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RECREATION ALLOCATIONS ON NATIONAL FORESTS:
THE CLAIMS AND FRAMES OF RECREATIONISTS

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Dissertation

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for the degree of

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Recreation Allocations on National Forests: Claims and Frames of Recreationists

Committee Chair: Stephen F. McCool

While demand for outdoor recreation experiences on national forests is increasing, many existing recreation allocations on national forests are outdated or jeopardize the environment. Accordingly, the U.S. Forest Service is revisiting recreation allocations on many national forests. The Forest Service is not guided by any clear policy regarding the appropriate method or rationale for making allocations between incompatible experience opportunities, or what criteria should be considered in allocating particular trails and areas. Instead individual decisionmakers must make judgments between competing claims advanced by different types of recreationists.

This project was designed to facilitate understanding of the claims that recreationists make to national forests, in an attempt provide decisionmakers and stakeholders a way to think clearly about the foundations and implications of the claims that they make and hear. To accomplish this, I executed a discourse analysis case study on the Gallatin National Forest. In addition to contextual research, I conducted, coded, and analyzed semi-structured, in-depth interviews with 35 hikers and off-road vehicle (ORV) drivers in south-central Montana.

The study indicated that the claims and views of hikers and ORV drivers differed in a number of important ways. First, most hikers stated that national forests should be managed to protect the natural environment, while most ORV drivers stated that the national forests should be managed for multiple uses, including ORV driving. Second, most hikers claimed that ORV impacts on the natural environment are significant enough to necessitate reductions in allocations to driving; most ORV drivers believed the impacts of ORVs and other types of forest recreation to be similar and nonsignificant. While specific claims varied within the two groups, hikers and ORV drivers embedded their claims in consistent and contrasting narratives which elided the contradictions and limitations of specific claims to support general propositions to the effect that allocation to their use should be prioritized.

Judicious allocation of national forest recreation opportunities depends upon improved understanding of and articulation of claims. This study offers a conceptual framework for considering claims with the hope of improving the coherency, transparency, credibility, and wisdom of recreation allocations.

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1. INTRODUCTION

The last three decades have seen significant increases in the recreation pressure on national forests. The U.S. population has continuously increased, and is expected to double again in the next century (Cordell 2005), while participation in outdoor recreation continues to increase as well: 51 percent more Americans day hiked in 2001 than did seven years previously; 70 percent more Americans snowmobiled (Cordell 2005). At the same time, advances in recreation technology have opened vast new areas of public lands to users of all types: for example, where dual-use motorcycles once required strength and skill to drive off-road, four-wheeled all-terrain vehicles (ATVs)—a non-factor in national forest recreation as recently as the 1970s (Adams and McCool 2009)—now take the inexperienced far from roads. While demand is increasing, supply on public lands has been constrained by increasing environmental limits on recreation, (see, e.g., Associated Press 2006; U.S. Fish and Wildlife Service 2008). Together, these changes effectively shrink the space available to accommodate recreationists (Nie 2003, 314), as more people go farther in reduced space.

More people going more places on national forests has resulted in increased conflict between recreationists. It has become ever clearer that public land recreation resources are finite—that the U.S. must choose which experience opportunities it will provide on national forests, and deliberately manage for them. However, such recreation decisions are being made in an atmosphere of increasing pressure. Many allocation decisions now have real or imagined economic implications. Further, allocations are increasingly difficult to alter: as uses become entrenched in particular places, the user groups' sense of entitlement and the political costs of removing that use become ever greater.

Although revisiting recreation allocations in this situation is contentious and challenging, many existing national forest recreation management plans are badly outdated, and many national forest units have never made carefully-considered recreation allocations (Adams and McCool 2009). In addition to impacts on recreationists, such “unmanaged” recreation has profound ecological impacts (USDA Forest Service 2005). Accordingly, the U.S. Department of Agriculture Forest Service (FS) has undertaken the

partial reconsideration of recreation allocations on many national forests in the form of travel management revisions (Bosworth 2006).

1.1. Policy Vacuum

The Forest Service line officers tasked with revising allocations, under the auspices of “travel management,” do so without guidance from any coherent national policy (Adams and McCool 2009). Statutorily, the agency is simply commanded to provide “outdoor recreation” as one of the multiple uses (also including range, timber, watershed, and wildlife and fish) (Multiple Use Sustained Yield Act of 1960, NFMA). Congress has offered no other guidance on the type of outdoor recreation that should be provided or prioritized.¹ The agency itself has not promulgated a coherent policy either generally, or specific to ORV management, even with the issuance of Executive Order 11,644 (U.S. President 1972, as amended) (hereafter EO 11,644), requiring the FS to locate ORV allocations so as to minimize user conflict and impacts to the environment, and to suspend ORV use where considerable adverse impacts occur. Accordingly, line officers looking for guidance on decisionmaking discover a policy vacuum, where they have the authority to restrict ORV use on these grounds, but no enforceable obligation to do so (Adams and McCool 2009).

In the absence of a coherent policy, each agency decisionmaker simply makes allocations in accord with the procedural requirements of the National Forest Management Act (NFMA, 1976), in compliance with the National Environmental Policy Act (NEPA, 1969) (see Adams and McCool 2009). With a great number of individuals making their own judgments, based on different, often unspecified policy goals, with varying quality of information, some decisions will likely be arbitrary or poorly conceived. Further, to recreationists dissatisfied with allocations, many decisions will have the appearance of arbitrariness or unfairness, as the justifications for decisions on one forest are ignored on another, or lead to a different conclusion. Finally, overall allocations will be uncoordinated and contradictory, and will be suboptimal *vis a vis* whatever policy the nation might articulate. Analogously, permitting each national forest

¹ In contrast, in special management areas, such as national recreation areas and the National Wilderness Preservation System, Congress has often provided area- or system-specific recreation direction.

to determine its own goals for wildlife management might lead to preservation of biodiversity, wide local extinctions, healthy game populations, or some other national goal; if it did so, however, it would be due only to chance. In sum, stakeholders will be frustrated at apparently or truly unjust or inequitable decisions, and our public lands recreation allocation is likely to be inefficient, unjust, inequitable, and unwise.

1.2. Evaluation of Claims

In this vacuum, one way to conceptualize agency decisionmaking is as a judgment about the relative merits of competing claims made by recreationists in support of the allocations they desire. Claims are normative or factual assertions designed to change (or maintain) policy to the advantage of a particular constituency. In the media and in national forest comment processes, recreationists claim that they deserve allocation of resources due to prior use, cultural importance, economic benefits, social benefits, or other reasons. Decisionmakers evaluate competing claims and determine those which they find most valid, important, or compelling. Any allocation implies that the claims made in support of that allocation were more compelling than the claims made in support of alternative allocations. By extension, such an allocation implies some particular principle of allocation. In this conceptualization, any allocation decision is functionally the adjudication of competing claims.

The goal of this dissertation is to evaluate recreationist claims and place them in a conceptual framework that will help policymakers and decisionmakers evaluate claims and understand the full implications of applying the principles that underlie and are implied by particular claims. The framework will also identify some of the questions and concerns associated with the use of commonly proposed principles of allocation, as well as the discursive context of claims. To accomplish this, I evaluate the claims made by a sample of hikers and ORV drivers related to the Gallatin National Forest. Because each user group includes a wide range of users, while simultaneously covering mostly different spectrums of users, the claims of hikers and ORV drivers likely encompass most of the *types* of claims advanced by recreation user groups. Thus, evaluation of the claims of these two groups should capture most of the types of claims made by recreationists.

The framework will help agency decisionmakers because it will:

- 1) Clarify the logic, substance, and foundation of recreationists claims, thus facilitating evaluation of claims, and the principles they imply;
- 2) Aid decisionmakers in articulating the criteria by which they judge competing claims, thereby increasing the transparency and reducing the apparent capriciousness of decisions.
- 3) Provide managers a tool for comparing and evaluating competing claims.

This framework should also address the problem of the recreation policy vacuum by enhancing consideration of a national recreation policy. The framework should promote a common understanding of the claims that various constituencies make, and crystallize the issues that are at the heart of this debate and maximize the opportunity for deliberative debate of issues.

1.3. Objectives

This research was broadly framed by the question: “What claims (i.e., what arguments, justifications, assumptions, and judgments) do summer motorized recreationists and hikers, respectively, employ to justify desired public land use allocations?” To provide more specific direction, I identified the following objectives:

- 1) Identify the claims ORV drivers and hikers, respectively, make to justify requested allocations of public land resources in a case study.
- 2) Identify the logical and discursive foundations of each claim. Where claims are founded on factual arguments (as opposed to value arguments), assess the validity of those foundations.
- 3) Identify the ramifications of using the judgment criteria implied in each claim as a principle to guide allocation decisions generally.
- 4) Based on objectives 1 to 3, develop a conceptual framework of the types of claims made by ORV drivers and hiking advocates, respectively (see Section 7.3).
 - i. The framework will help interested parties to quickly understand the structure, foundations, and implications of the articulated types of claims.
 - ii. The framework will help interested parties to understand the criteria by which typical claims seek to be judged.
 - iii. The framework will help managers and other interested parties develop a coherent policy—that is, it will help them identify the evaluative criteria by which they judge claims.
 - iv. The framework will function as a tool for comparing competing claims.
- 5) Understand the dynamics and relationships of the case study as a whole.

- 6) Place the claims, frames, and discourses employed in the case study in relationship to the claims, frames, and discourses of at larger scales and for related issues.

The focus on claims is a conceptual entry point into evaluation of what is happening in the recreation allocation debate. The research is intended to contribute to discussion of national recreation policy, improve interim agency decisions, and increase public confidence in agency decisionmaking.

1.4. Summary

USFS and BLM line officers manage recreation in a policy vacuum. Many allocations, particularly relating to motorized and nonmotorized use, will be revised in the very near future. In a vacuum, each decisionmaker makes largely zero-sum allocations based on his or her evaluation of competing claims advanced by recreation interests. This project evaluates the claims made by recreationists to facilitate the fullest possible evaluation of claims, enhance public dialogue, and encourage wisdom in decisionmaking.

2. CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

In this chapter, I set out the conceptual framework and relevant literature that informs my research approach. I address four main bodies of literature. In Section 2.1, I situate this project within the literature on *discourse analysis*, which offers a way to think about what recreationists seek to accomplish through their speech, the ways they use speech acts to accomplish work, and how their talk relates to a larger political and discursive context. In Section 2.2, I review relevant portions of the sociology, communications, and political science literature on *framing* and *claiming*. Combined, discourse analysis, frames, and claims provide a compelling conceptual framework for analysis of competing claims. In Section 2.3, I identify the discursive and political public lands management context within which the GNF Travel Plan was negotiated. This context is critical to understanding the claims that recreationists make and the principles that they advocate utilizing to allocate recreation resources. Finally, Section 2.4 utilizes the *recreation management* literature to outline relevant data and conceptualizations of what and how recreation resources can be allocated. Table 2.1 outlines the different literatures considered in this chapter.

Table 2.1. Bodies of literature discussed in Chapter 2

<i>Subject</i>	<i>Field</i>	<i>Key Contribution</i>
Discourse Analysis	<i>Discursive Psychology</i>	Talk performs action.
	<i>Narrative Analysis</i>	People use stories to create identity.
	<i>Political Discourse Analysis</i>	Substantive and methodological examples.
Framing	<i>Social Problems Framing</i>	Social construction of issues.
	<i>Issue Framing</i>	Frames limit discussion, assign responsibility.
Public Lands Management	<i>Purpose of Public Lands</i>	Overlapping discourse.
	<i>Wilderness Debate</i>	Overlapping discourse.
	<i>Public Lands Management Procedure</i>	Overlapping discourse.
Recreation Management	<i>Quality Experience Opportunities</i>	Experience opportunities depend, in part, on social setting.
	<i>Conflict</i>	Causes of and responses to conflict.
	<i>Place Meaning</i>	Settings are not fungible; conflict stems from place-associated values.

2.1. Discourse Analysis

This section begins by situating the project within the broad concept of discourse analysis. The most fundamental assumption in this regard is that language both conveys and constitutes meaning. Accordingly, careful attention to both language and the context in which it occurs is critical to understanding how people create identity, frame arguments, and position themselves and their causes (Phillips and Hardy 2002; Hajer 1995; Wetherell 2001). The heart of discourse analysis is the study of language as an instrument of power. Discourse analysis is utilized in this research to (1) make sense of the speech and claims of recreationists, and (2) understand the issue of recreation allocation, as different actors see it.

It is important to distinguish between the terms *discourse* and *discourse analysis*. Discourse is here defined “as an ensemble of ideas, concepts, and categories through which meaning is given to phenomena” (Hajer 1993). Thus, discourse is a coalition of related language acts, practices, and symbols that fit together for a particular group. One example of discourse would be the language, concepts, and signs that both enable and constrain the speech of equestrians, one part of which might be the conceptualization of horses as near-people.

Discourse analysis, on the other hand, “is probably best described as the study of talk and texts. It is a set of methods and theories for investigating language in use and language in social contexts” (Wetherell, Taylor, and Yates 2001, i). Discourse analysis is a method and theory of inquiry into language that may be applied at the broad cultural level, or to a single text, or to language at any number of other levels. Thus, discourse analysis may be used to analyze speech acts that are too small or isolated to be considered discourse (“an ensemble of concepts...”) in themselves.

Discourse analysis centers on texts. A text is here defined as any stable representation of a concept. By stable I mean something that can be frozen and reviewed repeatedly in one form, such as a photograph, a video, or a book. In my research, most texts are literal texts—comment letters, interview transcripts, etc.

Discourse analysis assumes that discourse is constitutive, that “the things that make up our world—including our identities—appear out of discourse” (Phillips and

Hardy 2002, p. 2). Thus, there is no “true” way that we either do or should conceptualize public land recreation. Instead, society collectively and in subsets defines how we conceive of nature, how we conceive of America, how we conceive of public lands, and how we conceive of recreation. Discourse analysis is used to untangle how these concepts are created and altered, by whom, and to what purpose.

There are at least 57 different types of discourse analysis (Gill 2000; cited in Marvasti 2004), including the “core” traditions of conversation analysis, sociolinguistics, discursive psychology, critical discourse analysis, and Foucauldian analysis (Wetherell, Taylor, and Yates 2001). In Chapter 3, I discuss discourse analysis as a method; in this chapter, my review is limited to the conceptual contributions discourse analysis offers. In this work, I draw conceptually on three traditions: discursive psychology, narrative analysis, and political discourse analysis.

One branch of **discursive psychology** has produced the “Discursive Action Model” (Horton-Salway 2001). This conceptualization of communication stresses that discourses are constructed to achieve things—they are not idle descriptors. The model emphasizes certain tenets that describe typical discursive strategies, e.g., it “deals with the question of how people construct accounts in a way that makes them appear solid and factual, how they attend to other people’s accounts as motivated by self-interest, and how they manage the dilemma of ‘stake and interest’ in their own accounts” (Edwards and Potter 1992; Horton-Salway 2001). Discursive action suggests that we need to analyze situations for construction, action, and rhetoric: how discourses are built, what actions words seek to accomplish, and how discourses are positioned relative to other real or potential accounts (Horton-Salway 2001). Competing user groups are using deliberately selected words and invoking deliberately selected images and stories to persuade decisionmakers that their preferred recreation should be privileged or prioritized; the discursive action model helps identify the function of particular words and images, and focuses attention on methods speakers use to attribute blame, enhance credibility, and anticipate counter-arguments.

Narrative analysis has multiple meanings (Mishler 1995), but I take it here to mean that people often use stories to ascertain and assert who they are and why they act as they do, that narrative is often “the organizing principle for human action” (Reissman

2002, 1). People take on and assign to others particular roles, and tell stories to do this. This is true politically, where shared stories define “we-they boundaries,” how they arose, and “what they separate” (Tilly 2002, 61). Recreation researchers have also used this conceptualization, as when Patterson et al. (1994) used “claimed identity” to organize analysis of recreationists; one respondent sought to establish his credentials as a competent wilderness visitor through his stories (also see Glasspell 2002). Narrative analysis, then, means examining the overarching story recreationists tell to understand the identities that respondents seek to create; the identities that respondents create relate directly to their credibility as claimants, their worthiness as recipients of allocations, and their world-view.

Political discourse analysis is not a monolithic philosophy or method, but rather a loose collection of efforts to analyze the power and meaning of discursive strategies in political contexts—that is, analysis of the political work that discourses accomplish. Regarding natural resources, this includes the classic work of Hajer (1993; 1995) and other explicitly political investigations (see, e.g., Clark 2001; Gray 2003; Throgmorton 1993; Davidson and MacKendrick 2004; Killingsworth and Palmer 1992). Political ecology, with its interest in power and allocation of resources, has also contributed a number of politically-oriented discourse analyses (see, e.g., Leach and Fairhead 2000; Zerner 1996; Fried 2003; Moore 1993; Fortmann 1995). What unites these studies of disparate subjects is interest in the power of discourse to shape decision-making and specific public policies. Building on this previous work, here I analyze discourse not just at the individual level, but at the group level with attention to policy implications; words, arguments, metaphors, and stories are chosen, in part, to accomplish specific policy goals. Individuals largely, though idiosyncratically, reflect broader discourses, particularly, in this project, of their own user group. Part of understanding the broad discourse within which claims are made is understanding the big policy story that those claims are part of—a story that establishes what is wrong, and what ought to be done to fix it.

In sum, discourse analysis is used here to help think about the work that discourse does at both the personal level (such as disavowing stake and interest) and politically (such as proclaiming the virtue and deservingness of a target population). Because this

conceptualization stems from particular understandings of the field, it is important to understand where my research lies in relationship to other conceptualizations. Phillips and Hardy (2002, 19) usefully classify types of discourse analysis along two orthogonal axes: the relative weight of text versus context, and the relative weight of existing power versus processes of social construction. In my view, moving to an extreme along either axis is a mistake. The first axis is about method, and it seems clear that analyzing any social phenomenon (or text) in a vacuum is deeply in error—we cannot fully understand John Muir’s wilderness writings without knowing the political and social context he engaged. At the same time, Muir is more than simply a response to, and expression of, the context in which he lived. Context is critical to understanding—but it should not overshadow the importance of careful idiographic analysis, and the need for text to shape understanding of context as much as the reverse.²

The second axis is about the relative power of existing discourse and individual choice. Foucault (1979), Nietzsche (1889), and others have offered compelling examples of the ways that existing language and discourses shape and limit thinking. Gadamer summarized this by arguing that there is no escaping the given of language (Gadamer 1986); our thoughts and our ability to express them are limited by the mental tools with which we work. Accordingly, it is a mistake to underestimate the power of existing discourses, and the difficulty of challenging established discourse: most recreationists that I interviewed have had little hand in shaping their user group’s discourse. At the same time, people *are* able to shape and change language, and choose the stories and tacks they take. Individuals have agency, and they have the ability to shape language and discourse, just as those things shape them. Thus, it is a mistake to underestimate the space there is for choice (at least in this culture).³

2.2. Framing and Claiming

In this section, I examine frames and claims, two mechanisms utilized within broader discourse to achieve particular ends. In this project, I use evaluation of frames

² Patterson and Williams (2002, 27) usefully describe the relationship between idiographic analysis and contextual understanding as a hermeneutic circle, each affecting the other iteratively.

³ Further, it is a mistake to underestimate the extent to which the ability to shape discourse is unevenly distributed (Paulson, Gezon, and Watts 2003).

and claims to understand what recreationists are accomplishing or trying to accomplish both politically and discursively.

Framing is the utilization of assumptions, metaphors, claims, and previous understandings to shape and limit the way we think about an issue. Procedurally, as Entman (1993) suggests,

Framing essentially involves selection and salience. To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described. Typically, frames diagnose, evaluate, and prescribe....

In short, frames define problems, diagnose causes, make moral judgments, and suggest remedies. They are the assumptions and judgments, often unspoken, that underlie claims.

“Framing” is a rich, cross-disciplinary field of research with more than 1,000 academic citations across fields such as psychology, speech communication, organizational decision making, economics, health communication, media studies, and political communications (Hallahan 1999), as illustrated in my map of the field, table 2.2. However, it is also a field which is “fractured” by a lack of unifying theory and confusing differences in jargon (Entman 1993). A substantial portion of the field is irrelevant to this project.⁴ There are, however, two traditions of issue-framing research that are directly relevant to this project. The first tradition is research on social problems, derived from seminal works in linguistics and psychology (see Best 1995). This literature focuses on how phenomena such as poverty or alcoholism get defined as social problems. For example, Appleton (1995) reviews research on the “medicalization” of problems such as alcoholism, and the implications of framing something as a disease, i.e., that it is something beyond the control of the individual and that society should work collectively and sympathetically to address it. This set of literature is of interest principally as a series of case studies, identifying specific frames used in specific instances. This project both

⁴ For example, there is a great deal of literature on how people perceive risk based on whether the risk is framed in terms of loss or gains (see Hallahan (1999) for a cursory review), and there is a great deal of literature considering the link between frames employed by the mass media and citizen perceptions (see, for example, Iyengar 1990; Brewer 2002). While much of this literature relates generally to the idea that how problems are defined matters, much is not directly pertinent to substantive issue-framing.

benefits from those case studies, and builds on them; whether, in fact, there was a recreation problem which indicated the need for reallocation was a key part of the issue on the GNF Travel Plan.

Table 2.2. Framing literature (abridged list)

Field	Subject	Exemplar
Linguistics	Relationship between language and cognition.	<i>Tannen 1993</i>
Negotiation	How conceptual frames affect negotiations.	<i>Putnam and Holmer 1992</i>
Social Psychology	How does framing affect choices.	<i>Hallahan 1999; Guagnano et al. 1994</i>
Political Science	How problems are defined.	<i>Schön and Rein 1994; Riker 1986</i>
	How potential issues reach a decision agenda.	<i>Zahariadis 1999; Jones and Baumgartner 2005</i>
Consumer Research	How consumers make decisions.	<i>Ganzach and Karsahi 1995</i>
Survey Research	How survey wording affect results.	<i>Bradburn et al. 2004</i>
Public Relations	How conceptual frames affect citizen preference.	<i>Hallahan 1999; Guagnano et al. 1994</i>
Sociology	How are social problems socially constructed.	<i>Best 1995</i>
Media Studies	How mass media decisions affect citizen attitudes.	<i>McCombs and Shaw 1993</i>

The second relevant framing research tradition is in political science. Political science recognizes that how issues are described affects how they are perceived, and how they fare politically. This is an insight that Thucydides would have thought trite; still, it is brought home again each time polling data is affected by the wording of questions. Accordingly, policy analysis concepts like the policy streams model (Kingdon 1984; Zahariadis 1999), advocacy coalition framework (Sabatier 1995; Sabatier and Jenkins-Smith 1999), and punctuated equilibrium framework (Jones and Baumgartner 2005) are all “ideational,” arguing that policy change is driven, in part, by new perceptions of existing problems and solutions. Some policy analysts describe all policy as essentially “a contest of ideas” (John 2003), and from here it is a short step to recognize that how ideas are framed affects their currency. Actors use narrative frames to attribute blame, define alternatives, and mobilize communities (Fortmann 1995; Forester 1999; Stone 1997; Zerner 1996), and use identity frames to define communities and justify positions (Gray 2003). Generally, “frames” limit the complexity of an overwhelmingly complex situation, “and they describe what is wrong with the present situation in such a way as to set the direction for its future transformation” (Schön and Rein 1994 26). Frames define both “is” and “ought,” and in this way make claims about what appropriate policy should look like (Schön and Rein 1994, 26). This project considers the frames used by recreationists to identify both what is on the GNF, and what ought to be.

Frames are critical because they limit the resolutions acceptable to different parties. For example, defining alcoholism as choice or disease has radical implications for acceptable policy solutions to habitual drunkenness (Appleton 1995; Best 1995; Stone 1997, 198-204). Similarly, defining questions as issues of rights tends to promote uncompromising advocacy and litigation (Gray 1997, 172-3). Defining issues as fundamental to a group's identity, similarly, makes parties inflexible (Gray 1997, 176).

Discourses, frames, and claims overlap to a significant extent, so it is important to distinguish between them conceptually. As noted above, I define discourses to include the fundamental assumptions and understandings that constitute and limit our potential understanding of issues. Frames can be considered a constituent subset of discourses—specific arguments or emphasis of concepts from broader discourses that are strategically selected. Claims are specific, limited assertions made under the umbrella of broader frames and discourses. Figure 2.3 depicts the relationship of the three concepts to one another. It is important to recognize that the three ideas come from and are utilized in different literatures. In much research, frames and discourses appear to be fundamentally interchangeable as concepts, each bracketing both broader and narrower concepts. Indeed, the literatures on framing and discourse are separated more by their field of origin than conceptual distinctions. Claims, however, are more distinct.

Table 2.3. Relationship between claims, frames, and discourse

Concept	Explanation	Example 1	Example 2
Discourses	<i>Cultural norms, fundamental assumptions, normative language and conceptual structures.</i>	Enlightenment science project; objectively know the world through science.	Failure to accommodate those with disabilities is discriminatory.
Frames	<i>Conceptualizations of particular problems. Selective salience and problem definition.</i>	Decontextualized experiments reveal truth.	Trail use allocations are about <i>who</i> gets to use the backcountry, not <i>how</i> the backcountry gets used.
Claims	<i>Specific assertions</i>	Double-blind, randomized, laboratory experiments are the best science.	Failure to permit ORVs on public trails is discriminatory.

The focus on claims is important because both discourses and frames imply a consistency to viewpoints that may well be lacking. Claimants may make multiple assertions, and they may each reflect a different discourse or frame. For example, opponents of the death penalty may claim that it is immoral for the state to kill anyone,

and simultaneously that the risk of killing an innocent person is too great. The two claims are discursively incongruous, given that the second implicitly accepts that executing the guilty may be legitimate. Similarly, recreationists may take advantage of multiple, potentially-contradictory frames or discourses. This project attempts to understand not just the broader discourse, but to examine each claim on its own terms. Thus, I use the term “claims” to signal that we are interested in the aspects of discourse that assert a right or comparative priority to public resources, and to acknowledge that advocates will often advance multiple claims potentially invoking multiple frames or discourses. Ultimately, evaluating different claims requires understanding the frames and discourses that they are shaped by and take advantage of, but the merit of individual claims also needs to be evaluated in order to make policy.

Rein (1983, 26) has a description of his use of “claims” that I adopt for this project:

I use the term claims because I want to call attention to two aspects of what people receive in society. There is an element of right, entitlement, or ‘just desserts’; however, these are not always automatically forthcoming, and there is also an active process by which individuals within institutions demand, extract, request, or enforce their bids for resources. Groups and individuals continue to press to extend their entitlements; thus, claiming is an ongoing, always incomplete, process. I believe that when the entitlement is granted as a right, this must be understood as the outcome of an earlier process of claim-pressing. It is a kind of truce in an ongoing struggle that has taken the form of requests, bids, bargains, or negotiation.

Rein (1983, 32) goes on to describe how normative “claims rationales” are usually comprised of arguments about both morality and the nature of reality.

A claim, to summarize, is an assertion that explicitly or implicitly seeks to establish deservingness to some kind of consideration from the state. We use claim in two senses: (1) an argumentative assertion that may be contested; (2) an invocation of governing rules to assert a privilege or right, something that is due, that may also be contested (Spector and Kitsuse 1987, 78). I use the word claim here to invoke both senses of the word, and to emphasize the (often) contested nature of recreationist assertions regarding allocations of public lands, trails, facilities, or other recreation resources. I use

claims as the ingress for thinking about the recreation allocation issue, but understanding recreationist claims necessitates understanding of larger frames and discourses. Thus, analyzing claims also requires analysis of frames and discourse.

In this project, the claims that respondents make can often be translated into principles that respondents believe should guide distribution of recreation resources. For example, a claim that ORVs are so damaging to natural resources that their use should be restricted functionally advances the principle that the significance of recreationists' natural resource impacts should determine or influence allocations.

As is discussed below, there have been a handful of efforts in recreation management to consider specific arguments for allocative schemes, and a handful that look fairly broadly at some of the arguments that recreationists make to assert rights to particular resources. Because only a handful of recreation studies have explicitly investigated the political discourse of recreationists, this study provides new insight into the politics of recreation, and of public lands management more broadly. Further, none of these studies have placed recreationist arguments within this conceptual framework. Thus, this study offers an opportunity to test the utility of the claims conceptual framework.

2.3. Public Lands Management

Recreation allocation disputes are unique, but they are not isolated; they are both shaped by and invoke well-established discourses regarding public lands. In this section, I situate the recreation allocation discussion relative to three other debates: those over (1) the purpose of multiple-use public lands, (2) wilderness designation on public lands, and (3) the procedure of managing public lands.

2.3.1. Purpose of Public Lands

The purpose of the public lands has been contested since the American Revolution and the Articles of Confederation (Rasband, Salzman, and Squillace 2004, 81). The debate has been recognizable in its modern form since at least the first national forest withdrawals in the late 19th century. William Graf (1990) describes an 1880s debate regarding John Wesley Powell's public domain proposals that would be familiar

in Rocky Mountain states today, e.g., “The vast majority of westerners viewed Powell's schemes as foolish designs by a power-hungry, elitist scientist who by happenstance turned up in a powerful bureaucratic position. Western residents saw themselves as the last vestiges of the American frontier spirit....” (Graf 1990, 47) To simplify excessively, this debate has typically featured three distinct policy positions regarding public lands: (1) that public lands should be sold to private owners or developed to the benefit of private individuals; (2) that public lands should be managed for preservation; and (3) that public lands should be managed by the government to provide scientific commodity development and conservation.⁵

For this project, the discourses associated with the first two positions are most relevant, and one end of this spectrum of beliefs regarding the purpose and value of public lands is the environmental movement. The environmental movement is far from monolithic, but, according to (Layzer 2006, 2-3) we can take as its central tenets: (1) The romantic/transcendentalist notion that personal redemption and virtue are achieved through engagement with wild nature; (2) the belief that humanity and nature are interdependent, as articulated by Aldo Leopold; and (3) that there are physical limits to the potential for growth. Additionally, some argue that environmentalism is characterized by a belief that federal lands belong equally to all Americans (Caulfield 1989, 49), and preference for centralized control of resources by the federal government. Dryzek and Schlosberg (1998, 8) summarize this worldview in this way: “The basic argument is simple: modern economic life assumes that growth and expansion can go on without limits, while the planet is made up of systems of finite resources that are threatened and carrying capacities that we are in danger of overshooting.... Unless changed, modern patterns of growth and development will lead to ecological collapse.” Quintessentially, Arrow et al. (1998) argue that human activity threatens to push many ecological systems into new, potentially disastrous, states of equilibrium. While much of the environmental movement is characterized by simple concern for sustainability, quality of life, or the conservation of particular resources such as biodiversity and ecosystems, for some

⁵ Again, this simplifies dramatically, albeit usefully. For example, see Kemmis (2001) for advocacy of public lands devolution in order to facilitate conservation and community, or McPhee (1977) for a complicating portrait of Gifford Pinchot.

advocates it represents a more fundamental philosophical critique of the Euro-American economy and world-view (Drengson and Inoue 1995).

The other end of this spectrum of beliefs concerns commodity development discourse. A relatively stable commodity development discourse has been present in debates, successively, over the withdrawal of forest reserves, the Taylor Grazing Act, the Wilderness Act, and the designation and roadless area battles that followed, and the modern reformation of the BLM and Forest Service (including passage of the Multiple Use Sustained Yield Act of 1960 (MUSYA), Federal Land Policy Management Act of 1976 (FLPMA), and National Forest Land Management Act of 1976 (NFMA),). In its most extreme form, the consumptive side of that debate has been known under many different names (e.g., the Sagebrush Rebellion), but is today called the “Wise Use” movement. James McCarthy (1998, 128-9) defines Wise Use as a movement that “attempts to increase private access to public resources and reduce state regulation of private land and resources.” McCarthy (2002, 1281) sums up much of the Wise Use movement in this quote:

The movement’s central complaint is that community members are losing access to and control over these [local] lands and resources because of ever more vigorous pursuit of environmental goals by the resource conservation branches of the central government—a trend spurred on largely by the interventions of distant, highly bureaucratic and professionalized environmental groups, virtually none of whose staff or members has ever been to the particular lands in question. . . . To national and international audiences who will listen, they proclaim their superior knowledge and understanding of local environments, assert the historical precedence and legitimacy of their uses, and argue that local users should have greater rights than nonlocal claimants. Finally, they suggest that conservation is merely a cover for increased state control and the assertion of class privilege in the region.

Distrust of federal decisionmaking processes and suspicion of outgroup power are a key part of the Wise Use narrative (Cawley 1993, 4), and, relatedly, Wise Use has “insisted that all members of the American public did not have equal rights to advance claims to federal lands; those rights were tied to place. Legitimate claimants were those who could demonstrate some combination of historical continuity, residence in the rural communities in question, productive use of federal lands, and contributions to the local

economy” (McCarthy 2002, 1291). Wise Use tells a story of plenitude, rather than finitude (Layzer 2006, 4). Thus, where environmentalists see the need to conserve scarce resources, the technological optimism of the Wise Use movement leaves advocates “confident that the nature of the physical world permits continued improvement in humankind’s economic lot in the long run, indefinitely” (Simon and Kahn 1998 45). Wise Use advocates argue that concerns about the environment are exaggerated or nonsensical (Simon and Kahn 1998), and subscribe to a view of world history (dominated by the recent Euro-American experience) as one of continuous progress (Simon and Kahn 1998; Easterbrook 1998). The Wise Use movement typically portrays efforts to improve conservation through public lands management changes as threats to the freedom of local people (Wilson 1997; Gray 2003), and portrays environmental concern as “anti-people” (Gottlieb 1989, 4). Wise Use, not surprisingly, has much in common with the political right in the U.S., including the fostering of “suspicion, if not hatred, of government,” (Hardisty 1999, 33), and concern about how “elites” use government to socialist and other nefarious ends (Hardisty 1999, 51-2; Viguerie 1991, 6).⁶

With regard to public lands, the difference in views between Wise Use and environmentalists plays itself out most obviously in relationship to the purpose of public lands. The purpose of public lands was ostensibly revised and settled for the Forest Service with passage of the Multiple-Use Sustained-Yield Act of 1960, and established for the BLM with FLPMA, in 1976. Both statutes established that federal policy was to manage public lands for commodity outputs, conservation, and recreation simultaneously. Throughout the 1980s and 1990s, Congress, the agencies, and the public wrestled with how to reconcile the multiple uses when they conflicted with one another. As the General Accounting Office wrote in 1999:

In a February 1997 testimony and an April 1997 report, we stated that statutory changes to improve the efficiency and effectiveness of the Forest Service's decision-making process cannot be identified until the Congress and the agency reach agreement on which uses the Forest Service is to emphasize under its broad multiple-use and sustained-yield mission and

⁶ For discourse like this from the Wise Use Movement, see, for example, Cook (1997), attesting that concern about ORV impacts on the environment demonstrates that “greens” are actually “watermelons,” “(green on the outside and red on the inside) because Communism is our most recent experience with this type of brutal social organization.”

how it is to resolve conflicts or make choices among competing uses on its lands. During the intervening two years, the Forest Service has clarified its overriding mission and funding priorities. However, these priorities are still “de facto” in that they have evolved over many years in response to many laws, and the Congress has never explicitly accepted them or acknowledged their effects on the availability of timber and other uses on national forests. (U.S. General Accounting Office 1999)

The GAO’s belief that the Forest Service had resolved internal mission and funding priorities proved overly optimistic. Dispute over the purpose of public lands was unabated at the close of the Clinton administration, and in the subsequent Bush administration.⁷

The most salient thing to take away from this debate, in this context, is simply that it is occurring. That is, the purpose of public lands, as well as other claims made by Wise Use advocates and environmentalists, is up for debate. Thus, recreationist discourses about the purpose of national forests are part of a larger argument. Because environmentalists and nonmotorized recreationists may see their goals as mutually compatible, both politically and in terms of on-the-ground management of public lands (Laitos 2004), hiker views may be related to environmental discourse. Similarly, ORV driver organizations have frequently been associated with the Wise Use movement (Switzer 1997, 93-5; McBeth and Shanahan 2005), or self-identify as part of the Wise Use movement (Collins 1989).

To date, little research has investigated how different types of recreationists view the purpose of public lands (exception: Gray 2003). This research will attempt to close that gap, as well as flesh out the relationship between views about national forest purpose and appropriate allocations. This research, additionally, is the first detailed consideration of the relationship between ORV drivers’ discourse and that of the broader Wise Use movement.

2.3.2. Wilderness Designation

Closely related to the dispute over the purpose of public lands is the question of wilderness designation. Since the early parts of the 20th century, some individuals and

⁷ For an overview of the debate over public lands purpose see Hoberg (2004), Rey (2005), General Accounting Office (1999), Floyd (1999), Culhane (1990), Wilkinson (1997), Breazeale (2001), Committee of Scientists (1999), Bosworth (2001), Baker (2000), Wilkinson (1987), and Board (2005).

constituencies have advocated dedicating some federal public lands to wilderness management (see, e.g., Wellman and Propst 2004; Leopold 1921; Marshall 1933; McCabe 1971; Sutter 2002; Nash 1982). This debate has pitted environmentalists and non-mechanized recreationists against commodity extraction advocates and off-road vehicle drivers, and it has frequently been a polarizing issue, particularly in the West, since prior to the 1964 Wilderness Act. Political battles over wilderness designation occurred in the 1970s, 1980s, and 1990s, and have played a central role in Western politics over the last three decades, e.g., prominently contributing to the 1988 election of U.S. Senator Conrad Burns in Montana (Collins 2002; Larmer 1994). The issue continues to be divisive today (Nie 2004), acting as a driving issue in current forest plan revisions (see, e.g. Jamison 2006; Ring 2004).

The wilderness issue is relevant to recreation allocations because, it is, in part, a recreation designation, prohibiting motorized access in affected areas (Sutter 2002). At the same time, the presence of ORV use is often an effective argument against wilderness designation (Adams and McCool 2009). Further, the wilderness issue features many of the same players and much of the same discourse as does the recreation allocation debate. For example, the most prominent advocate of nonmotorized trails on multiple-use lands in Montana is the Montana Wilderness Association, formed in 1958 to achieve wilderness designations in the state. Some of the most prominent opponents of wilderness designations in the state have been ORV drivers and organizations. For these reasons, the discourses of the wilderness debate are closely related to the discourses of recreation allocation.

2.3.3. Public Land Management Procedures

Concomitant with the dispute over what national forest lands are for, and whether they should be designated as wilderness, the last three decades have seen intense debate over the procedures by which they should be managed. This dispute has multiple dimensions, such as the appropriate location of decisions (Washington, D.C. vs. local), the appropriate role and weight of the input of different publics, the appropriate amount of discretion for the agencies, and technical disputes with significant implications, such as the exact role in national forest planning of management indicator species. This

dispute continues unabated, as the previous two administrations both tried to rewrite the implementing regulations of NFMA. The dispute mixes value conflicts (such as beliefs about the appropriate amount of protection for wildlife), ideological disputes (such as how to make bureaucratic decisions more democratic), and self-serving efforts to alter the substantive outcomes of decisions by altering the rules (such as by locating decisions where a particular group exerts greater influence).

Recreation allocation decisions are made as part of the land management planning processes governed by NFMA and FLPMA, for the Forest Service and BLM, respectively, and NEPA for both.⁸ Accordingly, as with other public land decisions, process figures prominently in discussion about recreation management on national forests. For example, the American Council of Snowmobile Associations advocates increased “local” control over federal management of roadless areas (American Council of Snowmobile Associations 2005). Indeed, advocates of commodity extraction typically seek to “localize” the debate over allocations, while environmentalists attempt to “nationalize” the debate (Nie 2006, 425; 2005).

Additionally, the FS NEPA process is frequently the target of ire from those who dislike particular decisions. Critics typically assert that decisions were made prior to the process, and that, therefore, most of the process is a meaningless paper exercise (Council on Environmental Quality 1997). In any given instance, these complaints may or may not be correct: regardless, public land stakeholders who do not like a decision often attack the process by which it was made. Since most recreation allocation decisions leave some parties aggrieved, anti-process discourse is often prominent.

In the academic community, criticism of process has sometimes focused on the limitations of rational-comprehensive planning (Lindblom 1995; Walther 1987; Kørnø and Thissen 2000), or the difficulty of its implementation (Culhane 1990). Concomitantly, observers have argued that many public land management problems are “wicked.” Allen and Gould (1986) first applied this argument to national forests, suggesting that planning on multiple-use forests is a wicked problem, where wicked problems are those that (1) can be seen as symptoms of some larger problem; (2) that can

⁸ Other statutes such as the Endangered Species Act and Federal Advisory Committee Act may also be relevant.

be defined in multiple ways, none of which is right or wrong; (3) are unique to particular places and times; (4) have no “stopping rule” for resolution; (5) have no true or false answer; (6) have significant consequences; (7) and defy scientific prediction.

Subsequently, observers have characterized national forest management as a wicked problem, including, among others Shindler (1999) in the Pacific Northwest and McBeth and Shanahan (2005) in the Greater Yellowstone Area (encompassing the study site). Brooks and Champ (2006) have asserted that allocation for motorized recreation is a wicked problem; Nie (2003, 314) and Gray (2003) have implied it. That conclusion is consistent with the findings of this research, particularly the lack of consensus over a clear problem definition and, per the discussion on the purpose of public lands, the possibility that this problem is merely a symptom of larger issues.

2.4. Recreation Management

The discourse analysis literature offers a way to conceptualize the goals and strategies of recreationists’ discursive acts, while evaluation of frames and claims offers an avenue for evaluating specific arguments. Extant debates on public lands provide contextual background on the debates that form and inform debate over public land recreation allocations. The recreation management literature contributes a last critical conceptual piece by articulating exactly what is at stake in recreation allocations, and why there is conflict over recreation allocations.

The recreation management literature provides a conceptual framework for recreation allocation by providing a number of underlying understandings, outlined below under the general headings: (1) managing for experience opportunities; (2) conflict and desired experience; (3) place; and (4) allocation.

2.4.1. Managing for Experience Opportunities

The recreation management literature has long argued that recreationists seek experiences, not just activities (such as walking or driving) without regard for the setting in which they occur. Wagar (1964; 1966) first called for ensuring “quality” in a range of recreation experience opportunities. This insight was translated into a framework for management using the notion of a spectrum of opportunities, eventually formalized by as

the Recreation Opportunity Spectrum (ROS) (Clark and Stankey 1979; Driver and Brown 1978). Still considered a key concept in Forest Service and BLM recreation management today, ROS describes settings on a continuum from rural to primitive on the basis of management attributes, social attributes, and biophysical attributes. A large part of ROS's underlying rationale is that these settings are important to recreation experience—that who a recreationist encounters, in what number, behaving what way, affects experience opportunity. This idea was further utilized in the 1980s in the development of the recreation decision-making framework, Limits of Acceptable Change (LAC)⁹ (Cole and McCool 1997; Stankey et al. 1985; Krumpe and Stokes 1993; Cole and Stankey 1997).

