly useful.

I was planning on recording this phone call for my own research purposes. Will that be okay with you? This interview can be completely confidential at your request.

What is your background in the agency? How long have you been in ____ field office? In what ways do you, in your position and role within the ___ (WGFD, CDOW), interact with the federal agencies during the Resource Management Plan/Forest Plan development/implementation process?

What would you point to in the local FO as being particularly different or successful in terms of managing mule deer in the face of energy development or mule deer in general? Why did you identify those cases?

Who or what has enabled these approaches to happen? What is your perception about the role of changing science in getting us to that point?

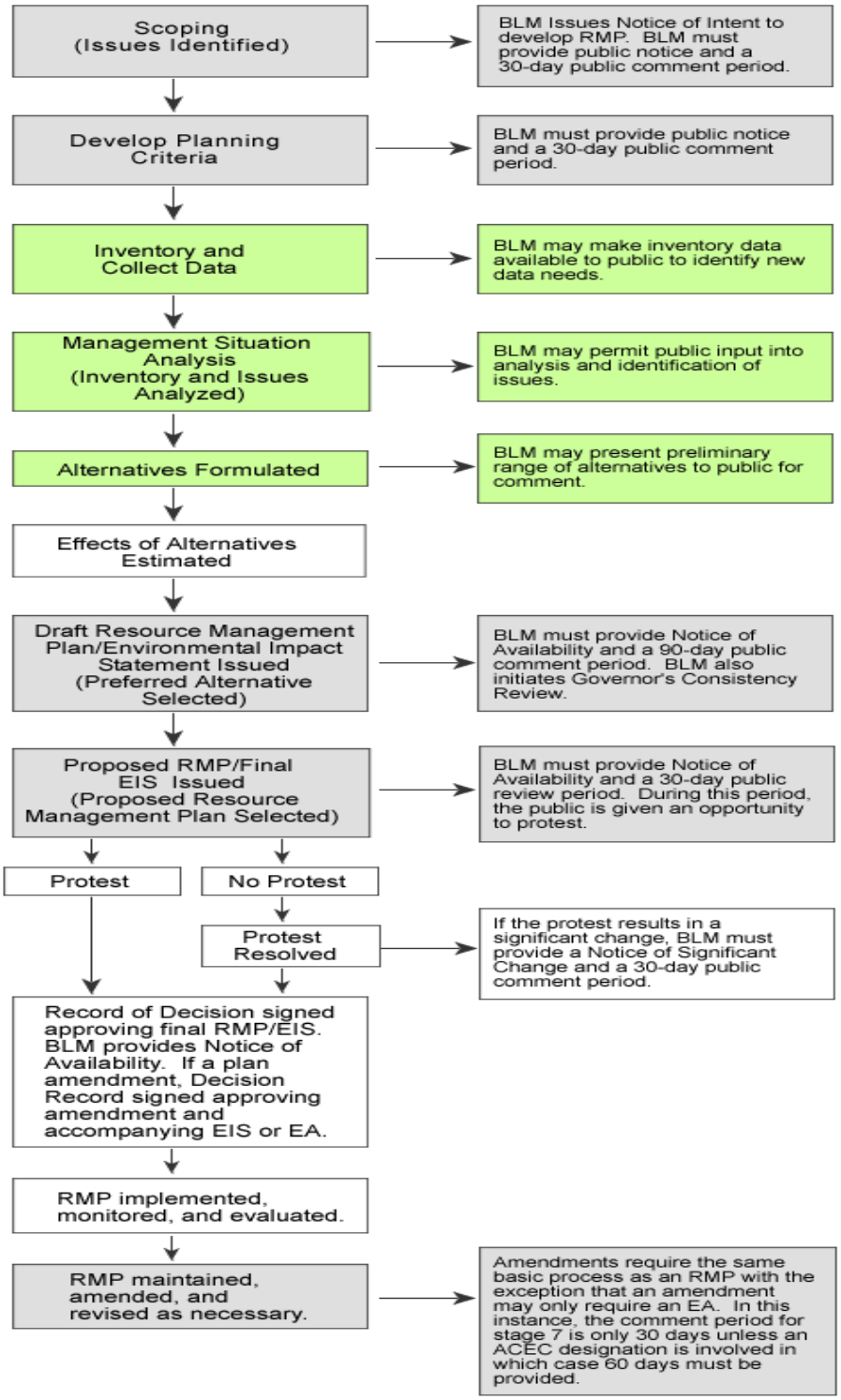
In what ways do you, in your position and role within the ___ (WGFD, CDOW), interact with the federal agencies during the Resource Management Plan/Forest Plan development/implementation process?