The crux of this conceptualization is the recognition that land managers cannot provide or control actual experiences, but that management can substantially impact the sort of experiences possible in a given landscape (Patterson and Williams 2002, 61). The allocation debate is about what social, managerial, and environmental attributes will bookend experience opportunities: it is about managing to provide particular settings. Recreationists care about the setting in which they pursue their activity, and other uses and users in an area are part of that setting.

2.4.2. Conflict and Desired Experience

Since the presence of other recreationists can affect experience opportunities, it is no surprise that recreation researchers have long been concerned about *conflict* between recreationists (see, e.g. Lucas 1964; Knopp and Tyger 1973). Studies have consistently found that the nonmotorized recreationists experience “conflict” with motorized users (see, e.g. Jackson and Wong 1982; Knopp and Tyger 1973; Devall 1981; Adelman, Heberlein, and Bonnicksen 1982; Noe, Wellman, and Buhyoff 1982; Watson, Williams, and Daigle 1991; Behan, Richards, and Lee 2001). Vittersø et al. (2004) found that even a single encounter with a snowmobile could diminish the reported quality of cross-country skiers' experiences. Researchers have frequently found that conflict between motorized and nonmotorized recreationists is *asymmetric*. That is, that a motorized user feels less dissatisfaction as a result of an encounter than vice versa (Devall 1981; Lucas

⁹ A number of similar frameworks followed, such as VERP (Hof and Lime 1997; Manning 2001; Manning et al. 1995); VAMP (Parks Canada 1985); and VIM (Graefe, Kuss, and Loomis 1985). For a comparison of these frameworks see Nilsen (1997) and Moore (2003).

1964; Knopp and Tyger 1973). Asymmetry is important because it affects the nature of claims—some constituencies may argue that limits on recreation activities are wholly unnecessary, because for that group, conflict is not intense enough to justify limits on use. ORV driver groups have sometimes argued that segregation of uses is unnecessary (see, e.g. BlueRibbon Coalition 2005), and presumably that is partly because drivers' experience is less affected by the presence of hikers.

Conflict research has been fundamentally shaped by a seminal 1980 article in which Jacob and Schreyer provided a conceptual model of conflict and speculated about potential causes of conflict. Arguing that conflict ensued when one recreationist thwarted achievement of another recreationist's goals, Jacob and Schreyer defined conflict as "goal interference attributed to another's behavior." They identified four major factors that result in conflict, including *activity style* (related to recreationists' identity); *resource specificity* (related to site-specific characteristics and place attachment); *mode of experience* (often related to mode of transportation); and *lifestyle tolerance* (i.e., a recreationist's tolerance of outgroups). In the aftermath of Jacob and Schreyer's article, research continued to confirm that conflict existed, and offered significant support for the four conflict-causing factors identified by Jacob and Schreyer (see, e.g., Watson, Niccolucci, and Williams 1994; see generally Manning 1999, 194-206). Jacob and Schreyer's conceptualization has been invaluable in providing direction and coherence to conflict research. However, the goal-interference model is no longer adequate because there are reasons to doubt that recreationists always have clear and well-understood "goals" that are impacted by encounters. (Patterson et al. 1998)

To address these shortcomings, in the 1990s, without repudiating Jacob and Schreyer, some recreation researchers began to argue that conflict is, in fact, a result of differences in norms "shared standards of behavior for specific recreation places." (Ruddell and Gramann 1994, 95) As Vaske et al. (2008) argued, "Defined in this manner, conflict essentially becomes a normative as opposed to a motivational (goal) issue. Norms are evaluative beliefs (standards) regarding acceptable behavior in a given context." Those advocating this conceptualization argue that norms violations (such as littering or evidence of contrasting values) might lead to "interpersonal conflict," defining interpersonal conflict as that which "occurs when the presence or behavior of an

individual or group interferes with the goals of another individual or group” (Vaske, Needham, and Cline 2007, citing Jacob & Schreyer) Additionally, however, this school of thought argued that, in contrast, “social-values conflict” results when more general norms that have nothing to do with on-trail encounters are violated. For example, Vaske et al. (1995) argued that complaints about hunting by those who had not encountered hunters in the field indicated a social-values conflict. This line of research is valuable for pointing toward the extent to which conflict may result from fundamental differences in views (such as the purpose of a recreation area), rather than interference with recreational goals (such as noise interfering with a desire for quiet). However, there are concerns regarding both the conceptualization and measurement of norms, and it is not clear that the distinction between interpersonal and social-values conflict is well defined and measured. For these reasons, the norms and social-values conflict model will not be utilized in this dissertation.¹⁰

One further conceptualization of conflict was suggested in the mid-1990s. In 1995, Dale Blahna and colleagues identified “social conflict, safety, physical impacts, managerial equity, and philosophical ‘appropriateness,’” as factors that can create conflict. This is the best extant typology of the factors that create conflict, and it finds support in the literature. For example, although safety had not been incorporated in previous models, it has frequently been identified as a cause of conflict between recreationists (Moore, Scott, and Graefe 1998; Watson, Williams, and Daigle 1991; Ruddell and Gramann 1994; Vaske et al. 2008; Adelman, Heberlein, and Bonnicksen 1982). In this manuscript, I will use Blahna et al.’s five factors as a heuristic for thinking about factors leading to conflict.

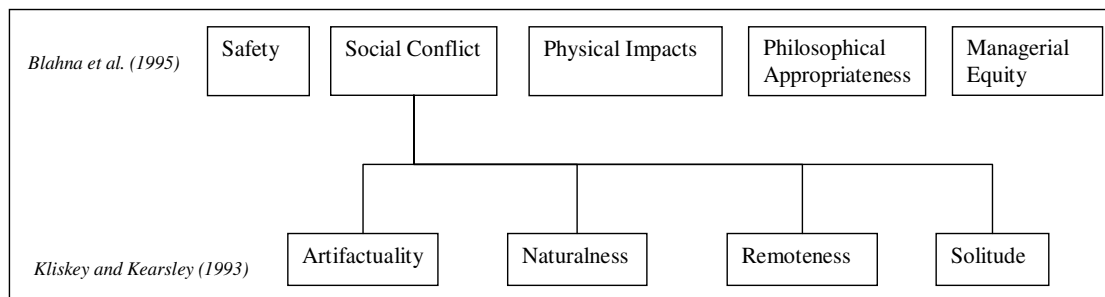
While four of these categories are relatively self-explanatory, social conflict requires further discussion. According to Blahna et al., social conflict simply describes conflict stemming from either direct encounters on trail or indirect encounters, e.g., witnessing evidence of another group’s impacts. Conflict that results from a judgment

¹⁰ Schneider and Hammitt (1995) also suggested a new conceptualization of conflict in the 1990s, based on psychological models of response to stress. However, their model has been little tested, and their definition depends upon identifying “disruptive, stressful” events that “tax ... a person’s psychological resources.” (Schneider and Hammitt 1995, 229) It is not clear how taxation of psychological resources would be measured, and possible that this would define conflict so broadly that even the mildest annoyance at an encounter would be defined as conflict. Accordingly, I will not utilize the stress model in this manuscript.

that another activity is inherently inappropriate, whether encountered or not, is captured under the dimension of philosophical appropriateness.

There are any number of factors that could lead to social conflict, including the sorts of status and valuation factors identified by Jacob and Schreyer (1980) and the behavioral norms identified by Vaske et al. (1995), Carothers et al. (2001), and others. For exploration of conflict as hikers experience it, however, I found a different heuristic more valuable: that of dimensions of backcountry hiking experiences. Given that the Gallatin is made up principally of relatively remote, wild landscapes, it is reasonable to assume that the experience hikers typically desire on the GNF reflects many of the same experience attributes as have been found in studies of other backcountry experiences, as by Lucas (1964), Hammitt (1982), Patterson (1990), and Patterson et al. (1994). Researchers have conceptualized dimensions of the backcountry hiking experience in a number of ways, but I found Kliskey and Kearsley's most relevant to the GNF. Kliskey and Kearsley (1993) and Kliskey (1994) divided the experience that hikers in a variety of natural landscapes seek into four "properties:" artifactuality (i.e., "absence of human impact," related to Blahna et al.'s physical impacts, but also encompassing commodity development, bridges, shelters, etc.), naturalness (i.e., integrity of natural features), remoteness (distance from conventional landscapes), and solitude. Kliskey and Kearsley's dimensions have a good balance of specificity and breadth; are founded on empirical research; and are consistent with the approaches of and results of similar research, such as Hammitt's. Accordingly, Kliskey and Kearsley's dimensions are utilized in Chapter 5 as a heuristic for considering dimensions of the experience hikers

Figure 2.1. Dimensions of recreation conflict



may seek on the GNF, and, accordingly, how the presence of ORVs could affect those dimensions, and, accordingly, whether experience degradation may occur and result in

conflict. (While Blahna et al.'s framework is valuable for thinking about conflict experienced by ORV drivers, the dimensions of social conflict experienced by ORV drivers as a result of hikers' presence simply do not seem to mirror those proposed by Kliskey and Kearsley.) Figure 2.1 summarizes the dimensions of conflict I consider in this manuscript.

Most recreation researchers still use Jacob and Schreyer's original definition of conflict as goal interference. In acknowledgment that contemporary research has expanded sources of conflict beyond Jacob and Schreyer's (1980) goal-interference model, in this paper I'll use a more general definition of conflict: *conflict results from experience degradation attributed to another agent*.

2.4.3. Fungibility

There is an expanding literature of "place," which attempts to understand the symbolic meaning of landscapes (Greider and Garkovich 1994; Vandergeest and DuPuis 1995; Yung, Freimund, and Belsky 2003; Patterson and Williams 2005; Williams and Vaske 2003; Stokowski 2002). Some researchers have utilized this concept in regard to recreation (see, e.g., Gibbons and Ruddell 1995; see also Jacob and Schreyer 1980, regarding "resource specificity"), and the underlying nature of their claim is that settings are not **fungible** (Williams 2007, 33; Williams and Patterson 2008, 110)—attachment is place-specific.¹¹ Williams and Carr (1993), for example, urge managers to recognize that "resources are not just raw materials to be inventoried and managed as a commodity, but also and more importantly, places with a history, places that people care about, places that embody a sense of belonging and purpose that give meaning to life." It follows that (1) disputes over allocation may functionally be disputes about the meanings of places and, relatedly, philosophical appropriateness, rather than recreation or goal-interference *per se*, and (2) that allocation discourse will reflect attachment to particular places, not just a generalized desire for *x* amount of area to pursue *y* activity. It further follows that allocation discourse will be at least partly rooted in a specific context.

¹¹ Recreation management researchers at one time sought to identify key recreational characteristics in order to learn how to substitute one activity or location for another. "Substitutability," the opposite of fungibility, would imply that all that is at stake in recreation allocations is total distribution of specific types of comparable settings (for a review of substitutability research see Manning 1999, Chapter 10).

2.4.4. Allocation

The recreation management literature leads to the conclusion that conflict between recreation constituencies is real, and causes recreationists to either shift their use or accept suboptimal experiences.¹² Thus, at the heart of the recreation allocation issue is a material contest. When the Forest Service and BLM determine which activities (in what measure, through what portals, via what rationing system) are permitted in an area and which are not, the agencies are making decisions that allocate a public resource: experience opportunities. many decisions—to pave a road, not to regulate use, to change current use restrictions, to manage for the widest possible clientele, to ration use, etc.—change experience opportunities. While some experience opportunities are mutually (or asymmetrically) compatible, others are not. Accordingly, with exceptions, experience opportunity allocation is generally zero sum: providing a particular opportunity precludes providing many other potential opportunities. And that is why recreation researchers have long argued for explicit, public allocations and for explicitly identifying “WHO should get the goods” (Schreyer 1976).

Schreyer was one of a number of researchers who called, in the 1970s, for consideration of how recreation resources were being allocated. Stankey (1972) argued for such consideration within designated wilderness, and evaluated the winners and losers for different systems of opportunity rationing (Stankey and Baden 1977). At least one conference was held to consider allocation between the outfitted and non-outfitted public (Buist 1981), while ROS was, in part, an attempt to clearly communicate allocation decisions to the public. Periodic attempts have since been made to revive interest in the issue (Dustin and Knopf 1988; McCool and Cole 2001; Cable and Watson 1998), and one could argue that benefits-based management has implications for allocation (Driver 2003; Driver and Bruns 1999; Manfredo, Driver, and Brown 1983). For the most part, however, Schreyer’s exhortation has gone unheeded: recreation research has little to say on what experience opportunities should be provided on national forests, or how to figure that out.

¹² Manning (1999, 99) summarizes: “There is substantial evidence of temporal and intrasite displacement in outdoor recreation. Support for intersite displacement is less definitive.” Intersite displacement has proven difficult to measure—how do you identify and quantify the people who aren’t using a place? Still, common experience leads one to believe it is important.

In travel planning, claims are the manifestation of recreationists' efforts to sway FS decisionmaking to provide or prioritize more of a particular range of experience opportunities. In examining these claims, this research is partly an attempt to return to the tradition of asking questions about who should get the goods—or, more accurately, which experience opportunities will be prioritized.

2.5. Literature Review Summary

To summarize the conceptual framework being used, I use discourse analysis to conceptualize discursive acts and understand what those acts accomplish or are meant to accomplish. The issue-framing literature helps identify the link between discursive choices and policy goals. The recreation management literature helps clarify the material issue at stake and the relationship between specific policy decisions and material outcomes. Finally, understanding ongoing debates about the management of public lands shed light on the specific discourses, frames, and debates that overlap with recreation allocation debates.

2.6. Propositions

I close this chapter with a number of propositions that I used to guide my research. These were not hypotheses to be tested, but conjectures to be considered during analysis. They complemented my research question by articulating related avenues of inquiry and exploration.

Proposition 1

The implication of much discourse theory is that people have a limited ability and/or motivation to invent new discourse. The implication of framing theory is that, at least in politics, people attempt to deploy the frames that best advance particular interests. Thus, I expected different recreationists in the same user groups to identify a fairly consistent set of claims within a fairly consistent set of discourses. The assumption was that the groups will have settled on a fairly uniform set of discourses that advance the groups' interests, and that individuals will have some difficulty straying from that dominant in-group discourse. Because different discourses and claims benefit different

groups, presumably the discourses and claims will be substantially different, based on user group. Thus, Proposition 1: *Recreationist claims and discourse will vary significantly between groups; significant commonalities will be found within groups.*

Proposition 2

Discourse and narrative analysis argue that people use talk to create their identities. Some schools of frame analysis argue that interested parties attempt to create positive and negative “target populations” for policies.¹³ As a result, I expected a portion of the claims members of different user groups advance to be about framing particular population images. I expected individuals to claim that their own user group was more deserving of allocations than other user groups because of particular real or imagined characteristics of the various groups. Thus, Proposition 2: *Recreationists will try to construct community identities that make their group worthy of public support and allocations, while disparaging the worthiness of competitor groups.*

Proposition 3

Recreation allocation is part of a much larger discussion over the appropriate management direction of public lands, as well as the appropriate processes for making decisions about public lands. Accordingly, I expected the claims and discourse of recreationists to echo and invoke this broader discourse. In particular, I anticipated that the claims of ORV drivers would include some of the mainstays of the Wise Use movement, e.g., that decisionmaking should be local, rather than federal; that the definition of “multiple use” is all uses in all places; and that, consistent with Proposition 2, environmentalists are ignorant and disingenuous. Hiker claims, on the other hand, I expected to reflect a tension between the discourse and tenets of the environmental movement and advocacy of recreation (which can compromise environmental integrity). The claims of both user groups, I anticipated, would reflect differences in conceptualization of the purpose of public lands. Put simply, Proposition 3 is: *Recreationist claims and discourse will reflect the larger discursive context exemplified by the discourse of the Wise Use and environmental communities.*

¹³ In sociology see Best (1995); in political science see Schneider and Ingram (2005).

Proposition 4

The recreation management literature indicates that conflict between motorized recreationists and nonmotorized recreationists is often asymmetric, with motorists compromising self-propelled recreationists' experiences, but not the reverse. Thus, I expected the claims and discourse of hikers and ORV drivers to diverge significantly over the shared use of trails, as hikers argue that trail use should be segregated, while ORV drivers argue that trails should be shared by all users. Stated as Proposition 4, this is: *Hikers will claim that joint allocations fail to accomplish the goals of public land recreation management, while ORV drivers will claim that joint allocations best accomplish the goals of public land recreation management.*

3. METHODS

In this chapter, I discuss the methods used in my research. In the first section of the chapter, I explain the choice of discourse analysis as a methodological framework. While other qualitative methodologies would undoubtedly serve well, I argue that discourse analysis is particularly useful in this case because of its focus on language, its focus on context, and its “toolkit” flexibility.

In the second section of the chapter, I explain the choice of a case study as the most appropriate design for this research because (1) depth of understanding of claims is best accomplished this way, and (2) allocation claims are anchored to specific places with specific histories and cultures of use. I discuss the most fruitful scale for a case study, and I discuss selection of the Gallatin National Forest (GNF) as the study site.

In the third section of the chapter I spell out the methods used in the research.

3.1. Discourse Analysis as Method

Understanding recreationists’ claims to public lands currently can best be accomplished through discourse analysis. The issue is largely unresearched,¹⁴ and the claims, frames, discourses, and their meanings to different individuals or user groups are largely unknown; discourse analysis provides the best means of remediating this lacunae. Saying that my method is discourse analysis signals my conceptual orientation more than it does a rule-bound method of inquiry, for two reasons. First, there is no broadly agreed-upon set of procedures for accomplishing discourse analysis (though there is some useful guidance). Second, the methods articulated in this chapter are common to many qualitative approaches, and the decisions within them are guided not just by the discursive action model, but by hermeneutics (Patterson and Williams 2002), grounded theory (Strauss and Corbin 1990; Charmaz 2004), and other structures of inquiry.

Despite these ambiguities, I describe my approach as discourse analysis because discourse analysis orients my conceptual approach in a number of ways. First, discourse analysis explicitly focuses on the use of language not just to reflect reality, but to create it

¹⁴ There have been a limited number of qualitative explorations of recreationist views relative to public land management, such as Church and Gilchrist (2007), Gray (2003), (Patterson and Williams 2002, 69-77), and Brooks and Champ (2006).

(Phillips and Hardy 2002, 6). Given my assumption that the claims, frames, and discourses utilized by recreationists are at least partly a strategy to create a perception of the allocation issue that is favorable to given constituencies, an approach that emphasizes the use of words, stories, and figures of speech by recreationists is appropriate.

Second, discourse analysis is appropriate because it encourages close attention to context (Phillips and Hardy 2002, 4). Discourse analysis focuses on language usage in a certain community and on history. It is this emphasis on language and history “that leads to an insistence on the finite, conditioned, and situated nature of all understanding....” (Wachterhauser 1986, 12) Contextual focus is appropriate to this project because (a) the research considers the claims of very specific communities, and (b) claims will be best understood in the specific temporal, geographic, and cultural context that gives rise to them. While claim-types should be fairly universal, generalization should only follow understanding of claims and claim-types in a specific, real context.

For these reasons, discourse analysis is the most appropriate method for this research.

3.2. Selection of a Study Site

Discourse analysis can be carried out with different units of analysis at different scales. For example, some discourse analysis looks at only a single text, while other discourse analysis evaluates a variety of speech acts from a variety of sources and contexts. For this research problem, the most appropriate way to proceed was with interviews as the texts in a case study of limited geographic scale. In this section, I discuss why a case study was appropriate. In the following section, I discuss the scale of the case study. In the subsequent section I discuss the criteria used to select a study site.

3.2.1. The Logic of a Case Study

A case study was appropriate for this project for a number of reasons. First, as Yin (1989, 23) argues, a case study is appropriate when the research question “investigates a contemporary phenomenon within its real-life context,” where “the boundaries between phenomenon and context are not clearly evident....” For recreation

allocations, this is exactly the case: the purpose of the project is to explore a contemporary phenomenon and explore its meanings and boundaries.

Second, I hope the project will provide a conceptual framework of recreationist claims that will be widely useful. To do this requires a clear understanding of one set of claims. As Patterson and Williams (2002) argue for hermeneutics, it is best to start with the attempt to understand things idiographically, then evaluate whether nomothetic generalization is possible. For this research, that will mean first understanding the claims of each individual, then of understanding and relating the set of claims made across the user group. While understanding the study site is critical to understanding the claims made there, that understanding should help comprehension of claims of other sites. While my results are not generalizable in the sense that they can be identically repeated in other locations (Patton 2002, 485), I believe that the features I identify “are not ephemeral, even if not completely stable, and also that their ramifications are fairly widespread” (Taylor 2001, 14). If I have selected the appropriate user groups and study site, a nearly full range of the types of claims that are made at other sites should have been invoked.

By full range I mean not that every possible claim has been invoked, but that nearly every type of claim has been invoked. By type of claim I mean claims that share common foundations and implications, regardless of specific elocution—claims are a universal phenomenon of limited variety. For example, one type of claim might be that the economic benefits delivered by one user group in comparison with others justify primacy in allocations. Different individuals in different places associated with different user groups may articulate an infinite variety of claims that are all of this basic type, depending on very similar logical and discursive foundations, and carrying similar implications if accepted as an allocative principle. If a wide range of claim types have been invoked, I have the data necessary to construct a framework of claims that can be applied widely.

It is likely that every recreational user group (equestrians, climbers, anglers, etc.) makes somewhat different claims to public land allocations.¹⁵ However, hikers and summer ORV drivers are large user groups that pursue multiple activities and

¹⁵ Other non-user group constituencies, such as scientists, managers, and political representatives may also be important to policy decisions. However, their claims and discourses are beyond the scope of this study, to the extent that they are not captured by these two key user groups.

experiences. Hikers, for example, range from experienced backpackers to casual day-hikers. ORV drivers, for example, range from expert motorcyclists to novice ATV drivers. Both user groups include people who use a particular mode of transportation to gain access to particular sites for other activities, such as hunting, climbing, fishing, and so forth. Both groups are heterogeneous, taking in recreationists that pursue a wide range of experiences. The user groups, further, are opposites of a sort, frequently in competition, and frequently making substantially different claims to the same resource.

There are two potential drawbacks to the single-site case study used in this project. The first is the possibility that some claims are unique to the study site, resulting in attempts to generalize that are dependent on non-representative data. Given the extent to which information is shared between recreation groups, and the extent to which regional and national groups participated in the Gallatin travel planning process, it seems unlikely that a significant proportion of the total claim types are site-specific.

The second potential drawback is that there may not have been an adequate range of claim-types represented on the Gallatin—that many types of claims simply were not relevant on the Gallatin, but would be commonly represented in other places. My sampling strategy was designed to ameliorate this concern, and the site was chosen in light of its resistance to this problem. It is probably true that no single study site will capture all possible claim types across the U.S., but the Gallatin seems highly resistant to this problem.

3.2.2. Scale and Delineation

The discussion about appropriate recreation use of public lands occurs at the national level, the local level, and everything in between. While studies of discourse could be profitable at any level, the study of claims was best accomplished at the level of a single national forest, for a number of reasons.

First, as noted, the study depends on context. Evaluation of allocation issues on a single national forest permitted analysis of claims about specific places, within a specific local history, culture, and use pattern. Larger units of analysis would have limited contextual understanding due to the range of different geographic and cultural areas they

encompass. Further, this is the administrative unit where claims are made and aggregated for decisions.

Second, the national forest selected attracted a broad range of allocation claims. A smaller area, such as an island mountain range (e.g., the Crazy Mountains) or a single agency district (e.g., the Superior District of the Lolo National Forest), would permit in-depth understanding, but would likely fail to provide a full range of claim types.

There are obviously tradeoffs to selecting any size of study site. In this case, it is important to acknowledge the limitations of a case study. Inevitably, there will be some claim types and variations in framing that are not captured at this one site. Nevertheless, defining a single national forest as the study site best makes the tradeoffs between understanding of local context and capturing a broad range of claim types.

3.2.3. Study Site

For logistic reasons, a study site within the Forest Service's Region One, Montana and Northern Idaho, was preferred. For the national forests in that region, the first, necessary criterion for selection was the recent or imminent completion of forest-wide travel planning process for summer recreation. Such a process provides a focus for engagement by respondents, ensuring that allocation of national forest recreation resources is something they have given some thought to. Of the Region One forests, only the Beaverhead-Deerlodge, Clearwater, Gallatin, and Nez Perce met this criterion.¹⁶ I subsequently considered the pragmatics of researcher travel and whether a full chorus of claim types was likely to be represented on each forest. Because the communities adjacent to both the Clearwater and Nez Perce forests are difficult to access, and because both serve smaller resident populations and attract less national attention than the Beaverhead-Deerlodge and Gallatin forests (and were therefore less likely to encompass a full range of claim types), I eliminated them from consideration. Of the Beaverhead-Deerlodge and Gallatin forests I selected the GNF because (1) it was completing a full travel planning process; the Beaverhead-Deerlodge, in contrast, is making only "strategic" decisions, not trail-by-trail allocations, leading to claims that will necessarily be more general in scope and less about specific allocations; (2) the GNF is significantly

¹⁶ The Lewis and Clark National Forest revised its travel plan in three procedurally and temporally separate regional processes; arguably this met the study's needs, but I judged it to be unnecessarily complicating.

smaller in extent than the Beaverhead-Deerlodge, making it easier to “know” to the depth necessary for a case study; and (3) it was the focus of considerable attention from local and regional ORV and conservation organizations—as a result, I believed the discourse of allocation would be both more fully and more broadly developed.¹⁷

In sum, the GNF offered a location where many and various claimsmakers were engaged, where actual allocation decisions were at stake, where a full range of claim types were likely to be made, and where study was practical.

3.3. Research design

Potter and Wetherell (1987, p. 158) provide a research model for discourse analysis. In keeping with Potter and Wetherell’s suggestion that this be adapted as necessary, a modified design follows, laid out in terms of (1) the role of the research question, (2) contextual research, (3) interview structure, (4) sampling plan, (5) transcription, (6) coding, (7) analysis, and (8) validity.

3.3.1. Role of the Research Question

As in grounded theory (see Charmaz 2004; Strauss and Corbin 1998), I began with the very general research question identified in Chapter 1: “*What claims (i.e., what arguments, justifications, assumptions, and judgments) do summer motorized recreationists and hikers, respectively, employ to justify public land use allocations?*”

The dearth of information on discourses and meanings related to public lands recreation allocation indicated the need to permit respondents to explore and explain their thoughts, rather than the need to quantify the distribution of particular views. I believe my question focused inquiry without sacrificing the opportunity to allow respondents to raise what was important to them. I allowed my conclusions to emerge from the data, rather than allowing preconceived hypotheses to limit the range of questions and interpretations that became relevant. My propositions, outlined in Chapter 2, suggested avenues of inquiry and analysis, rather than constituting hypotheses for testing.

¹⁷ The regional and national focus on the Gallatin stems largely from its prominent place in the Greater Yellowstone Ecosystem, the site of the nation’s most widely publicized dispute over motorized recreation on public lands, snowmobiles in Yellowstone National Park.

3.3.2. Contextual Research

Potter and Wetherell (1987, p. 158) describe contextual research as the “collection of records and documents,” and the analysis of such texts formed the greatest part of my contextual research. This effort included, but was not limited to:

- Archival research into the history and context of recreation decisions at the study site, such as the study of regional and site-specific wilderness designation battles (Havlick 1999; Roholt 1977; Seiberling 1983; McKnight 1987; Schlenker Undated; Montana Wilderness Association v. United States Forest Service Montana Wilderness Association, Inc. v. United States Forest Service 2004) and previous planning efforts on the Gallatin National Forest (USDA Forest Service 1988, 1988, 1985, 1973; Oversight on the Montana Wilderness Study Act 1981; Breazeale 2001).
- Consideration of the “project record” for the Gallatin Travel Plan, including scoping documents (USDA Forest Service 2002), the Draft Environmental Impact Statement (USDA Forest Service 2005), the comment record on the Draft Environmental Impact Statement, the Final Environmental Impact Statement (USDA Forest Service 2006, 2006, 2006, 2006), Record of Decision, the appeal record and response (USDA Forest Service 2007), and the litigation that followed the decision (Montana Wilderness Association vs. McAllister 2009; Montana Wilderness Association vs. Heath 2008).
- Review of coverage of the travel planning process in the Bozeman Daily Chronicle, and of the literature and web sites of area and national user groups.
- Consideration of other travel planning efforts (e.g., USDA Forest Service 2008; USDA Forest Service 2002; USDA Forest Service 2007), as well as related regional and national issues, such as the Tri-State ORV management decision of 2001 (USDA Forest Service and USDI Department of the Interior Bureau of Land Management 2001), and the 2005 release of new off-road vehicle planning requirements for the U.S. Forest Service (Rey 2005). The results of much of this research, on a national scale, is documented in Adams and McCool (2009).

3.3.3. Interview Structure

The heart of this research is data collected in interviews. While other sources (such as the travel plan comment record) would likely yield a good representation of the claim types made about allocation, such sources are less likely to improve understanding of the rationale and underlying beliefs that warrant claims. These alternative sources have formats that encourage assertion rather than reflection, may limit the amount of space provided for explanation, may be perceived to place a premium on volume rather than quality of claims, and raise complicated questions about intended audience. While no format completely overcomes these challenges, interviews best ameliorated or straightforwardly addressed them. Accordingly, the interviews were crucial to understanding allocation claims, as opposed to simply cataloging them.

I used semi-structured, in-depth interviews. The interview guide consisted of both primary questions and potential probes (Reissman 2002). As Charmaz (1991) notes, “Holding rigidly to the initial list of questions can prevent the most pertinent data from emerging.” This semi-structured method (theoretically) results in “a directed conversation that elicits inner views of respondents’ lives as they portray their worlds, experiences, and observations” (Charmaz 1991; also see Patterson and Williams 2002, 44). In other words, the interviews allowed informants to define the issues that they regarded as important. At the same time, the interview guide permitted the researcher to steer conversation in directions that permitted comparison across interviews, relatively consistent question presentation, and the testing of emergent theory. The interview guides differed in minor regards, to address different interests and claims of the two user groups; they are included in this document as Appendix B and C.

3.3.4. Sampling Plan

My strategy for obtaining a wide range of claim types was to seek interviews with a diverse range of representative types among two key constituencies, ORV drivers and hikers.¹⁸ I interviewed 18 hikers, and 17 ORV drivers. To select specific individuals within each constituency I used contextual research (such as the comment record) and

¹⁸ As I argued in Chapter 1, it is likely that other user groups (equestrians, climbers, anglers, etc.) make different claims. However, I believe that the range of claim types espoused by hikers and ORV drivers will encompass many of those espoused by other user groups.

chain referrals to identify respondents who differed on the basis of their claims. However, since preknowledge of how individuals' claims differ could not be had, and to facilitate consideration of relationships between preferred claims and other characteristics, I also selected respondents to obtain diversity in the dimensions of (1) group affiliation; (2) activity within organizations; (3) home town and preferred recreation venue; (4) the nature of their recreational expertise and activity; (5) intensity of engagement in the GNF travel planning process; (6) age; and (7) sex. Appendix A details characteristics of the sample across these dimensions, as well as keying them to the numbers assigned randomly as "names" for the respondents. I did not seek ethnic or cultural diversity, largely because the study area is relatively homogeneous; Gallatin County, for example, is more than 96% white (U.S. Census Bureau 2009), making meaningful exploration of minority views through proportional representation within the limits of sample size impossible. I did not seek economic diversity, due to the difficulty of identifying wealth prior to interviews.

My sampling goal was to identify a full range of "representative types" of claims. Patterson and Williams (2002, 41) articulated the purpose of seeking representative types in case studies (emphasis added):

The phrase 'representative type' is used here to imply two concepts. First, it refers to the idea that the description of experiences, belief systems, etc., represents a detailed understanding of actual individuals rather than an aggregate characterization of some nonexistent average individual (Shafer, 1969). Second, it is used to emphasize the idea that the data 'represent' a possible type of experience in relation to the context of the setting (*or a type of belief system within the population*) rather than a statistically generalizable result. With this sampling philosophy, the population is represented by capturing the range of experiences or belief systems (or as diverse a range as possible).

I searched for representative types of belief systems, aiming to capture a range of such systems adequate to conceptualize the full range of allocation claim types generally made to public land recreation resources. Final sample size was dictated by the need to keep data within cognitive limits (Patterson and Williams 2002, 69), and my sense that new claim-types were being generated infrequently. I believe that additional interviews would

have continued to identify different vocabulary and specific claims, but would not have substantively changed the results presented here.

I did not wish to interview those with little to say, or who were unaware of the basic issues involved in national forest recreation. While general public opinion is deserving of investigation, I did not believe that understanding of the fundamental issue of claims making would be advanced by interviewing people who were indifferent enough to have been unaware of the GNF's very public travel planning process. Accordingly, I established one threshold criterion that I used to describe to contacts the type of people that I sought to interview: I advised contacts that I sought to speak with people who were "thoughtful" about GNF travel planning. Simultaneously, I avoided interviews with paid staff, so as to avoid the carefully constructed policy statements that can be obtained in other venues.

3.3.5. Transcription

Transcription was provided by a secretarial service. I am cognizant of the limitations of transcriptions generally, and of simple transcriptions specifically, e.g., that they fail to capture important nonverbal information, that they fail to capture tone, leading some to argue that they are an interpretation rather than primary evidence (Reissman 2002, pp. 12-13). Despite these shortcomings, there is no ready substitute for the opportunity to study words as text that transcription offers, and alternative transcription systems tend to obfuscate as much as they clarify in analysis of substantive speech (Patterson and Williams 2002). Further, my role as principle researcher (and hence, my familiarity with nonverbal elements of each interview) and repeated review of audio transcriptions mitigated these shortcomings.

3.3.6. Coding

I used open, thematic coding to explore the data (Berg 2004, 278). To code, after having proofed each transcription, I categorized each portion of each interview into one or more themes, such as recreation impacts on the environment, and/or discussion of horse use. The "nodes" to which I coded text were both thematic (such as distrust of the FS) and topic-oriented (such as views regarding management of the Hyalite-Porcupine-Buffalo Horn Wilderness Study Area). I identified a few more than a dozen main codes

for each user group, and half again more subcodes. The critical issue with such coding is not that nodes be “correct,” but that that like comments be coded to the same nodes to permit later comparison. I developed “rules of thumb” to facilitate such consistency, as well as liberally distributing given comments to multiple nodes, not fearing redundancy. This style of coding enabled me to assemble disparate thoughts on the same topic by the same individual, as well as to compare similar claims across users by both topic and theme.

Coding was done with NVIVO software through an iterative process, and I began coding during the interview collection phase (Strauss and Corbin 1998; Patterson and Williams 2002, 46). Coding during the interviews allowed me to continually develop theory and guide interviews as emergent analysis indicated.

3.3.7. Analysis

As coding was completed, coded data were examined. I sought the data for patterns of consistency and variation in the data, tried to conceptualize the function and consequence of different patterns and variation, then looked for evidence to support, complicate, or discredit those conceptualizations (Potter and Wetherell 1987, p. 168-9; Patterson and Williams 2002, 69). However, as Potter and Wetherell note, there is no step-by-step guide to this analysis; instead, the analyst relies on the theoretical frameworks and propositions informing the research, reads and re-reads the data, and attempts to make sense of it. As with interviews, analysis is a craft learned as much through practice as instruction (Mishler 1990).

For my purposes, the use of spreadsheets to assemble data proved immensely helpful. I used spreadsheets to group data and characterize claims both within and across individuals. In this fashion I was able to, having fragmented the non-linear accounts respondents provided, reassemble them to consider the full range of claims that individual respondents had made within an interview. Further, I was able to compare these claims across multiple dimensions, reviewing, for example, whether hiking respondents who argued for demand as a principle of aggregate allocation also argued that the purpose of public lands dictated a particular aggregate allocation. It should be

noted that the spreadsheet strategy was only effective because of intimate familiarity with the interviews, preventing excessive reductionism as a result of fragmentation.

3.3.8. Validity

To assess the validity of ongoing analysis, I began with Potter and Wetherell's suggestions. They argue (Potter and Wetherell 1987, pp. 170-171) that analyses should demonstrate coherence: "Analysis should let us see how the discourse fits together and how discursive structure produces effects and functions." In other words, the analysis should be insightful and persuasive. Further, they argue that it should have what Babbie (2004, p. 144) might call "construct validity," where the interpretation appears to be consistent with the actions of respondents. Additionally, the analysis should suggest new problems—that is, it should represent progress, but also result in new areas of inquiry. Finally, similar to Babbie's (2004, p. 145) "content validity," the analysis should be fruitful: "This refers to the scope of an analytic scheme to make sense of new kinds of discourse and to generate novel explanations" (Potter and Wetherell 1987, 171). I considered developing analysis against these criteria.

4. TRAVEL PLANNING CONTEXT

This chapter outlines relevant data about the context within which the GNF conducted travel planning. The chapter begins with a brief review of geography and demographics in the area, and proceeds to a review events leading up to and through travel planning on the GNF.

4.1. Geography and Demographics

The GNF is located in southcentral Montana, embracing the northwest corner of Yellowstone National Park. The GNF (2006) has neatly summarized the geographic scope of the forest:

The Gallatin National Forest contains approximately 1.8 million acres of National Forest System land and is located along the northern and western boundaries of Yellowstone National Park in southwest Montana (See Figure 1.1). The Forest spans portions of Madison, Gallatin, Park, Meagher, Sweet Grass and Carbon Counties. Offices are located in the cities of Bozeman, Livingston, Big Timber, Gardiner and West Yellowstone. The Gallatin National Forest includes lands in the Bridger, Bangtail, Crazy, Absaroka, Beartooth, Gallatin, Henry's Lake and Madison Mountain Ranges.... Included in the Gallatin National Forest are the Lee Metcalf Wilderness Area and the Absaroka-Beartooth Wilderness Area covering approximately 716,000 acres. Also included are the Cabin Creek Recreation and Wildlife Management Area (approximately 37,000 acres) and the Hyalite/Porcupine-Buffalo Horn Wilderness Study Area (approximately 155,000 acres). In addition to these areas, approximately 704,000 acres of National Forest land have been inventoried as roadless. The remaining Forest lands have been mostly roaded and developed for mineral entry and timber production.

Population of the area is centered in Gallatin County, home of Bozeman and environs. According to the U.S. Census Bureau (2009), Gallatin County has nearly 60% of the total population in GNF counties (see table 4.1). Further, Gallatin County has enjoyed a brisk rate of growth in the last two decades, increasing in population by 32% since 2000 (U.S. Census Bureau 2009). and from approximately 50,000 in 1990, to approximately 90,000 in 2008 (U.S. Census Bureau 2009, 2009). This population growth is an important factor in conflict over travel planning on the GNF.

Table 4.1. Population of the study area, U.S. Census 2009

Carbon County	9,657
Gallatin County	89,824
Madison County	7,509
Meagher County	1,868
Park County	16,189
Sweet Grass County	3,790

4.2. Historical and Political Context

For a detailed description of the history of recreation allocation and ORV management by the FS, see Adams and McCool (2009). In brief, Adams and McCool assert that the FS has been required to allocate trails and areas that permit and do not permit ORV use since 1972. Many administrative units within the agency observed this duty largely by permitting ORV use anywhere people chose to drive vehicles, assuming that the FS could address problems as they arose. In the 1980s and 1990s, technological improvements and the shift to four-wheeled ATVs provided more riders more places to go, the population near some national forests expanded, and national demand for both motorized and nonmotorized recreation increased, conflicts and impacts increased to such a great extent that the Chief of the Forest Service named “unmanaged recreation” one of the four great threats to the “health” of the national forests (USDA Forest Service 2005).

The GNF could be the poster forest for this allocation failure. In the 1970s, the GNF did not limit ORV use unless it identified evidence of conflict or environmental impacts: “When actual conflicts on a given trail or area are demonstrated the Forest will take action to resolve them. It’s unfair and arbitrary to close an area to one type of public use without sufficient evidence to support the need for the closure” (USDA Forest Service 1973, response to comment letter #12).¹⁹ When the 1988 Forest Plan was completed, necessarily including decisions about travel management, again the agency did not substantially limit ORV allocations: “The Forest Plan does not propose to geographically separate recreation uses, except on a localized basis where individual trails may be restricted.... Separation of motorized, foot, and stock users into exclusive areas would make the Gallatin National Forest effectively smaller for each group and

¹⁹ Since the GNF was responding to complaints about motorized use, it’s not clear what would have constituted conflict in the FS’s evaluation.

would require intensive administration” (USDA Forest Service 1988, VI-57). In the 1990s, the GNF permitted a new class of ATVs that had previously been prohibited on forest trails (those wider than 40 inches, encompassing most four-wheelers) access to a number of trails. According to one environmental group’s analysis of the GNF response to a Freedom of Information Request, the GNF did so without any environmental or social review (Havlick 1999, 5). The cumulative result of these decisions, as the GNF acknowledged at the outset of the recent travel planning process, was that though motorized use of roads and trails was extensive, “There has never been a comprehensive analysis or management plan for travel on the Gallatin National Forest” (USDA Forest Service 2006, 6-7). Further, ORV use has expanded on to trails that once legally permitted ORV use but were inaccessible due to the difficulty of terrain or right-of-way issues (Schlenker Undated).

Despite the GNF’s belief that—until recently—conflict did not rise to the level to require allocation, there has been contention over GNF recreation allocations and ORV use for more than 50 years. Some of this debate has been directly about ORVs. For example, in 1953 a local landowner complained about Jeeps in the Gallatin Range, resulting in a 1958 promise to stay development (but not, ultimately, ORV use) in the Hilgard area (Roholt 1977, 71-4). Much of the area debate over recreation has been subsumed by contention about wilderness designation. As noted in Section 2.3.2 and in Adams and McCool (2009), congressional designation of an area as part of the National Wilderness Preservation System is, in part, a recreational allocation. The GNF has been host to “primitive areas” (the administrative forerunner of wilderness) since 1932 (Spanish Peaks and the Absaroka Primitive Area—see Roholt 1977, 46). The forest saw inquiries regarding “wilderness” designation for the Gallatin Range as early as 1953 (Roholt 1977, 71-4), and later was the subject of wilderness designation battles including: enactment of Montana Wilderness Study Act (*Montana Wilderness Study Act* 1977); the FS wilderness reviews of 1973 (RARE I, see USDA Forest Service 1973), 1979 (RARE II, see USDA Forest Service 1979); enactment of the Absaroka-Beartooth Wilderness Act (*Absaroka-Beartooth Wilderness Act* 1978) and Lee Metcalf Wilderness Act (Lee Metcalf Wilderness and Management Act 1983); presidential veto of a wilderness bill in 1988 (Montana Natural Resources Protection and Utilization Act 1988; see also Reagan

1988); development of the Forest Plan, with GNF wilderness recommendations and roadless area management decisions, from 1986 to 1988 (USDA Forest Service 1988); passage of a bill through both the U.S. House and Senate that died in conference (Montana National Forest Management Act 1992; Associated Press 1992); passage of a bill through the U.S. House (The Montana Wilderness Act 1994). Further, ORV management and wilderness have been implicated in other lower-profile or broader-scope actions such as change of the 40-inch rule in 1991 (Havlick 1999); Montana Wilderness Association v. U.S. Forest Service (Montana Wilderness Association, Inc. v. United States Forest Service 2004); repeated introduction of the Northern Rockies Ecosystem Protection Act since 1992 (Wild Rockies Action Fund undated (post 1999); Northern Rockies Ecosystem Protection Act 2009); the Roadless Rule of 2000 (Nie 2004); and the Tri-State ORV decision of 2001 (USDA Forest Service and USDI Department of the Interior Bureau of Land Management 2001). Altogether, dispute over recreation management, ORV management, and wilderness on the GNF has been a constant, at varying levels of intensity, since at least the early 1950s.