What would you say are/were the 2 or 3 biggest opportunities provided by the resource planning/implementation process for mule deer habitat management? What would you say are/were the 2 or 3 biggest challenges provided by the process?

Is there anything that you would like to tell me that we haven't covered?

Thanks so much for your time. I appreciate your thoughts and insight. Who else in your office would you suggest that I talk to for this study?

Appendix H: BLM's Resource Management Plan Revision Process



Appendix I: Signatories of Northwest Colorado Stewardship

Stephen R. Andrew
Moffat County Farm Bureau
Signed August 18, 2004

Steve Bonowski
Colorado Mountain Club
Signed August 18, 2004

Vanessa Cameron
Julander Energy
Signed August 18, 2004

Terry Carwile
Citizen
Signed August 18, 2004

Jeremy Casterson
Little Snake Field Office
Bureau of Land Management
Signed August 18, 2004

Jeff Comstock
Moffat County
Signed August 18, 2004

T. Wright Dickinson
Vermillion Ranch Limited Partnership
Signed August 18, 2004

Ray DuBois
Resident Land Owner
Trapper Mining Inc.
Signed August 18, 2004

Stephen Flaherty
Western Gas Resources
Signed August 18, 2004

Mike Frazier
Citizen
Signed August 18, 2004

Dean Gent
Moffat County Land Use Board
Signed August 18, 2004

Tom Gray
Citizen
Signed August 18, 2004

Kathy Hall
Northwest Resource Advisory Council
Colorado Oil and Gas Association
Signed August 18, 2004

Suzanne Halvorson
Browns Park National Wildlife Refuge
Signed August 18, 2004

Rick Hammel

Suzanne Jones
The Wilderness Society
Signed August 18, 2004

Fred C. Julander
Julander Energy Company
Signed August 18, 2004

Richard Levy
Trappers Lake Sierra Club
Signed August 18, 2004

Wes McStay
Citizen
Signed August 18, 2004

Reed Morris
Colorado Wilderness Network
Signed August 18, 2004

Claire M. Moseley
Public Lands Advocacy
Signed August 18, 2004

Ann Oliver
The Nature Conservancy
Signed August 18, 2004

Sandy Orgoglioso
Moffat County Citizen
Signed August 18, 2004

Brad Petch
Colorado Division of Wildlife
Signed August 18, 2004

Marianna Raftopoulos
Moffat County Commissioner Chair
District 2
Signed August 18, 2004

Beverly Rave
District Manager
Colorado State Land Board
Signed August 18, 2004

Christi Ruppe
Western Colorado Congress
Signed August 18, 2004

Luke Schafer
Colorado Wilderness Network
Signed August 18, 2004

Bill Shearer
Buys and Associates, Inc.
Signed August 18, 2004

JoAnne Smith

Independent Wildlife Advocate
Signed August 18, 2004

Les Hampton
Moffat County Commissioner
District 1
Signed August 18, 2004

Patrick Heffernan
Red Lodge Clearinghouse
Signed August 18, 2004

Steve Hinkemeyer
Moffat County Land Use Board
Trapper Mining Inc.
Signed August 18, 2004

John Husband
Little Snake Field Office
Bureau of Land Management
Signed August 18, 2004

Browns Park National Wildlife Refuge
Signed August 18, 2004

Darryl Steele
Moffat County Commissioner
District 3
Signed August 18, 2004

Jean Stetson
Moffat County Land Use Board
Signed August 18, 2004

Saed F. Tayyara
Citizen
Signed August 18, 2004

Jane Yazzie
Moffat County Citizen
Signed August 18, 2004