It is difficult to get a handle on how the GNF has been allocated to recreation historically, and how it has been used. With regard to use data, the GNF itself stated in 2006 that previous measures had “limited reliability” (USDA Forest Service 2006, III-422), and has repeatedly stated in court that it cannot identify with any accuracy what use was like in the Gallatin Range in 1977 (Montana Wilderness Association vs. Heath 2008). The most recent FS data shows a ratio of walkers to ORV drivers using the forest of about 15:1, but the data is extremely unreliable.²⁰

Tracking historic allocation data is equally difficult. FS data from 1996 showed 2,024 trail miles permitting both motorized and nonmotorized use, compared with 828 trail miles permitting only nonmotorized use (USDA Forest Service 1996). 2006 data used in the travel planning process, however, showed allocation proportions almost perfectly reversed: 739 miles of motorized trails, and 1,378 miles of nonmotorized trails

²⁰ 1996 FS data showed approximately 41,000 motorcycle and motor scooter recreation visitor days (RVDs) on the GNF, compared with 206,000 hiking and walking RVDs (USDA Forest Service 1996). 2003 data under a new system (the National Visitor Use Monitoring program, or NVUM) showed that 4% of GNF visitors participated in OHV driving, less than 2% as their primary activity; more than 60% of GNF visitors participated in hiking/walking/backpacking, 29% as their primary activity (Kocis et al. 2004, Table 13).

(USDA Forest Service 2006, 3-441). There have been no obvious processes or decisions that would have functionally reversed the percentage of trails allocated to these different uses. A comparison of ROS classes from 1987 (USDA Forest Service 2006, 3-433) with the GNF's 2006 estimate of current forest conditions (USDA Forest Service 2006, 3-435-8) shows the balance between motorized and nonmotorized classes largely unchanged, with slightly greater allocations for motorized classes in both decades. None of these measures are perfect representations of the extent of particular experience opportunities available to either hikers or ORV drivers, and make it hard to draw conclusions about trends. It is most likely that events on the GNF mirrored national trends: motorized use was permitted in a majority of the multiple-use base of the forest, on a majority of the trails, until increasing use, ATVs, and improved technology led to the Tri-State decision in 2001 (USDA Forest Service and USDI Department of the Interior Bureau of Land Management 2001), which started a trend of allocation reductions continued in the most recent travel plan.

Allocation on the GNF, then, has been semi-continuously contentious, though much of that contention has been tangled with the debate over wilderness designation and the management of the Hyalite-Porcupine-Buffalo Horn Wilderness Study Area. The GNF, as recently as the last allocation (the 1988 Forest Plan) chose not to carefully evaluate allocations, and, instead, continued the existing default practice of permitting ORV use in most non-wilderness areas. Given the paucity of user data it is difficult to draw firm conclusions, but it is likely that the 1988 allocation was substantially disproportionate to ORV driver numbers (see footnote 21). For these reasons, the GNF eschewed consideration of any alternatives that would have expanded motorized allocations on the forest,²¹ stating that “they would be in violation of legal requirements and higher-level direction imposed since 1999 and they do not meet the purpose and need identified for a Travel Management Plan” (USDA Forest Service 2006, 2-18). In other words, the best ORV drivers could hope for from travel plan revision was retention of the status quo.

²¹ However, Alternative 1 attempted to represent a “no action” alternative as it would exist had the FS not completed the Tri-State OHV decision in 2001 (USDA Forest Service and USDI Department of the Interior Bureau of Land Management 2001), prohibiting cross-country ORV travel on large portions of the GNF and other forests (USDA Forest Service 2006).

Multiple local, state, and regional interest groups were engaged in the GNF travel planning process, ranging from outfitter and guide organizations to climbing organizations. A number of environmental organizations played prominent roles in the allocation debate, including the Montana Wilderness Association, the Greater Yellowstone Coalition, the Montana Wildlife Federation, and The Wilderness Society. A number of ORV driver organizations also played prominent roles in the allocation debate, including Citizens for Balanced Use, the Montana Trail Vehicle Riders Association, and the BlueRibbon Coalition. Both the Gallatin and Park County Commissioners registered concerns about the plan (McMillion 2007; Richardson 2007). Although the political parties do not typically take positions on allocations issues, in general the Republican Party is perceived as more supportive of ORV drivers than environmental protection, while the reverse is true of the Democratic Party. The GNF Travel Plan was completed under the second Bush Administration. During most of the planning period, Montana's congressional delegation consisted of Senator Max Baucus (D), Senator Conrad Burns (R), and Rep. Dennis Rehburg (R). It is unclear how Senators Baucus and Jon Tester (D), successor to Sen. Burns, regarded the GNF Travel Plan. Both Burns and Rehburg attempted to influence the process in favor of ORV drivers (Burns 2005; McMillion 2005).

4.3. The GNF Travel Plan

The FS designates appropriate use of roads, areas, and trails in Forest Plans. These land management plan designations are completed through the process mandated by NFMA and FLPMA, and in accordance with NEPA and other applicable regulations. Alterations, likewise, must come through land management plan amendments. Designations are typically made in terms of the modes of transportation that are allowed or prohibited. Theoretically, these designations are made in consonance with both forest-wide and area-specific objectives and standards articulated in the land management plan. When travel decisions are described separately from the rest of the land management plan to which they theoretically tier, those decisions are called a travel plan.

In August, 2002, with contemporary travel rules largely dating to the 1988 Forest Plan, the GNF launched revision of its travel plan with a scoping document colloquially

known as the Benchmark (USDA Forest Service 2002). Although this project focuses on summer use of national forests, the travel plan also encompassed winter use; the travel plan did not, generally, address bicycle use. Associated with the Benchmark, the GNF held a number of informational open houses, as well as inviting written comment. In August of 2003, the GNF released six potential alternatives for travel management, further refining the Benchmark, and, again, held open houses and invited written comment (USDA Forest Service 2005, 11).

In February, 2005, the GNF published a seven-part Draft Environmental Impact Statement (Draft EIS), inviting both written comment and attendance at any of 10 open houses. (USDA Forest Service 2005) The GNF provided additional information regarding the rationale for the travel plan revision at that time:

Up until the 1980s, public recreation use and travel on the Gallatin National Forest was not considered something that required much management control. It was not controversial and National Forest System lands and resources seemed capable of handling the variety of uses enjoyed by the public, including off-route vehicle use. Since that time, increasing demand, new information on the potential effects to resources and diverse personal value sets have brought more attention and concern as to how the public uses the Forest. There has never been a comprehensive analysis or management plan for travel on the Gallatin National Forest. The Forest Service believes that the demand for recreation opportunities may now be reaching the point of exceeding the capability of the land to provide them. A Travel Management Plan is needed to effectively offer a variety of quality recreation opportunities consistent with achieving management goals and objectives for other resources. (USDA Forest Service 2005, 2-3)

The DEIS outlined seven alternatives for consideration, each varying in a number of dimensions, including allocations for recreationist modes of travel ranging from passenger car travel to hiking. Issues discussed in detail in the DEIS included wildlife and fisheries, biological diversity, enforcement, invasive weeds, implementability, roadless areas, recreation, wilderness, and others.

The GNF explained that “For the most part, the issues and concerns over effects focused on motorized uses. Therefore the range of alternatives vary [sic] mostly on the amount of motorized use opportunity provided” (USDA Forest Service 2005, 17). The preferred alternative would have reduced trails permitting ATV use “from 281 miles to

166 miles (about 40%) and motorcycle opportunities on trails would be reduced from 457 miles to 238 miles (about 50%). In general the reduction in trail opportunity would be shifted to and managed for on administrative and backcountry roads.”²² (USDA Forest Service 2005, 21) The Draft EIS also proposed to substantially reduce allocations for snowmobile use, from 84% of the multiple-use base to 65% (USDA Forest Service 2005, 21).

The Draft EIS ignited furious debate in the area. Writing for the *Bozeman Daily Chronicle*, Scott McMillion (2005) noted “Both motorized and nonmotorized groups have been activating their membership, urging them to comment on the proposal. Both sides showed up in force” at some of the meetings, turning out some 200 visitors at one Bozeman open house, and 150 in Livingston.

ORV drivers who were vocal about the plan were irate. Kerry White, for example, who would go on to lead the local wise use group Citizens for Balanced Use, penned a guest column for the *Bozeman Daily Chronicle* arguing that the “majority of users” should not let “the environmentalists shut down responsible public land use,” that the preferred alternative championed “the idea that humans are a sub-species and aren't relevant,” and contesting the FS's legal authority to limit ORV use on trails (White 2004). Two members of Montana's congressional delegation also weighed in against the draft plan, as U.S. Rep. Dennis Rehberg (R-MT) weighed in with a public letter that equated ORV access with public access, claiming that the draft plan “puts public access in jeopardy;” Rehberg's spokesperson stated that prohibiting motorized use is “operating [the forest] as wilderness” (McMillion 2005). U.S. Sen. Conrad Burns (R-MT) stated that reductions in motorized allocations were too great (McMillion 2005), and complained that “The proposed decrease in OHV access severely impacts the traditional forest users and especially our seniors, retirees, and physically challenged Montana citizens” (Burns 2005).

Response from the environmental and nonmotorized recreation community reflected measured support. One typical letter to the editor of the *Daily Chronicle* reflects the general tone:

²² The Draft EIS also proposed significant reductions in snowmobile allocations on the forest.

I want to thank the *Chronicle* for its recent coverage of the Gallatin National Forest's proposed travel plan. Whether it's clean drinking water, excellent local hunting, or hiking with friends and family, the Gallatin travel plan will play a defining role in how we enjoy local forests where we live, work and play. The Gallatin has made a good start, but there is room for improvement.

In addition to protection of environmental resources, typical themes invoked by supportive letters included the need to manage for future generations and that "nine out of ten Montanans are quiet trail users" (Hoehn 2005).

After public meetings and an extended comment period, the GNF hunkered down to consider public comment and revise the DEIS. The result, in October, 2006, was a Record of Decision that diminished motorized allocations on the GNF. The extent to which the decision diminished motorized allocations has been disputed, but the GNF (USDA Forest Service 2006, 5) stated that "ATV opportunities provided on trails would be reduced from 281 miles to 143 miles (about 50%) and motorcycle opportunities on trails would be reduced from 458 miles to 278 miles (about 40%). In general, the reduction in trail opportunity would be shifted to and managed for on administrative and backcountry roads...."

The GNF's principle rationale for reducing motorized use was that demand for nonmotorized recreation outstripped and was outgrowing demand for motorized recreation on national forests. The Forest Supervisor wrote: "My decision does result in a reduction of motorized use opportunities over the current situation. This reduction is largely based on several studies that consistently show that participation in nonmotorized activity exceeds that of motorized activity (see the FEIS, pages 3-420 through 3-428)" (USDA Forest Service 2006, 19). The GNF did not provide a rationale for demand's importance as a guiding principle for aggregate allocation. While the referenced FEIS pages identified a number of estimates of participation in motorized and nonmotorized activities, the Record of Decision included only aggregated participation data for the Rocky Mountain states by user numbers and user days, irrespective of whether such recreation was on public lands (USDA Forest Service 2006, 19).²³

²³ Where the Rocky Mountain region was defined as including Montana, Idaho, Wyoming, North Dakota, South Dakota, Nebraska, Kansas, Colorado, Utah, Nevada, Arizona, and New Mexico (Cordell 1999, 32).

Excluding demand, the GNF essentially found that the difference between potential alternative aggregate trail allocations would not have a significant effect on any other forest resources. Here is the Forest Supervisor describing, in the ROD, her evaluation of general wildlife impacts:

I could not identify a specific threshold, or breakpoint, among the range of alternatives in which the prescribed level of recreation opportunity would become acceptable or unacceptable to me. Also, while the analysis seems to indicate that motorized uses would have greater adverse effects than nonmotorized uses, there are few studies available that have addressed the potential effects of the latter.... Therefore the remaining alternatives, Alternatives 2 through 7-M (which maintains or increases the amount of core habitat) were acceptable to me as it specifically relates to this issue. (USDA Forest Service 2006, 82)

For resource after resource, from economics to fisheries, the FEIS and ROD concluded that the difference between motorized and nonmotorized recreation impacts did not dictate any particular allocation. This conclusion is generally consistent with research into recreation impacts. While there has been a wealth of research finding specific impacts of specific types of recreation on specific flora, fauna, and the environment (see, e.g., Albrecht and Knopp 1985; Webb 1978; Stokowski and LaPointe 2000; Biodiversity Legal Foundation 1996), there has been little research that has evaluated the local or cumulative effects of recreation at the population or community level (Mildenstein 2008; Cole 2004). Thus, while ORVs and/or other recreationists may have significant deleterious impacts on individual species or biodiversity in the GNF area, there is not convincing evidence of that at this time.

The revised GNF Travel Plan was greeted with opprobrium from ORV driver organizations. As one motorcyclist said in the *Bozeman Daily Chronicle*, “It’s a losing situation for motorized recreation. It has been and it’s getting worse. They keep restricting us to smaller and smaller areas.” (McMillion 2006) Environmental/hiking representatives criticized specific aspects of the travel plan, while generally applauding the effort (McMillion 2006). The FS received 122 administrative appeals in the wake of its decision; in March of 2007, all were rejected (McMillion 2007).²⁴

²⁴ Of the appeals, six were filed by environmental groups; one by a hiking group; and 38 by ORV driver organizations and ORV businesses; one by a climbing organization; one by an equestrian organization; and

Despite being generally supportive of the travel plan, the Montana Wilderness Association (MWA)²⁵ responded to the dismissal of their appeal by suing the GNF over one discreet portion of the travel plan decision, alleging that the decision would permit increased motorized and mechanized use within the Hyalite-Porcupine-Buffalo Horn Wilderness Study Area, thus, they argued, violating the Montana Wilderness Study Act of 1977 (Montana Wilderness Association vs. Heath 2008). In October, 2009, the District Court ruled that the GNF had inadequately ensured the preservation of wilderness character of the area as it existed in 1977, forcing the agency to revisit this portion of the GNF Travel Plan (Montana Wilderness Association vs. McAllister 2009).

Two sets of ORV driver organizations joined the lawsuit, one set intervening in MWA's suit,²⁶ the other set filing their own complaint;²⁷ these suits were consolidated with the MWA suit. Collectively, the ORV driver suit alleged that the travel plan "unlawfully restricts motorized and mechanized recreation throughout the WSA, and brings several claims against the Forest Service under NEPA" (Montana Wilderness Association vs. Heath 2008, 3-4). The ORV organizations generally identified issue analyses (such as weed-seed dispersal and economic impacts) that they believed were lacking, and argued that the FS had inadequately considered and responded to their comments on the Draft EIS. The District Court uniformly rejected these arguments, permitting the majority of the GNF Travel Plan to stand (Montana Wilderness Association vs. McAllister 2009).

4.4. Summary

The interviews for this project took place between the spring and fall of 2007. Thus, at that time, respondents had, for the most part, participated in or been aware of five years worth of travel planning, including the Benchmark and Draft EIS processes,

the balance by individuals not identified by the FS as representatives of an organization (USDA Forest Service 2007). Many groups filed multiple appeals—the ORV appeals were filed by 12 different organizations (USDA Forest Service 2007).

²⁵ In concert with the Greater Yellowstone Coalition, and The Wilderness Society, and represented by EarthJustice. (Montana Wilderness Association vs. Heath 2008)

²⁶ Treasure State Alliance, Montana Trail Vehicle Riders Association, Montana Snowmobile Association, United Four-Wheel-Drive Associations, and Blue Ribbon Coalition, Inc.

²⁷ Citizens for Balanced Use, Gallatin Valley Snowmobile Association, Kenneth Zahn [private individual], and Big Sky Snowriders. (Montana Wilderness Association vs. Heath 2008)

with their attendant open houses, comment periods, and public controversy. The GNF's final decision had been released, the appeals filed, and the lawsuits filed but undecided. Analysis of contextual documents indicated significant support for Proposition 3, that discourse surrounding the GNF Travel Plan would reflect broader discourse in the environmental and Wise Use movements.

5. HIKERS' CLAIMS AND DISCOURSE

This chapter explores and explains results from the hiker portion of the sample. The chapter begins by trying to identify explicit claims made by hikers, as well as to answer the question “What is going on here?” More explicit evaluation of the claims, frames, and discourse employed by both hikers and ORV drivers is included in Chapter 7.

Like decisionmakers and ORV drivers, hikers thinking about allocation of the GNF to motorized and nonmotorized recreation needed to address two fundamental issues: site-specific allocation and aggregate allocation. Site-specific allocation refers to the way in which one should determine what type of use should be prioritized on any particular trail or in any particular area, e.g., whether the use of ATVs, motorcycles, both, or neither should be permitted on any particular trail. Aggregate allocation refers to the overall distribution of areas, trails, or trail miles, e.g., what percentage of GNF trail miles should be motorized and what percentage should be nonmotorized. This chapter will first explore hikers' claims and views aggregate allocation. Subsequently, the chapter addresses hiker claims and views regarding site-specific allocation. Finally, the chapter closes with a consideration of hiker claims and views on conflict.

For each section I will explicate hiker views, drawing attention to both outliers and areas of relative consensus. While recognizing that, like a map that is drawn at a one-to-one scale, I cannot both accomplish the purpose of analysis and simultaneously provide all the data that leads to my “map” of user claims, I have attempted to provide enough raw data (in both this chapter and the next, addressing ORV drivers' views) in the form of quotations or tabular data to permit readers to assay some independent evaluation of the conclusions I have drawn. In tables, quotes have generally been selected to be relatively exhaustive of the arguments or types of arguments made in some particular regard. However, “relatively” indicates that space constraints argued against including every quote, unabridged, with potential relevance to a particular discussion. In-text quotations have been selected because I believe they are illustrative of some particular viewpoint, as identified in the text, or because I believe they are illustrative of typical phrasing or tone. I attempted to guard against overexposure of particular respondents, but

some spoke more succinctly or compellingly for their viewpoint than others, and therefore may be more frequently quoted.

I have attempted to explore in depth the views of individual hikers on specific subjects where I believe such depth is necessary to illustrate how a substantial portion of hikers felt about a topic, or where I believe explication of views that varied significantly from the norm helped illuminate either the range of hiker views or some of the different argumentative “paths” that hikers take.

Characteristics of the hiker sample are displayed in table 5.1, and a crosswalk to specific respondents is contained in Appendix A.

Table 5.1. Hiker sample characteristics (n = 18)

	Number of Respondents
Affiliation	
<i>Environmental Organization</i>	6
<i>Recreation Organization</i>	2
<i>Unaffiliated</i>	10
Age	
<i>20-29</i>	0
<i>30-39</i>	4
<i>40-49</i>	4
<i>50-59</i>	5
<i>60+</i>	5
Length of Residence	
<i>Less than 10 years</i>	2
<i>More than 10 years</i>	9
<i>Moved then returned (10+ total yrs)</i>	2
<i>Lifetime</i>	5
Level of Engagement	
<i>1. Largely unfamiliar with FS procedure and unengaged in GNF travel planning</i>	7
<i>2. Engaged in GNF travel planning, but not terribly well informed about procedure</i>	1
<i>3. Very knowledgeable about FS processes, but not particularly engaged in GNF travel planning</i>	4
<i>4. Very knowledgeable about FS processes, and engaged in travel planning</i>	6
Residence	
<i>Bozeman</i>	14
<i>Bozeman area</i>	1
<i>Livingston to Gardiner</i>	3
<i>West Yellowstone</i>	0
Sex	
<i>Male</i>	9
<i>Female</i>	9

Several notes of explanation are necessary. First, my threshold for participation was that respondents were “thoughtful” about the GNF Travel Plan. I identified this threshold to both potential participants and to those from whom I requested recommendations, with the goal of avoiding respondents who were unaware of—or had no formed opinions about—the travel plan. Second, I classified respondents’ “level of engagement” by identifying both their general level of expertise and their intensity of

engagement with the GNF Travel Plan. In this context, intensity of engagement indicated the extent to which participants led advocacy groups or otherwise exceeded typical involvement in travel planning—thus, a participant could be thoughtful about the GNF Travel Plan while participating only minimally in the process, such as by submitting comments but not meeting with the FS, organizing comments by others, etc. As figure 5.1 demonstrates, each respondent could have been intensely or only slightly engaged with the GNF travel planning process, and could have general expertise in FS procedure or not. Essentially, this allowed me to track both whether a respondent was an “old hand” or a novice, and the extent to which they had been involved in the GNF Travel Plan. Regardless of whether engagement or knowledge was characterized as “minimal,” each respondent met the threshold requirement of basic familiarity with the GNF Travel Plan.

Figure 5.1. Respondent levels of engagement

		Engagement in GNF Travel Plan	
		<i>Minimal</i>	<i>Great</i>
Knowledge of NEPA and Travel Planning	<i>Minimal</i>	1	2
	<i>Great</i>	3	4

Third, I assigned affiliation only to those who appeared to play an active (but non-staff) leadership role in environmental or recreation organizations—that is, I did not ask about and only rarely did I learn about simple fee membership, which was not adequate to warrant this designation. I classified the Montana Wildlife Federation, arguably a sport group, as an environmental group.

Fourth, my sample was heavily weighted toward Bozeman and its environs (including nearby towns in the Gallatin Valley such as Belgrade, Manhattan, Three Forks, and Gallatin Gateway). This was deliberate. Gallatin County hosts nearly 60% of the GNF-area population (see table 4.1 and accompanying text), and this substantially

understates its actual dominance in GNF affairs. For example, Carbon County is the third most populous county that takes in part of the GNF, but Carbon County is centered on Red Lodge and Joliet, in the heart of the Custer National Forest, and only tangentially relates to the GNF. The next most populous county, Madison, relates as much or more to the Beaverhead-Deerlodge National Forest as to the GNF.

As I performed my analysis, I periodically checked particular results against the characteristics of participants, such as sex, affiliation, and length of residence. I conducted this review informally, recognizing that the small sample size meant that only an extremely disproportional distribution could be interpreted as meaningful. I did not discern any such disproportionate distributions. Accordingly, I will not highlight such information throughout the presentation.

5.1. Aggregate Allocations

Hikers made a number of claims and arguments relevant to aggregate allocations on national forests. In this section, I first consider hiker views regarding the purpose of national forests; then hiker views regarding allocations proportional to demand; then, finally, a few other claims discussed only briefly by respondents.

5.1.1. The Purpose of the National Forests

From a policy perspective, hikers' views regarding recreation allocations ought to be a consequence of hikers' conceptualizations of the purpose of national forests. That is, a sound recreation management policy—providing guidance for determining what is appropriate, under what circumstances, in what manner—should derive from foundational decisions regarding the purpose of national forests. Accordingly, I queried each respondent about the purpose of national forests.

No hiker identified existing statutes or policies as the foundation of a recreation policy. That is, no hiker respondent identified the FS's organic and governing legislation, then derived their views of recreation management from those foundational policies. Several hikers displayed awareness of the history of national forests, discussing Gifford Pinchot and multiple use (derived from the Multiple-Use Sustained-Yield Act (*Multiple-Use Sustained-Yield Act of 1960* 1960)), but even such mentions simply signaled

awareness that there is some foundational statute or policy in existence, rather than identifying such a foundation. H24, for example, pointed toward multiple-use without identifying statutory foundations:

I: What do you think of the purpose of the national forest? Why do we have these vast tracts of public land?

H24: I think I know enough about the history of it and the way that the forest is organized and managed to know that there's not a single answer to that. The Forest Service Charter is, well for one thing they're Department of Agriculture, right, which says something right there. So I guess I don't feel like I can answer that question and say that the forest has this purpose. I feel like that there are a lot of different purposes that can and should be served.

I: Such as?

H24: Such as recreation, wilderness preservation, resource extraction.

H24, who came closer to identifying MUSYA than any other hiker, suggested that national forests have multiple purposes, but he did not specifically invoke the Multiple-Use, Sustained-Yield Act (1960).

While hikers did not build their views regarding recreation allocation on a foundational statute or policy, many hikers made a hierarchical argument—that is, an argument that flows ineluctably from a given premise. Specifically, most hiker respondents identified the preservation of nature as the purpose of national forests, and their views regarding allocation stemmed therefrom. The language respondents used to describe nature preservation varied widely, borrowing almost none of the jargon that is common within the FS or the academic community (such as biodiversity or ecosystem management). Instead, respondents spoke generally of sustaining natural things, as shown in table 5.2.

Table 5.2. Select hiker statements about the purpose of the national forests in the natural preservation domain

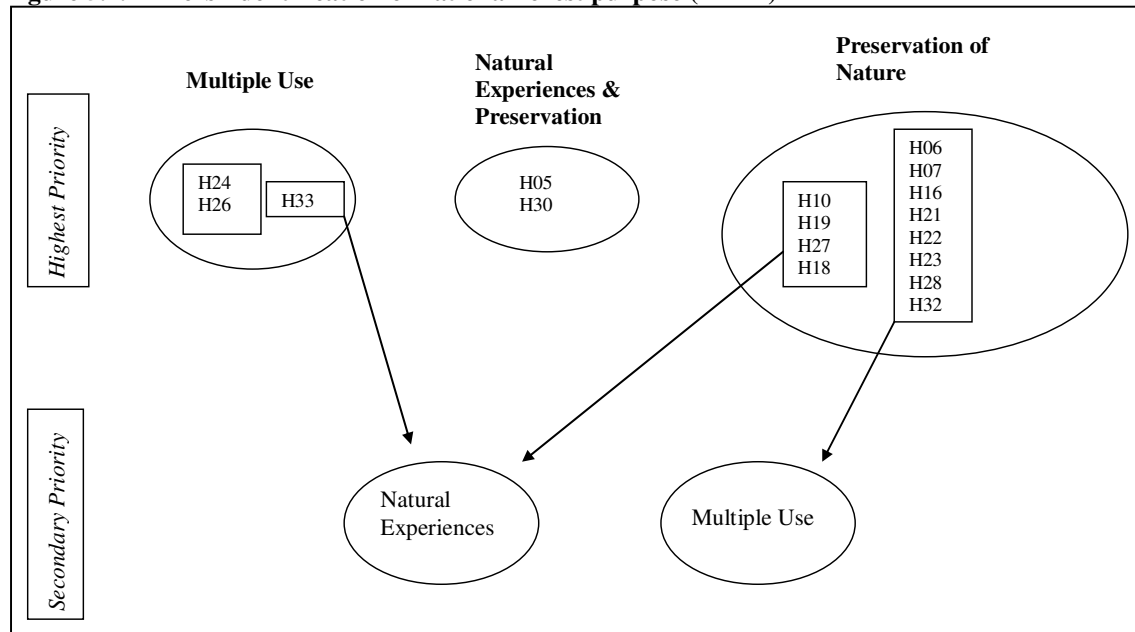
H10	Clean air, clean water, wildlife, views, external things that markets don't produce very well, clean air, clean water, open space, peace and quiet, and, you know, wildlife. Those are things that I really think the Forest Service should emphasize. All public land management agencies should be emphasizing those things. And they should be regulating human impacts so that we don't adversely affect those other things.... So I think we need to look at them as core primitive areas really.
H18	I guess I'd have to look at the wildlife first. I think every wildlife species that's out there is important.... So first and foremost, to answer your question, wildlife. Having wild space in and of itself I think is important but also for people to go and be away from society.
H19	Well, I think wilderness and the national forest, too, which is really not quite the same, offers people a time off from all that to think and to come back to our roots, probably. But it's not just for people. You know, we need to leave habitat for animals. We need not to use up what's there.... I think the Forest Service is there to protect public lands, probably protect it from ourselves, to leave habitat there.
H21	I think that the forest managers need to have in front of their minds always the potential for permanent or very long-term damage to the natural resources. And anything, any decision they make or action they take should try really hard to prevent that. You know, trees grow back, whereas if you have checker-boarded lands and you have houses up there, that's permanent long-term damage. So I guess I have a little more of kind of the physical scientist's perspective on things than just who likes to recreate how in this particular decade in the history of the world. So natural resources are limited and their quality is declining everywhere and we have to build in some resilience or try to perpetuate some resilience. So that issue of potential for damage, to me, should be the overriding criterion when they make any decision at all.
H06	Well, primarily the purpose is to conserve public lands, to conserve and preserve public lands so they're around forever. I'm not saying that they're going to be around in their original state forever but that they're, if they start out as forested they're still going to be forests.... And the land itself. I heard [former FS Chief Mike] Dombeck speak at a convention once. And that was his point. It's the land. I mean, the land is what sustains us, sustains human people, human life. And the land is the basis of everything. You know, it's the basis of the plants and the animals and the water. So if you let the land be ruined, then you don't have any of those other things.
H27	I think that it's a mistake to use our national forests for industry to a large degree. I think that, obviously, we need timber and we need sources of energy, but there has to be a really strong balance and a really careful look at where the best places are to get those, that make more sense for the creatures that live there, and make the most sense for the use of the area. So I think our national forests are to be treasured and to be saved and to be valued for their, I want to say their pristineness, but I'm not sure that's actually a word.... I think that we—I don't put people first necessarily. I mean, I think that there are creatures that we have the responsibility to, animals, and just the whole ecosystem and the way we need to respect that, that it has its own life and need for a certain way of being, and that we need do as little as we can to disrupt that. So to me that's foremost. And then, secondarily, I think then we get to go out and play on it, and I think then that needs to be looked at [for] how it affects that ecosystem and judged accordingly.

Respondents used a variety of terms to describe things within the domain of “nature,” such as “wildlife” (H18), “habitat” (H19), “the land” (H06), or “the whole ecosystem”

(H17); they also used a variety of terms to describe their management goals for nature, such as “protect” (H19), perpetuation of resilience (H21), “conserve” (H06), and “save” (H27). Nature and naturalness are contested concepts (Cole and Yung Forthcoming), as are the precise nature of preservation and conservation, and in another context, parsing the differences in these terminologies could yield valuable information. Here it is both impossible and unnecessary. In the first regard, greater insight into the diction of respondents would have required probes and follow-up questions that were not relevant to the main thrust of the interview. In the absence of those probes, it would be a mistake to read too much into respondents’ diction, and it is impossible to further investigate their meaning. In the second regard, in this context it is not necessary to further interrogate respondents’ diction. It is clear that respondents are attempting to describe nature in a broad sense—“plants and animals,” nature with “its powerful presence and a vigorous continuity with the world at large” (Borgmann 1995, 42-43)—and its protection in a broad, unspecified sense. Analogously, if I had asked respondents the color of a maple tree, I might have received answers including red, crimson, cardinal, cherry, and scarlet. For a project regarding the aesthetics of trees, probing respondents’ diction would be critical, but for a project regarding seasonal color variations, the important information would be that the leaves were some shade of red, as opposed to yellow, brown, or green. In this project, what is important is that the majority of hikers claimed that the preservation of nature is the most fundamental purpose of national forests.

Respondents who saw the preservation of nature as the purpose of national forests logically concluded that any activity that jeopardizes nature should be prohibited. Indeed, several hiker respondents explicitly stated that even hiking should be prohibited where it causes harm to wildlife. A majority of hiker respondents said that other of the multiple uses, such as logging and recreation, are also part of the purpose of national forests (see figure 5.2), albeit that they are acceptable only if they do not impair the health of the forest. H28, for example, said that some logging is good and necessary, but insisted that all human activities must “be within those parameters of keeping the forest, the national forest, sound.” The claim that nature preservation is the first purpose of national forests implicitly establishes a principle relevant to aggregate and site-specific allocation: allocations should not harm nature.

Figure 5.2. Hikers' identification of national forest purpose (n = 17)



In contrast with this dominant claim, two hikers discussed the purpose of national forests less in terms of preservation of nature, and more in terms of opportunities to experience natural places. The difference is subtle, since to experience natural places one must first preserve them, and the respondents recognized this. Still, this latter claim shifts the focus relevant to allocation *from* recreational impacts on nature, and *to* the benefits of different types of recreation and recreational impacts on other recreationists. Critically, it allows for the possibility that a use such as ORVs is not particularly harmful to naturalness, but nevertheless prevents other recreationists from an important experience. Here is an example of the experiential framing from H27:

But I think ... maybe the highest purpose of the lands is to give us some kind of a, it's like a lode stone that pulls you back to a, not more primitive state, but in some people it is, but a natural state. If that's the greatest value of it, and I think it is, that is largely incompatible with motorized use, because what you're trying to get away from are the inroads of civilization into wild areas. And motorized use is fundamentally an inroad into a wild area. It is putting a road into a wild area, whether the road is 2 feet wide or 20 feet wide, it's still a road....

Claiming that the purpose of national forests is preservation of opportunities to experience natural places implicitly establishes two principles that should govern recreation allocation: 1) preference for those activities that provide opportunities to

experience natural places; 2) reduced priority for those activities that deny those opportunities for others. Both respondents who used this framing argued that allocation to ORVs precludes natural experiences for other recreationists.

While only two hikers identified providing opportunities to experience natural places as the primary purpose of national forests, many claimed that this is a secondary purpose of national forests. For example, H5 placed conservation paramount, but also discussed recreation opportunities: “Well, I would definitely think they ought to be managed for retaining the qualities of, I guess I would use the word ‘backcountry,’ or nonurbanized environments,’ that offer alternatives for people, an alternative to their urban experiences.”

In contrast to the majority, there were three hikers who claimed that the national forests are for multiple use. As noted above, none of these respondents used the statutory term “multiple use;” rather, they simply described a range of purposes that included some combination of logging, mining, recreation, and preservation.

Figure 5.2 summarizes the primary and secondary purposes that hikers identified for national forests. Respondents were categorized on the basis of explicit statements about the purpose of national forests, interpreted in the context of the entire interview. In other words, I looked for relatively clear statements, such as those in table 5.2, and resolved ambiguity by considering those statements in relationship to other claims and arguments made elsewhere within interviews. One respondent, H08, plainly valued the national forests for their preservation of nature and for primitive recreation. However, since H08 never clearly stated what he believed the *purpose* of national forests to be, as opposed to what he valued them for, he is not included in figure 5.2. Where respondents did not explicitly state which purposes of national forests were primary and which secondary or tertiary, I inferred the prioritization from context, from the balance of the interview, and from sequence of discussion. It is clear that most hikers claimed that preserving intact nature was the primary purpose of national forests. In Section 5.2.1, I will further explore the implications of this view for allocation in light of hikers’ unanimous perception that ORVs have significant negative impacts to natural resources.

5.1.2. Aggregate Demand

In its Record of Decision, the GNF argued that natural resource impacts did not determine most of its travel plan decisions. Instead, the GNF rationalized its decision to reduce motorized allocations based on demand (defined below) for nonmotorized activities.²⁸ The GNF did not clarify exactly how it measured demand, or what it was attempting to achieve in terms of relative balance or with regard to particular vehicles (e.g., ATVs versus motorcycles), but did cite national, regional, state, and GNF use surveys to support its assertion that nonmotorized demand is greater than motorized demand (USDA Forest Service 2006, 3-420 - 3-428).

I asked each respondent very directly whether demand is an appropriate principle of allocation for national forest trails. Like the GNF, I put this in the context not of site-specific decisions (e.g., if the Blue Hill Trail is used more by ORV drivers than hikers, should it therefore be motorized?) but in the context of aggregate allocations (e.g., if use on the forest is 60 percent nonmotorized to 40 percent motorized, should nonmotorized users be allocated 60 percent of the forest?).

From an economics perspective, demand is often misunderstood and poorly measured in recreation literature, because such literature typically utilizes participation as a proxy for demand, and, in contrast with economist's definition of demand, does so without regard for supply and price (Garber-Yonts 2005). In this case, I allowed respondents to interpret the word "demand" as they chose, while referencing the GNF's discussion of participation data.

²⁸ The GNF Supervisor wrote: "My decision does result in a reduction of motorized use opportunities over the current situation. This reduction is largely based on several studies that consistently show that participation in nonmotorized activity exceeds that of motorized activity (see the FEIS, pages 3-420 through 3-428).... These recreation use projections would indicate that the largest future demand for supply of recreation opportunities would be for activities that typically occur in non-motorized settings." (USDA Forest Service 2006, 19).

Table 5.3. Hikers' views regarding whether demand should determine allocations (n = 18)

Respondent	First Response	Response to Hypothetical ORV Majority
H05	unclear	
H06	no	
H07	no	
H08	unclear	
H10	no	
H16	no	
H18	no	
H19	no	
H21	yes	no
H22	It's complicated	
H23	unclear	
H24	yes	N/A
H26	yes	no
H27	yes	yes
H28	yes	no
H30	yes	N/A
H32	no	
H33	no	

Hikers were split on the question of whether aggregate demand should affect allocation, with roughly a third of the respondents arguing against such allocation, roughly a third claiming that allocation should be proportional to demand, and roughly a third unsure or unclear (see table 5.3). Those who argued against using demand as an allocative principle typically did so because they believed that some other principle trumped demand. For example, both H19 and H6 argued that ORV use is not appropriate off roads, and that therefore demand for off-road travel is irrelevant. H7 argued that impacts should drive allocation decisions:

The other problem with using number of users as a method of assessing what type of travel should be allowed or not allowed is that it makes the forest use determined only by human use ... and does not recognize all the things that the forest provides separate from human recreation.

H10 tied both appropriateness (derived from the purpose of national forests) and impacts together to argue against allocation proportional to demand:

I guess it's certainly a logical piece to say we anticipate that there's more demand for this and that, and that's something that you should figure into the equation, I guess, and say whether it's the only reason. Because, like I

say, if there was this huge demand for motorized use, to me that doesn't justify to say, 'Well, let's let everybody drive to the top of Hyalite Peak.' Because that's not why we should have Hyalite Peak.... They should use science, and they should look at the impacts to endangered species and habitat. And I'd like them to go back to this sort of water, air, open space, peace and quiet and all that.

More succinctly, H32 argued that while demand should be a factor, "degradation of experience and resources is not a tradeoff that can be endlessly made in relationship to demand. No, that's not good stewardship."

What was striking about those who said demand *should not* drive allocation was that at least some nevertheless made arguments implying that demand is pertinent to allocation. H6, most notably, did this, commenting in several different contexts that there is something inequitable in permitting a (relatively) small number of motorized users to impact lots of country, at great expense, and disturb a lot of people. The tone of H6's comments suggested that a great number impacts from a small number of people simply highlights an absurdity—as if we might tolerate displacement of other recreationists and impacts to resources if most forest visitors used ORVs, but to do so for a small minority is foolish.

Hikers who claimed that demand *should* determine aggregate allocation did not typically advance an extended justification of their choice, instead simply accepting, apparently, that this is fair. Hikers who argued for demand as a distributive principle were, in several instances, subsequently asked to imagine a case where motorized demand exceeded nonmotorized demand. While one stood fast by the principle, three of the hiker respondents who claimed demand should be determinative reversed course when confronted by this hypothetical, suggesting that the greater impacts of ORVs would preclude devoting a majority of forest trails to their use. H28 illustrated this dynamic:

I: Is [allocation based on demand] a sound principle? I mean, is it . . .

H28: It's a sound principle.

I: . . . the way we should be making decisions?

H28: Sure. I mean, it is. This is very sound, and I . . .

I: If it were reversed would you feel that way? Would you say, if motorized use really takes off in the next two years...

H28: No, because resource damage is number one and impacts on the forest and wildlife. And water. I mean, these are watersheds. So

that's, that is key to the whole thing. You've got to start from there. So if you had motors running all over and you just told the hikers they can't go on the trails, that's pretty ridiculous.

This sort of response suggests that either (1) as for H6, for some respondents the fact that motorized users are a minority on the forest matters in some way, but it may not be a determinative principle, or (2) that for some hikers this is an argument of convenience, adopted because the data appears favorable to hikers' interests.

Of course, in order to allocate proportionately to demand, demand or its proxy must be reliably measured. While ORV drivers are deeply concerned with this issue (see Section 6.1.2), hikers were relatively uninterested, with only a few exceptions. Several respondents, such as H30, appeared to conflate the measurement of demand with the import of public comment on the DEIS:

But I think over 90% of the comments, maybe 95% were in favor of greatly restricting motorized use. But the Forest Service seems to pay an inordinate amount of, you know, bends over backwards to the 5% of people who want to burn gasoline up there.

Two other respondents claimed that the overwhelming proportion of "quiet trails" public comment should count for something in allocations, though not necessarily be determinative.

While measuring demand is fraught with difficulty, most existing measures of use would not only support the GNF's decision to reduce motorized trails (USDA Forest Service 2006, 3-420 – 3-428), but might even justify further reductions in motorized trails. In light of this, it was mildly surprising that only a minority of the hiker respondents claimed that demand would be appropriately used as the preeminent distributive principle. However, a substantial number of hikers believed that demand should play a role of *some* sort in distribution.

5.1.3. Miscellaneous Other Considerations

Hiker respondents made or rejected several other claims relevant to aggregate allocation. For example, H5 implicitly claimed that emissions and energy consumption should dictate diminished motorized allocations:

If we're saying we're going to cut back on fossil fuel consumption, where do you pick it? Do you eliminate the fire truck going to a home in Belgrade? Or do you eliminate it from a 150 horsepower snow machine spending all day long on the Gallatin Crest? I mean, as a public policy, we have to start making those kinds of decisions.

H33 claimed that the economic value of public land uses matters, while H16 rejected that argument, and also argued against allocation derived from the social benefits of different activities. H24 attacked the claim that allocations should be proportional to taxes or fees paid by activity group, while H32 claimed that the FS should incorporate consideration of the cost of administration for particular activities, suggesting that maintenance and enforcement costs associated with ORV use are too great to support a significant allocation.

The one remaining potential principle of aggregate allocation that was discussed relatively frequently was access for people who are disabled or elderly. The consideration of such access was not part of the interview guide, so respondents initiated discussion of this claim—frequently advanced by ORV advocates (Bengston and Fan 1999) or those concerned with their interests (Burns 2005)—on their own. Two respondents voiced sympathy for the idea that the elderly or handicapped need ATV access to the backcountry, with H28 concluding that “You have to take that into consideration. So there're places for [ORV driving].”

However, most respondents who raised the issue of access for the disadvantaged did so in order to reject it as an allocative principle, on a variety of grounds. Several respondents argued that motorized use precludes the backcountry experience that people desire and national forests should provide, and that, in essence, driving an ORV to have a natural experience is like burning a candle while looking for the dark. As H10 argued, “If you can go anywhere [with motor vehicles], all of a sudden there's no wild place to go.”

Several respondents suggested that ORV advocates overstate the number of disadvantaged people affected by limits on motorized use, asserting that many of the young and old can walk long distances, or that stock can be ridden by those who cannot walk. Another, H7, argued that motorized access for the handicapped should be permitted everywhere, even in designated wilderness, but that ORV use should be prohibited everywhere for all others. H7 concluded that “It's a challenge that none of [the ORV

advocates] I'm sure would take, because I think if there was a study done, the reality is that the percentage of people who we can all feel bad about, that that's the only way they can get into the backcountry, would be incredibly small, I bet less than 1%." For those who argue that the claim is overstated, like H7, there appears to be a sense that access for the handicapped is a valid argument that is exploited to provide allocations for fit and able enthusiasts.

Several respondents also claimed, implicitly or explicitly, that the national forests should have a substantial number of places one cannot drive to, regardless of the impact on the disadvantaged. H10 articulated the special access needs claim, then rejected it: "Well, this guy can't walk in there, he's 70 years old. He'd never get in there and see this meadow or something.' But that's not compelling to me. There's lots of places to go. And some places, you just have to know that they're there is good enough." H16 argued this the most explicitly when he said the fact that we all get old should not change allocations:

I mean, have you ever heard George Grant? Essentially, the Big Hole River and George Grant are one and the same. He fished it during the '30s when he didn't have a job. Fantastic fisherman and was essentially responsible for a lot of the conservation efforts on the Big Hole. He's 100 years old, and he hasn't fished in about five years. He simply can't. And that happens to all of us. My father can't change the oil in his car anymore, because getting under there is a bit difficult when you're 85. So I do it. And it just happens in all activities. I don't think we should open up the backcountry or even most of the national forests just because you're getting old. It's just a fact of life.

H16 evidenced sympathy for the disadvantaged, but did not think that that should lead to changes in allocation.

In summary, a minority of hikers agreed that the fact that there are people who are disabled or elderly should lead to increased allocations for ORV driving. Most hikers who addressed the issue, however, rejected access for those who are elderly or disabled as a reason to allocate forest trails to ORV use.

5.2. Site-Specific Allocation

Hiker respondents addressed a number of issues relevant to site-specific allocation of recreation resources. In this section, I serially address hiker views and claims regarding ORV impacts, history of use and enforceability.

5.2.1. ORV Resource Impacts

Hiker respondents universally believed that ORV impacts to the natural resources of national forests were great enough to be of concern, and to play some role in allocation of recreation opportunities. In Section 5.2.1.1 of this section I address hikers' claims regarding the severity of ORV impacts. In Section 5.2.1.2, I address the moral component of hikers' discussions of ORV impacts. In Section 5.2.1.3, I address the relationship, explicit and implied, between hikers' claims about ORV impacts and allocation of recreation resources. Finally, in Section 5.2.1.4, I address hikers' views and claims regarding equine impacts.

5.2.1.1 Hikers Believed ORV Resource Impacts to be Significant Hiker respondents were concerned about a number of ORV impacts, including energy consumption, spread of noxious weeds, erosion, water quality, and air quality. Predominantly, though, respondents focused on impacts to wildlife and impacts to trails, with periodic mention of associated erosion and water quality concerns. The most common claims, discussed below, were that (1) ORVs cause concerning trail damage; (2) that ORV impacts to trails and wildlife are significant; and (3) that these impacts are greater than those produced by hiking. In the first regard, many respondents focused on impacts to and around trails. (In this paper, I use the term "trail" colloquially, as respondents did, to describe any route for foot, horse, or ORV traffic that is less than a road.) For example, here is H7 discussing ATV impacts: "I have seen so many places where they've gone on to what were single track trails and turned them into double track places that then erode. And, aside from the impact caused by running into ATVers in places that they shouldn't be, also just a tangible erosion of the trail. So that's one that to me is really bad." Table 5.4 illustrates some of the other ways hikers expressed concern regarding trail impacts.

Table 5.4. Select hiker statements of concern regarding ORV impacts on and around trails

H06	Another reason is because there's nothing beneficial about the motorized use in the national forests. It disturbs a lot of people. It disturbs the wildlife. It erodes the trails. It pollutes the water.
H08	Well, I would say you look at the trail and the environment that the trail goes through. And I think you predicate your decision on that. And if it's an important wildlife area, if it's an important scenic area, if it's important watershed, why I think you have to.... These ATVs, I'm seeing them mud up a quarter mile of trail. And from that mud flows muddy water, and so forth. And steepness, too, the way those motorcycles can really dig into a trail that's steep.
H21	So there is a motorcycle trail up the whole way. And some of the areas where the peaks are, you know, sort of like not really peaks but what I call football field summits, and there's no distinct trail, but just acres and acres and acres of meadow. There is no distinct trail. But in places where it constricts down to a ridge, there's ruts like this, and they're running off into the drainages. And in places like that that get many, many feet of snow every year, where the animals are coming and going, or trying to come and go, where petrified wood is weathering out of the side of the cliff, don't tell me that they can make a trail that is going to be resistant to tires. You can't. You physically can't. I mean, I guess you could pave it, but then they would go off for something more challenging. So I don't accept those arguments [that trails can be hardened to prevent negative impacts].
H23	I mean, it's kind of a bummer to be in a place and have it all torn up because of certain types of motorized recreation. Mainly the ones that I've seen have the most negative impact and, ultimately, unsustainable impact are four wheelers. You know, I used to, I remember ten years ago going on a bike ride here south of Bear Canyon, and came up around Mystic Lake and came down on this awesome single track that was so fun.... But last time I was up there two years ago, it was destroyed, destroyed. You couldn't even, you could barely walk the trail it was so badly rutted and scooped out. And there were huge bogs. The trail had gone from a single track to 15 feet wide and more in some places.
H24	Say we're going to say that we're going to focus on impacts, and ... we're going to say that a certain level of impact is acceptable. And, you know, somebody on an ATV may reach that threshold more quickly than a person on foot. Again, defining that is really tricky. But if a trail goes from being a single track to a place where you can have two quads ride abreast in a short period of time, then I think it's not too much of a stretch to say that's a pretty unacceptable level of impact on one existing trail.
H26	My position with the Forest Service was if you're going to allow ATVs on this trail, you need to develop a trail system that's compatible with ATV uses. They can't do switchbacks. They have to go right up the fall line. And that creates a problem because of erosion issues. And, which creates the question of, well, if this is exceptionally steep terrain, should they be allowed here?
H28	And if you get enough of them [ORVs], there's going to be damage to the trails. . . . And so I don't see how you're going to have a trail ... where there isn't going to be some kind of damage to the trail.
H30	And then these areas south of town here. There are trails to Hyalite Lake. That's an extremely popular hiking trail. Goes past 10 named waterfalls, probably 15 others. And then there's another trail that goes around the other side of the mountain to Heather and Emerald Lakes. Those see dozens of people every weekend hiking, maybe 100 people, maybe 200 people. And they are torn apart by dirt bikes, just torn apart by dirt bikes.

The large proportion of hikers concerned about trail impacts is interesting in itself, but what is most striking about the data in table 3.1 is that trail impacts are assumed to have some substantial and deleterious consequence for the environment. That is, the hikers assumed, without much evidentiary support beyond invoking “erosion,” that the trail impacts testified to were not just noticeable or worth addressing, but that they result in significant environmental harm. For example, H23 described ATV impacts as “unsustainable;” H24 described conversion of a single-track into a double-wide ATV route as having an “unacceptable level of impact,” noting that not even “hardening the trail is going to take those people out of the picture, because if you’ve got a well graded trail, say it’s paved, you know, and it goes to the top of the mountain, that’s not going to stop the guy who’s got the vehicle and the desire to drive straight to the top and not use the trail;” and H26 suggested that ATV trail impacts sometimes rises to such a level that the use should be prohibited. In general, it appeared that hikers assumed that aesthetic impacts necessarily indicate profound environmental impacts.

Hikers were similarly concerned with regard to ORV impacts on wildlife, frequently identifying concerns about “habitat” and endangered species. Typically, H19 argued that ORV use should be restricted “mostly to prevent erosion and spread of weeds and disturbance of threatened and endangered species on their nests.” H18 expressed concern regarding ORV and logging impacts on elk and wolverine in the Bridger Mountains, H7 expressed specific concern regarding lynx denning habitat, albeit simply as an example of the kinds of things that need to be considered in travel planning, and H16 specifically addressed the profligacy of blue grouse harvest by far-ranging ORV drivers. Most respondents did not make the case that certain, specific species are harmed in certain, specific ways by ORV use—instead, they assumed that the impacts of the vehicles are significant to a range of species, asserting that ORV use “disturbs the wildlife” (H6).

A number of hikers specifically acknowledged that hikers, too, have impacts on the environment, and several explicitly stated that hiking should be prohibited where it jeopardizes wildlife. However, hikers either seemed to assume, or stated expressly, that ORVs have much greater impacts than do hikers. For example, here is H7:

If you're the Forest Service and you're saying 'I'm sorry, the reality is we're doling up human access to this place,' and you recognize there are other values in the forest, for instance habitat and so forth, those values you have to lump in with the people that are the nonmotorized users simply because there's less damage caused by those, there's less noise, there's less infringement on the habitat, there's less infraction on places two miles away when you're in this spot because of noise and so forth.

Similarly, H5 describes the comparison of hiker and ATV impacts as being “apples to oranges.” H22 averred that “you can't say you don't have any impact because you do. But I think it's less of an impact. You know, I don't think feet walking through are going to be anything like a tire roaring through, or even a horse.”

To summarize, most hikers believed that both trail and wildlife impacts caused by ORVs are quite significant. As I identify below, hikers believe that these impacts have significant implications for not just site-specific allocation, but aggregate allocation.

5.2.1.2 ORV Resource Impacts are Morally Offensive to Some Hikers Many hikers' evaluation of ORV impacts to natural resources were conveyed in a way that implied not just a negative appraisal of impacts, but moral condemnation, with the suggestion that some ORV driver behavior and impacts are unethical. For example, H21 described some ORV impacts as “profoundly repugnant.” Here is H23 describing trail impacts that he witnessed:

You could barely walk the trail it was so badly rutted and scooped out. And there were huge bogs. The trail had gone from a single track to 15 feet wide and more in some places. And there were a couple guys up there on their ATVs. They were nice enough folks. But they were just bogging it. I mean, they were loving the fact that there were these huge pits of mud that they could play in. And maybe there are places where our national forests should be dedicated to that. And shoot, maybe that place is one of them. But it was unfortunate, from my perspective, to see this place just hammered, I mean, just destroyed, I felt.... I mean, that place is just . . . It reminds me of a place that has been abused and discarded rather than a place that has been cared for and conserved.

In the description of the trail as “hammered” and “destroyed,” in his complaint that the trail now looks like a place that has been “abused and discarded,” and in his tie between the impact and the attitude of the ORV drivers (“they were loving the fact that there were these huge pits of mud that they could play in”) H23 evidences concern that is less about

the biophysical effects of trail impacts, and more about the land ethic of those who caused the harm. Consistent with other portions of his interview (and consistent with many other hiker respondents), H23 is careful to differentiate between the character of ORV drivers and the damage they cause. But even with the qualifier that the ORV drivers were “nice enough folks,” H23 is clearly adding a moral dimension to his judgment about the significance of ORV natural resource impacts.

The way hikers regard ORV impacts appears to bear some similarities to the way recreationists typically regard litter. Recreation researchers have previously found that recreationist experience in natural areas can be impacted fairly dramatically by litter. (Lynn and Brown 2003; Ruddell and Gramann 1994; Shafer and Hammitt 1995; Schuster, Hammitt, and Moore 2006) It is not clear why litter is perceived to be so offensive by recreationists, but it is offensive and impacts experience in a way that is not necessarily proportionate to its effect on nature, perhaps because people judge environmental losses caused by humans to be more serious and important than those caused by natural events or processes (Brown et al. 2005). Interestingly, some respondents made an implicit link between ORV use and littering. For example, H22 described an ORV route as “appalling,” then discussed associated litter:

Well, I think you kind of need to look at the impact too. I don't think hikers make as much of an impact as a person on an ATV. There's a place in the Bridgers where we hiked a couple years ago that was a haul to get to. There wasn't a trail or anything, and we had to go up over a high steep ridge and down and up another one and then we'd kind of get into this area. And the last time we went there, ATVs had gone in and ran a road right straight up the side of the mountain. And, you know, things like that are just appalling to me. That they can go in, and we'd hiked there many times over the years and you could never tell that anyone had ever been there until the ATV thing and they'd had a big bonfire and they'd had tents and junk laying around. When you pack it on your back, you don't tend to carry a six-pack of beer and throw all....

Similarly, H28 conjoined the visual traces of irresponsible ORV use and broader impacts, describing how in southern Utah “there was just trashed hunter camps, other camps, ATV tracks all over the place and that's, it totally ruins the experience. I think it ruins the experience for the animals too.” Saying that ORV drivers had “trashed” the place

conveys not just an impact, but wanton, unnecessary destruction, even though that destruction appears to amount, in some places, simply to ATV tracks.

The moral dimension of many hikers' judgments about ORV impacts also appears related to the belief of many hiker respondents that illegal, off-trail use by a certain percentage of ORV drivers is inevitable. As I address in Section 5.2.3, many hikers believed that a certain percentage of ORV drivers drive off-trail. While these hikers acknowledged that any recreationist can behave irresponsibly, they believed that the impact of a single rogue ORV driver is significantly greater than the impact of a rogue hiker or horsepacker. They believed that illegal ORV use is very damaging to resources such as vegetation, wetlands, and wildlife. And impacts caused by deliberate, prohibited behavior are more offensive than those caused inherently by an activity, just as vandalism of a rental property is offensive in a way that "wear and tear" is not.

5.2.1.3 ORV Resource Impacts and Allocation Perception of ORV resource impacts related to hiker respondent beliefs about allocation in several ways. First, consistent with hikers' common belief that the first priority on national forests should be the preservation of nature, three-quarters of the hiker respondents believed that damaging user impacts should result in recreation prohibitions, with the balance of the sample failing to state a position. Thus, hikers typically believed that motorized impacts on endangered species, for example, or trails, should lead to the site-specific elimination of motorized use. H29, for example, said that in allocating trails:

I would first look at the uses of that particular area by the creatures that already live there and not base it on human use, first of all. So, you know, there are places where we have bear and there are places where we have lynx and there are places where we have lots of different bird species and places that aren't as used. And so I think the first thing is to do an environmental assessment and figure out what is being . . . What's living where and used for what purposes.

H10 sounded similar:

I mean, I think they have to look at if you create, if you allow a motor to go in somewhere, they should look at the impacts it's going to have on the broader landscape. It's not just going to be on that trail. It's going to be, you know, the noise is going to carry. . . . Well, they should use science, and they should look at the impacts to endangered species and habitat.

More succinctly, H21 asserted, “So that issue of potential for damage, to me, should be the overriding criterion when they make any decision at all.”

Assessing potential natural resource impacts prior to decisionmaking is an accepted principle of forest management, so it is not surprising that hikers urged that it be applied to recreation. What is interesting, though, is that many hikers claimed that the natural resource impacts of ORVs are great enough to justify a significant reduction in the *aggregate* allocation to motorized trails. While some hikers conceded that hikers also have impacts, and several explicitly accepted that hiker impacts might be great enough to bar their use of particular areas, many hikers appeared to assume that careful impacts analysis would lead to reallocation of large areas from ORV use to nonmotorized use. Perhaps the most interesting example of this belief that ORV impacts should result in diminished allocations was H21. A professional with training in impact assessment, early in her interview H21 resisted defining ORV impacts as very significant:

I: Do you think that the resource impacts are very significant or . . .

H21: No, I wouldn’t say that I have seen very significant impacts. I wouldn’t honestly say that. I’ve seen widespread impacts and ones that were profoundly repugnant to me, personally. But I wouldn’t say ‘very significant.’

Later in the interview, however, H21 stated that ORVs “are in a lot of places where they shouldn’t be just because they’re profoundly disruptive and causing erosion....” She argued that the magnitude of ORV impacts indicates the need to confine them to sacrifice zones:

I: You’ve mentioned a couple of times that you think motorized use is appropriate in some places. Do you have a sense of what that kind of allocation would look like? Fifty-fifty?

H21: Low elevation. Well-protected so that the sediment that is loosened doesn’t make it into the streams. A true sacrifice area.... Certainly, it should be a minority because it is profoundly damaging.

Elsewhere H21 suggested that “a motorcyclist can do a hell of a lot more harm in one day than I do up there. And an ATV can do even more harm. And for that reason, I believe that those uses should be more restricted than foot travel or horse travel.” H21 did not clarify how ORVs should be restricted, though elsewhere in her interview she spoke of

prohibiting ORV use where there is significant conflict with hikers and where there is significant resource damage.

Taking this perspective even farther, three other hikers claimed that natural resource impacts dictated confining ORVs to functional “sacrifice zones.” H5 and H19 actually used the word “sacrifice,” while H10 suggested, similarly, confining ORVs to a limited area where impacts are largely disregarded:

And so I guess it goes back to there should be a central mission of trying to provide these—clean water, clean air, wildlife, clean viewsheds and peace and quiet. And then where can you fit all our uses into that? That’s what I would prefer. And so there may be some places where you say, ‘Well, we’re going to manage this as motorized.’ I would rather see that that be congregated. Because of the externalities associated with the use.... So I would prefer that the motorized use be clustered. You know, if you’re going to make Bear Canyon a motorized area, make it a motorized area. And let them have the run of the place.

As H10’s quote makes clear, the argument for sacrifice areas is only partly about resource impacts—it is also related to hikers’ sense that ORV use displaces nonmotorized recreationists, and the desire to minimize that displacement. Still, the implication of the diction “sacrifice” and of H10’s quote is that other values, such as wildlife preservation, do not survive where ORVs are permitted. In other words, a very minimal aggregate allocation to ORVs should result from analysis of the impacts of these machines. A number of hiker respondents seemed to suggest a similar aggregate result without referencing sacrifice zones.

The belief of many hikers that full consideration of ORV resource impacts should result in diminished ORV allocations or confinement to sacrifice zones appears to result from a couple of factors. First, many hikers believed that impacts are of a magnitude to be of concern. Second, as I discuss in Section 7.1.2, it is possible that hikers’ typical perception of the purpose of national forests significantly affects their evaluation of the severity of ORV impacts. Almost all hikers appeared to believe that ORV resource impacts rise to the level of unacceptable harm, significantly limiting their potential allocation on national forests—they assumed, as Nie (2006, 455) has described for conservationists in other contexts, that “science” is on their side.

5.2.1.4 Hikers Views on Equine Impacts The final impact-related topic that hikers frequently addressed is the impact of horses on trails. Since most hikers claimed that impacts are an important consideration in recreation allocations, and given that stock impacts to trails and other resources can be perceived as quite great, I asked hikers if equine allocations should be diminished due to their trail impacts. Most hikers responded thoughtfully to the question, recognizing that it potentially challenged their articulated principle for allocation. One hiker simply condemned horses for their impacts, and said she would limit them to a few areas if she could. Some hikers mentioned lack of enthusiasm for horse apples, and one (H6) said that she did not like horses or their impacts, but concluded “We have to compromise somewhere.... I just figure it’s something we have to live with.”

Typically, rather than condemn equine impacts, hikers either argued that, in fact, ORV impacts are greater than equine impacts, or shifted discussion from impacts to more general compatibility with natural settings. In the first regard, hikers often suggested that stock impacts are limited to trail impacts, whereas ORV impacts include other kinds of impacts. For example, H10 and H18 both acknowledged significant trail impacts by horses, but argued that the noise impacts of ORVs put them in a different class. Similarly, a number of hikers argued that even if horses have significant impacts on trails, they are not used to go cross-country, and thus have lesser impacts because they are confined to trails. Here, for example, is H33:

I haven’t seen that they do that much damage as a machine. Certainly on the trail a lot of horses, like an outfitter kind of string of horses over and over and over again can certainly chew a trail up. But honestly, I haven’t seen off trail damage to the extent that I’ve seen where just a few machines might have done some turns in a meadow.

H27 utilized both argumentative strategies, suggesting that equine impacts are both lesser in magnitude and that they just feel more appropriate:

- I:** What about horses? Lots of times I hear that horses do the same kind of damage that motor vehicles do, but nobody, at least very infrequently, people don’t typically suggest, and that’s why . . .
- H27:** I kind of don’t believe that they do, that they can do as much damage. I believe that people who ride horses tend to stay more on

the trail because that's where the horse wants to be. They're more inclined to stay, I mean, certainly they can create little places where it's muddy or whatever or the trail is sunken down lower. But, no, I don't find that nearly as extensive or as bothersome, because I still feel like that's respectful for this sort of pristine feeling. I mean, bringing an animal in there that moves slowly and quietly and stays on the trail feels very different. Even if they deeply use that trail, they're not breathing out bad fumes, and they're not making horrible noise, and they're not, you know, I'm sure they do some destruction, but the other animals are there. But the poop's not a great smell and that kind of stuff. So, no, I'm not bothered by horses, and I haven't experienced them to be a major problem.

As is evident, H27 first suggested that equestrians have fewer impacts because they are more liable to stay on the trail, and because they do not emit noise or exhaust, then essentially said that horse impacts are not as "extensive or bothersome" simply because they are caused by horses, not machines.

While different evaluations of impacts may partially explain hikers' relative forgiveness of horse impacts, H27's consideration of general appropriateness suggests that knowledge of the source may exaggerate hiker evaluation of ORV impacts. One respondent, H21, made that very explicit:

I: What about horses? Horses, I hear from many people, have many of those same impacts.

H21: Uh-huh.

I: Or on the same sort of scale that motorized vehicles do.

H21: Yeah. Horses are a little tricky because they're so embedded in western culture. They're so iconic. They do have a lot of impacts. You know, I do have the sense that horsemen are woodsmen, by and large, whereas motorized users, by and large, are not. So the horsemen, you know, the backcountry horsemen, for example, at least around here, do quite a number of trail maintenance projects that mitigate the effects of horse travel, and foot travel, for that matter. And you don't see the motorized users doing that, and you don't see us hikers doing it. Of course, it would be a lot harder for me to get a chainsaw into some of those places than it is for them. So I have somewhat of a warmer and fuzzier feeling towards horse travelers. I think they have a lot more respect for the country through which they pass, by and large, than motorized travelers do.

I: Why is that an important distinction?

- H21:** It largely dictates how much respect I have for them. Whether they're good travelers and care about the place or not.
- I:** So if you had the sense from motorized users that they, in fact have a deep respect for the land and they did a lot of stewardship projects or trail maintenance projects, would that incline you to favor them?
- H21:** Uh-huh. Yes, very definitely. Without question.

Not surprisingly, for some hikers the magnitude of impacts they perceive appears to be related to their more general evaluation of ORV driving and drivers.

This result is most interesting in light of other researchers' findings that hikers dislike encountering horses. For example, Watson et al. (1994, 380) found that more than half of hikers in the John Muir Wilderness (California) described encounters with recreational stock users as undesirable or very undesirable. The discrepancy between Watson et al.'s findings and these suggests, therefore, that hikers either: (a) are positioning themselves for political advantage as H6 did, accepting stock impacts where they will not accept ORV impacts in order to build or maintain an alliance against ORV allocations; (b) believe stock impacts to be substantially less than those of ORVs; (c) think in terms of a hierarchy of conflicts, wherein ORVs, if present, eclipse the conflicts caused by horses, but horses, on nonmotorized trails, become a more prominent concern; or (d) that other contextual differences in the two studies (such as location) significantly affected hikers' evaluations of stock.

There is not sufficient data here to comprehensively explain the difference in hiker attitudes toward horses and ORVs. Future research will have to explore whether the difference is a product of views regarding the recreational purpose of public lands, different evaluation of impacts, different evaluation of the sources of impacts, political calculation, or some other factor.

5.2.2. Existing Use

The second claim that hikers sometimes made regarding site-specific allocation was that history of use should drive present allocation. Recreationists often enjoy returning to familiar locations, whether because familiarity breeds confidence, facilitates the gathering of new knowledge, revitalizes happy memories, or for some other reason—

that is, use often results in place attachment. Further, it is typically easier to defend the status quo than to argue for change. In disputes over recreation allocations, an established history of use is often, therefore, cited by both recreationists and managers as a justification for continued use (see, e.g. Schwarze 2002; Cable and Watson 1998, 4-5).

A small number of hiker respondents expressed sympathy for ORV drivers with place attachment who might lose driving areas. For example, H22 noted regarding both hikers and ORV drivers, “I don’t know how much people want to give. You know, you’ve had your places you’ve gone all the time, and you want to keep going there.” H23, similarly, said

You hate to deny people access to that which they enjoy and love. Just like I don’t want to be denied from being able to use areas where motorized users can go. It’s like, ‘Well, wait a minute, I’ve been going there since I was, for 15 years, since I moved here.’ Folks saying, ‘Yeah, I’ve been going there since my granddad took me up there fishing as a kid. What do you mean, I can’t go there? What kind of crap is that?’ So, you know, it’s inherently problematic.

H27, too, argued that tradition of use creates a connection to the landscape “because that’s where people’s hearts are, and that’s where the people part comes in.... So if I have a family tradition of taking ATVs up here and setting up a big tent with my grandkids, then I want to be able to continue to do that.” He argued that this connection is valuable and worth prioritizing in public policy.

A good number of hikers believed that place attachment, as evidenced by history of use, should be considered in the allocation of site-specific trails, but some simultaneously complicated the question by identifying technological and demographic changes in ORV use. Several hikers suggested that changes in ORV technology and user numbers make it difficult to simply accept that ORV use should continue where it has been established. For example, H18 and H19 suggested that the shift from a few ORV drivers to many causes practical consequences that demand management change. H19 argued that the Gallatin’s forest plan from roughly a decade previous is badly outdated, and concludes, “I would say with the population increase and the increase in the number and type of motorized vehicles you almost have to start over.” Similarly, here is H30:

- H30:** They [managers] should see how the area has been used historically and how the area is used now.
- I:** What do you mean, historically? Because certainly the motorcyclists would argue they have historically used these areas.
- H30:** Yes. But there weren't nearly as many. There's a big difference between, you know, a motorcycle going up a trail two or three times a year and going up a trail every single day, which is what it is, say, in Truman Gulch now.... It wasn't an issue if you go back far enough.

H30 first identified historic use as a valid criterion, then, in identifying the difference between three motorcycles a year and three a day, argued that there is a significant difference between historic and contemporary ORV use. This viewpoint at least complicates—or in some cases bars—the recognition of ORV driver claims that they have traditionally used particular trails.

H30's quote above also highlights how some respondents asserted a competing and preceding attachment to places. When H30 said, "It wasn't an issue if you go back far enough," he is signaling that, for most trails, walking predates driving. Similarly, H26 saw a continuity of trail use that extends back to Native American times; in this context, H26 sees the widening of trails for ATV use particularly offensive, because they change what he sees as something historic, and, in the time-frame of centuries, ORV use cannot be considered anything but a novel use.

The lack of a consistent vocabulary and interpretation of terms like historic, existing, and traditional contributes to difficulty in understanding claims in this regard. For example, H19 first suggested that we should be privileging "traditional" uses, then reluctantly acknowledged that ORV drivers might see off-roading as a traditional use. H28 also had trouble negotiating this hurdle. Like many other hikers, H28 accepted equestrian use on trails in large measure because he perceived horse use as "historic." Here H28 was asked why horses are more acceptable on trails than ORVs, despite, I hypothesized, relatively analogous impacts. H28 attempted to navigate between historic horse use and historic ORV use:

Well, that's history. I mean, that's culture and history because horseback riding has always been, and motorized, that's new. And, you know, motorcycles were allowed on the Hyalite ridge and those were trail bikes. And so now that sort of gave them, in the Wilderness Study Area, that

there's always been motorcycles and that's what the Forest Service is using. But now they've got, you know, so much more heavy duty motorcycles using [the area]. It's a totally different thing. But horses have just been a tradition of the West.

H28 is attempting to privilege tradition and history, and simultaneously argue that motorcycle use on Hyalite Ridge, which has been occurring since at least the late 1970s, is not historic. There are real and legitimate differences in the length of tenure on national forest trails of horses and ORVs on trails (that is, predating European settlement in some cases versus dating from the 1950s, at the earliest, typically), and it is true that ORV impacts on GNF trails has changed more dramatically than foot and horse impacts in the last twenty-five years. However, the vagueness of the terms “existing,” “historic,” and “traditional” make these distinctions difficult to articulate in an off-the-cuff interview.

5.2.3. Enforceability

As discussed previously, many hikers claim that ORV impacts are significant and damaging, and a justifiable reason to make both site-specific and aggregate allocation decisions. These views are complemented by another theme in hiker claims, those regarding “enforceability,” or the extent to which ORV drivers voluntarily obey restrictions on use, the extent to which the Forest Service can compel compliance, and the impact of rules infractions by ORV drivers.

Although discussion of enforceability was not part of the interview guide, a majority of hikers asserted that the enforceability of rules restricting ORVs to designated routes should play a role in site-specific allocation. Many hikers regarded violations of travel prohibitions by ORV drivers as inevitable, in part because they believed a certain percentage of users are irrevocably irresponsible, in part because of the difficulty of enforcement. With regard to irresponsibility, some hikers perceived the temptation of certain violations as too great. For example, H10 suggested that many violations occur during hunting season:

Bringing critters out is really tough. And that's where I think you get into ATV violations. Somebody might drive in on the road, on the trail, park and hunt. They knock an elk down over here, suddenly they think, hmm, 'I'm going to take my ATV down here and go pick that up.' And they do it all the time.

Many hikers, in contrast, believed that some subset of ORV drivers shared a culture of abuse—of disregard for both the law and for their impacts on the land. For example, H16, who also described encounters with ATV drivers who were friendly and law-abiding, said,

I think there's kind of an attitude among ATV riders, some of them, about where they can . . . They have kind of an aggressive attitude about where they can go. There is less reluctance to limit how you go after, into the woods. I guess it's a little bit like catch and release fishing versus keeping them, you know, limiting what you do. I think there's some of that.

H30 voiced this charge vehemently:

But you can come in along the Crest Trail. And those people, they go everywhere.... It's like snowmobile use around the park. In some areas around Silver Gate and Cooke City, there is absolute total, blatant disregard of the signs. It's reported every year. People get in trouble. They get caught in avalanches. They get stranded. And they have had to drive past two or three signs telling them they're not supposed to be there. And it only comes to light, you know, a few times a year. But they're doing it on a daily basis. Complete and utter disregard of the rules. It's absolutely the same with motorcycle use on the forest. I hunt in the East and West Pioneer Mountains [on the Beaverhead-Deerlodge National Forest] in areas where there's a sign telling you [that motor vehicles are prohibited], it's a big sign, you cannot find any of those trails without motorcycle tracks on them, right past the signs. There is absolutely no enforcement of the rules. And I think that's, for some time now, has been a big problem with various forms of motorized use, whether it's snowmobiles or motorcycles or ATVs, is that there are, they have shown very little respect for restricted travel use areas.... So, you know, you're dealing with a faction or a segment of society that almost prides itself in breaking the rules.

With “complete and utter disregard for the rules,” and the suggestion that some ORV drivers pride themselves on that, H30 makes the claim that there is a problem that will be difficult to address through increased enforcement. While few hikers so forcefully articulated the claim that there is a culture of lawlessness among some percentage of ORV users, a good number implied it. For example, H32 suggested that when the FS puts up closure signs, ORV users drive over the signs.

Like a few other hikers, H30 complained that there is little enforcement of restrictions on ORV use. Relatedly, five hikers identified the practical difficulties of enforcement. For example, I suggested to H24 that if there are ORV violations, one potential response is better law enforcement. H24 responded that, given the size of the Gallatin, such enforcement is impractical, and possibly undesirable:

Sounds great. If it can be done, that would be okay with me. I think the irony is that part of the draw of the forest is that it's, you can't have that kind of enforcement. People go there for a certain kind of freedom, you know. We can barely enforce the speed limits. The idea that we can enforce responsible use off trail? Forget it. I'd be willing to see it tried. But I don't know if it could be done on a large scale with a budget that people are willing to accept.

In sum, a number of hikers believed that effective enforcement of limits on ORVs is challenging, or, depending on the scale and location of use, impossible.

Hikers appeared to see ORV driving violations as offensive in themselves for their disregard of the law and community rules, but also as particularly damaging to the environment. For example, H27 assesses violations in this way:

I think there's a lot more damage done with those vehicles than there is with somebody walking off trail. I mean, I think there's a lot more times when people decided they can ride off trail and create a new trail and they're much more destructive than people who are walking.

Similarly, H24 argued that some additional maintenance due to user impacts is acceptable, "But I do think that's a separate issue of the inevitable abuse of a user who's out there who's not staying on the trail, who's not playing by the rules and who's having I think a greater impact than anybody else who's on the trail." This view is consistent with hikers' general view of ORV impacts as being very significant, as well as with some research showing that people believe human caused impacts to be more serious than environmental losses caused by natural processes (Brown et al. 2005; Kahneman 2003), and that the type of human cause (e.g., carelessness versus cumulative, collective impacts) may play some role in evaluations of importance. (Brown et al. 2005)

The most common hiker belief, then, was that ORV driver violations are inevitable and the environmental consequences of those violations significant. For that

reason, more than half of the hiker respondents recommended enforceability as a criterion for site-specific allocations. Several hikers were specific about how this should affect allocation. For example, H10 and H21 argued that ORV use should be allocated in blocks, asserting that each legal ORV route functions as an artery that opens up new territory to illegal use. Other hikers argued that trails should not be designated in places where abuses are likely to occur, such as meadows (H33), or places where resources are fragile (H7); argued for confining ORVs to roads (H16); or simply asserted enforceability should be a factor (H24, 30).

Most hiker comments regarding enforcement addressed only site-specific demand. Several hikers, however, related enforcement issues to aggregate allocation. Specifically, H32 suggested that the administrative cost of patrolling ORV areas and dealing with user conflict contributed to her sense that more area should be devoted to nonmotorized uses. Further, the sense that ORV drivers will drive off-route appeared to contribute to some hikers' recommendation that ORV drivers be allocated limited sacrifice zones. H5, for example, implied that any ORV area will have places where drivers go off-route and through streams:

If they're going to let these kind of machines ... have certain areas to recreate on, then I think we're going to have to have sacrifice areas.... And then basically we know that there's going, we can't go in and pave it all, so there are going to be stream crossings where they go through. There are going to be places where they're going to go off trail. And we're just going to have to accept that if we have public policy that says we want these people to recreate not at the NASCAR racetrack, but we want them in the forest, then we're going to have to have sacrifice areas.

It seems clear that H5's desire to limit ORVs to sacrifice zones is connected not just to his sense of their general impacts, but also to his sense that impacts will be great because drivers will not observe regulations.

As a syllogism, the argument that is collectively made on this issue looks like this:

- (1) A certain subset of ORV drivers will inevitably disregard confinement to designated routes;
- (2) Driving off-route has significant deleterious impacts on natural resources;

- (3) The commitment to enforcement necessary to curtail such violations is impractical;
- (4) Therefore ORVs should not be permitted where resources are fragile or precious;
Or:
- (4) Therefore, because such infractions always result in significant deleterious impacts, ORVs should be confined to sacrifice zones.

It should be noted that hiker assessments of ORV drivers' culture of violations may have contributed to allocation arguments in other ways. In Section 5.2.1.4, H21 stated that her beliefs about allocation to ORVs are affected by her perception of their respect for the land. Though no other hiker stated this so directly, it seems possible that the moral dimension of hikers' judgment about ORV impacts is related to hikers' sense that many of those impacts are illegal, and the result of drivers' choices to violate the rules, not simply the use of vehicles. Further, it seems probable that both that moral judgment and the common belief that there is a problem with ORV lawlessness affect hikers' overall attitude toward allocations for ORV drivers.

5.2.4. Summary of View and Claims Regarding Site-Specific Allocation

To summarize:

- Hikers concerns regarding ORV impacts ranged from energy consumption to wildlife impacts to erosion and water quality impacts; however, the most frequently cited concern was impacts to wildlife, and the most upsetting was impacts to trails.
- Many hikers claimed that ORV impacts to wildlife, water, and trails are very significant.
- Many hikers claimed that the natural resource impacts caused by ORVs to be significantly greater than the impacts caused by hikers and equestrians.
- Most hikers claimed that recreation impacts should be a criterion of site-specific recreation allocation; some hikers claimed that use of such a criterion would significantly reduce aggregate ORV allocation.
- For many hikers there appeared to be a moral dimension to their evaluation of ORV impacts to natural resources, whereby hikers not only

felt that ORV impacts were significant, but that they were unethical or offensive.

- Some hikers claimed that historic use should be continued in current allocations, but most who did so contested ORV driving's inclusion as an "historic" use.
- A majority of hikers claimed that enforceability should play a role in site-specific ORV allocations.

5.3. Conflict

To reiterate from Section 2.4.2, I define conflict as *experience degradation attributed to another agent*. I use Blahna et al.'s (1995) typology of recreation conflict to structure consideration of conflict. Blahna et al.'s typology considers conflict caused by social factors, safety, managerial equity, physical impacts, and philosophical appropriateness. Hiker perceptions of conflict related to physical impacts and philosophical appropriateness have been adequately discussed: hiker perception of the physical impacts of ORVs plainly contribute to diminished experiences for many hikers, while many hikers, without directly saying so, appear, from their description of the purpose of national forests and their moral judgment about ORV-caused impacts, to believe that ORVs are somewhat inappropriate on national forests. In the balance of this section I will serially address Blahna et al.'s remaining factors, social conflict, safety, and managerial equity, then close with a consideration of hikers' views and claims regarding conflict, displacement, and segregation.

5.3.1. Social Conflict

Social conflict, according to Blahna et al. (1995), simply describes conflict stemming from either direct encounters on trail or indirect encounters, e.g., witnessing evidence of another group's impacts. To better understand what might contribute to hikers' experience of social conflict, I noted in Section 2.4.2 that I use Kliskey and Kearsley's model of dimensions of a backcountry experience to explore conflict. Kliskey and Kearsley (1993) and Kliskey (1994) divided the experience that hikers in a variety of natural landscapes seek into four dimensions: artifactuality (i.e., absence of human

impact), naturalness (i.e., integrity of natural features), remoteness (distance from conventional landscapes), and solitude.

Hikers in the sample directly or indirectly invoked degradation to each of Kliskey and Kearsley's properties in their discussion of the impact of ORVs on their experiences. Most obviously, as articulated in the previous section, hikers believed that ORVs have profound, negative impacts on the integrity of natural features. Beyond natural resource impacts, for many hikers, the most directly stated cause of experience degradation was an increase in the artifactuality of experiences. A number of hikers identified ORV routes as the equivalent of roads, and the sound of ORVs as the equivalent of city traffic. For example, H18 talked about the Bangtail Mountains, a part of the Gallatin that she feels may be degraded to such an extent that motorized use is appropriate there:

It didn't surprise me that we heard the motors, but I did notice that it just doesn't feel the same as going someplace where there are no motors allowed.... I think [driving an ORV would] be fun. And I've been offered the opportunity to go. I said, 'You know what, I can't stand the thought of riding around all day with a motor.' It just sounds, it's just completely unappealing to me. Part of the reason I'm out there is so that I don't have a rumbling like that in my ears. I mean, just sitting right here, the cars, the interstate, the train, all that, to just have quiet space is important to me....

What is most important here is that for H18 the sound of ORVs is the equivalent of urban sounds audible from her downtown Bozeman porch during the interview: cars, trains, Interstate 90. H23, similarly, asserted that being in a place heavily utilized by ORVs is "no different than being right here in downtown Bozeman watching the traffic go by." H26 asserted that converting a foot or stock trail into an ATV trail makes it "a highway through the woods."

Time and again, hikers compared ORV routes to roads and asserted that ORV "roads" negatively impact both the area in question and their experience of it. They often contrasted places with ORV routes or roads with wildlands or wilderness, though these terms appeared to be used in colloquial senses, not in relationship to designated wilderness or some other policy-defined designation. H18 asserted that a wild place is a "place without human development.... And in my mind I guess I think that includes roads. When I see roads, that feels intrusive to me, but not so much trails. I don't think of

trails as intrusive.” Similarly, H21 asserted that ATV use on a trail turns it into a road, symbolic of urban places, saying “I’ve seen it in hundreds of miles.” Asked why that matters, she said “Because you go from a place that is more or less primitive to a place that is just like every place else, with roads in it.” H30 expressly linked the conversion of a trail into a road into a degraded experience:

To me, as soon as you crank up a motor, a path basically becomes a road.... And when you put a road into wilderness, you dramatically alter not only the face of the wilderness but the way the animals migrate and act.... But I think in some of those places it’s absurd to allow motorized access, because I do think that that’s when a path becomes a road. And it’s defacing the—not just defaces it, but it reduces its value as a wild area. And that’s just something that you just instinctively understand if you’re up there and you hear the dirt bikes coming from a mile away.

H30 described how an ORV trail is the equivalent of a road, and stated that it “defaces” wilderness, and “reduces its value.” Note further that the reduction in value is referenced against the place’s wildness, as opposed to just the recreationist’s experience, indicating a fundamental change in the area, not just a slightly different day for the recreationist. And finally, note that H30 suggested that understanding of this is instinctual—a rhetorical strategy that puts H30’s reaction beyond question, and implies that it is fundamental and universal to human experience. The upshot is that motorized vehicles symbolize exactly the modernity that many hikers are trying to temporarily escape. H6 stated that “being able to get away from motors and being able to be in natural nature is important to a lot of people. And it’s important to me. And you can’t do that if there’s a motor right next to you.”

A small number of hikers also asserted that ORVs degrade another of Kliskey’s dimensions of a backcountry experience: *remoteness*. For example, H7 argued that an encounter with an ORV makes the landscape seem smaller:

It would be horrible, for instance, if you could ride a motorcycle from Gardiner to Cooke City, because I can guarantee you that people would do that in a day. And all of a sudden this sense of being back in the backcountry three days away from getting out, meaning you have to take care of yourself for those days, if you hurt yourself, blah, blah, blah, you are responsible for yourself. Suddenly that’s all changed, because with the motorcycle you would be able to do the whole thing in a matter of hours.

So to me that gives a phenomenally different feel to a place if you're there and you've worked there to get there for *X* number of hours and you realize, actually *X* number of days, and you realize that by [a different] mode of transportation other folks can do that in an hour or two, it makes a place much less wild, and it makes a place much less appealing because of the things that you can do when you are on a fast trip.

H7 summarized that an encounter with a vehicle “made us feel less connected to the landscape. It detracted from our day.” For hikers like H7, the presence of the vehicle inevitably degrades their experience by reducing remoteness.

ORV impacts to *solitude*, the final of Kliskey and Kearsley's dimensions of a backcountry experience, were also invoked by a few hikers. H24, for example, asserted that because of the noise ORVs make, and because they may force hikers off a trail, encounters with ATVs “per capita ... they make the forest feel more crowded.” Use of the word “crowded” indicates a negative assessment of user density (Stokols 1972) that contrasts with solitude.²⁹ H16, similarly, suggested that encounters with ORVs make a landscape feel more crowded.

Interestingly, several hikers conflated ORV impacts on solitude with more general crowding issues. That is, they felt that ORV use was only one aspect (albeit one that disturbed them) of increased recreation use in the Bozeman area, and several indicated that they have shifted their use away from popular locales near Bozeman regardless of whether ORVs are permitted in those places.

Hikers' views of conflict on mixed-use trails related directly to the impact of ORVs on Kliskey and Kearsley's (1993) four aspects of a backcountry experience. While different hikers selectively invoked various of the four aspects, collectively, for hikers, the presence of ORVs diminished solitude, naturalness, and remoteness, and increased artifactuality, thereby degrading hikers' experiences and causing conflict.

A significant question in regard to conflict is the extent to which it is inherent in an encounter (or even knowledge of use), and the extent to which it is determined by the behavior of recreationists. While there are other relevant aspects of recreationist behavior, this question often focuses on courtesy. Hikers related only a handful of incidents where they believed ORV drivers had been rude or inconsiderate. This lack of

²⁹ Solitude is not as simple as being alone (Hammit 1994; Hammit 1982), but is plainly counterindicated by a complaint of crowdedness.

negative encounters is positive, for it is certainly the case that discourtesy would exacerbate conflict. At the same time, however, almost no hikers suggested that driver courtesy ameliorates conflict. One hiker stated that she preferred horses to ORVs, then discussed equestrians' courtesy, perhaps implying a comparison with ORV driver behavior and signifying that courtesy does affect her assessment of conflict. Several hikers explicitly said that they had had courteous interactions with ORV drivers, but that did not alter their fundamental sense of recreational incompatibility. Hikers' lack of interest in articulating an evaluation of ORV driver courtesy reinforces the conclusion that, for hikers, conflict is inherent in the encounter with a motor vehicle—it is not greatly dependent upon the behavior of ORV drivers.

5.3.2. Safety

Outdoor recreation research has consistently shown that perceptions of hazard can be a factor in user conflict. Given that ORVs typically travel at significantly greater speeds than pedestrians, and that collisions are more likely to harm pedestrians, it is no surprise that safety was mentioned by seven hiker respondents, albeit briefly. H6, for example, implied that ORV drivers can be reckless or incompetent, complaining that she should not have to put her safety in the hands of someone who may not even be licensed to drive an automobile. H32 described how, during recovery from a knee injury, “it was frightening, really, to have to get off the trail on a steep place, say Sypes Canyon.... I didn't want to get off the trail because I was unsteady.” Another hiker, H27, discussed a near collision in which a mountain bike and her child-carrier backpack were too wide to simultaneously occupy the trail.³⁰

H7 was not the only hiker to identify concerns regarding children's safety. H21 described mixing children and ORVs as “irresponsible,” and H5 (a parent of grown children) was indignant about the perceived risk that vehicles present to children:

I mean, there's a big difference between a family out there with a two-year-old and a three-year-old picking [berries], and the kids are along the edge of the trail picking huckleberries and a guy coming by in a Yamaha 280 cc or 580 cc motorcycle capable of going 100 miles an hour down that

³⁰ In the context of the interview, it is clear that the respondent viewed the threat from ORVs and bicycles as similar.

same trail. So, I mean, God, right away you say, ‘Well how can you mix these two?’

While the account is hypothetical and equates machine capability (100 mph) with an unrealistic trail speed, it reflects a real concern about the potential for tragedy associated with mixing uses.

In summary, nearly half of the hiker respondents evidenced concerns about the safety of mixed-use trails. However, safety was typically mentioned briefly, rather than identified as a principle or driving cause of conflict.

5.3.3. Managerial Equity

The last of Blahna et al.’s (1995) five dimensions of conflict (after philosophical appropriateness, physical impacts, social conflict, and safety) is managerial equity. Hikers raised concerns about managerial equity in two ways. First, as detailed above in Section 5.1.2, a few suggested that hikers are being treated unfairly to the extent that the amount of nonmotorized trails is not proportional to nonmotorized demand. Second, as detailed in the next section, a few hikers mentioned how difficult it is to find nonmotorized trails within convenient commuting distance. Both of these claims can be construed as concerns regarding unfair treatment of hikers, but, outside of a comment or two about demand, hikers did not frame their arguments in terms of equity. For hikers on the GNF, then, managerial equity did not appear to be a significant cause of conflict.

5.3.4. Displacement and Segregation

Recreationists who suffer a degraded experience have options including, at minimum: “direct action to change environmental conditions, absolute displacement, temporal substitution, resource substitution, and cognitive adjustments” (Miller 1997, p. i). Cognitive adjustments, according to Schneider and Hammitt (1995), include product shift (redefining standards for evaluating the available experience so as to avoid discrepancy between expectations and reality) (Shindler and Shelby 1995), and rationalization, “cognitive efforts to reevaluate a crowding situation toward a more positive evaluation” (Schneider and Hammitt 1995, 225). In short, hikers experiencing conflict with ORVs can quit using an area (displacement), anticipate and accept the

presence of ORVs as appropriate to a site (product shift), or persuade themselves that ORVs do not really degrade their experience (rationalization).

Hiker interviews yielded no evidence that GNF hikers are rationalizing the experience impacts of ORVs, or engaging in product shift. Several hikers stated that they knew what to expect in places where significant motor vehicle use occurs, and, if they chose to go those places, did not feel like they could complain about motor impacts to their experiences. For the most part, however, hikers appeared more likely to complain about a diminished experience, rather than either accept or rationalize it, and frequently indicated that they had been displaced from mixed-use trails.

In this study, all hiker respondents implied that they avoid trails where they expect to encounter motorized vehicles, and about half stated this explicitly. Table 5.5 includes some examples of clear statements of displacement.

Table 5.5. Select hiker statements regarding displacement

H27	I certainly avoid places where I know there is a lot of heavy use by ATVs or snowmobiles or, you know, it certainly affects where I choose to go.... I definitely am really conscious that when we go places, 'Oh, this is a place where there are a lot of ATVs,' and we tend to avoid those.
H33	I avoid places where motorized use is allowed, generally....
H16	You're not going to find some peace and quiet down a main street.... So if you don't want ATVs, go where they're not. That's easily done. Just go somewhere steep or unknown. There's a lot of ways to avoid them. I generally do if I can.
H18	I mean, just sitting right here, the cars, the interstate, the train, all that, to just have quiet space is important to me on a day . . . And that might influence where I'm going on a particular day. You know, if we decide we really want to go someplace that feels like wilderness, then we'll take that into account.... But it certainly influences our decision sometimes about where we're going to go. Maybe a little bit more in the wintertime. We know there's snowmobiles here, so we're not going to go there today, because we just don't feel like hearing motors. And that's such a, it's such a huge impact. I mean, the fact that that would influence a decision about where we're going to go almost explains my point, that it's part of our decision-making process. Motors or no motors, and that's, it's substantial.
H5	I guess probably the major recreation we've done over the years has been wilderness, using the wilderness areas.... One of the reasons, of course, is we like solitude and to get away from motorized use. And the wilderness provides that. And so that's basically why we chose those areas. We go out of our way to seek the wilderness area rather than go into the general national forest where you get a hodgepodge of activities going on and people and have a, in my opinion, a lesser natural experience....
H7	The trouble with the concept of 'share it' is unfortunately when motorized users say 'share it,' what it usually ends up being is [they] will use [the area] and no one else will. And the reason is because I know specifically for many of the people that we recreate with or use the trails with ... and ourselves, we rarely go to a place where we know there's going to be motorized use.... So I think that the concept of 'share it' is really 'Let us have it.'

This study indicates that, at least for this sample, conflict is inherent in encounters with ORVs, and results in hikers' displacement. It is no surprise, then, that many hikers argued for the segregation of uses by mode of transportation.³¹ Table 5.6 has some examples.

³¹ More accurately, hikers argued for asymmetrical segregation, where motorized use is prohibited on certain trails, but hiking is not necessarily prohibited on trails that permit motorized use. From this point forward, where the term segregation is used it refers to this asymmetrical segregation. While a couple of ORV drivers protested this asymmetric segregation, arguing that hiking should be prohibited on motorized trails, most ignored it, preferring to argue that trails should be shared, rather than segregated.

Table 5.6. Select hiker statements regarding user segregation

H21	I have a problem with attempts by management agencies to cram really conflicting uses into the same place.... So those [motorized] uses should be restricted, mostly to prevent erosion and spread of weeds and disturbance of threatened and endangered species on their nests. But also to give the rest of us a little bit of peace and quiet.... Places that are very heavily used by foot travel really shouldn't be open to motorized vehicles.
H22	And I like to keep them separated. I really don't like that encounter.
H27	We're probably not disturbing their environment the way they are disturbing an environment where somebody wanted to be quiet and peaceful. So, yeah, I think then segregation is appropriate in order to create, in order to allow there to be some places that continue to be peaceful and pristine.
H32	So is that really sharing? Maybe a true way of, I mean, you don't take a bunch of musicians, let's say, you don't put a drummer next to a kid trying to learn to play the violin and say, okay, you guys both practice and try to share. Try to share the space. It doesn't work. And so how do you, what's true sharing? Well, you put them in separate spaces and, yeah.

The final example in table 5.6 (H32) illustrates the way that some hikers engage an argument that ORV drivers sometimes make—that all recreationists need to share trails (BlueRibbon Coalition 2005; Citizens for Balanced Use 2008). A number of hikers evidenced awareness of this formulation and contested it.

In contrast to the dominant endorsement of use segregation, two hikers opposed segregation of trail uses as a default policy, and explicitly said that they believed that user behavior causes conflict, not ORV use in itself. Both of these hikers hoped that responsible ORV use would make segregation of uses unnecessary, H24 because he saw ORV drivers first as fellow recreationists, H23 because he aspired to a more cooperative, less polarized society. Their hope that the uses could mix was balanced by skepticism, e.g., H24's argument that mixing uses is not practical on heavily-used or shorter routes, and H23's advocacy for segregation in some portions of his interview. Further, both articulated ways in which ORV encounters alter their own experience irrespective of driver behavior, suggesting that this issue is not fully resolved in their own minds. Illustrating that contradiction, here is an exchange with H24:

H24: Because I think another thing that the motorized community is right about is that it's possible to go out there and have encounters where there's no conflict. I think people that have those encounters on a regular basis know that it's possible. They also know that it's possible to have a really bad encounter too. But it can happen both

ways. So I'm disinclined to say that it's the snowmobile that's the problem. It's the person on top of it, usually, that's the problem....

I: You've mentioned responsible use a couple of times. I think you said that was essentially being aware of your own impacts and . . .

H24: And what the rules are and respecting, realizing they apply to everybody, and you don't have to like the rule, but you need to respect it.

I: Is that enough to minimize impacts?

H24: No. But I think that it makes it harder to argue that it's the type of use that's the problem.

The internal contradictions are evident: H24 argues on the one hand that driver behavior can make encounters benign, yet asked if model behavior is enough to minimize offensive impacts, flatly says "no." Elsewhere in the interview H24 stated that his experience is impacted by ORVs, citing noise, dust, "impacts," and crowding, but said that he was concerned that it was unfair to translate his dislike for encounters into policy.

A few hikers related user conflict to the need for a change in the distribution of recreation opportunities, i.e., linked conflict and segregation to allocation. Several, for example, suggested that it is increasingly difficult to find nonmotorized places to hike in close proximity to Bozeman. Here's H28 describing her daughter's effort to find a nonmotorized hike:

And she didn't want to go where she was going to run into motorcycles. She just doesn't want to do it. And I said, 'Well, let's see, you could go . . . Well, you can't go up to Emerald Lake or Hyalite because there's motorcycles and they'll be on there because it's a Saturday or a Sunday. Or, well, let's see, where can you go? Well, hmm.' And there are very few places. There's going to be a few more after the travel plan is implemented. But she said she had been up Blackmore and run into motorcycles on a weekend. So she didn't want to do that. You can go up to Hyalite, but . . . So she ended up going to Pine Creek which is in Paradise Valley which is way, way out of town, you know, which is nonmotorized.

H28 followed that story with this statement: "So that's the issue. And that's where the issue came from for the travel plan was that people who want a quiet trail and a quiet experience, it's pretty hard to find, especially if you're working and you have to do it after work or on the weekends." It should be noted, in contrast, that hikers from

Livingston and the Paradise Valley believed that locating ORV-free trails was easily accomplished.

H28 connected segregation to allocation, implicitly arguing for more nonmotorized trails around Bozeman. Further, as noted in Section 5.1.1, a few hikers believed that providing natural experiences is an essential purpose of the national forests, and, coupled with the argument that ORVs diminish such experiences, therefore argue that motorized allocations should be minimal. For some hikers, then, conflict led to specific judgments about allocation. Most hikers, however, separated their desire for segregated trails from a judgment about appropriate distribution of opportunities. Typically, hikers asserted that displacement should lead to segregation of trail users as a matter of policy; they did not straightforwardly assert that displacement should lead to diminished motorized allocations, and a couple explicitly disavowed such a cause-effect relationship, saying that while segregation is necessary, the fact that hikers experience conflict asymmetrically does not have any particular implications for how recreation opportunities should be distributed.

5.3.5. Summary

To summarize hiker views regarding recreation conflict:

- All hikers in the sample suffered experience degradation in encounters with ORVs.
- Hikers identified at least four dimensions of social conflict involved in ORV encounters, and these dimensions indicated that impact to the “wildness” of the experience is hikers’ underlying concern.
- Managerial equity was not a significant source of conflict for hikers.
- Safety was a source of concern and conflict for some hikers.
- For most hikers, experience degradation is inherent in the encounter, and not a product of recreationist behavior.
- Many hikers stated that they are displaced by ORVs, and avoid trails where ORV use is common.
- Many hikers argued for the segregation of motorized and nonmotorized recreationists on trails.
- A minority of hikers believed that segregation was undesirable as a matter of principle.

Overall, many hikers explicitly or implicitly claimed that ORV use is philosophically inappropriate in national forests. Many hikers, as identified in Section 5.2.1, claimed that ORV impacts are inevitable and significant. Many hikers, as identified

in this section, experience conflict and the degradation of their sought experience from encounters with ORVs. Many hikers, as identified in this section, are displaced by ORVs, and argued that the two uses must be segregated. All told, this study indicates unequivocally that, in order to provide the experience many hikers seek, motorized and nonmotorized recreation must be separated as a matter of course.³²

5.4. Putting Hiker Views Together

As noted at the outset of this chapter, managers, hikers, and ORV drivers need to wrestle with two separate allocation issues on the Gallatin National Forest: aggregate allocation and site-specific allocation. Aggregate allocation addresses the overall distribution of recreation opportunities on the GNF, while site-specific allocation addresses the criteria by which the FS ought to determine which type of use to privilege on any particular trail. In Section 5.4.1, I address the implications of hiker views for aggregate allocation. In Section 5.4.2, I address hikers' views regarding site-specific allocation criteria.

5.4.1. Aggregate Allocation

Most hikers asserted that the primary purpose of national forests is either the preservation of nature, in a broad sense, or the provision of opportunities to engage an intact natural landscape. The majority of hikers implied that because ORVs conflict with these purposes, their allocation should be diminished by some unspecified amount. Hikers were divided regarding the role that recreation demand should play in allocation: Roughly a third of the hiker sample advocated allocating national forest resources based on demand estimates, roughly a third rejected this logic, and roughly a third had

³² Vaske and colleagues have attempted to identify the extent to which conflict is driven by social values, and therefore necessitates zoning, rather than education. (Vaske et al. 2008; Vaske et al. 1995; Vaske, Needham, and Cline 2007) This study suggests that Vaske and colleagues' method might underestimate the extent to which social-values conflict occurs. In the Vaske method, social-values conflict is indicated by a bald assertion that another use is inappropriate, or by identification of a conflict without having experienced said conflict. Only a handful of the hikers in this survey would likely have been identified as having social-values conflict by these methods, as most had witnessed the behavior or impacts that they decried, and only two asserted straightforwardly that ORVs are inappropriate on national forest trails. Yet all the hikers in this sample identified fundamental, values-driven conflicts with ORV use. Given the characteristics of this sample, this does not indicate that every hiker experiences such conflict, but it does raise the possibility that the Vaske method underestimates the proportion of those who experience social-values conflict.

conflicted or unclear views on this issue. Finally, hikers universally described experience degradation resulting from encounters with ORVs, and many hikers stated that ORV use displaces them. Hikers did not typically connect their views regarding conflict to recommendations for either aggregate or site-specific allocation; however, most hikers believed that conflict necessitates segregation of motorized and nonmotorized recreation.

Most hikers articulated their claims in relatively vague terms, making it difficult to identify, for any particular hiker, what they believed the allocation to motorized and nonmotorized uses should be on the GNF. Excluding the two respondents who advocated limiting ORV use to roads, and those who advocated for allocation proportional to demand, no other hiker was able to state clearly what an appropriate aggregate allocation on the GNF would be, though there was a general implication, from many hikers, that motorized allocations should be diminished. In addition to this common general implication, nine hikers relatively clearly argued that ORVs should have an aggregate allocation that is less than it is now. However, only a few hikers evidenced relative certainty regarding what the allocation had been prior to travel planning. In other words, most hikers who desired a larger nonmotorized allocation were unable to say what it should be larger than. In sum, most hikers felt that the previous allocation had been inequitably weighted toward motorized use, and argued that that should be rectified, but they were unable to identify what an equitable allocation would look like.

On the whole, regarding aggregate allocation the hiker data revealed:

- A strong belief that ORVs threaten the core values of national forests;
- Some assertions that ORV use is closing hikers out of places they formerly recreated;
- Some assertions that there is a shortage of nonmotorized places for hikers to go;
- A widespread lack of knowledge about what the “baseline” aggregate allocation was, prior to travel planning;
- A large majority with little sense of what appropriate allocation would look like;
- A small minority with a clear vision for what aggregate allocation should be;
- A majority sense that ORV use should be diminished.

All told, with some notable exceptions, the most common hiker view was that ORVs threaten the natural values of national forests, and that ORV aggregate allocations should therefore be diminished to some unspecified amount.

5.4.2. Site-Specific Allocation

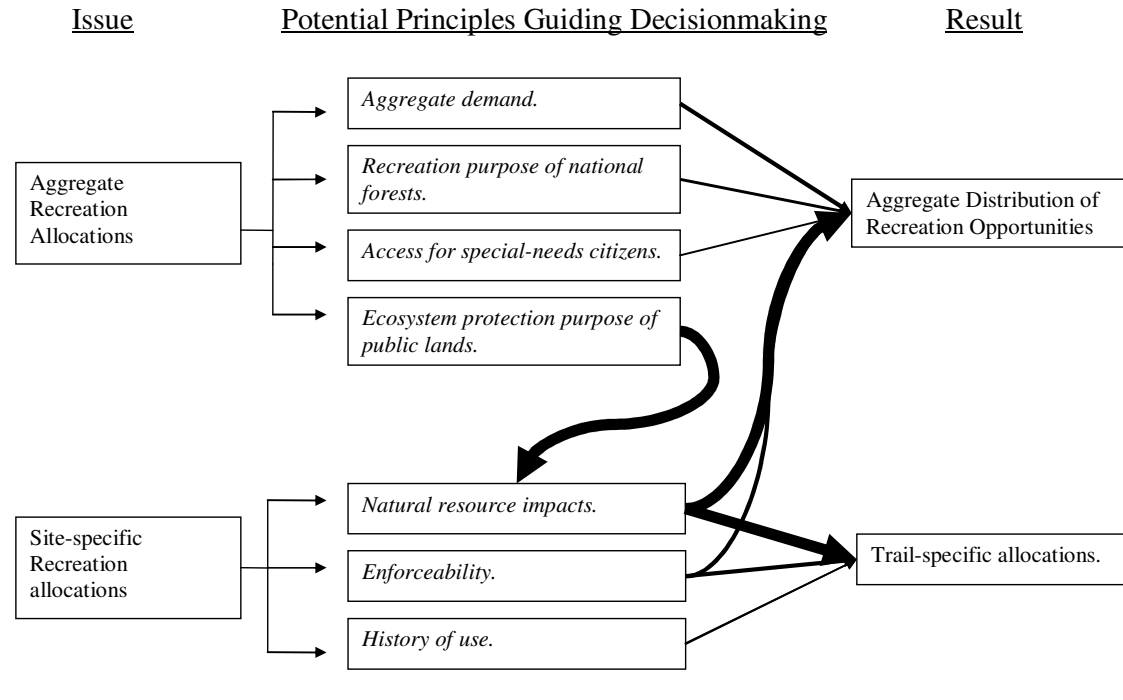
Regarding site-specific allocation criteria, hikers were unanimous in their advocacy of natural resource impacts as a criterion for site-specific allocation; moreover, most hikers claimed that evaluating such impacts would lead to a reduction in both site-specific and, thereby, aggregate allocations, due to their perception that ORV impacts are great, and hiker impacts minor. Slightly more than half of the hikers in the sample raised the issue of enforceability, and those who did unanimously claimed that agency ability to enforce regulations should be a criterion of site-specific allocation. Some hikers accepted or rejected other minor considerations in site-specific allocation, but all agreed that natural resource impacts should be a principle criterion of site-specific allocation. Most appeared to believe that impacts are so great, and enforcement so challenging, that ORV use would, if these factors were considered in site-specific evaluations, be found to be inappropriate on many—probably a majority—of GNF trails.

5.4.3. Conclusion

Figure 5.3 illustrates some of the argumentative paths taken by hikers.

Figure 5.3. Hikers' paths of arguments regarding principles of allocation

Relative importance to hikers indicated by size of lines leading to results.



As figure 5.3 shows, hikers did advocate for a variety of principles to guide aggregate and site-specific allocation decisions. For many hikers, though, with significant exceptions, their main argument was more general: that the purpose of national forests is generally the protection of nature and experiences of it, that ORVs threaten these things, and that ORV allocations should therefore be quite small. That is, the dominant hiker narrative looked like this:

National forests are supposed to be natural and ecologically intact. ORVs are tremendously damaging to natural places and experiences. Accordingly, given a sound consideration of impacts, ORVs should be allocated only limited opportunities on the Gallatin National Forest.

I discuss the implications of this dominant narrative in detail in Chapter 7.

6. ORV DRIVERS' CLAIMS AND DISCOURSE

This chapter describes the claims and views of ORV driver respondents. I have attempted to explore in depth the views of individual ORV drivers on specific subjects where I believe such depth is necessary to illustrate how a substantial portion of drivers felt about a topic, or where I believe explication of views that varied significantly from the norm helped illuminate either the range of drivers' views or some of the different argumentative "paths" that drivers take.

Table 6.1 describes the characteristics of the ORV driver sample.

Table 6.1. ORV driver sample characteristics (n = 17)

	Number of Respondents
Affiliation	
<i>Recreation Organization</i>	9
<i>Unaffiliated</i>	8
Age	
<i>20-29</i>	2
<i>30-39</i>	5
<i>40-49</i>	2
<i>50-59</i>	4
<i>60+</i>	4
Length of Residence	
<i>Less than 10 years</i>	4
<i>More than 10 years</i>	5
<i>Moved then returned (10+ total yrs)</i>	0
<i>Lifetime</i>	7
<i>Unknown</i>	0
Level of Engagement	
<i>1. Largely unfamiliar with FS procedure and unengaged in GNF travel planning</i>	4
<i>2. Engaged in GNF travel planning, but not terribly well informed about procedure</i>	5
<i>3. Very knowledgeable about FS processes, but not particularly engaged in GNF travel planning</i>	3
<i>4. Very knowledgeable about FS processes, and engaged in travel planning</i>	5
Residence	
<i>Bozeman</i>	12
<i>Bozeman area</i>	2
<i>Livingston to Gardiner</i>	1
<i>West Yellowstone</i>	2
Sex	
<i>Male</i>	15
<i>Female</i>	2
Preferred Vehicle	
<i>Motorcycle</i>	11
<i>ATV</i>	6

Several notes of explanation are necessary. First, I identified and mapped level of engagement in the same fashion as I did for hikers, as described in the previous chapter.

Second, I interviewed 11 motorcyclists and 6 ATV drivers. Nationally, there are about twice as many extant ATVs as there are off-road motorcycles (Cordell et al. 2005, 2); the proportion of each type of use on the GNF is unknown. Initially I also sought avid 4x4 drivers. Although I interviewed several motorcyclists who also liked to drive 4x4s on rough roads, respondents repeatedly advised me that the GNF does not host much off-road 4x4 driving, and they were unable to identify potential respondents; accordingly, I limited my motorized sample to motorcycle and ATV drivers.

Third, the male to female ratio for ORV drivers was 15 to 2 (three interviews also included secondary respondents, two of whom were women). It is hard to identify exactly how many women drive ORVs. A Colorado survey of registered OHV owners received 97.5% of responses from men (Crimmins 1999); 90% of respondents in a survey of registered ORV owners in Utah were men (Fisher, Blahna, and Bahr 2001). Cordell (2005, 7), on the other hand, found that approximately 40% of all ORV users nationally are women.³³ Further investigation of the role of gender in driving ORVs is needed.

Finally, as described in the previous chapter, my sample was heavily weighted toward Bozeman and its environs (including nearby towns in the Gallatin Valley such as Belgrade, Manhattan, Three Forks, and Gallatin Gateway). This was deliberate. Gallatin County hosts nearly 60% of the GNF-area population (see table 4.1 and accompanying text), and this substantially understates its actual dominance in GNF affairs.

As I performed my analysis, I periodically checked particular results against the characteristics of participants, such as sex, affiliation, and length of residence. I conducted this review informally, recognizing that the small sample size meant that only an extremely disproportional distribution could be interpreted as meaningful. I did not discern any such disproportionate distributions, with two exceptions: first, as detailed in Section 6.3.1, motorcyclists sometimes decried the ethics and environmental impacts of ATV drivers, and, second, respondents who were less engaged in the GNF travel planning process were less likely to embrace the Wise Use narrative that many ORV drivers echoed (see Section 7.2). Given the general lack of discernible differences in responses, I will not highlight personal information hereafter.

³³ Cordell's sample included anyone who answered "yes" to this question: Within the past 12 months, "Did you drive off-road for recreation using a 4-wheel drive, ATV, or motorcycle?"

Like hikers, ORV drivers made claims stating or implying the principles that they believe should govern two types of allocation: aggregate allocation (the overall distribution of opportunities in the GNF) and site-specific allocation (management of any given trail). Most ORV drivers believed that the GNF Travel Plan revision had significantly reduced allocations to motorized recreation, and many believed that this was part of a broader, regional trend of diminished motorized recreation opportunities. As a result, ORV claims were driven, to a great extent, by drivers' attempts to contest what they perceived as the justifications used to reduce motorized recreation allocations on the GNF and beyond.

In this chapter, Section 6.1 looks at the claims ORV drivers made relating to aggregate allocations, including arguments about the purpose of national forests and recreational demand. Section 6.1 also addresses ORV driver respondents' views regarding the appropriate *outcome* of aggregate allocation. Section 6.2 addresses claims ORV drivers made pertinent to site-specific allocation criteria, particularly history of use. Section 6.3 discusses the arguments that ORV drivers made to confront the justifications they believe are being used to diminish motorized use. Finally, the chapter concludes with a summary and synthesis of the claims and arguments ORV driver respondents made.

6.1. Arguments regarding Aggregate Allocations

ORV drivers made a number of claims and arguments relevant to aggregate allocations on national forests. In this section I first consider ORV driver views and claims regarding the purpose of national forests. In Section 6.1.2, I address ORV driver views regarding allocation proportional to demand. In Section 6.1.3, I address ORV views and claims regarding several other potential considerations in aggregate allocation. In Section 6.1.4, I address ORV driver claims regarding what an equitable or appropriate aggregate allocation on the GNF would look like.

6.1.1. Purpose of National Forests

ORV drivers nearly unanimously claimed that the purpose of national forests is to accommodate a wide range of uses. As table 6.2 indicates, only two ORV drivers

identified some kind of environmental protection as a fundamental purpose of national forests; an additional four expressed support for the concept of “stewardship,” but without elaboration on this vague term. In contrast, every respondent but one claimed that purpose of national forests is multiple use, “everything,” extraction, all recreation, or some combination of these conceptualizations (collectively categorized under the umbrella “all uses” in table 6.2).³⁴

Table 6.2. Summary of ORV drivers’ views about the purpose of national forests (n = 17)

	All Uses				Environmental Protection	Stewardship	Revenue
	Multiple Use	Extraction	Everything	All Recreation			
M01	x	x		x			
M02	x						
M03		x	x				
M04	x		x	x			
M11	x	x					
M12			x	x			
M13				x	x		
M14				x		x	
M15		x				x	
M17	x			x			
M20		x		x			
M25	x					x	
M29	x			x			
M31						x	
M34		x					
M35		x			x		x
M36		x					

To provide a sense of the verbiage respondents used, M1 provided a typical response when asked what the purpose of national forests is:

Well, number one, for the public to use. I feel we’re paying our taxes. I mean, it is our land. So I feel we should be able to recreate on it. For all people, I mean, anybody should be able to use it, whether you’re motorized, nonmotorized, hunter, nonhunter, whatever. And also, my dad is a rancher, so grazing. Mining, logging. I’m for all of that, for the environmentals, renewable resources. I kind of feel that’s part of our national forests, too.

³⁴ In the context of the interview, it was clear that respondents who asserted that extraction is part of the purpose of national forests included that as only one part of a broader purpose, not a preeminent purpose. Equally, it was clear that those who argued that forests are for “all recreation” were not arguing that recreation should be preeminent, in contrast to those hikers that argued that providing opportunities for natural experiences is the preeminent purpose of national forests.

M1 was one of many ORV drivers who described the purpose of national forests as encompassing all types of recreation, as well as extractive industry. In the interviews, possible limits on “all” types of recreation were not clear; “all” appeared to indicate a general orientation, or to be designed to contest any suggestions that national forests ought to provide a particular, nonmotorized type of experience. Most ORV respondents claimed, either directly or through this definition of an expansive national forest purpose, that providing for ORV driving is one of the purposes of national forests. About one-third of the sample used the specific words “multiple use” to identify part of the purpose of national forests. In the balance of this paper, I use “multiple use” to encompass the views of those described in Table 6.2 as supporting “all uses;” I draw the distinction in the table to provide greater specificity regarding verbiage, but use the more commonly understood “multiple use” colloquially.

It is important to recognize that ORV driver respondents’ claims about an expansive purpose for national forests do not mean that ORV drivers argued that environmental impacts are irrelevant. As is discussed in Section 6.2, two-thirds of the ORV driver respondents asserted that all national forest activities need to happen within certain environmental sideboards or within the broad context of “stewardship.” For example, M4 qualified his argument that national forests should be open to all uses with the clause “if there are no impacts.” M11, typical of ORV drivers, described an expansive and permissive view of the purpose of national forests, but still said, “You can’t just walk through the forest with a chainsaw and start cutting every tree down as you feel.” However, while ORV driver respondents believed that all national forest uses should occur within impact bookends, ORV driver respondents did not believe that impacts of ORV use, other recreation, or modern extractive activities generally transgress these bookends (see Section 6.3.1).

The ORV driver respondents’ vision of an expansive national forest purpose was related to their sense that, on national forests, it is simply not necessary to make choices regarding prioritization or tradeoffs. Here, for example, is M4 articulating national forest purpose:

Well, I feel they should be managed as they’re mandated to be managed, and that’s for multiple use. I believe that there’s room for everybody on

the forest and from all ends of the spectrum. Everything from quiet users to timber and grazing. I think there's, like I said, I think there's room for everybody.

The argument that there is “room for everybody” obviates the question of prioritization or hierarchy: analogously, if there is room for everybody on a bus, we do not have to make decisions about who gets to ride. Other respondents made similar arguments, e.g., M15, who responded to a question about the impact of Gallatin County's expanding population by stating, “Well, there's a lot of land.... Fly to Bozeman sometime and look from the plane. There's a lot of ground.” Many ORV driver respondents saw the GNF as a resource that is so far from capacity limits that there was no need to limit or prioritize activities.

All told, a few ORV drivers claimed explicitly that managing for multiple use functionally means permitting all uses in all places; others implied less strongly that multiple use management creates a presumption that ORV driving should be broadly permitted. None asserted that any other purpose would dictate recreation allocations.

6.1.2. Demand

As described in Chapter 5, because the GNF justified its decision to reduce motorized allocations by referencing local, regional, and national demand for nonmotorized activities (USDA Forest Service 2006, 19; 2006, 3-420 – 3-428), I asked each respondent if the allocation of national forest trails should be proportional to demand for trail uses. I allowed respondents to interpret the word “demand” as they chose, while referencing the GNF's discussion of participation data.

Table 6.3 shows the most basic positions ORV driver respondents took in regard to the principle of allocating trails in proportion to demand. The table conveys that many ORV respondents believed that demand should play some role in allocation, but, in the interest of categorization, understates the complexity of respondents' views. For example, typical of ORV drivers, M2 stated both that demand should not determine allocations, and that it is relevant in some way. (M2 was categorized as taking the position that demand should matter in some way in table 6.3, based on an overall evaluation of his comments.)

Table 6.3. ORV drivers' positions regarding demand as an allocative principle (n = 17)

Stated Position	n.
Should determine allocations.	2
Should matter in some way.	5
Don't know.	1
Unclear.	1
Should not determine allocations	8

A plurality of respondents opposed the use of demand, on a variety of grounds. In fact, no two drivers articulated exactly the same set of reasons for opposition. Table 6.4 identifies the range of claims ORV drivers made to contest the use of demand as an allocative principle on the GNF.

Table 6.4. Summary of ORV drivers' arguments against allocating recreation opportunities in proportion to demand

Theme	Argument
Unfair	It is unfair to recreationists whose pursuits are less popular. Every citizen has the right to recreate on national forests in their chosen fashion.
Trail Use Should Not be Segregated	All recreationists must share the whole forest. There is no reason to limit any use.
Higher Principles Take Precedence	Other criteria, such as financial contributions to trail maintenance, are more important. MUSYA demands maximum motorized use outside of wilderness areas.
Local Opinion Takes Precedence	Local citizens should determine use.
Bad data	Demand data is bad for a variety of reasons.

Table 6.4 highlights several things about ORV drivers' claims relevant to demand. First, a number of ORV drivers argued that segregation of trail uses should not occur. This view contests the idea that any nonmotorized allocations—i.e., prohibitions on motorized use—should be enacted outside of designated wilderness. In this view, the relative demand for different pursuits is irrelevant; no use should be prohibited.

Second, the theme “local opinion takes precedence” summarizes an argument wherein respondents: (1) redefined demand as public opinions expressed during the travel planning process; (2) claimed that local public opinion should count for more than non-

local comment; and (3) claimed that local opinion squarely opposes any reduction in motorized use. M1, for example, argued that local comments should receive greater consideration than that from out-of-staters, then asserted:

As far as the Forest Service, their comment periods and open house and stuff like that, every one that we went to, that was one thing where the motorized community, we actually did come together. Every time there was an open house or something, we showed up. That was the thing. We were 90% of the people there. So that kind of shows you, in my eyes, that the community, the majority of it was locals that are the motorized users and nonlocals maybe that are more the nonmotorized.

Several ORV drivers shared M1's conviction that some unspecified-but-very-large percentage of local recreationists are motorists.

The final claim in table 6.4 is the assertion that the GNF used bad data to estimate demand; this was the most common and prolific response that ORV drivers had to questions regarding demand as an allocative principle (see table 6.5 for examples), voiced regardless of respondents' larger views on demand. Nearly every ORV driver challenged the data underlying demand estimates from the GNF. Even more remarkably, for more than half of the ORV driver respondents the very first response to my question about demand was to attack the data. The extent to which ORV drivers criticized the GNF's data indicates that even those who accepted the principle of allocation proportional to demand resisted its application on the GNF.

Table 6.5. Select ORV drivers' first response to the use of demand as an allocative principle

M1	I don't believe that the stats they have are correct. I don't know how they come up with that number. And that's something we've argued a lot with them. So, yes, I do feel that it should be somewhat based on that. But as I look, as I look around at the usage, I mean, every time we go out there's, it seems like it's half and half, motorized, nonmotorized, so that's why I don't know whether their statistics are correct or not.
M11	It somewhat seems fair. I don't believe that the number of hikers has increased more than the users of ATVs. Ten years ago there was not the amount of ATVs and different vehicles that there is today. I mean, the numbers are shooting up. I don't have any stats to back that other than the amount of four wheelers in the backs of trucks or on trails or all those things.
M12	I think they're quite possibly hiding behind that and actually doing things for reasons other than that, if you can follow. Because all the way through they've certainly said that they don't want it to be a numbers game, that they don't want to get into that. However, they always also when they say things like that, they tell the motorized users that they are the minority. But then there's never been any actual science done, any surveys done that would really prove that. You know, when you look at usage surveys on the forest, so many times they are so biased and so mismanaged that they're pretty meaningless. Even right here on the Gallatin some surveys that have been done, completely prejudiced against motorized.
M29	Based on survey data they said they took. I am not as well-versed on the pros and cons of the polling process that was used. It wasn't done by the Forest Service. It was done by the environmental groups, and they used the data. As far as I know, they didn't do their own survey.
M34	We're all hikers [referring to how survey data is collected]. Most of us fish. Most people hunt. But everybody hikes. Whether you're a motorcycle rider or a rock crawler or what.... They don't have any data. We've been begging them for years to do some monitoring. Okay, we'll do that. They don't have one column of data. The only thing they've got, they've got a few trail registers.

Criticisms of the GNF claim that demand for nonmotorized recreation was greater than demand for motorized recreation were extensive and multi-pronged. For example, here is my exchange with M4:

- I:** You know, [the GNF] argued, as I read the record of decision, they were essentially arguing that a lot of this stemmed from demand, that there are more nonmotorized users now, and they predict in the future ... I mean, as I read the ROD, that's what they hung their hat on was user numbers. Does that make sense to you? Is that a . . .
- M4:** I don't think so, because right now motorized users are a growing user group. And when pressed for their numbers of users, you know, nonmotorized users, do you realize that ski areas are considered nonmotorized user? Bridger Bowl, Snow Bowl?
- I:** I didn't know that.
- M4:** That's considered nonmotorized users.

- I:** They must have forgotten about the lifts, huh?
- M4:** Yeah. But I mean, when you start really getting into the meat of it, their numbers are flawed. They did a study on the Gallatin, and at a meeting in Bozeman with the Forest Service, [District Ranger] Jose Castro said, ‘Well, we did a survey, and there are more nonmotorized users.’ And one of the guys says, ‘When was that and where was it?’ Well, ‘It was up such and....’ ‘You know, I was riding my motorcycle up there, and I saw somebody sitting along the trail with a clipboard and never thought anything of it. Just went on by. They never made any motion. Then I came back out.’ And then that afternoon, no, excuse me. He went up in the morning to walk up and check out a spot. And the person with the clipboard interviewed him and talked to him and stuff. That afternoon he figured out that he could get his motorcycle up there, so he went back up on his motorcycle, and the person that was doing the interview wouldn’t even talk to him. They’d basically either turn their back or wouldn’t talk to him. So, you know, to me, I have a hard time believing that they’re getting factual information, especially if it’s not a Forest Service sponsored survey, if it’s a survey that’s done for the Forest Service by another user group.
- I:** They’ve got, yeah, that’s their, they’ve got this survey process, and they’re trying to do it on every forest like every five years or something. But the sample is really small. I don’t think it’s super reliable.
- M4:** I don’t think so either. I don’t think, you know, I’ve got somewhere in here I’ve got all the members that are registered, snowmobiles that are registered, ATVs that are registered, motorcycles in Montana. And it’s huge. And they were saying that there’s just a small percentage that’s using the forest. And that’s not, that’s not true.

M4 provides the exemplar ORV driver response to demand for several reasons. First, he does not treat the question as one about the principle of allocation proportional to demand, but as one about the GNF’s utilization of that principle. Second, the criticisms of the GNF’s data were typical. M4’s arguments were, in order:

- 1) That “motorized users are a growing user group.” For M4, this appears to constitute evidence that demand calculations showing more nonmotorized use must, ergo, be inaccurate.
- 2) That the demand numbers are wrong because the methods were flawed.
- 3) That recreationist surveys were biased.
- 4) That ORV numbers are “huge,” and therefore they cannot be a small minority of forest users.

Those ORV driver respondents who criticized the GNF's demand data typically did so in similar ways, even to the extent that several respondents recounted the anecdote about a motorcyclist exposing biased survey-taking at a meeting with the FS. Additionally, ORV drivers argued that environmentalists had done some of the surveys the GNF relied upon, that wilderness allocations were not included in the nonmotorized "supply" against which demand was measured, and that personal experience belied the numbers the GNF was providing.

The third way in which M4's views were typical on demand was in his distrust of the FS. ORV drivers did not just argue that valid demand data is hard to gather, they argued that the agency could not be trusted to produce fair and reliable data. Whether they attributed the errors to incompetence or bias, most ORV drivers were not prepared to accept FS data that contradicted their views and personal experiences.

While ORV drivers' were primed to challenge the GNF's demand data, it is not clear how many respondents understood, prior to the interview, that demand formed the GNF's principle justification for diminishment in ORV trail miles. No respondents independently raised the issue of the GNF's reliance on demand as a justification for its decision, several seemed surprised by my interpretation, and most, when undirected, focused on refuting claims that ORVs have environmental impacts (see Section 6.3.1). Most ORV drivers appeared to believe that demand had played some vague role in reduced ORV allocations, and they had a number of arguments prepared to critique the GNF's demand data, but most appeared to believe that perceived impacts had been the ostensible justification for most reductions.

6.1.3. Other Considerations

In addition to national forest purpose and demand, motorized recreationists identified several other considerations that they believed should affect aggregate allocation. First, four ORV drivers claimed that their financial and labor contributions to trail maintenance should be considered in aggregate allocations. While none of these drivers made clear exactly how trail maintenance contributions should be translated into allocations, the claim was that ORV drivers are meritorious of greater allocations (relative to an unspecified baseline or alternative) because of their contributions. M2, for

example, argued for consideration of gas tax and sticker fee contributions from ORV drivers, and described hiking as a financial dead end.³⁵ Similarly, M14 argued that “out of all the groups up there, the hiker is the one group that pays nothing.... Who said that the guy that pays nothing gets it all? But that’s what’s happened.” M20 echoed the same sentiment.

Other respondents argued that ORV drivers clear and maintain trails, and claimed that this should be rewarded with allocations. Here is M3 articulating the sentiment behind the claim:

I am keeping that trail clean. Not only am I cutting timber out of there, but moving rocks out of the way, slides down the trail that close the trail off, you know, we’re going to clean that out. Motorized users tend to take more care of a trail than a nonmotorized user. It’s just a fact. I mean, the hikers will walk around anything before they move anything, I mean, a stick or rock, a mudslide, anything. They’ll just move around it. They aren’t going to take the time to stop and clean it out. So I’m doing the Forest Service a favor as far as resource management when I’m doing that.

M3, M25, and M34 made near-identical arguments regarding the trail maintenance contributions of ORV drivers, with M34 concluding that ORV contributions are something “you never see a hiker do.” Capping this argument, three ORV drivers asserted that hikers prefer the trails ORVs use because drivers clear deadfall and their tires smooth the trail surface, and that, ironically, this results in conflict that causes ORV drivers to lose those trails.

Three ORV drivers suggested that the economic value of ORV driving is great, and that it should be a consideration in aggregate allocation. However, this claim was only cursorily articulated and left largely unexplained.

Four ORV drivers argued that ORVs are necessary to provide access for people who are elderly or have disabilities, and that this should affect allocation. M4 articulated this argument the most forcefully, describing a friend who can no longer use the national forest except by using an ATV: “And now it’s getting to the point where he won’t even be able to use it. I think that’s kind of a sad thing that we’re doing that to people with

³⁵ State vehicle registration fees for ORVs and one-eighth of one percent of Montana state gasoline taxes, in addition to a portion of federal funds provided to the state through the Recreational Trails Program, are distributed to facilitate ORV management and use by the Montana Department of Fish, Wildlife & Parks (Lewis and Paige 2006).

disabilities.” M35, similarly, argued that he has a medical condition that precludes long walks, and that other recreationists are simply too scared to walk in the national forests, and concluded that “you can say [national forests are] a watershed and they’re a forest and woods and all that, but they still have to be for the enjoyment of the people or the use of the people.” Given that this argument is often raised see, e.g., (Hall 2005; Gable 2005; Burns 2005), and was regarded by several hikers as an ORV driver claim that they needed to address, four out of 17 was a surprisingly small number.

Economics and access for people who are elderly or have disabilities were only infrequently raised, and appeared to play little real role in the ORV drivers’ conceptualization of how trails should be allocated. However, the financial and on-the-ground contributions ORV drivers make to trail maintenance appeared to be important to a fair number of drivers, and, for several, heightened their sense that drivers are being treated inequitably—that they are losing trails in spite of being the group that contributes the most to their usability and to local economies.

6.1.4. An Equitable Aggregate Allocation Outcome

Most ORV driver claims cannot be readily translated into principles of allocation. Demand was rejected by most respondents, and other considerations that could affect aggregate demand, such as contributions to trail maintenance, appeared to be perceived not as principles that could provide formulaic determinations, but merely as considerations that should weigh in ORV drivers’ favor. The exceptions to this rule were those who, based on their claims about the purpose of public lands, argued for motorized allocations almost everywhere outside of designated wilderness. M12, for example, argued that outside of a few places where the volume of use is overwhelming, trails should not be segregated, that national forests “should be available to all,” i.e., should not ever prohibit motorized use. Similarly, M29 argued that all routes outside of designated wilderness should be open to motorized use because (a) there is plenty of designated wilderness for those who desire a nonmotorized experience, and (b) MUSYA (in his view) requires the FS to encourage the maximum possible use of all areas.

Despite the absence of claims that could provide determinative allocation principles, many ORV drivers had a strong sense of what an equitable aggregate

allocation of trails would look like. For several, this was a numeric guess: one respondent suggested that half of all trails should be motorized, half nonmotorized, and one respondent suggested “60/40 or 70/30 or something.” The majority of ORV driver respondents, though, argued either explicitly or implicitly for a motorized allocation equal to or greater than the status quo prior to the GNF’s Travel Plan. M2, for example, said that there was plenty of nonmotorized recreation opportunity, and no need for more. M3 argued that motorized users had lost a lot of territory while increasing in popularity, and that therefore motorized opportunities should be increased, concluding: “I just can’t see a reason to lose any more opportunities for motorized use.” M4, similarly, said that motorized users needed to defend the opportunities they had prior to the travel plan revision because, “There is nowhere else. If we don’t save what we have left, we aren’t going to have anyplace else to go.” M11 argued for no additional cuts to pre-travel plan arrangements. M13 argued for no net loss of trails, stating that motorized users are okay with losing some trails, as long as they get a new trail in return, “something of equal value as far as experience.” M17 said he was disappointed by the new travel plan, and “I would have said, ‘Okay, I haven’t seen any problems,’ so I would have probably just kept it the same.” M20, similarly, said “we’ve got enough wilderness, and then, to be going in and shutting areas off, that, to me, is wrong. What we had right now or even before like travel plan started was fine.” All told, the overwhelming impression from motorized users was that the previous status quo was fair; any diminishment of ORV allocations would therefore be unfair.

As is apparent from the preceding paragraph, many respondents focused on the GNF’s existing designated wilderness as a resource for nonmotorized recreationists. Repeatedly, ORV drivers said that wilderness provides sufficient nonmotorized recreation opportunities, and that carving more such opportunities out of the “multiple-use” base would be inequitable.³⁶ Table 6.6 provides a sample of the ways motorists made this argument.

³⁶ Out of the GNF’s 1.8 million acres, 716,000 acres (40%) are designated wilderness (USDA Forest Service 2006, 3-559). The GNF also contains the Hyalite-Porcupine-Buffalo Horn Wilderness Study Area (155,000 acres) (USDA Forest Service 2006, 3-559) and the Cabin Creek Wildlife Management Area (approximately 38,000 acres) (Lee Metcalf Wilderness and Management Act 1983), each of which is managed under special statutes, and each of which permits limited amounts of ORV use.

Table 6.6. Select ORV driver statements regarding wilderness and aggregate allocation

M1	You know I guess the biggest thing is I think there's 1.2 million acres in the Gallatin range of wilderness. So that's always been my argument, too, is ... we only have certain places we can go. But the nonmotorized [users] have every place we can go plus the wilderness. So if they want an absolute wilderness experience, there's plenty of wilderness out there to do that too.... They want segregated, nonmotorized, motorized, which I feel there already is some of that. And there's several trailheads just in the Bozeman area that are nonmotorized.
M3	And if it's 'You're too loud, you're too noisy, you're tearing up the trail,' whatever they're saying, I have the best response: 43% of the Gallatin National Forest is nonmotorized in the area of wilderness. Generally up the Gallatin you can say if you go on the other side of the highway two miles from where you're at right now, you can go to an area where I can't go. It's quiet. There's no motorcycles there.... And my feeling on that is that with almost half of the forest already, in the Gallatin ... already wilderness, meaning nonmotorized.
M4	I think there's some places for some segregation. You have your wilderness, which is, you know, I believe we need some wilderness. I don't believe it should be all wilderness, because I don't think the wilderness is getting the use, getting hardly any use in comparison to the rest of the forest.
M12	I think wilderness areas are being very, very overlooked by the Forest Service. The current Forest Service management perspective or principle on wilderness areas is that recreation is not a priority in wilderness areas.... And I think that's very unfortunate, because that is a huge answer to people that don't want to hear motors, because they're not allowed there.... But there is, man, there's hundreds of miles right here in the Lee Metcalf Wilderness that goes basically from Ennis to West Yellowstone, trails up in there that don't see much use.... You know, promoting hiking in the wilderness as an alternative to hiking on trails that are open to motorized would really help that.
M13	There's enough land out there for everyone. And we have a lot of wilderness area. And it's managed as wilderness. We need to manage places as motorized. And then we also need to educate the nonmotorized people and say if you don't like dirt and you don't like the sound of motorcycles, then don't come to those areas.... I don't think that you can say, 'Well, they got this much, we should have this much,' because they already have way, way, way more than we do, as far as that goes, because of the wilderness experience. They do.
M20	Now I can say I know what they're going to say is, 'Well, we don't like the noise.' Well, that's part of the game, you know. Maybe when people are out riding their bikes in the street in the summer they don't like the noise of cars and trucks either, diesels and all that. You know, it's also the people that say, 'Well, I go out there for a nice, quiet experience.' You've got the fricking wilderness. If you want a nice quiet place, I'm not going to be there. You can. So if you want a nice, quiet place to recreate and stuff like that, and hike, then go on to the wilderness. But the problem is, they're too lazy to drive to those areas.
M25	If you want to really get a nonmotorized experience, you should probably go hike in a wilderness area.
M29	But if one considers that the foot users already have complete access without motorized access competition within the wilderness and the designated wilderness areas, which are basically being unused. I mean, they're extremely low usage and yet they're available, there are trail systems there. The only competition they have is from packers and horse users. No motorized users. And yet they want what is already being used by the motorized community and they want that for themselves and they want it to be quiet use.... And, you know, is a one-day or a day hiker wish to have quiet a legitimate concern? Yes, it is. And you know what? They have about 60% to 70% of the national forest already completely available to them with no motorized users, and it's called wilderness and they can use it to their heart's content. That's what it was set up for.
M34	Because--I can't give you the numbers right off the top of my head--but in the Gallatin, I think we're 1.9 million acres, 1.8 or 1.9 million acres total. Forty-three percent of that is wilderness. Well, we're totally not allowed on that.... There really aren't a lot of good excuses, especially when you consider like on the Gallatin where over 43% wilderness. You know, the quiet trails or the solitude or whatever you want to call it, to my way of thinking, when they got almost half right there, and then plus there's other areas.

ORV drivers' claim that there is plenty of nonmotorized opportunity in wilderness anchored the drivers' argument that pre-revision allocations were fair. This claim shifts discussion away from the question of "How much should each group get?" and, instead, focuses debate on the question of "Why isn't this vast area enough for the hikers?" The claim suggests that hikers are selfish, in that they are trying to appropriate more trails when they already have exclusive access to an adequate area. Four ORV drivers made this connection more explicit by claiming that wilderness is under-utilized, emphasizing that hikers had a larger allocation than they could use even prior to revision.

ORV drivers also argued that there have already been too many reductions in motorized allocations. Typically, M3 said, "The window of opportunity for motorized recreation continually closes. There's always a compromise. And it seems like motorized recreation is always the use that loses for time and areas and trail availability. It just always seems to have been that way." M12 asserted that, "the Gallatin has gone through four travel management plans since that started, each time cutting [motorized use] roughly in half. So, you know, when is enough enough? I think it was three travel plans ago, but that's just my perspective."³⁷ All told, 11 of the 17 ORV driver respondents complained of the broader allocation losses that ORV drivers have suffered.

One last, striking thing about ORV driver respondents' discussion of the previous status quo and the revised allocation was how few respondents were able to identify either how much territory or how many trail miles were allocated to ORV driving prior to the revision, or how many had been reallocated. Two respondents asserted that motorcycles had lost 60% of their trail miles, and ATVs 70% or 80% of their trails, and one respondent asserted that motorcyclists had lost 800 miles of trail.³⁸ A few motorcyclists applauded the shift of ATVs to roads, and a number said that they hadn't lost much single-track, though these respondents' concern about the reallocation was unassuaged. When asked to specify ORV trails that had been closed to such use, about half of the respondents were able to name one or two areas or specific trails.

³⁷ The respondent appears to be referring to the 1988 Forest Plan (USDA Forest Service 1988), the 2001 Tri-State decision (USDA Forest Service and USDI Department of the Interior Bureau of Land Management 2001), the subject travel planning revision, and some fourth process.

³⁸ The GNF states that motorized trail miles on the forest were reduced by about 315 miles (USDA Forest Service 2006, 3-441).

At the same time, ORV drivers universally believed that they had lost a lot of territory through the travel plan revision—that is, their sense of what had been lost greatly exceeded the number of places they knew they had lost. In part, the lack of identification of specific losses is probably an artifact of the interview process—it is unreasonable to expect that respondents would have committed to memory the trails or number of trail miles affected by the travel plan. Additionally, it may be an indication that ORV drivers are responding either to cumulative losses or to losses by the overall ORV community (e.g., motorcyclists, who lost relatively little, reacting not just to single-track losses, but to the more extensive ATV and snowmobile reductions as well). Finally, it may be the case that some ORV drivers are responding to the general message propounded by ORV advocacy organizations—“We’re losing”—rather than to actual impacts of the travel plan on their activities.

6.1.5. Summary of Arguments Regarding Aggregate Allocation

All told, ORV respondents made few claims that could easily translated into a determinative principle of allocation. However, most ORV drivers argued that the purpose of national forests is to host a variety of activities, and implied that, therefore, ORV allocations should be great. While most ORV drivers could not identify what the previous allocation had been, what the new allocation was, or how an equitable allocation should be made, they were united in the belief that the old plan had been fair, and that the new plan was unfair.

6.2. Views and Claims Regarding Site-Specific Allocation

ORV drivers made claims on behalf of several principles that could affect site-specific allocations. A small number of respondents identified safety as a consideration, suggesting that ORVs should be prohibited if a trail is not safe to drive on; several asserted that ATVs should be kept off trails that are too narrow for them. Beyond these, ORV drivers discussed only two potential criteria for trail-specific decisions, addressed serially below: environmental impacts and existing use.

A clear majority of ORV drivers claimed that, in principle, impacts to trails, wildlife, or both, are legitimate reasons to limit motorized or other types of recreation. For example, here's M25:

If it's [closed because of] resource damage, I'm all for it. You know, if there's grizzly bear habitat, that's A-okay with me.... I think to really make me change would be [someone] telling me that I was really ruining the resource, that I was really damaging calving grounds and eagle nesting site, hawk nesting, whatever. That would play to me.

Similarly, M4 argued, "Well, if there's a legitimate reason, if there's resource damage, if there's, you know, a legitimate reason, that's fine. Nobody wants to tear it up. I mean, there are very few people left in the world that want to just go out and rip and tear and tear it up." In addition to these explicit declarations, a few ORV drivers envisioned environmental protection or stewardship as part of the purpose of national forests; by implication, they must have believed that there should be some limit on the acceptable environmental impact of an activity. As table 6.7 demonstrates, these categories collectively encompass most of the ORV driver respondents.

Table 6.7. Summary of ORV drivers' concerns regarding environmental impacts (n = 17)

Proposition	Respondent															
	M01	M02	M03	M04	M11	M12	M13	M14	M15	M17	M20	M25	M29	M31	M34	M35
Purpose is, in part, Env'l Protection							x									x
Purpose is, in part, Stewardship								x	x			x		x		
Some Env'l Impacts too Great	x	x		x	x					x	x					

Despite this apparent agreement with hikers about the use of environmental impacts as a site-specific principle of allocation, Section 6.3.1 complicates this issue by illustrating that ORV drivers argue that, in fact, ORV driving rarely has concerning environmental impacts.

The other claim that ORV drivers made pertinent to site-specific allocation was with regard to existing use. Seven ORV drivers claimed that existing uses should be permitted to continue, and one respondent argued for the continuation of the most popular use on any particular trail. No ORV driver rejected continuation of existing uses, but the balance did not address the issue.

Those who endorsed continuation of existing uses did so either explicitly or by decrying the closure of trails with existing use. M15, for example, said that he believed that existing uses should be honored, and that it is “not right” to close an area that motorized users are accustomed to using. M25 rejected conflict as a reason to close a trail to motorized use, arguing that motorized use should continue in existing areas barring resource damage. M29 argued that “a past use which is not damaging, I think, should be allowed to continue,” barring safety concerns. ORV drivers did not provide standards for how long-standing or prolific a use would have to be to be considered worthy of continuation—instead, it appeared that they believed that any permitted mode of travel should continue indefinitely.

In summary, ORV drivers offered relatively little guidance regarding criteria that could be used to determine the appropriate site-specific allocation of national forest trails. Many drivers advocated continuation of existing uses, but not in enough detail to provide much more guidance than that, in fact, they believe permitted modes of transportation should continue wherever they occur. Drivers universally agreed that some environmental impacts are too great to be permitted; however, as will be discussed in the next section, in practice ORV drivers believed that ORV impacts only rarely cross the threshold to allocative relevance.

6.3. Counter-arguments

Almost every ORV driver in the sample perceived ORV driving opportunities to be shrinking, both generally and due to revision of the GNF Travel Plan. M13 captured a common sentiment from ORV driver respondents when she said “We just don’t want to give it up, give it up, give it up and never get anything in return. And that’s what’s happened historically over the last years that I’ve been involved.”

Because ORV drivers saw themselves as being on the defensive, much of their discourse was devoted to attacking the arguments that they believed to be leading to reductions in motorized allocations. In this section, I review two types of counter-claims that ORV driver respondents made in an apparent effort to forestall further allocation losses: (1) claims that ORV impacts to the environment should only rarely lead to closures; and (2) looking through the prism of discussions of conflict, claims that trail

segregation is unnecessary and should not lead to closures. In the third part of this section, 6.3.3, I describe the extent to which ORV driver respondents attacked the integrity of the GNF planning process. I include that theme here as a counter-argument because it was one of the principle ways in which ORV drivers attempted to contest reductions in their allocation.

6.3.1. Environmental Impacts

Most ORV drivers disputed that ORVs have concerning environmental impacts. Both as a group and as individuals, ORV drivers used a suite of arguments to contest environmental impacts as a justification for closures, but these arguments fell into three broad categories, addressed serially below: contesting the magnitude of ORV impacts; disputing the validity of impact evaluation studies; and arguing that poor management is the cause of any environmental harm. Table 6.8 identifies the types of contestation that each ORV driver respondent articulated.

Table 6.8. Summary of ORV drivers' arguments against reduced allocations based on environmental impacts (n = 17)

	Contesting Impact Magnitude			Disputing Validity	Assigning Blame to Others		
	No Significant Impacts	Personal Experience Contraindicates	Comparable to Others' Impacts		FS Should Mitigate	Bad Apples	ATVs
M01			x	x	x		x
M02				x			x
M03	x	x	x	x	x		x
M04	x	x	x	x	x	x	
M11			x	x	x		
M12	x	x	x	x	x	x	x
M13	x		x	x	x	x	
M14	x	x	x	x			
M15		x	x			x	
M17	x		x	x	x	x	
M20		x	x				
M25	x	x	x		x	x	x
M29	x		x	x	x		
M31							
M34	x	x	x		x		
M35						x	
M36	x	x	x				x

6.3.1.1. Contesting the Magnitude of Impacts ORV drivers contested the magnitude of ORV impacts to the environment in two ways: they claimed that ORVs have no serious impacts, and they claimed that ORV impacts are no greater than those of other uses. In the first regard, several respondents suggested that ORVs do not really have substantial impacts. For example, one respondent argued that dirt bikes are so harmless

that their use of an archeological dig as a hill climb play area was welcomed by scientists as a gentle way to slowly expose more fossils. Similarly, M12, a motorcyclist, argued that, except for the conversion of some single-track trails to wider ATV routes, no trail impacts result from ORV use:

M12: The [widening of routes to accommodate ATVs] is literally the only on-the-ground change that I've seen in my lifetime out there in any forest that I recreate in. The trails, other than the four-wheeler tracks, just have not changed. Everywhere I go, it's the same as it was 20 years ago. I think there are a lot of myths out there about damage to trails. It just doesn't happen. If you see a mark somewhere, if you come back in two weeks after a rain, the mark's gone, whether it was made by horses, whether it was made by a motorcycle tire, whether it was made by 25 people or 250 people running a foot race through the area. You know, there certainly are marks that get left on the ground. And they certainly disappear with a little time and weather. So the only lasting change I've seen out on the forest is the switch from single-track trails to two-track trails where ATVs are allowed.

I: What about wildlife? Often I hear from the nonmotorized folks that motorized use and wildlife: bad.

M12: Well, I think that's a myth too. We see a phenomenal amount of wildlife on motorized vehicles. And the vast majority of them are looking at us, not running away, not doing anything funny, and watch us ride on by or let us stop and look at them and take some pictures of them and then let us ride on by. So I think there's a lot of disinformation out there about the effects of motorized vehicles and wildlife.

Plainly, M12 did not see ORVs as causing lasting harm to either trails or wildlife. Similarly, M3 asserted:

The wildlife issue is not a valid issue to me either. I mean, the bear is delisted. To say that we need more core habitat for the bear because motorcycle use pushes them out or snowmobile use pushes them out, that's bullshit. I mean, the bears are coming back strongly, they delisted them. The eagle's delisted. I mean, wildlife is abundant in the Gallatin.

For M3 and many others, the abundance of wildlife either generally or in a particular place was taken as evidence that ORV impacts are not significant. The perception that wildlife is unaffected by ORVs was frequently based on personal sightings of apparently-undisturbed wildlife. For example, M12, above, identified

wildlife observations as one reason he thinks there are no significant ORV impacts on wildlife. Similarly, here is an exchange with M15:

M15: You're up there dirt biking and they say dirt bikes are scaring all the animals off and everything. You see so many animals up dirt biking and stuff. You come up on them.

I: Is that right?

M15: Yeah, I mean, you're just, elk right in front of you and everything like that, too, and so it's no more spooking them than you do running or anything like that.

M15 also told an extended story about encountering a black bear while jeeping, relating that engine noise had not startled the bear, but that turning off the engines had spooked it. He drew the conclusion that engine noise does not disturb bears or, by implication, other animals. A number of other ORV drivers stated that their encounters with wildlife led them to doubt that ORVs have deleterious impacts.

Two ORV driver respondents, taking a slightly different tack, asserted that it is the fact that they *do not* see wildlife while driving that proves ORVs have no impacts. M14 asserted that snowmobiling in a particular area has no impacts because the snow gets so deep that the only wildlife he had seen there was an owl; M34 asserted that when riding a motorcycle on the Gallatin Crest he sees only occasional elk far off in the distance, and concluded that because they're not close and do not flush, they're unaffected.

The second main way in which drivers argued that ORV impacts on the environment are minimal was by comparing the impacts of ORVs with those of other recreationists or natural processes. A clear majority of ORV driver respondents asserted that ORV impacts are no greater than those of other recreationists or wildlife, and therefore closures for ORVs can only be justified if use by stock, hikers, elk, and other comparables is also prohibited. To make this argument, several respondents, like M25, suggested that canine impacts to wildlife and water quality equal or exceed those of ORVs: "And some of the people that we run into when they're hiking, they have their dogs with them. And if you don't want to see any animals in the woods, bring your dog, and you won't see an animal. I mean, it's the same." M14, similarly, complained about dog waste in Sourdough Canyon, suggesting that ORV impacts are not worse than that.

A small number of respondents claimed that ORV impacts are no greater than those of wildlife or natural processes. For example, M15 stated that elk do more damage to forests than do ORV drivers:

But, geez, look at what the elk do. Look at what the bison do. Look at all the stuff that's torn up by the animals and everything like that. You know, go out in the woods, and look at all the trees that the elk are ripping down. I think animals are doing far more damage—if that's what you want to call damage—to the woods than any motorcycle.

Similarly, M11 noted that elk and goat trails “erode just the same [as other trails]. But they don't get closed.”

While dogs, cows, and game were mentioned, the most frequent comparison ORV driver respondents made was to horses. M34 made a typical argument about the magnitude of stock-caused impacts:

Horse use probably has the largest impact of any use out there, outside of an extractive thing. Some good examples are up Sage Creek, up the Taylor Fork about 65 miles south of town where they do a lot of outfitting, and the Porcupine Trail. That country up there is a disaster, especially Sage Creek, because instead of following one trail, they like to take the dudes, you know, so they kind of feel like they're really out in the middle of nowhere, they make a different trail every time they go somewhere. It's braided with trails. You can't find your way through there if you don't have a pretty good idea where you're going because it's such a mess from all the trails they've [made]. And then the horses, they want to get out there in the spring, as do we all. But they'll be out there wandering up a trail with their horse sinking to their knees. That isn't doing the trails any good. And that's not an exaggeration, because I've seen them coming up the trail sinking up to their knees in spots.

Not only does M34 state directly that horses cause more damage than ORVs, he goes on to blame horses for the very types of damage that ORVs are often alleged to cause, such as braided trails and rutting. Several respondents cited a Forest Service evaluation (the Orr Report) that, they argued, showed that horses do more damage to GNF trails than ORVs, asserting that if trail damage is an issue, horse use should be curtailed before ORV use.

ORV driver respondents also argued that ORV impacts compare favorably with those of other types of nonmotorized recreationists. Here is M20 with a typical claim:

Well, if you come down through [Buck Creek], and if you slow down and go slow, you hardly even bother [the elk]. But when I've hunted and everything, if you come up on something and that, how long is it before they take off running? You know, and the thing is, it's like in that aspect you bother them so much longer. Versus on an ATV or on a snowmobile, you're there, and then you're gone. But when you're hiking or hunting, it's you're there, you're there, you're there, you're there. Well, pretty soon they up and leave or something.

Like several other respondents, M20 believed that hikers are more likely to spook wildlife than are motorists. M3 stated that forcefully, stating that hunters and hikers "are the people that are scaring the bears, they're scaring the wildlife, they're displacing them, they're upsetting them in their breeding areas."

In summary, many ORV driver respondents asserted that ORV impacts are minimal, and not great enough to justify closures to ORV use. Other respondents argued that ORV impacts are no greater in magnitude than those of hikers, stock, or even elk.

6.3.1.2. Disputing the Validity of Agency Claims About Impacts The second broad manner in which ORV drivers contested closures based on ORV impacts was to dispute the validity of FS impact evaluations. In this discourse, drivers asserted that the analysis provided by the GNF does not, in fact, prove that ORV impacts occur and are significant. In some respects, this theme was invoked by those who related personal experiences where wildlife was undisturbed by their presence: if the agency says ORVs impact elk, but you believe your personal experience contradicts that claim, relating that experience is a way to contest the agency's claim. However, ORV drivers also contested the validity of agency claims very directly, in several ways.

First, a number of respondents asserted that the GNF used bad science (or used good science poorly) to evaluate impacts, either inadvertently or deliberately. Here is M13 describing an occasion when, without her intervention, the FS would have closed a trail to ORVs in the erroneous belief that the trail intruded on an elk calving ground:

And I've also said to them 'I want to see the Mylar overlays. I want you to show me,' because they were going to close a trail. 'I want you to show me where that ground is, that calving ground is.' Lay out the Mylar: 'Holy crap, it's nowhere close to where the trail was.' If I wouldn't have asked that one question, that trail would have been closed. So there

probably is nothing that I wouldn't question, because I don't trust them to know exactly. I want to see it.³⁹

Similarly, M12 argued that the GNF was trying to prohibit snowmobile use in the Bridger Mountains on the premise that snowmobile use leads to increased competition from coyotes, and subsequent decline of the lynx. The respondent asserted that a recent study had proved that coyote competition does not affect lynx, but that the GNF ignored this data and stuck to its closure. Other respondents asserted that the FS depended upon outdated and irrelevant studies.

A second way in which ORV driver respondents contested GNF analysis of ORV impacts was by alleging agency bias. M2, for example, cited two personal experiences where he believed the FS had lied about the extent of ORV impacts, and said that the FS is "not above fabricating" justification for a closure. M4 described the GNF's EIS (USDA Forest Service 2006) as "tainted science," asserting, as an example, that the EIS selectively used the results of a particular Australian study to support concern regarding the role of ORVs in weed dispersal, despite the existence of an allegedly better, local study. M13 stated that agency personnel who publicly questioned whether ORV impacts are significant put their jobs at risk.

A number of other respondents argued that the agency evaluation of ORV impacts is biased by claiming that the agency ignored the Orr Report. In 2003 and 2004, GNF employee Todd Orr motorcycled most of the GNF's motorized trails, and provided both photos and a 25 page summary evaluation trail conditions on the forest (Orr 2004). The Orr Report concluded that ORVs have had only minor impacts on trails, and that equine impacts on trails are significantly greater (Orr 2004, 23-25). Numerous ORV drivers argued that these important conclusions from the Orr Report were ignored by the GNF. The implication was that the GNF deliberately ignored its own exculpatory evidence regarding ORV impacts.

In summary, many ORV drivers claim that FS evaluations of the environmental impacts of ORVs are flawed due to either bias or incompetence. The implication was

³⁹ Mylar overlays are clear plastic that can be superimposed over paper to show things such as wildlife habitat.

that, regardless of what the FS might claim, ORV impacts are not significant enough to warrant closures.

6.3.1.3. Poor Management as the Cause of Impacts The final manner in which ORV drivers contested the relevance of ORV impacts to the environment was by claiming that impacts result from poor management by the FS. The implication of this argument is that even if there are impacts, they warrant improved management, rather than diminished ORV allocations.

ORV drivers perceived a number of ways in which poor management causes unnecessary impacts. First, nearly half of the ORV driver respondents asserted that the FS has reduced ORV allocations, and claimed that this has increased impacts and conflicts. Typically, here is M3:

We're getting constantly pushed into a smaller and smaller area. The damages resource-wise are going to be greater. The conflicts, the actual danger [will increase], because there are more people using smaller areas.... The damage is going to be worse as far as resources. And then, you know, there are still going to be people that are going to want to hike in the areas that are open to motorized use. And those people are going to just be more upset because there's going to be a lot more use in that area because there's less available area for us to spread out and use.

A few ORV drivers tied this argument that concentration increases conflict and impacts to further reductions in the motorized allocation. Here is M13:

It doesn't take a rocket scientist to say, when you eliminate 400 miles of trails, and you put them on the remaining 300 miles of trails, what's going to happen? Far more abuse, far more degradation to the trails.... You're cutting down more and more and concentrating people in a more and more narrow area. What's going to happen? It's going to be more dangerous. You're going to have a lot more misuse of the trails. I mean, so it's like, wow, that didn't take rocket science. So then it gives them reason to close this.

M13 perceived a cycle of closure: any diminishment in motorized allocation leads to greater concentrations of use; with greater concentrations of use, environmental impacts and conflicts are magnified; in turn, those conflicts and impacts are used to justify further reductions in motorized allocations. Several ORV drivers asserted, more generally, that the FS closes trails to motorized use as a reflexive response to conflict or environmental

impact. That is, instead of either mitigating impacts or independently evaluating the magnitude of impacts or conflicts, some ORV drivers believe the FS just automatically prohibits motorized use, as illustrated in figure 6.2. Instead of closing areas, motorists argued, the GNF should open more areas to ORV use, thus diluting impacts and conflicts. Functionally, this is an argument that the FS is to blame for both environmental impacts and conflicts resulting from ORV use, and that better management (i.e., greater motorized allocations) would resolve the problem.

The claim that deficient agency management is to blame for any ORV impacts was even more explicitly voiced with regard to trail impacts. In this regard, many ORV drivers argued that there will inevitably be some impacts associated with trail use, but that it is the FS's job to ameliorate those impacts. Respondents asserted that whether due to lack of money, laziness, or bias against ORVs, the FS responds to impacts on ORV trails by reflexively prohibiting the use. Table 6.9 shows a selection of the ways in which ORV drivers argued that trail impacts are "just part of the game" (M11) in recreation, and that the FS should be expected to mitigate and repair any impacts.

Table 6.9. Select ORV driver arguments for mitigation of impacts

M3	If you want me to use a resource damage excuse, that really doesn't hold water to me, because you can mitigate those areas that they feel are getting damaged. You could close a trail for a certain period of time. The trail crews can do a little bit of work in the riparian areas where they tend to have problems, switchback areas, they can clean that up and make that more friendly and so there isn't so much damage there. The Forest Service can fix those areas. So resource damage to me is not a valid excuse for closure.
M04	To me, before they close a trail, they need to look around and see if there's a way to reroute it around the problem.
M11	The most compelling [critique of ORV use] that I've ever seen is wetlands.... I don't believe in closing [a trail] because of the wetlands. I believe in recognizing that there's an issue and putting the budget in place to get the issue fixed, not necessarily, 'Ah, let's just close it, it goes through a meadow.' I mean, if it goes through a meadow, most of the time there's not a meadow 25 yards in one direction. Trails don't have to go through the meadow. They can skirt the side of a meadow just about every time.... So I think it's about just being aware that, you know, for people to recreate and to enjoy the national forests that there is going to be some maintenance that needs to occur. And that's just part of the game.
M13	Okay, there's nesting eagles. There's two ways in, there's two ways out. I know they can take one and leave the other and still leave a way in. I know that elk calving ground or whatever is important. But I also know there are ways around it. There are alternative routes.
M29	Yes, there are a few places where they're riparian habitats that have been torn up down low, but it would be easily mitigated by workarounds.
M34	And if there's a wet area, it should be fixed, not closed.... The Forest Service is a bunch of jerks when it comes to that stuff. They'd rather close and dig a tank trap in it and put a gate up, spend money doing that rather than spending a few dollars fixing the [trail].... But that's always the first step is mitigate. Closure is the last resort. The Forest Service wants to use that as first because it's easy.

A third way in which ORV drivers attributed impacts to poor management was by claiming that the FS does not adequately police the proverbial “bad apples.” In this formulation, most ORV drivers have only minimal impacts; however, a few renegades cause conflicts and concerning damage. ORV driver respondents often decried the actions of these “bad apples,” but almost always also blamed the FS for failing to control them. Here, for example, is M17:

Yeah, I think they need to police it more and make sure that people are following the rules when they're put in place. I don't think [violations] should lead to trail closure. Again it's a few people ruin it for everybody else in a lot of cases. So they need to police it and make sure that those people who are trying to ruin it and who are littering and causing all those problems are getting ticketed or whatever needs to happen to help enforce

the rules. Very rarely do you ever run into a Forest Service person on my dirt bike, any law enforcement for that matter, or hiking.

This respondent plainly argues that the appropriate response to ORV impacts is simply better enforcement.⁴⁰ Similarly, M14 argued that “Right now you can go to a trailhead, and if a person doesn’t care, they just go anyplace they want, because there is no enforcement.... They’re all busy in the office. They’re shuffling papers and doing studies.” The upshot of this argument is that the appropriate response to any impacts caused by ORVs is better FS enforcement.

There was one other way in which some ORV drivers claimed that only a subset of ORV drivers cause damage. Specifically, six of the eleven motorcyclists blamed ATV drivers for inordinate damage, while another respondent hinted at it. These motorcyclists decried both the behavior of ATV drivers and the damage the second set of wheels does. Here’s M25 articulating both arguments:

You know just because they have a motor ... and they’re allowed to go in there doesn’t mean that they’re doing us any favors as national forest users, you know, horses, hikers, bicyclists, and dirt bikers, because they’re absolutely destroying the single track that’s out there. And they’re doing, creating amazing amounts of damage.... But as far as resource damage goes, it just takes one bad guy to go through a meadow or up a mountainside that’s not a trail and totally screw it up for the rest of us. You know, having hikers walk by and go ‘look at that one trail.’ So we try to, we ride so we don’t screw it all up.... But a quad is a whole different beast, I think. You know, they’re saying, ‘Okay, single track only.’ And then yet there’s a quad track going right through it.... Or if quads are allowed, that place is trashed.

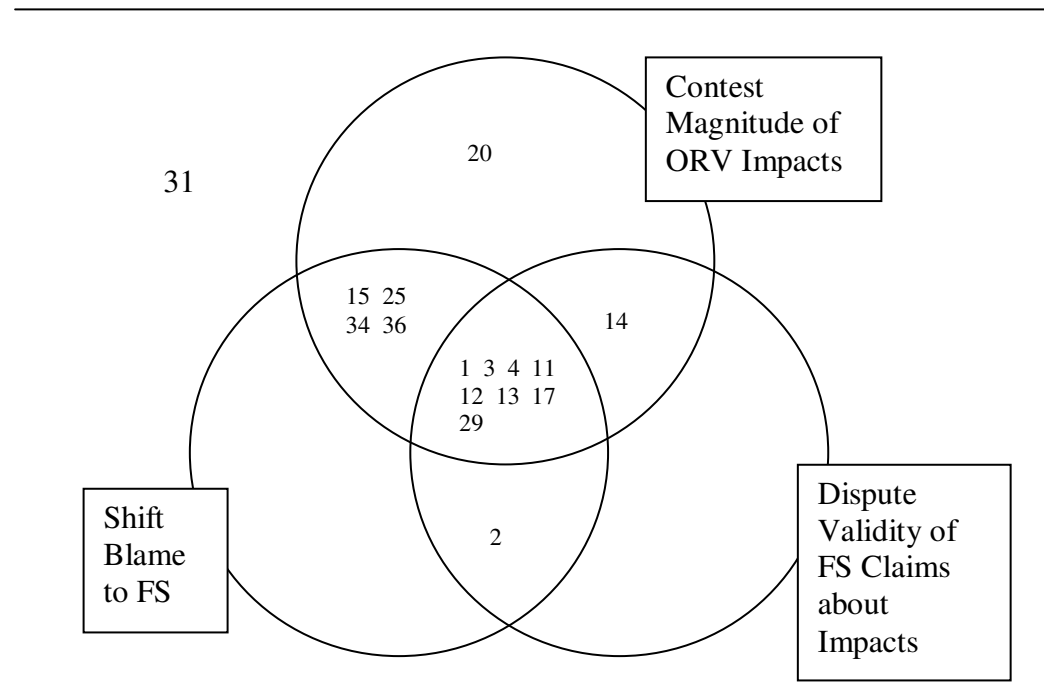
Not only does M25 suggest that ATV drivers have big impacts and break rules, he even groups hikers, equestrians, bicyclists, and motorcyclists as “national forest users” in contrast to ATV drivers. Similarly, M3 said that he had foreseen in the mid-1990s that ATVs were “going to ruin motorized use as we see it on the Gallatin National Forest,” because he had seen trails go from single-track to ATV route in a matter of weeks.

⁴⁰ It is worth noting that one ORV driver explicitly disavowed this logic. M35 asserted that prohibiting use is the only practical response to violations: “How else are you going to stop it? It’s not like downtown Manhattan where you’ve got two policemen on every corner. You know, you can’t patrol it and make people behave out there. So what alternative do you have except put a gate up and block it so you can’t go in there?”

Regarding one trail, he said the ATV drivers “had just trashed the shit out of, I mean, we were there three weeks prior to that ... and they had gone up there repeatedly and just totally changed the character of the trail. They had damaged a lot of resources. It just was a black eye to motorized use.” M1 asserted that ATVs “can make a mess out of stuff,” and that “a lot of ATV users don’t really care. Have no respect for the land.” The criticism of ATV drivers is interesting in part because it is the only instance in which ORV drivers “broke ranks”—where chosen vehicle appeared to influence discourse.

6.3.1.4. Summary The arguments that each motorized respondent made against closing routes because of environmental impacts are shown in table 6.9. What the table shows is that many ORV drivers refuted the appropriateness of reduced allocations based on ORV impacts to the environment with a suite of arguments—M12, for example, made each of the counter-arguments considered in this section. Figure 6.1 more clearly illustrates that most ORV driver respondents made a range of different counter-arguments against environmental impacts as a justification for prohibiting motorized use.

Figure 6.1. Confluence of ORV drivers’ arguments against reduced allocations based on environmental impacts (n = 17)



Despite drivers' broad agreement that there should be environmental sideboards on recreation impacts, most ORV drivers advanced claims that contested reduced allocations due to environmental impacts complementarily, like this:

1. ORVs do not have significant impacts on the environment.
2. Even if ORVs do have impacts, they're no greater than those of other recreationists.
3. Even if the FS says ORV impacts are significant, we do not believe the FS.
4. Even if the FS is right, the agency should mitigate the impacts.

The way these arguments complement one another suggests that addressing any single critique ORV drivers make against such closures will still leave drivers dissatisfied on other fronts. Given the pervasiveness of these arguments across the ORV driver sample and the extent to which respondents made multiple types of arguments, it is likely that many in the motorized community will contest any limits on motorized use based on environmental impacts.

6.3.2. Conflict

As discussed in Section 2.4, the premise most fundamental to travel planning is that recreationists affect one another's experiences, and, therefore, limitations on use or uses is necessary in some places to preserve certain experience opportunities. As was detailed in Section 4.3.4, many hikers argued that ORVs negatively impact their experiences (i.e., cause conflict) and, therefore, motorized use should be prohibited on some number of trails. Almost every ORV driver at some point addressed the issue of whether trail uses should be segregated, and, relatedly, how to think about the impact that ORVs have on other recreationists' experiences, and this section reviews drivers' views and claims.

A few ORV drivers dismissed hikers' claimed experience degradation as unimportant. M20, for example, argued that hikers should not complain, because "on a four wheeler or something, I'm here, and then I'm gone. How long do you actually hear me, you know? Not that long." M31, similarly, argued "What is it, like three minutes and then they're out of hearing range on either side, so they could maybe suck it up a little bit." Several respondents argued that hikers are not really losing anything when trails permit mixed use, e.g., M29: "They can still have used the trail, but it's a multiple use

[trail]. So, you know, whereas the motorized community is losing all access, the nonmotorized community is not losing any access.” Similarly, some respondents implicitly challenged the importance or relevance of conflict by arguing that trails should be “shared.” M4, for example, accepted the principle of segregation, then followed up with this clarification:

I think there’s enough forest for everybody. And I don’t think it needs to be segregated. I think we can all learn to get along and all share it. I don’t believe setting aside something—I think there should be areas set aside with limited use, but I don’t think we need to set all areas aside for limited use. I think there’s room for everybody.... If we’re closing this trail because somebody doesn’t want to hear a motorcycle, I have a hard time with that. I don’t think that’s right.

M4 argues that “we can all learn to get along and all share it.” *Sharing* trails is a concept championed by several ORV organizations involved in the GNF Travel Plan (BlueRibbon Coalition 2005; Citizens for Balanced Use 2008), and it cropped up in several other interviews as a rejection of segregation by mode of transportation. For example, M34 argued that “We’ve got a pie here. Let’s don’t cut it up in 100 little pieces and give each person a little sliver.... Let’s share the pie and then you don’t concentrate use, because the more you restrict stuff, the more you concentrate use, the more problems you got.” Respondents who contested the existence or importance of conflict in these ways implicitly or explicitly argued against the segregation of trail uses.

In contrast to these respondents, six of the 17 ORV drivers explicitly accepted that the experience of many hikers is degraded by ORVs. M35, for example, stated that although he thought hikers were sometimes unreasonably sensitive, “I don’t have a problem with that.... I can understand some guy wants to really be out in the wilderness alone with his thoughts and not hear anything but the blood rushing through his head. All of a sudden here comes a motorized vehicle. Yeah, I can understand that.” Similarly, M11 related how much he enjoyed the quiet of nonmotorized hunting, and said it’s an important opportunity to preserve. Despite this understanding, only a few agreed that segregation is necessary on forest trails.

Some ORV drivers seemed uncertain how to address conflict. After M1 argued for sharing the GNF, I asked him what sharing means:

- M1:** Why can't we all get along, you know, share it? That's our big thing is try and share it with us. It's not going to be perfect for everybody, so we've got to try and get along.
- I:** When you say share, do you mean on a trail by trail [basis], like everybody should be using all trails, or do you mean just we need to all find space on the forest?
- M1:** Both, I think. I mean, we need, the whole forest as a whole, yes. But trails too, I mean, you know, the stuff that is both motorized and nonmotorized, we need to be able to share what we have left. There are certain situations where, yeah, it can't be. So then it's going to have to be one or the other. But, I mean, I really, I have no problem with sharing. But I'm saying that as a motorized user. But I just, we don't see the problem, with people not wanting to share.

It's an interesting exchange because it shows that "sharing" has a double meaning, invoking the idea of plenitude and at the same time rejecting use segregation. It's interesting, too, because M1 plainly understood that many hikers reject the idea of "sharing" a trail with ORVs. Yet M1, a person of goodwill, in my judgment, not bitter or angry about travel planning, seemed genuinely not to understand why hikers desire segregated trails. M1 understood that hikers do not like to encounter ORVs, but he struggled to understand why or to accept the implications of that dynamic. This lack of complete understanding was apparent in a number of respondents, such as M31, quoted above advising hikers to suck it up. In the audio of the interview, it is clear from tone and context that M31 is not proclaiming her indifference to the experience of hikers, but plaintively wondering why hikers make such a big deal out of such a short encounter.

Despite the substantial number of respondents who accepted that, for whatever reason, many hikers appear to need to have some trails set aside for nonmotorized use, almost every ORV driver challenged the relevance of conflict to allocation on the GNF. ORV drivers contested the relevance of conflict to the allocation in three ways: (1) by suggesting that conflict can be ameliorated by courtesy; (2) by suggesting that conflict results from poor FS management; and (3) by arguing that equitable allocations existed prior to travel plan revision, and, therefore, that conflict on trails allocated to motorized use is irrelevant.

In the first regard, a number of ORV driver respondents argued that conflict is dependent on the quality of encounters. A couple of the ORV driver respondents said explicitly that, in some measure, conflict stems from the occasional discourteous rider or

hiker. M14, for example, described encountering stock: “I pull over, shut it off, and sit there. And they’ll come by and say thank you for your courtesy and go on by. That’s what it takes, people being courteous and respecting the other person. And that’s what I see isn’t out there.” M15 similarly differentiated between the effects of courteous and discourteous riding: “If I’m up going for a hike, and somebody’s going by on a dirt bike, they come by and slow down and go around, fine. If they come ripping by me, you know, I’m pissed off too, because I would never do that.” M31 professed complete confusion about why hikers do not like ORV encounters, given that she is always very courteous. The implication of this argument is that if conflict is largely dependent on behavior, the appropriate response is education, rather than segregation.

In addition to these few respondents who explicitly argued that courtesy is a key factor in conflict, a number of other ORV drivers stressed the courtesy with which they handle encounters without clearly relating their narratives to conflict. These drivers described how they stop their vehicles, take off their helmets, and ask if hikers need any help. It is not totally clear why the ORV drivers related these stories, but three possibilities suggest themselves: (1) like some of the other drivers, they believed that conflict should be diminished to the extent that they are courteous; or (2) they were defending themselves against what they perceive to be a stereotype of ORV drivers as reckless and unheeding. Further research on this question is necessary, but I suggest here that some of these respondents believed that hikers’ perception of conflict is, or should be, in inverse relationship to the extent of ORV driver courtesy.

The second way that ORV driver respondents contested the relevance of conflict was by arguing that poor FS management causes conflict. This line of argument was already elucidated as part of ORV drivers’ complaints about FS response to environmental impacts (Section 6.3.1). To reiterate, some ORV drivers argued that concentration of drivers in limited areas and agency failure to police violations increase conflict and environmental impacts. In the first regard, for instance, M20 argued that “They’re taking and they’re closing off areas, and you’re putting more people in a smaller area, so you’re just creating more conflicts,” i.e., more complaints by hikers. In the second regard, to provide one example, M15 suggested that some people are disturbed by any motor, but that “what’s really rubbing it in more is when you get the

idiots who are disrespecting everything.” In both arguments, the implicit or explicit claim is that the FS management exacerbates conflict, and that the FS can and should reduce conflict in more equitable and efficacious ways than by diminishing the allocation to motorized use.

The third and most common way that ORV drivers contested the relevance of conflict to the GNF Travel Plan was by claiming that equitable allocations existed prior to the travel plan revision. This claim functions rhetorically as an “even if” statement—that is, *even if* it is true that hikers are displaced by ORVs, they already had plenty of opportunities to pursue their desired experience. As discussed in Section 6.1.4, many ORV drivers believed that allocations prior to travel planning had been equitable, particularly given the magnitude of designated wilderness in the GNF. Several ORV driver respondents related this directly to conflict. Here, for example, is M17:

I: Well, would user conflict or the desires of the nonmotorized users, would that be a compelling reason [to close a trail to motorized use] or is that . . .

M17: Ah, not really. Not to me. I mean, obviously, my opinion on that is there’s, it goes back to the multiple use piece. There are a lot of areas in the Gallatin County and the Gallatin Forest where you can’t ride dirt bikes that are very close to town. I mean, you can’t ride a dirt bike up to Lava Lake. It’s a very prominent area for a lot of hikers to go up and enjoy. So I look at the map, and I know that I can’t go there so I don’t go there. I go to areas that I know I’m allowed to go to. And if you’re a hiker or there’s the user conflict, then they should be doing the same thing. They should be looking at the map as well and understand that I’m knowledgeably going into an area that there may be mountain bikes or horses or motorcycles or four wheelers. And if I’m going to choose to take this trail and go there, then they should be knowledgeable of that, and I should understand that I may run into one of these users.

M17 asserted that conflict is not a legitimate reason to change allocations because existing allocations are public information—a nonmotorized recreationist should know what kind of experience opportunity is available on any given trail. Here is a similar argument by M14:

- I:** Like for them it's a fundamentally experience-altering thing. And so they say that 'We need some trails that are nonmotorized.' Does that make sense?
- M14:** Oh, yes, yeah, it makes sense. But I also get offended when I meet a tree hugger in the woods and he's screaming at you, because he likes to hug trees. And he's the hiker that's really ticked because you're lawfully on a trail. And I stop my ATV. I stop and I park, especially if they've got a dog. Let them go past. But they'll scream at you, they'll holler at you.... You want to say to them, 'Who are you to judge? We all share this area.' If they want to walk and never see anybody, why don't they go cross lots? If I didn't want to see a soul when I was walking, I'd get a compass and a GPS and I'd go cross lots, you know, to another trailhead. Walk cross lots. You'll never see another hiker.... If that's the experience they want, don't stay on the trail, because the trail is the place where a thousand people have walked forever.

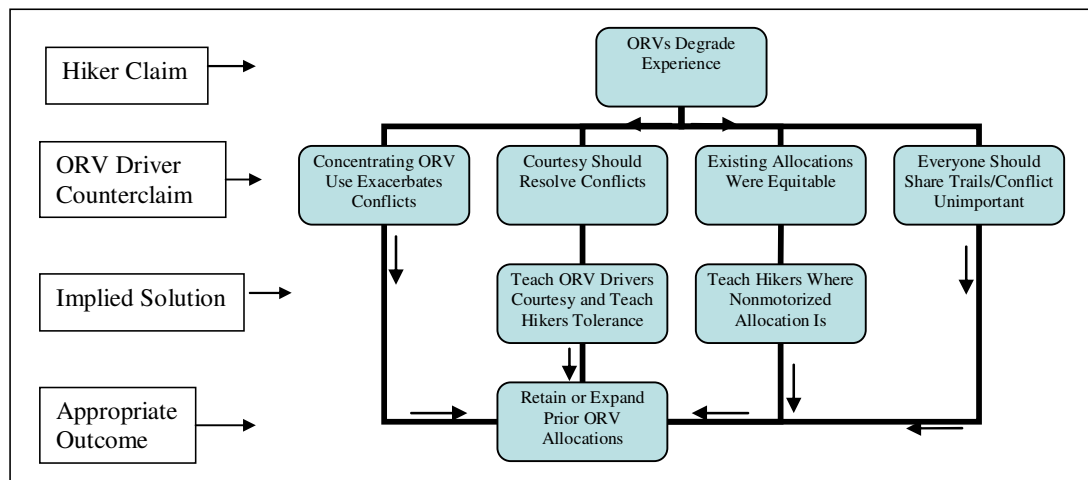
This argument hinges on ORV drivers' claim that prior allocations were equitable—drivers argue that hikers experience conflict because they are lazy or read maps poorly, not because a shortage of opportunities forces them onto motorized trails.

One important note about M14's comment is that his complaint about being verbally mistreated by hikers is indicative of conflict. Blahna et al.'s (1995) typology considers conflict caused by social factors, safety, managerial equity, physical impacts, and philosophical appropriateness. ORV drivers did not appear to experience conflict related to safety or the physical impacts or philosophical appropriateness of other recreationists. However, nearly half (seven) of the ORV drivers described ways in which the quality of their experiences have been degraded by encounters with hikers, i.e., social conflict. Several ORV drivers said they had almost been assaulted by angry hikers, and several asserted that they have been partially displaced from the GNF because of negative encounters with hikers.⁴¹ M12, for example, said that he has started to avoid the GNF because some hikers are rude and obnoxious, and "it doesn't take many of those kind of encounters to kind of sour you on it." ORV drivers also appeared to experience conflict as a result of perceived managerial inequity. As is discussed at length in the next section, ORV drivers felt they were treated inequitably by the GNF, leading to resentment of the

⁴¹ ORV drivers seemed understandably unhappy about these encounters, but not threatened by them—it could have been bravado, but several respondents explicitly said that with their machines and their protective gear, they were confident that a physical confrontation would end in their favor.

user group (hikers) that appeared to be benefiting from the unequal treatment. Since ORV drivers are experiencing conflict and being displaced, in some places, for some recreationists, conflict is increasingly symmetric. However, the fact that hikers are requesting segregation, while ORV drivers still argue for mixed-use trails, probably indicates that symmetry has not yet been achieved.

Figure 6.2. Summary of ORV drivers' responses to the proposition that conflict should result in diminished ORV allocations



To summarize, ORV drivers had a number of responses to hikers' claims that ORV use degrades their experience. As figure 6.2 shows, ORV drivers argued or implied that concentration of ORV use causes conflict; that existing allocations were equitable prior to GNF travel planning; that courtesy should resolve conflicts; and that conflict is unimportant or that hikers need to "share" trails. As the figure shows, each counterclaim advanced by ORV drivers should logically result in the same outcome—retention or expansion of existing motorized allocations. Every ORV driver contested the importance or relevance of recreation conflict in at least one of these fashions; most did so in multiple ways. Most often, the keystone of ORV driver responses was the claim that hikers had adequate allocations prior to travel planning: since things were fair, motorists should not be penalized for conflict on trails allocated to their use. For ORV drivers, then, there are few circumstances under which user conflict would justify a diminished ORV allocation.

6.3.3. Invalid Process

The third major way in which ORV drivers contested diminished allocations on the GNF was by criticizing FS integrity and the travel planning process. There were three main criticisms in this regard: the claim that the EIS was built on flawed data and analysis; the claim that the FS is unable or unwilling to confront the puissant environmental community; and the claim that the agency is biased against motorized use. These criticisms are addressed in turn below.

6.3.3.1. Flawed Data and Analysis The first way that ORV drivers contested the validity of the GNF Travel Plan was by claiming that it was built on flawed data and analysis. As is clear from Section 6.3.1, many ORV drivers believed that ORV impacts are minimal, and believed that FS analysis of those impacts is generally inaccurate. Similarly, Section 6.1.2 highlighted the fact that many ORV driver respondents challenged the accuracy of GNF measures of demand. Few ORV drivers accepted that the GNF had accurately evaluated either the impacts of ORV use, or the demand for the various types of recreation, and they repeatedly impugned the integrity of the agency and the travel plan process.

Beyond these major issues, critiques of the quality of EIS data and analysis most frequently related to evaluation of public comment on the DEIS. These complaints took a number of tacks, such as arguing that:

- a) The process inherently favors the allegedly better-educated, more leisure-rich environmentalists;
- b) That local comments should count more than other comments, but that the GNF did not make such a distinction;
- c) That the GNF was swayed by the number of “quiet trails” letters, failing to recognize that they had no real substance;
- d) That the agency mistook comment letters for demand;
- e) That the agency deliberately or inadvertently lost comment letters from ORV advocates.

The sum of the arguments was that, for many ORV drivers, the public comment portion of the EIS exhibited a disregard for the comments and interests of ORV drivers and revealed that the process was a mere paper exercise.

Concern about data and analysis relating to environmental impacts, demand, and public comment dominated complaints about the nuts and bolts of the travel planning

process; however, ORV drivers also identified a number of other process concerns. M29 captured nearly all these concerns in a detailed critique, including assertions that the GNF: 1) proceeded on a forest-wide rather than area-by-area review as required by the Tri-State Decision of 2001 (USDA Forest Service and USDI Department of the Interior Bureau of Land Management 2001); 2) ignored the Orr Report; 3) subsequently hid internal response to the Orr report; 4) utilized trumped up wildlife impacts; 5) should have included cumulative evaluation of regional allocation changes; 6) did not survey hunters, or query them; 7) used polling data completed by environmental groups; 8) utilized the deficient IMPLAN model in its economic analysis;⁴² 9) did not honor certain procedural requirements of NFMA; 10) issued computer-crashing maps and a DEIS that was difficult to make sense of; 11) did not consider a full range of alternatives, especially given that the no action alternative was illegal and nonsensical; 12) provided only a short comment period. Needless to say, M29 believed that the travel plan EIS was fatally flawed.

6.3.3.2. Outgroup Power The second main type of criticism that ORV drivers made of the GNF Travel Plan revolved around the power of environmentalists. ORV drivers generally believed that the group pressing for reduced ORV driving allocations was not hikers, but environmental organizations. Many drivers argued either that the travel planning process inherently and unfairly favors the strengths of the environmental movement, or that the environmental movement has some more nefarious hold on FS decisionmaking. A clear majority of ORV driver respondents cited the environmental movement's perceived wealth, national base, and large corps of lawyers as reasons that national forest management generally runs counter, in the drivers' opinions, to the interests of both motorized recreation and extractive resource use. M11, for example, speculated that the Sierra Club is a \$60 million per year organization, and that "they have the research. They have the dollars. They have the connections." M3 complained regarding timber sales about "all the appeals from the environmental groups. Every sale they try to propose seems like it gets appealed and it's locked up in the courts for long enough to where the timber is usually not good by the time they're able to harvest it."

⁴² IMPLAN is a widely-used proprietary input-output model of economic impacts. See <http://implan.com/v3/>.

M34 succinctly summarized the perceived power of the environmental movement by stating that “The NGOs are running the Forest Service.”

Many ORV drivers equated environmentalists with outsiders. One respondent, acknowledging that there might be local hikers but discounting their relevance, said that she thought ORV drivers could reach agreement with local hikers if they could get them away from their “handlers.” The flip side of this argument was the assertion that local residents are largely represented by ORV drivers. Here’s M4:

One of the discussions you get into with the Forest Service is this, you know, ‘We’re here. We’re using it.’ ‘Yeah, but we have to manage it for everybody.’ ‘You’re managing it for somebody in New York that may or may not ever even come to Montana?’ ‘Well, yeah, because they say they don’t want motorized, they want a hiking trail.’

Consistent with their observations on demand, many ORV drivers discounted the possibility that many locals hike.

Some ORV drivers also argued that perceived class differences give an inherent advantage to environmentalists in a NEPA process. M13 was one of three respondents who contrasted the perceived wealth and staffing of the environmental groups with an image of ORV drivers as hard-working, blue collar volunteers who do not have the time or savvy to pressure the GNF:

From the environmental side of the issue there are a lot of paid attorneys, legal staff....And they’re funded through organizations, a lot of it from East Coast where there is no public land and they’re pumping tons of money into this area. So they have those staff. And then you have me. You have my friends in Great Falls. You have my friends in Helena that work full-time and we have lives other than this, and we just try to do the best we can with very little funding. So it’s kind of an unbalanced scale, because they can keep constant pressure on. When they threaten to sue, they can sue. When we threaten to sue, we have to figure out where in the world we’re going to get the money from.

M1, similarly, asserted that “the motorized community more tends to be the everyday Joe, working for a living and trying to use it when they can.” M11, though in a white-collar job himself, asserted that “dirt bikers are the hard-working, construction, excavation [workers]... they’re out running machinery all day or pounding nails or

working on a construction crew, they tend to be the motorized users.” M11 argued that the environmental “white-collar side” is better suited to press its case with the FS. These claims suggest that even if the FS is not biased, ORV drivers are disadvantaged by the process.

A handful of ORV drivers suggested that environmentalists are pursuing an agenda more extreme than simply a more advantageous allocation, stating, for example, that “the whole thing is, get motorized recreation out of any national forest lands,” (M13) or that environmental and recreation groups have an anti-motorized agenda unrelated to their stated missions. With two respondents, concern about the environmental agenda veered into speculation that NAFTA (North American Free Trade Agreement), the United Nations, or European insurance companies are manipulating events to environmental ends.

6.3.3.3. Agency Bias Some ORV driver respondents did not believe that environmentalists compel favorable agency decisions, but rather that the agency uses environmentalists as an excuse to pursue their own anti-ORV agenda. As M29 asserted, “They’re basically using the pressure that they’re getting from the day hiker community ... as the support base for closing down access to motorized users.” Indeed, all but three of the ORV drivers said pretty straightforwardly that the GNF is biased against motorized use. The evidence cited to support this belief ranged from assertions that respondents had caught FS personnel telling lies, to promulgation of the decision after the closely-contested U.S. Senate election of 2006.⁴³ The most frequent themes, as is evident in table 6.10 were that Forest Supervisor Becky Heath had been brought in to reduce ORV allocations, did so, then got transferred out; that FS personnel, particularly since the Clinton Administration, are more “green” than the general population; that the agency ignored the Orr Report (Orr 2004); and that the GNF’s initial proposal on travel planning closely resembled the end result.⁴⁴

⁴³ Republican incumbent Conrad Burns was seen as a friend of motorized use who could have fought the travel plan.

⁴⁴ That is, that the “Benchmark” used to launch scoping closely resembled the final result, indicating that the decision had been made from the beginning (USDA Forest Service 2002).

Table 6.10. Select ORV driver assertions of Forest Service bias

M3	The local office here seems to have adopted a philosophy or a mentality or an opinion that is more nonmotorized-use oriented. I mean, they brought in Becky. They brought in John, the supervisor and the deputy.... But it seems like a trickle down from the Clinton era. I mean, it just seems to me that these people were put in place at about that time. And they've gotten to the position where they're able to advance themselves to the position where they can select the areas that they want to go to. And they've been selected to do that job because they have done similar work in other forests.... And it feels to me like this was a scripted event, that they came in here to introduce this proposal, which was the benchmark, which was a starting point which really, to me, seemed like they had a plan all along to change the uses and eliminate and reduce a lot of the recreational opportunities—unless you're a hiker—forestwide, the whole area.
M4	I don't understand where it's coming from. I don't know who, how far up the chain. You know, I kind of believed at one point it was Abigail Kimbell, Regional One that was pushing for a lot of this. And maybe it is.... If we don't save what we got left, we ain't going to have anyplace else to go, because ... I truly think Region One is the template. And I believe the Gallatin is the start of the whole process of trying to rewrite the forest to eliminate multiple use.
M12	Well, when they came out with their benchmark, the very first example of what they would like to do, almost seven years ago, when they came out with that benchmark, that, when you look back at it, is very, very similar to what their final decision is. Very similar.... There was literally five years' worth of input and meetings and effort spent from many thousands of people. And the end product is pretty much what they said 'here's what we'd like to do.' You know, it's a, I think, a pretty classic example of, you know, why don't you just go ahead and do it, because you're going to do it anyway? Why do you want to have all this public input and go through all these meetings and time and effort spent when all it is a dog and pony show that you just have to do, to say that, 'Well, we listened. We didn't do anything anybody wanted, but we listened.'
M13	Well, I'm not a great person for conspiracy or anything, but, you know, it seems like when a forester comes in here and then all of a sudden the travel plan starts, it seems like that person comes in here for that reason. And they have a preconceived idea of what happens. And you have that preconceived idea here and however many years later, two years later, whatever, when the forest plan comes down, it's exactly what they wanted to begin with.
M14	But I think the biggest thing is that we all agree, the users, is that they had a predetermined place they wanted to be, and they never listened to the people. I went to meetings. They didn't listen. They knew what they wanted to do and where they wanted to be, and that's what they did.
M17	It seems a little odd, I guess, to take the cynical side of it and say, 'Okay, [Becky Heath] showed up for how long and she did this, and then she leaves.' So it almost seems like that was a little bit of a goal.
M20	My opinion was that they were against motorized recreation from the start, you know. In the travel plan, who took the biggest hit? Motorized recreation, summer and winter.
M29	Yeah, I think Gallatin National Forest, perhaps in conjunction with the region, and to some extent maybe there's a national movement within the Forest Service as well, but certainly within this region and specifically within the Gallatin. I think the forest supervisor or the regional supervisors have had an agenda to do what they can to, as quickly as possible, close off ATV, motorized access, to those areas of the forest that have traditionally been open to motorized access.
M34	They wanted to close us out.... And any motorized user you talk to is going to tell you the same thing. And it's been going on for 25 years. The Forest Service has a foregone conclusion of what they want to do. And there's somebody yanking their chain somewhere. Again, some of the rabble rousers we mentioned earlier are yanking their chain. And so, okay, they got a plan that they know they want to do something. They know what they want to do before they ever put it out.... Then they have to jump through all these hoops which means having public meetings and taking public comment and a few other things. But they already know what they're going to do before they ever start. All that stuff is just to justify it.
M36	They just seem to be on an agenda to eliminate as many people as they can, eliminate as many uses from the forest as possible.... I think they pretty much knew what they were going to do. I mean, I hate to say it, but I've gotten so disgusted about some of the process, that usually the research is done after the decision is made, what they want to do. And then they just justify it.

Several respondents seemed reluctant to allege bias, or were not totally convinced that the agency decision had been pre-determined. M17, for example, qualified his concerns about the result of travel planning possibly being predetermined by stating that such concern comes from “the cynical side,” and by constructing a very hesitant allegation, that “it almost seems like that was a little bit of a goal.” The majority of respondents, though, left little doubt that they believed that the result of GNF travel planning had been determined long before public involvement began.

These specific allegations were symptoms of a distrust for the agency that suffused ORV driver interviews. For example, asked what the GNF hoped to accomplish through travel planning, only a couple of respondents credited the GNF with good intentions, e.g., that the FS wanted to correct resource damage, violations, or conflict (see table 6.11, respondents M17, M25, and M35). Other respondents stated flatly that the agency intended to reduce motorized allocations (see table 6.11, respondents M4, M14, M20, and M34). Still more respondents professed not to know why the GNF had proceeded. In this context, respondents stating that they “don’t know” why the GNF revised the travel plan can be understood as echoing the ORV driver belief that allocations prior to travel planning were equitable—it indicates that the respondents did not see any problems or issues that the GNF needed to address. In that way, for M11, M12, M17, M25, M35, and M36, “don’t know” suggests not a lack of knowledge, but the judgment that (1) there was no reason for the GNF to revise the travel plan, and (2) the GNF proceeded anyway, in order to diminish ORV driving allocations.

Table 6.11. Select ORV drivers' identification of the objective of the GNF travel plan revision

M4	Well, when you're looking at a closure of between, of all the forests in Montana that are in the process with the travel plan, we're looking at between 40 and 60% closure in every forest of multiple use. That's scary.... Right now there's such a big push to close multiple use. And I don't understand where it's coming from. I don't know who, how far up the chain.
M11	I have no idea.... I mean, I just don't get it. It doesn't make any sense.
M12	I think that's a pretty hard question to ask a government agency of that level. I think the bureaucracy has taken hold and taken over to such an extent that they don't know what they want, and they couldn't express to anybody what they wanted or why, you know, in reality. They'd have tons of reasons that would intermix and cross and negate each other. And they'd be riding the fence telling one group one thing and the other group another. You know, there's just so much of that that goes on. It's so convoluted that I don't know. I don't know what the answer to that would be.
M14	I really, it appears to me, as a sportsman, as a person that uses the forest, that they had a preconceived idea.... I don't know why they did it except to appease the hikers and the green people that don't want any forestry, logging at all
M17	I don't know. I don't know what they tried, you know, and they never communicated why they specifically did it overall. They never really, they have a lot of other little reasons that you hear about and that they talk about, but there was never a really overall communication of our mission statement is to do X. If they did have one, I guess I didn't see it. But their goal, most likely, was to try to make the public use of the Gallatin National Forest available to a number of different types of users while also keeping in mind the environment and trying to make it so it wasn't extremely detrimental in some areas for the Forest Service or for the national forest land.
M20	Well, in hearing them talk and that, it was to create a balance and everything. But my opinion was that they were non, they were against motorized recreation from the start, you know. In the travel plan, who took the biggest hit?
M25	I have no idea. Hopefully it was because they saw the resource damage, mostly from quads, and said 'We have to put a stop to some of this.' But, then again, that lumps me in the same category since I have a motor under my legs, which I think is false, but they had to do . . . Quads definitely have damaged the trails to a major degree.
M31	Well, I know that there's some lynx species or something up in here that's supposed to have decreasing numbers or something. And so they're trying to protect the lynx or whatever. And I don't know, I'm sure they're trying to just, you know, there's so many people on the forest, they're trying to make sure that it doesn't burn down or doesn't get destroyed by humans and . . . I don't know. I guess just keep it as natural as they can.
M34	They wanted to close us out.
M35	No. My only thinking was that people . . . The only reason I could understand, and I didn't research or look into it, was they were trying to keep people from going where they weren't supposed to be going anyway. That's what I got out of it.
M36	I guess they just felt that there was a need, that it had to be done. I don't see the user conflicts. I don't know, are there a lot of user conflicts around Missoula?

Not surprisingly, given the extent to which ORV drivers believed themselves wronged by the FS, some drivers felt considerable anger toward the agency and the situation. Here, for example, is M3:

We're constantly compromising, and we're getting nothing in return. I'm frustrated. I'm over it. I'm really sick of it. I've been telling them all along and telling these people at these meetings, you're going to make outlaws out of ordinary citizens, because there are a lot of people that are out there that are just saying forget the Forest Service, in not so many words. They're buying guns. Packing iron, you know. And that's a bad deal, man. But that's the mentality. They're pissed off. They're full of it. They're done. They don't want to deal with it anymore. They're going to go out there, and they're going to do what they want to do. And if they, if a conflict arises, they're going to be ready for it, however that conflict escalates. Mark my words.

M3 was unique for predicting that reduced ORV allocations would result in gun violence, but not unique in his anger, or in his sense that ORV drivers are being treated unfairly.

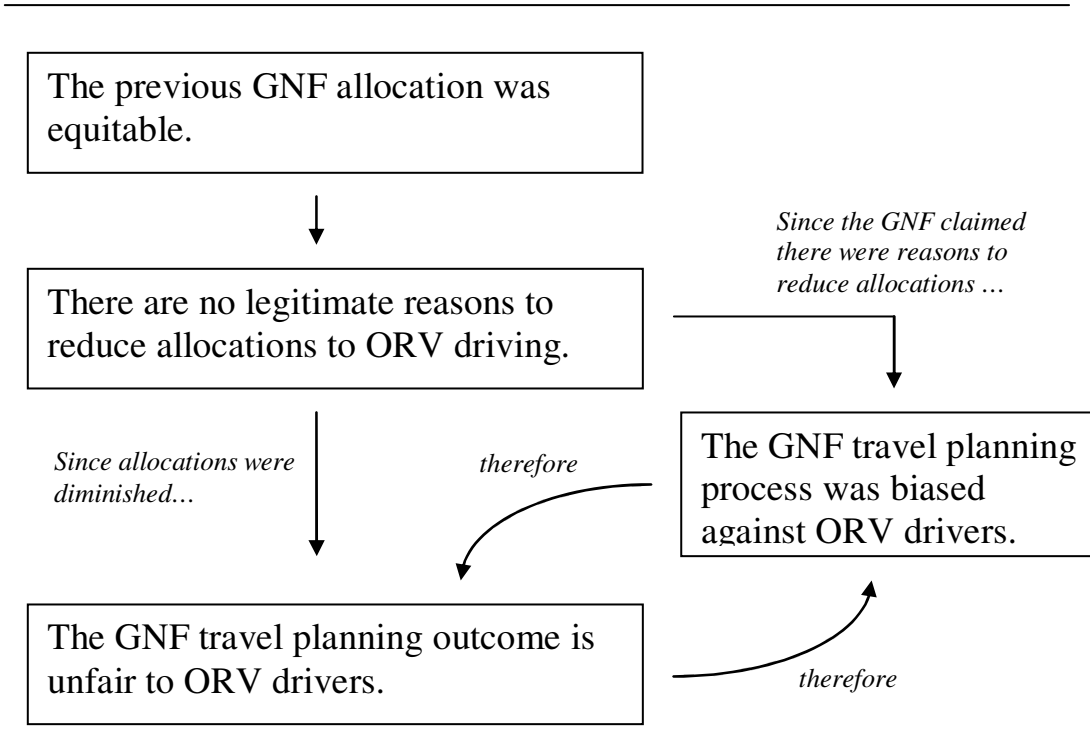
In the end, many ORV drivers simply did not trust the FS. They believed the agency is pushed by rich and powerful environmental organizations. They believed that many within the agency want to eliminate motorized use. They believed the agency ignores public comment it does not like, and lies and manipulates data to justify its decisions. They believed that the GNF Travel Plan was an orchestrated effort to reduce motorized recreation allocations, regardless of justifications, comment, or any other factors.

6.4. ORV Drivers: Summary

In summary, ORV drivers believed allocations prior to travel plan revision were fair, and most did not identify any allocative principle that would require revision of prior allocations. In this context, ORV drivers perceived themselves to, nevertheless, be losing experience opportunities both generally and on the GNF. The narrative that ORV drivers told predominantly—that is, looking at the big picture, and overlooking individual differences and contradictions—looked like figure 6.3. ORV drivers started from the premise that the original allocation was equitable, repudiated all possible justifications for

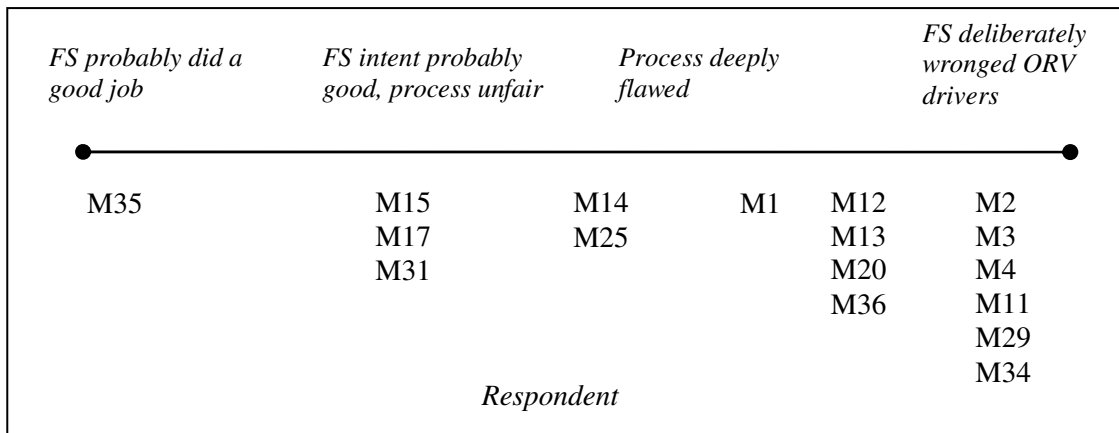
revising allocations, and conclude that a reduced ORV allocation must be both inequitable and the result of a flawed process.

Figure 6.3. ORV drivers' predominant narrative regarding the GNF travel plan revision



Individual respondents sometimes made claims that contradicted some portion of this, e.g., several argued that demand should drive allocation. Further, respondents varied in the strength of their conviction regarding different aspects of this narrative. For example, M17 could imagine the FS legitimately closing trails due to environmental impacts, but wanted to see good science to justify any such closure; he was hesitant to say that the GNF had a predetermined agenda, but said that it looked like maybe the GNF had a biased agenda, and that the travel plan did not include “due diligence.” M17, then, probably would not flatly disagree with any proposition in figure 6.3 yet the figure still

Figure 6.4. ORV drivers' general perspective on the GNF travel planning process (n = 17)



probably overstates in some way how certain he was that ORV drivers were treated poorly.

One way to consider how closely figure 6.3 reflects the thinking of respondents in the sample is by looking at figure 6.4. Figure 6.4 plots the ORV driver respondents' general outlook on the GNF Travel Plan. As is clear, there is a strong inclination toward "FS deliberately wronged ORV drivers." Beliefs about the integrity of the travel planning process can be seen as a proxy for identifying the extent to which respondents embraced the narrative portrayed in figure 6.3: the closer respondents were to the right end of the continuum (FS deliberately wronged ORV drivers), the more fully they embraced the narrative of being wronged. In this way, figure 6.4 can be perceived as a "continuum of conviction," and it is clear that most ORV driver respondents felt quite strongly that the FS deliberately manipulated the process to diminish ORV allocations, and that this is part of a larger FS pattern.

7. COMPARISON AND CONSIDERATION OF HIKER AND ORV DRIVER CLAIMS, FRAMES, & DISCOURSE

In Chapter 2, I outlined a conceptual framework for evaluating recreationists discourse that relies on analysis at three levels: (1) analysis of discourse; (2) analysis of the more specific and limited discursive strategies used to guide debate (framing); and (3) analysis of the specific claims that respondents make. Many claims imply principles that can be used to allocate recreation resources, and, in the first part of this chapter, I will compare and consider the principles that respondents implicitly or explicitly argued for. In Section 7.2, I will discuss the nature and implications of the frames and discourse employed by hikers and ORV drivers, respectively. In Section 7.3, I will suggest some principles that, with other portions of this dissertation, comprise a conceptual framework for including and considering recreationists' claims and discourses in travel planning. In Section 7.4, I will reexamine the inquiry-guiding propositions articulated at the outset of the paper.

7.1. Translation of claims into policy

As discussed in Section 2.2, many claims about recreation allocation can be translated into principles for determining allocations. For example, the assertion that it is unfair to keep a person from driving on trails where they have driven previously can be restated like this: existing allocations should not be changed. While almost any assertion can be characterized as a claim (e.g., the claim that the FS is biased), in this section, I evaluate only those claim-types that can be translated into allocative principles, and which were most commonly and insistently voiced (see table 7.1 for additional claim-types). I evaluate the allocative principles in regard to whether and how they can be practically translated into clear policy, and, to a lesser extent, raise questions regarding the implications of adopting them. In Section 7.1.1, I first discuss claims that, if translated into principles, could be used to guide aggregate recreation allocations. Subsequently, in Section 7.1.2, I evaluate respondents' claims and derivative site-specific allocation principles.

7.1.1. Principles of Aggregate Allocation

Respondents advanced a number of claims from which aggregate allocative principles could be derived, principally related to either the purpose of national forests or demand on national forests. This section looks serially at: claims and derivative principles relating to the purpose of national forests; demand; the needs of those who have a disability; and allocations proportional to contributions.

7.1.1.1. National Forest Purpose Respondents readily made claims regarding the purpose of national forests, though it was not always clear whether they were addressing the purpose of national forests as they believe it should be or as it is by law. Most hikers claimed that the purpose of national forests is the preservation of nature. Many hikers claimed that honoring this purpose, given the significant impacts to the environment that they believed ORVs have, would and should significantly reduce allocations to ORV driving.

The hiker view of national forest purpose, though also widely held by the general public (Shields et al. 2002), is not consistent with current interpretation of the FS's organic statutes. By law, the purpose of national forests is to obtain a sustained yield with regard to management for "outdoor recreation, range, timber, watershed, and wildlife and fish purposes" (MUSYA). While MUSYA requires that such uses be conducted "without impairment of the productivity of the land" (16 U.S. Code §531(a)), the courts have not interpreted this as an enforceable standard (Goodman 1994, 122). Similarly, Goodman (1994, 141) argues that NFMA's requirement that forest plans "provide for diversity of plant and animal communities" (16 U.S. Code §1604(g)(3)(B)) does not limit the agency's general discretion to provide any of the multiple uses, in any significant measure. At the same time, the FS has broad discretion to prioritize and protect natural resources. Accordingly, prioritization of nature preservation could be accepted by decisionmakers as a guiding principle, but such a decision would be permitted, rather than required, by current law. However, since all recreationists have some impact, and since definitions of what is natural or most in need of preservation vary widely, translating this general concept into a consistent and clear principle delineating when impacts would preclude a use would require considerable additional elaboration.

Some hikers also argued that national forests should be managed to provide particular natural experience opportunities. Again, the FS has the discretion to manage for this objective, though nothing in current law or policy commands it to do so. Doing so would require considerable additional elaboration, such as identifying the characteristics of a natural experience, delineating between those types of recreation that provide that opportunity and those that do not, delineating between those types of recreation that preclude that opportunity for others and those that do not, etc. Additionally, it would be desirable to fully articulate why those particular recreation opportunities are more valuable or important than others on national forests. The upshot is that translating hikers' general sense of what a natural experience into a clear principle that can be consistently applied to various types of recreation would require considerable dialogue and elaboration.

Most ORV drivers claimed that the purpose of national forests is to facilitate a wide range of extractive and recreation activities. This is consistent with current interpretation of the FS's organic statutes, as described above. However, many ORV drivers equated the broad discretion provided under the rubric of "multiple use" with a specific mandate to provide extensive ORV driving opportunities, arguing:

- (1) The national forests are for multiple uses;
- (2) ORV driving is a multiple use;
- (3) Therefore, the national forests should provide for extensive ORV driving.

This syllogism depends upon the idea that each multiple use should receive extensive allocations, and the unspoken premise that ORV driving is one of the multiple uses that national forests are supposed to be managed for. However, MUSYA requires the provision of "outdoor recreation," not ORV driving opportunities.⁴⁵ The result of all this is that FS decisionmakers could adopt, as a guiding principle, the maximum possible

⁴⁵ The term was adopted because Congress had originally used it to charter the Outdoor Recreation Resources Review Commission (Crafts 1970, 18), which included consideration of recreation ranging from walking to outdoor concerts (Outdoor Recreation Resources Review Commission 1962). Coggins (1983, 39) has argued that "'Outdoor recreation' has a generally accepted meaning. Congress intended to include hiking, camping, and birdwatching. Hunting and fishing are also included by inference from the subsequent reference to state fish and game laws. The outer boundaries of the definition, however, are in the eye of the beholder."

provision of ORV driving opportunities as the appropriate implementation of multiple use, but such a decision would be permitted, rather than required, by current law.

These views of the purpose of national forests each suggest fundamental changes to the management of national forests. That is, they go to the heart of an ongoing debate about what our national forests are for, and each suggests an answer that would change the direction of national forest management radically.

7.1.1.2. Demand A minority of each user group claimed that allocations should be proportional to demand. Additionally, the GNF explicitly invoked this principle as its justification for reducing motorized allocations in the revised travel plan (USDA Forest Service 2006, 19). There is nothing in current law or policy that either requires or precludes use of recreation demand as a principle of allocation, but, if it is to be practically translated into a guiding policy principle, elaboration and further dialogue are necessary in several regards.

First, it appears that allocating proportionally to demand strikes some people as indisputably “fair.” However, the government distributes public benefits in widely different ways, each of which is considered fair or desirable in different circumstances. For example, we distribute different social goods to address, variously, equality, equity, need, and social efficiency. Each of these principles of distribution advantages and disadvantages different populations, and each serves different ends (Stankey and Baden 1977). If demand is to be applied as a principle of allocation, additional exploration and justification of why demand best allocates public resources is desirable.

It is also possible that the minority of respondents who felt demand should be an allocative principle believed that consumer choices reflect citizen beliefs about appropriate management. Yet what we believe laws and rules should be is often very different from how we behave within the existing structure of laws and rules (Sagoff 1988, 50-73). For example, I might support an interstate speed limit of 65 mph, yet regularly drive 70 mph. Driving 70 is not equivalent to a statement of my beliefs about appropriate speed limits. Analogously, use of public lands within existing rules and allocations cannot be taken as a clear indication of how citizens believe public lands *should* be used and managed (Sagoff 1988, 50-73).

Relatedly, allocation solely proportional to demand suggests that national forests have no purpose other than accommodating desired uses—that they are simply playgrounds, and that all uses are equally appropriate and valuable on national forests. This idea is contradicted by both general belief (Shields et al. 2002) and FS internal policy, which limits what the FS considers appropriate outdoor recreation on national forests, e.g., permitting golf courses only in exceptional circumstances (Adams and McCool 2009). If decisionmakers are to adopt allocation proportional to demand as a guiding principle, they will need to both explicitly state that, in fact, there is no recreational purpose to public lands save to respond to demand, and reconcile that position with existing policies which limit the activities for which demand can be expressed.

Finally, application of this general principle requires a great deal of additional specificity. For a variety of reasons, rate of participation—the usual proxy for recreation demand—is not a particularly good indicator of the “demand” for particular experience opportunities (Garber-Yonts 2005). Indeed, to a great extent, recreation demand is influenced by supply—in the extreme instance, for example, prohibiting motorized use would lead to a finding that there is no demand for motorized use. Further, it is not clear where demand should be measured: In the country? In the region? On the national forest system? On individual forests or ranger districts? Each decision would yield different results. Still further, it is not clear exactly what should be distributed proportionally—quality experience opportunities? Trail miles? Again, each decision will yield different results, but mode of transportation is only a crude proxy for desired experience opportunity, so if the goal is to give people what they want, proportionality to chosen mode of transportation does not really achieve the goal. Still further, given that there are far more types of recreation than simply hiking and driving ORVs (and, of course, that each of these categories includes a number of different types of recreationists) decisions must be made about which user groups will be allowed to make a claim on national forests (trail skaters?), which will be lumped together (hikers and horseback riders? motorcycles and 4x4s?), and which will receive an exclusive allocation. None of these complexities is insurmountable, but they do require resolution, and the resolution of each issue has the potential to drastically alter the allocation that would result. Failing to fully

articulate the applied conceptualization of demand will result in apparently capricious and contradictory decisions, as when, in 2007, a FS district that abuts the GNF allocated 71% of its trail miles to ORV use, and justified its decision partly on the basis of “expected increase in population and demand for motorized recreation” (USDA Forest Service 2007, 5). That is, the Jefferson Division used the same rationale as the GNF to arrive at a drastically different decision.⁴⁶ All told, translation of this claim into policy—even simply incorporation of it as one consideration, rather than a mechanistic determinative—would require much additional consideration and elaboration.

7.1.1.3. Allocations for people who have disabilities Several respondents claimed that ORV driving should receive substantial allocations to provide recreation opportunities for those unable to walk long distances. Currently, the FS is required to provide access to opportunities for all citizens by the Architectural Barriers Act (1968), the Rehabilitation Act (1973), and the Americans with Disabilities Act (1990) (USDA Forest Service undated (post 2001), 4-5). In relevant part, these statutes require the FS to permit trail access by wheelchairs, even in designated wilderness, where a wheelchair is defined, in regard to wilderness, as “*A device designed solely for use by a mobility impaired person for locomotion, that is suitable for use in an indoor pedestrian area*” (42 U.S. Code §12207(c)(2)). However, since ORVs are neither designed solely for mobility-impaired people nor suitable for use in a residence or mall, the agency is not required to permit these vehicles on nonmotorized trails.⁴⁷ Essentially, the logic is that permitting ORVs on nonmotorized trails would fundamentally change the program the FS is attempting to provide to the public, and that permitting and facilitating wheelchair use provides the equivalent of pedestrian access for those with disabilities.

⁴⁶ A very cursory review of travel planning decision documents has indicated no clear pattern of rationales, and many are simply indecipherable. For example, the Eldorado National Forest described its decision rationale this way: “Modified B is the selected alternative because it provides a balanced response to the public comments by satisfying many recreation and social benefit criteria while providing increased protection for the resources.... While all of the action alternatives reduce the environmental impacts on forest resources, Modified B was the selected alternative because it best provides for protection of the resources while still addressing the other elements of purpose and need for this project” (USDA Forest Service 2008, 8). From this explanation it would be impossible to guess that the Eldorado selected the alternative with the most ORV use on roads and trails, or why (USDA Forest Service 2008, 11).

⁴⁷ In addition to the FS argument that wheelchairs provide equal “accessibility,” the relevant law provides an exception in the case that a “program would be fundamentally altered if changes were made solely for the purpose of accessibility. An example of a fundamental alteration to a program would be allowing use of a motor vehicle in an area not designated for motor-vehicle use” (USDA Forest Service undated (post 2001), 5).

There are some good reasons to question whether current FS policy should be amended in this regard. Full consideration of this issue merits considerably more attention than it is possible to give in this forum, but mention of a few issues serves to illustrate that the principle would require very full consideration prior to implementation. One issue is that it is not clear, as is sometimes implied, that a monolithic block of people with disabilities want ORV use permitted on trails. To the contrary, people with disabilities have a range of opinions regarding accessibility in primitive settings, and a majority believe that accessibility to primitive areas may justifiably be less than in other places, in order to preserve unique natural qualities (McCormick 2000; see also National Council on Disability 1992). It appears, then, that some individuals with disabilities would like many trails to permit ORV use, at least for people with disabilities, and others would not. If the argument is that the FS should accommodate the desires of people with disabilities, it is not clear that those desires translate easily into any particular aggregate allocation.

Second, arguments about what people with disabilities need and desire should be considered, at least in part, separately from more general allocation issues. Analogously, the need to permit the use of service dogs nearly universally is not conflated with the argument that family pets should be permitted in all commercial and public spaces.

Again, this topic cannot be adequately considered here, but even cursory review indicates that there are questions to answer before allocating trails to ORV driving in the name of accommodating those with disabilities.

7.1.1.4. Allocations Proportional to Contributions A significant number of ORV drivers claimed that the fees associated with ORV licensing, as well as drivers' on-the-ground contributions to trail maintenance, made them more deserving of allocations than hikers. That is, stated as a principle, allocations should be in some sense proportional to the financial and in-kind contributions of user groups.

It is possible that this is essentially an argument that measuring recreationists contributions—voluntary or legally-required—is a good proxy for measuring the value those recreationists assign on national forest use, and that those who value the national forest use most should receive the greatest allocations. The latter part of this argument merits significant examination before being translated into policy. It may well be that the

people who most need to be encouraged to use national forests are those who value the experience least, or that we wish to achieve certain recreational goals, as opposed to maximizing individual “returns” on public land use.

The first part of this argument requires further consideration as well: it is not clear that recreational fees are a good proxy for valuation. Recreational fees that target ORVs, but not other recreationists, are generally set (and spent) by state legislatures. There is little reason to believe that these fees represent a good measure of experience valuation, any more than property taxes measure individuals’ relative valuation of city parks. Further, there is a considerable body of literature investigating the extent to which citizens value different management options on national forests (see, e.g., Loomis and Walsh 1991; Loomis 1991, 1999; Morton 1999). These measures of valuation, utilizing willingness-to-pay and other methods, are probably a better metric than fees, but they do not necessarily indicate a higher valuation for ORV driving than for other national forest recreation allocations or other values. If state-set fees are not the best proxy for valuation, there is no obvious reason why the FS should delegate allocation decisions to state legislatures.

While it is possible that this line of deliberation is what ORV drivers are pointing at, it is also possible that this is a more elemental claim about equity: if I pay more than the other recreationist, I should get more than the other recreationist. There is merit to this argument, but it seems like the appropriate response is an attempt to harmonize fees, rather than to conclude that state legislatures, having set fees, have thereby made wise and appropriate national forest recreation allocations.

7.1.1.5. Summary of Claims Regarding Aggregate Allocations Table 7.1 summarizes evaluation of recreationist claim-types regarding aggregate allocation, including several claims only cursorily discussed in the main text. The table does not include: claims relating to whether or not trail use should generally be segregated; claims about agency bias and outgroup power; or the least common claim-types. The principles that hikers and ORV drivers suggest should drive aggregate allocations require significantly greater elaboration and discussion. To the extent that these principles are suggested as factors in decisions, rather than unilaterally determinative principles, additional consideration of the

extent to which they should be considered in decisionmaking, and under what circumstances, is also necessary.

To some extent, the evident need for elaboration and broader consideration is an artifact of the interview process—respondents, after all, were not presenting policy papers, but responding to questions. In other senses, however, that need reflects a more general dialogue among stakeholders and policymakers that inadequately considers these issues and these claims—that is, there is no more complicated stakeholder dialogue about appropriate aggregate allocation of which this is only a partial reflection.

Many respondents, regardless of what claims they made regarding principles of aggregate allocation or their degree of elaboration on those claims, believed that they knew what appropriate allocations would look like. However, most respondents were unable to identify what proportion of trails provided particular experience opportunities under the previous travel plan, how that had changed in the new plan, or what an appropriate aggregate allocation would be numerically. Nevertheless, most hikers believed the previous GNF allocations to have been unfair, and the revised allocations more fair; most ORV drivers believed the previous allocations to have been fair, and the revised allocations unfair. Functionally, this amounted to an “I know it when I see it” standard.

The prevalence of the “I know it when I see it” standard makes dialogue challenging, because it is difficult to communicate to managers, discuss with others, or even self-examine. If such a standard is not built on principles that can be clearly articulated and consistently applied, it is difficult to build consensus for or even understanding of a position or decision. For these reasons, trying to more fully explore and explain the claims and derivative principles about aggregate allocation in which stakeholders believe is essential to improving public deliberation and input into FS decisionmaking.

Table 7.1. Summary evaluation of common claim-types regarding aggregate allocation

The primary purpose of national forests is the preservation of nature, and therefore ORV use should be limited.

The FS has the discretion to manage in this manner, but is not obliged to do so by current federal policy. The extent to which ORV driving and other recreation jeopardize nature is a site-specific issue. While there are plainly limits to what should constitute acceptable recreation impacts on the environment, determining whether impacts breach those limits is typically difficult to determine and at the discretion of the decisionmaker.

The primary purpose of national forests is the provision of natural experiences, and therefore ORV use should be limited.

The FS has the discretion to prioritize the provision of any particular type of experience on national forests, but is not obliged to do so by current federal policy. The "outdoor recreation" which the national forests are mandated to provide has not been defined.

The purpose of national forests is to provide for multiple uses, and therefore ORV driving should be allocated all non-wilderness national forest opportunities.

The FS has the discretion to maximize ORV driving or other uses of the national forest, but is not obliged to do so by current federal policy. MUSYA and case law are clear that multiple use is not all uses in all places. Further, MUSYA requires the provision of opportunities for "outdoor recreation," but does not require the provision of ORV driving.

Recreation opportunities on national forests should be distributed proportionally to demand.

The FS has the discretion to distribute recreation opportunities in proportion to demand, but is not obliged to do so by current federal policy. Further, there is no obvious reason why distribution according to demand is more "fair" or desirable than distribution according to other principles, including the attainment of specific policy goals. Further, this claim requires detailed elaboration regarding measures of demand before it becomes a practical proposal.

Allocations should favor ORV driving in order to permit citizens with special needs to access national forests.

There is no support for this argument in current national forest law or policy. FS policy states clearly that wheelchairs must be granted access to foot trails, but distinguishes between wheelchairs and ORVs. Further, if universal motorized access is desired, that policy objective is better achieved with automobiles. Finally, this claim assumes without evidence that a most or many citizens with handicaps favor allocations for ORV use on national forests.

Allocations should favor ORV driving because ORV drivers disproportionately contribute money and time to trail management.

The FS has the discretion to manage in this manner, but is not obliged to do so by current federal policy. Since fees are principally set by state legislatures, inequity should be addressed by harmonizing federal and state mandates, not by permitting state legislatures to make allocation decisions for national forests. Care should be taken in using contributions as a proxy for the value recreationists' place on national forest utilization.

Allocations should favor an activity because its proponents submitted more comments generally, or more comments locally.

There is no support for this principle in current national forest law or policy. Further, while there are legitimate critiques of the current FS treatment of comments, arguments for treating the comment record, or some subset of it, as a binding "vote" are not compelling. Further, while local interests may play a special role in agency decisionmaking, it is seldom that a particular recreation group represents

Allocations should favor ORV use because such use disproportionately benefits local economies.

The FS has the discretion to prioritize the provision of particular types of recreation on the basis of economic benefits, but is not obliged to do so by current federal policy. It is not clear that ORV driving trails do, in fact, contribute disproportionately to local economies. It is not clear that the marginal difference in local economic activity that changing allocations might have would justify elevating this principal above other public policy goals.

Allocations should favor ORV use because ORV drivers have lost many driving opportunities.

This claim is built on the premise that previous allocations were fair. However, many previous national forest allocations favored ORV use without clear justification, or technically permitted ORV use where it was infrequent or impractical. For this reason, decisionmakers should seek to make decisions based on clear principles, not in relationship to the previous baseline.

All trails should be allocated to ORV use, because then they will be available to all citizens.

ORVs affect the experience of nonmotorized recreationists. The FS should manage for the desired experience opportunities of a variety of users, rather than universally for the desired experience

7.1.2. Principles of Site-Specific Allocation

In this section, I evaluate a number of the commonly made claims that can be translated into principles relevant to site-specific allocation. I will serially address claims regarding environmental impacts, enforceability, and existing use.

7.1.2.1. Claims Regarding the Significance of Environmental Impacts Most respondents from both user groups agreed that some unspecified level of recreation impacts to soil, water, wildlife, or other natural resources are unacceptable. This is consistent with EO 11,644, which directs the FS to minimize such impacts in its allocations for ORV use. However, the courts have interpreted the executive order as granting the FS the *authority* to restrict ORV use on the basis of environmental impacts without establishing an enforceable standard of impact that would *require* restrictions on ORV use (Adams and McCool 2009). Accordingly, there is no federal legal standard for either ORV driving or other recreation uses establishing what magnitude of impacts are unacceptably great.

Despite agreement that some impacts are unacceptable, the two user groups varied greatly in their evaluations of how great the impacts of different recreationists are, whether those impacts exceed important thresholds, and the appropriate response to impacts. To reiterate the findings, most hikers believed that ORV impacts to the environment are so significant that if ORV impacts were fully considered site-specifically, then aggregate ORV allocations would probably diminish substantially, perhaps even to small, limited, high-impact zones. Hikers believed that ORV impacts were much greater than those of other recreationists, in part because they believed that many ORV drivers disregard closures. In contrast, most ORV drivers believed that ORV impacts are relatively slight, and, indeed, that their impacts are no greater than those of other recreationists. Further, ORV drivers generally believed that such ORV impacts as may occur can and should be addressed through management, not allocation changes. The result was that most ORV drivers accepted that natural resource impacts should guide site-specific allocations, but did not accept the hikers' view that this would or should result in diminished ORV allocations.

The difference in evaluation of the significance of recreation impacts could be the result of a number of factors. First, some studies have shown that recreationists tend to

underestimate their own impacts on wildlife (Stalmaster and Kaiser 1998; Taylor and Knight 2003), and blame other recreationists for wildlife impacts (Taylor and Knight 2003), and this data is consistent with that. Second, both user groups would realize allocation benefits from their positions, so their judgments may be affected by self-interest. Third, as noted previously, some studies that have shown that people judge environmental losses caused by humans to be more serious and important than those caused by natural events or processes (Brown et al. 2005; Kahneman 2003). It may be the case that hikers judge ORV driving-caused impacts as human-caused and therefore less acceptable, where ORV drivers, for some reason, do not apply this same standard. Fourth, to the extent that the user groups reflect fundamentally different world-views, those views may influence impact evaluation. For example, in a survey of attitudes about range practices and impacts, Brunson and Steel (1996, 73) found that

People who believe that the world and its resources were created for human use are more likely to support traditional uses of range and more likely to believe that those uses have not had a deleterious effect on public rangelands (or that such effects are being ameliorated without abandoning traditional uses)... People who value a harmonious relationship between nature and society are... more likely to believe most rangelands are overgrazed and most streams polluted.

If hikers' views reflect those of environmentalists where ORV drivers' views reflect those of the Wise Use movement, this may be a manifestation of that.

Finally, it is possible that the difference in the two user groups' evaluation of the significance of effects can be explained by the user groups' different beliefs about the purpose of national forests. That is, those who believe that the principle objective of national forest management is, essentially, to leave nature undisturbed, may have a very different threshold at which they judge an impact concerning than do those who believe that the principle objective of national forest management is accommodating use.⁴⁸ If hikers define the GNF's value principally as being "natural" or "undisturbed," any

⁴⁸ Analogously, Judith Layzer has argued that for environmentalists, the value of some areas is defined by their being "pristine" (Layzer 2006). Thus, in the case of the Arctic National Wildlife Refuge, "For wilderness advocates, compromise is unthinkable: any development in a pristine area constitutes a complete loss, a total violation of the spiritual and aesthetic qualities of the place" (Layzer 2006, 130). It is possible that there are other factors in this equation, as well. For example, a third possible explanatory strand is recreationists' perception of ecosystem stability (Alessa, Bennett, and Kliskey 2003, 215).

evidence of the presence of ORVs may, in their view, diminish the GNF's value, and may thus be described as unacceptable impacts. In contrast, if ORV drivers define the purpose of national forests as playing host to a variety of uses including logging and mining, disturbances caused by ORV driving may seem minor in comparison, and, further, the acceptability of some impacts in furtherance of the goal of hosting such recreation may seem inherent in the goal. The data for this study does not permit the disaggregation that would be necessary to evaluate the extent to which differences in impact evaluations derive from perceptions of magnitude of harm, purpose of national forests, and acceptability of impacts.

The profoundly different beliefs hikers and ORV drivers have about the significance of recreation impacts affect the dynamics of the allocation debate in a number of ways. First, many ORV drivers believe the FS is reducing their allocations due to resource impacts, both in the GNF Travel Plan process and more generally. Because they believe impacts are not great enough to justify closures, this issue contributes to ORV drivers' distrust of the agency and dislike of environmentalists. Because they believe the charge of significant impacts to be false, they believe that those who make that claim and those who make decisions based on it are disingenuous, at best. Second, because many ORV drivers believe that the impacts of other recreationists are as great or greater than their own, ORV drivers believe that they are unfairly singled out, triggering conflict as they believe themselves subject to managerial inequality (Blahna, Smith, and Anderson 1995). In other words, this issue contributes not just to distrust of the agency and dislike of environmentalists, but to a sense of victimization—e.g., the belief that horses have greater impacts than ORVs, yet equestrians are not losing any part of their allocation on the GNF.

Third, because hikers believed that ORV resource impacts should result in diminished allocations, many relied on this technical argument to achieve the reductions in ORV allocations that they desired, rather than arguing for different allocations on some of the other grounds that were apparent in their interviews. While this reflects a common objective of both decisionmakers and advocates, to demonstrate that positions are “not merely pursuit of self-interest but constitute an objectively defensible means for achieving agreed upon public ends” (Clark et al. 2002, 3), it also contributes to the

framing of allocations as a technical problem—one that will be resolved by science and expertise—rather than as a political issue.

Finally, many hikers believed that ORV impacts on the environment are great, and that a candid reckoning of those impacts would greatly reduce ORV allocations. By extension, hikers believed that the FS is not doing its job. Thus, disagreement about the significance of environmental impacts erodes trust in the FS from both sides of the issue.

For all these reasons, better resolution of the impacts question is important. Inevitably, the science that informs FS decisions is going to be contested terrain. Still, articulating clear standards will help, at the least, focus technical debate on technical issues.

7.1.2.2. Enforceability Many hikers claimed that a certain subset of the population of ORV drivers will inevitably disobey regulations, driving in places where such use is prohibited, particularly off trail. Further, a number of hikers claimed that the natural resource impacts associated with such illegal use are great enough that the FS should, by preference, only make allocations to ORVs that are easy to police and enforce, and prohibit ORV use on trails through fragile areas such as meadows and wetlands, where illegal use can be particularly damaging. In contrast, a number of ORV respondents argued that the FS should simply commit more resources to enforcement; that it is only a few drivers that disobey regulations; and that it is unfair to law-abiding drivers to diminish their allocations in response to the misdeeds of others.

It is true that driving ORVs where their use is prohibited will, in many cases, be significantly more damaging than typical use. In general, the first recreation uses of an area have the greatest impacts (Cole 2004). Thus, in addition to extending impacts to a new area, an illegal use can have greater impacts than use in an assigned area.

Additionally, while illegal use is not inevitable, hikers may be correct that illegal use is probable in many areas. For example, a survey of Montana ORV owners asked respondents to evaluate this statement: “OHV users should closely follow all trail, road, and area restrictions that are put in place to protect natural resources, wildlife, and provide nonmotorized opportunities.” While 84% of respondents stated that they always honor such restrictions, 15% said they only do so sometimes, and 1% said they never do so (Lewis and Paige 2006, 2). More than half of ORV owners who have used an ORV

while hunting reported that they sometimes drive off legal routes to retrieve game. (Lewis and Paige 2006, 3) This survey and other data indicate that there is a very small minority of ORV users, perhaps 1%, who willfully disregard regulations, and a substantial minority of ORV owners who disregard regulations with some regularity.⁴⁹ Indeed, FS ORV managers currently report that they do not have adequate resources to enforce ORV closures and manage the use “sustainably” (U.S. Government Accountability Office 2009, 35-6), and nearly three-quarters of FS units report that, in the last four years, ORV driving in closed areas has increased (U.S. Government Accountability Office 2009, Q14). These numbers lend support to the idea that a certain amount of violations are probable, although they do not speak to the significance of impacts stemming from populations.

ORV drivers, in contrast, argue that lawless behavior is policeable, and that even significant impacts should not result in a reduction (or change) in ORV allocation, but, rather, an increase in enforcement. Both principles—eliminate ORV use where there are violations, and increase enforcement where there are violations—can be straightforwardly translated into practical management.

7.1.2.3. Existing Use Just under half of the ORV driver respondents claimed that existing uses should generally be permitted to continue. These arguments generally appealed to the sense that recreationists value the continuous use of specific places, and that it is inappropriate to prevent ORV drivers from returning to places they have previously visited. The FS itself has encouraged national forests to continue existing uses (USDA Forest Service Undated (approximately 2007)), and a fair number of hikers also evidenced sympathy for the concept of continuation of use by recreationists.

While there are good reasons to continue established uses, there are also a number of reasons to be wary of this principle. First, if national forests privilege the continuation of uses where they exist, they are privileging a status quo that many observers believe to

⁴⁹ For example, a Minnesota survey of OHV owners found that 38% of ATV respondents disagreed that people who ride (illegally) off-trail in state forests should be punished. 30% disagree with the statement that “riders will obey the rules if they know what they are.” (Genereux and Genereux 2001) For example, 73% of surveyed FS managers in California said they have a problem with “four-wheelers going off established roads and trails.” (Chavez and Knap 2006, 12) For example, Divine and Foti (2004, 109) found rampant disregard for regulations on the Dixie National Forest, including signs of ORV use on 42 of 48 hiking/biking/horse trails; widening of single-track trails; greater than average litter; and creation of play areas or multiple routes in open areas/meadows. See also U.S. General Accounting Office (2000).

be broken. Privileging existing allocations changes the issue under consideration from “how should resources be allocated” to “should current allocations be changed,” subtly undermining consideration of impacts, demand, the purpose of national forests, and other principles that might appropriately play a role in allocation.⁵⁰

Further, deference to previous allocations is particularly concerning given the poor quality of process and allocations in the first round of forest planning. While some national forests did an earnest, high quality effort to do travel planning in the 1980s, many simply continued existing uses where they occurred—that is, they never made a careful allocation decision at all (Adams and McCool 2009). Further, there have been dramatic changes in technology and demographics in the interim—for example, four-wheeled ATVs were first marketed in Bozeman in 1985 (Schlenker Undated, 33), just three years before completion of the GNF Forest Plan. Deferring to previous allocations, in these cases, would have the effect of ignoring the statutory obligation to carefully consider allocations in the name of perpetuating admittedly ill-considered decisions. Despite this, two-thirds of FS administrative units permit ORV use on “existing” routes (U.S. Government Accountability Office 2009, Q10).

Finally, deference for “existing use” is often framed as deference to permitted uses: if a mode of travel is permitted, it should continue. However, the FS has, since at least 1986, attempted to preserve historic or existing experience opportunities, rather than modes of travel (USDA Forest Service 1986). Given recent changes in demographics and ORV technology, managing for the experience opportunities of a time as recently as 1990 would result in a dramatically different regime than does managing for existing allocations. Managing for desired or historic experience opportunities makes sense for a number of reasons, principally because, as discussed in Section 2.4, desired experience opportunities vary much more widely than do modes of transportation. Relatedly, many observers have argued that, over time, outdoor recreation use typically becomes more and more developed; thus, preserving experience opportunities on the primitive end of the spectrum requires deliberate management decisions (Wagar 1966; Dustin and McAvoy 1982). Finally, what recreationists appear to value is a particular type of experience in a particular place; permitting recreationists to use the same mode of travel to visit a place

⁵⁰ See *National Wildlife Federation v. Morton*, 393 F.Supp. 1286 (D.C. Cir. 1975).

where available experiences have changed misses the point. For these reasons, preserving previous experience opportunities is a better principle on which to operate than preserving previous modes of travel, and is better in consonance with the moral claim that underlies arguments for “existing” uses; however, depending on the baseline date chosen for perpetuation, it could have dramatically different allocation results than proponents anticipate.⁵¹

There are good reasons to consider existing use in some way in allocations. However, there are good reasons to be cautious about privileging the claim “I drive/hike here, therefore I should be able to keep driving/hiking here.” Interested parties need to begin untangling what, exactly, is meant by historic, traditional, and existing use, under what circumstances we want to continue them, and what to do when there are competing “historic” claims to the same resource.

7.1.2.4. Summary of Site-Specific Allocation Principles With regard to site-specific allocation, neither hiker nor ORV respondents made claims that provide principles that can be simply and easily applied to national forests. To be incorporated into travel management in a consistent and defensible way, these principles and their appropriate application require greater consideration and dialogue. Table 7.2 summarizes claims made in this regards, and evaluates those claims, including some not considered in the main text.

⁵¹ However, the rapid pace of recreation change on national forests makes it hard to know exactly how to do this. What year’s typical experience opportunities should be preserved? 1960? 1980? 2000? What is it about that particular year that makes it deserving of being replicated in perpetuity?

Table 7.2. Summary evaluation of common claim-types regarding site-specific allocation

The FS should consider recreation impacts when making allocations.

Executive Order 11,644 requires the FS to "minimize" impacts to natural resources when allocating ORV trails. However, the FS has refused to articulate, and the courts have refused to mandate, a hard standard associated with this language. Accordingly, evaluation of impacts is site-specific, and determination of whether there is a problem completely at the discretion of the decisionmaker.

ORV impacts are so great that ORV driving allocations should be greatly diminished.

Impacts are a site-specific issue; total effect on allocations would be dependent on the standard articulated. Evidence of the impact of different types of recreation on population and community sustainability is very limited.

ORV impacts are not significant enough to warrant reductions in ORV driving allocations.

Impacts are a site-specific issue; total effect on allocations would be dependent on the standard articulated. Evidence of the impact of different types of recreation on population and community sustainability is very limited.

ORV impacts should be mitigated through management, rather than reduced allocations.

Management is one mitigation option that should be considered. However, it is perfectly legitimate for the FS to conclude that the most feasible or most efficient mitigation option is prohibition of specific recreation uses.

ORV impacts should be mitigated by increasing ORV allocations.

No. The science on recreation impacts clearly indicates that impacts are best reduced by concentrating use, not dispersing use.

Existing recreation uses should be permitted to continue.

In essence, this is an argument for the status quo. Since the status quo is profoundly imperfect, and probably inequitable, there is no clear reason why the FS should privilege outdated allocations. Further, by focusing on permitted activities rather than available experience opportunities, it grants allocations to new or newly predominant uses, at the expense of older experience opportunities, in the name of tradition.

Enforceability should be considered in making ORV allocations.

The ability to cost-effectively enforce rules and achieve both desired experience opportunities and resource protection should be part of decisionmaking on a site-specific basis.

Rule violations should be mitigated through enforcement, rather than reduced allocations.

The ability to cost-effectively enforce rules and achieve both desired experience opportunities and resource protection should be part of decisionmaking on a site-specific basis.

7.2. Frames and Discourse

While claims that can be translated into principles of allocation are critical to understanding the allocation debate, it is equally important to understand what is happening at the levels of framing and discourse. Understanding the broader discourse is necessary because not all claims propose schemes of allocation (e.g., some bespeak FS integrity), and because claims both shape and are shaped by discursive context. To examine frames and discourse this section first examines the broad narratives that hikers

and ORV drivers, respectively, constructed about national forest allocation. The section subsequently considers two critical parts of the ORV drivers narrative, those relating to trust of the FS and outgroup power, respectively.

7.2.1. Dominant Narratives

The specific claims that hikers and ORV drivers made grew from their understanding of the purpose of public lands, from their understanding of broader discourses, and from the narratives that these user groups constructed about recreation allocation. The narratives create an internally consistent story that is compelling to many people. Respondents told these stories with sincerity and conviction.

As I noted in Section 5.4.3, the predominant hiker narrative looked like this:

National forests are supposed to be natural and ecologically intact, with opportunities to enjoy those qualities. ORVs are tremendously damaging to natural places, and diminish the naturalness of experiences therein. Accordingly, given a sound consideration of impacts, ORVs should be allocated only limited opportunities on the Gallatin National Forest.

For hikers, the crux of the story is the contradiction between ORV impacts and the protection of nature. Additionally, it is worth noting that hikers were dissatisfied with the old GNF Travel Plan—that is, they believed that ORV use on the forest was both harming the environment and displacing nonmotorized recreationists. Thus, for hikers, travel planning on the GNF is a simple story:

The old GNF Travel Plan failed to adequately protect natural resources and nonmotorized experiences (in keeping with the purpose of national forests); therefore, the reduction of motorized use in the revised travel plan is right and proper.

ORV drivers, in contrast, tell a story that stems from their conviction that there was no problem with the old status quo. As discussed in Section 6.4, the predominant ORV driver narrative looked like this:

The old GNF Travel Plan was fair; since ORVs have no significant impacts on natural resources, there can be no legitimate reason why ORV allocations were diminished.

As noted, most respondents did not draw on specific knowledge of previous allocations. Instead, most respondents evaluated allocations through the lenses of their claims about the general purpose of public lands, and through their narratives' evaluation of the status quo: it was fine, or it was flawed. Outside of public land purpose, then, it is not clear how much articulated principles of allocation drove respondent evaluation of appropriate allocation outcomes, and to what extent those principles were simply additional reasons to support a conclusion already reached.

It is worth noting that ORV drivers, in this instance, may have been influenced by what economists call "prospect theory" (Kahneman 2003, 1455-8). Prospect theory argues that people are "loss-averse," tending to judge the value of something potentially lost much more highly than something potentially gained (Kahneman 2003, 1455-8). Thus, ORV drivers (and hikers) were likely to make judgments about the new plan based on deviation from the status quo, rather than the overall allocation to ORV drivers.

Two notable aspects of the ORV drivers framing bear further consideration. First, and related to the question of deviation from the status quo, ORV drivers typically framed the question at hand in terms of the fairness of change, rather than the principles that should determine allocations. For example, ORV drivers often argued that they had continually suffered diminished allocations as a result of travel plan revisions. This frames the discussion we should be having as "How can it be fair that the ORV drivers always lose?" rather than "What are the appropriate allocations for hiking and ORV driving?" Similarly, when ORV drivers describe vast nonmotorized allocations in designated wilderness, they shift the question from what appropriate aggregate allocations would be to "Why change allocations when hikers already have so much?"

Second, the story of repeated closures was also used to help establish that ORV drivers are, in their narrative, the victims of malign forces. In general, "the 'victim' label identifies the individual as an injured person harmed by forces beyond his or her control, dramatizes the person's essential innocence, renders her or him worthy of others' concern and assistance," and achieve political gain (Jenness 1995, 215). Claiming victim status is a way to seek redress, and a way to attempt to create alliances with others who perceive themselves to be the victims of the same perpetrator (Stone 1997, 204). The Wise Use movement routinely frames its members as the victims of rich environmentalists and an

overweening federal bureaucracy (see, e.g., McBeth and Shanahan 2005; Walker and Fortmann 2003), and ORV drivers are attempting to establish that same frame here.

One notable element of hikers narrative is that while hikers did articulate a sense that national forests are important insofar as they provide natural experiences, to a much greater extent they relied on an “impacts” framing, for reasons that are not entirely clear. Joseph Sax noticed the same dynamic in the 1970s, asserting that most nonmotorized recreationists assume “that we don’t really have to make *recreation* policy at all. Rather, it is thought, we must ‘manage the resource’ by scientific principles” (Sax 1978).⁵² Hikers use of this framing—in contradiction of their apparent convictions—appears to stem from their desire for some more “neutral” standard than their own desires should drive decisionmaking (Sagoff 1988, 68), and a simultaneous belief that science is on their side (see Nie 2006, 455, reaching a similar conclusion regarding forest management issues in the Tongass), and that adequate impact evaluation would necessarily result in greatly diminished ORV driving allocations.

Not surprisingly, the user groups’ respective frames fit comfortably within the broader political discourse of public lands, described in Section 2.3.1. Hiker respondents’ story fits neatly into the broader narrative of the preservationist/environmentalist movement. For example, a majority of hikers saw engagement with the natural world as a primary or secondary purpose of public lands, implicitly emphasizing the first tenet of environmentalism, the romantic/transcendentalist notion that personal redemption and virtue are achieved through engagement with wild nature (Layzer 2006, 2-3).

Similarly, hikers showed clear evidence of sympathy for the second key belief of environmentalists, the interdependence of humanity and nature. Caulfield describes the “interdependence” belief of environmentalists in this way: “The environmental movement has, as an object of its ideological concern, the whole geosphere and biosphere including man himself. The continued long-term integrity of this whole object of concern is its central value” (Caulfield 1989, 49). This concern for the integrity of the

⁵² Sax argues compellingly that policies that merely prevent degradation of land “are not themselves a recreation policy” (Sax 1978), and that recreationists tend to hide moral arguments about appropriate public land use behind arguments about the impacts of activities they dislike: “[The preservationist’s] vocabulary is principally directed to the land and to physical resources, and when he objects to off-road vehicle use or to plans for an urban-style resort in the mountains, his complaint is routinely phrased in terms of adverse impacts on soil, water resources, or wildlife” (Sax 1980, 50).

environment is clearly evident in hikers' discourse, in that many hikers argued for preservation of nature as the primary purpose of public lands, in that many perceived great harm being caused by ORVs, and in that some professed willingness to suspend their own use if it causes environmental harm.

The third key element of environmentalist beliefs, according to Layzer, is that there are limits to growth. This belief was not articulated by many respondents, but it is likely that that is due to the subject and context of the interviews, rather than lack of concern in this regard. Similarly, support for centralized control of environmental decisions and belief that all Americans own the public lands were not notably promoted in hiker interviews. However, in the context of Western natural resource issues, and given the contrast with ORV drivers, it is notable that hikers did *not* argue for the primacy of local users and uses, or for local control of federal resources. On the whole, hikers very closely echoed the narrative voiced by mainstream environmentalism.

It is clear that hikers, as a general population, are not synonymous with "environmentalists." So it is unclear whether a random sample survey of hikers would produce this close an affinity for environmental concerns. If these findings are unrepresentative, the disconnect may be a product of three things. First, the sample threshold was that people were engaged in travel planning in some way. It may be that hikers engaged in travel planning were disproportionately also environmentalists. Second, it may be that the population of hikers that became engaged in the process was largely driven by the environmental groups. Finally, it is, of course, possible that my relatively small sample was simply an outlier in this regard. While I deliberately sought out hikers both involved and not involved with environmental groups, it is possible that the sample is unrepresentative.

Just as hiker respondents narrative fit into the broader environmentalist narrative, the ORV drivers' story fit neatly into the competing narrative of the Wise Use movement. McCarthy (2002), as discussed in Section 2.3.1, identified the key tenets of the Wise Use movement as the conviction that virtue and wealth are derived from harvesting natural resources, the belief that "locals" know better than bureaucrats and environmentalists, the assertion that customary use of public lands takes precedence over the law, and the construction of a moral economy in which commodity-producing locals ought to have

greater control over public land resources than others. Layzer (2006, 4), additionally, argues that the Wise Use narrative is one of material plenitude, rather than finitude.

A couple of ORV respondents repudiated these themes, most notably M25, who explicitly denounced the natural resource management philosophy of the Wise Use movement, and asserted that he would rather turn the whole GNF into wilderness than have the most prominent local Wise Use leader serve as his “mouthpiece.”⁵³ The overwhelming majority of ORV drivers, however, clearly bespoke these themes: they saw conspiracy from the top in the FS decision to reduce ORV allocations; they portrayed East Coast, lawyered-up, white-collar environmental groups as being in opposition to the blue-collar and local ORV drivers; and they asserted that their use is historic and should continue regardless of changes in context or impacts. Different ORV drivers argued, separately or altogether, that locals are disproportionately ORV drivers; that they are admirably working class; that they have been using these lands for a long time; that ORV driving contributes more to the economy than does hiking; and that the GNF is vast enough to absorb more use. It was only on McCarthy’s final articulation, suggesting that conservation is a disguise for more sinister purposes, that very few ORV respondents fit the Wise Use profile.

Viewing ORV driver opinions through the prism of Wise Use facilitates understanding of the ORV drivers’ narrative. McCarthy (2002, 1293) argues that the Wise Use movement seeks to “displace debates about federal lands out of the arenas of federal environmental requirements, ecological criteria, and economic efficiency, and squarely into an asserted moral economy of the rural West.” Thus, ORV drivers’ argument that “existing” permitted uses should be allowed to continue is an argument for continued distribution of federal public land resources according to custom. ORV drivers’ focus on how much wilderness hikers have, and how ORV drivers are losing territory, both fit within this framework—ORV drivers want to focus discussion on the inequities associated with change.

Similar to the questions raised regarding the hiker sample, it is probably the case that this sample does not perfectly reflect the views that would emerge from a random sample of ORV drivers. Explanations for any differences are similar as well: the Wise

⁵³ Referencing Kerry White, of Citizens for Balanced Use.

Use movement has trained activists to affect FS decision processes since the late 1980s; the organizations most prominently advocating for ORV drivers are plainly part of the larger Wise Use movement;⁵⁴ and there is always the possibility that the sample was not representative of the population I seek to understand. On the whole, though, as with hikers, I believe it unlikely that ORV drivers engaged in travel planning processes in the region differ substantially from this sample in their Wise Use worldview and Wise Use rhetoric.

7.2.2. Trust

Because it is so fundamental to their discourse, and so problematic for public policy, it is necessary to briefly reexamine ORV drivers' views regarding the integrity of the FS and the travel planning process. Most ORV drivers do not trust the FS. As figure 6.4 showed, ORV drivers' opinions about the GNF process generally ranged from "the agency had good intentions but the process was unfair" to "the FS deliberately wronged ORV drivers." Many ORV drivers believed that the FS had intended to reduce ORV allocations on the GNF from the beginning of the process; that the GNF had trumped up false justifications for doing so; and that the GNF had ignored what local Montanans (i.e., in this view, ORV drivers) wanted. Many ORV drivers saw the GNF's actions as part of a larger, orchestrated, dishonest attack on ORV driving allocations throughout the region, and simply do not trust the FS.

Trust is often critical to positive outcomes in natural resource planning (Lachapelle 2006, 80-1), and the consequences of this lack of trust are far-reaching. First, this lack of trust diminishes the likelihood that ORV drivers will engage constructively in planning processes. The benefits and virtues of good public participation in decisionmaking are well-catalogued (see, e.g., Tilleman 1995; Solomon, Yonts-Shepard, and Supulski 1997; Hunt and Haider 2001). If a significant group of stakeholders withholds earnest participation in decisionmaking processes, decisions are less likely to reflect collective wisdom and maximize efficiency and benefits.

⁵⁴ For example, the most prominent local group, Citizens for Balanced Use (CBU), claims to be "supported" by the BlueRibbon Coalition (Citizens for Balanced Use), a self-proclaimed member of the Wise Use movement (Collins 1989); CBU's web site recommends a link to the Mountain States Legal Foundation (Citizens for Balanced Use), essentially the legal arm of the Wise Use movement.

Second, distrust of the FS leads to “declining sense of trust in government and in each other, and a reduced sense of responsibility for common property resources” (Wondolleck and Yaffee 2000, 7). In many Western communities the FS is nearly as prominent and powerful as local government. While a certain level of conflict over management of national forests is to be expected and, to some extent, given the nature of democracy, desired, perpetual conflict has negative consequences, as Schön and Rein (1994, 8-9) describe:

First, sustained policy contention can undermine public learning, because any attempt to conduct public inquiry into policy issues requires a minimally coherent, more or less consensual framework within which the results of policy initiatives can be evaluated and the findings of investigations can be interpreted. When policy controversies are enduring and invulnerable to evidence, what tends to result is institutionalized political contention, leading either to stalemate or to pendulum swings from one extreme position to another. . . . Second, intractable policy controversies are a threat to liberal democracy. Society has a limited ability to manage policy contention.

Distrust of agency actions or motivations in particular, limited instances is not concerning; constant, inevitable belief that the FS is untrustworthy will likely corrode trust and engagement in the “polis” (Stone 1997).

Third, lack of participation and lack of trust in the process mean that portions of the ORV driver community won’t accept the validity of decisions that adversely affect them. Not only does this diminish the legitimacy of such decisions in the eyes of the general public, it leads to an increased likelihood of appeals and litigation contesting decisions—and, indeed, ORV drivers appealed and litigated the GNF Travel Plan decision. The end result, if ORV drivers do not trust the agency, will be increased paperwork as the FS seeks to insulate itself charges of inadequacy; delayed implementation of critical allocation decisions; future inflexibility as decision-making processes become so cumbersome that amendments are too costly; and inefficiencies as the agency and citizens engage in legal wrangling.

Finally, if ORV drivers reject the legitimacy of FS decisions, they are more likely to disregard them in the field. It is already apparent that some ORV drivers do not honor closures. (See Section 7.1.1.2.) Yet, managing vast landscapes with limited resources, the

FS is largely dependent upon voluntary compliance with regulations. If ORV drivers believe that agency closures are invalid, they may be less likely to honor them.

Despite the importance of increasing trust, there are indications that distrust of the agency may be impervious to anything but a decision to the liking of ORV drivers. For example, as noted previously, the GNF initiated scoping in 2002 with a document known as “the Benchmark” (USDA Forest Service 2002). Because the Benchmark’s “preferred alternative” proposed reducing ORV allocations, and because the FS decision subsequently reduced ORV allocations, ORV advocates argue that all the public participation and environmental analysis in between was jumping through hoops. According to this logic, only an outcome substantially “better” from the ORV driver perspective would have been legitimate; any other outcome would demonstrate perfidy.

Similarly, several ORV respondents related a story they had heard of a motorcyclist being ignored by a surveyor, thus casting doubt on the FS demand data. When anecdotes and personal experiences, such as “I see more ORV drivers than hikers on the trails I drive,” trump and invalidate agency data, there is little reason to believe that “better” science, that more study, that a more-comprehensive EIS would, for ORV drivers, persuade them that the FS is trustworthy and did a good job.

If it is the case that charges of bias will result from almost any adverse decision, this may be the result of previous agency failures and, with time, trust can be rebuilt. It seems more likely, though, that this is at least in part of the broader discursive environment and the fact that FS decisionmaking is highly politicized. ORV organizations derive political advantage from attacking the FS: they are telling an anti-government story that resonates with many Westerners, thus building support and perhaps leading to victories in other venues; the strategy makes changes to the status quo difficult and costly for FS personnel and the agency as a whole; and the strategy recruits volunteers and donations. For all these reasons, attacking process, data, and agency integrity are common political tactics for any interest group contesting disadvantageous policy change.⁵⁵ The FS, however, suffers real harm from these attacks, seeing agency efficiency, efficacy, and morale undermined. Further, the FS is stuck a little

⁵⁵ Indeed, these tactics and some of the discourse are strikingly similar to those employed by the environmental movement in the 1980s when contesting the FS timber program.

disingenuously defending the way its rational-comprehensive decisionmaking process justifies a fundamentally political decision. All this suggests that without significant policy changes, ORV drivers will continue to impugn the integrity of the agency, and distrust of the agency, with attendant impacts, will persist.

7.2.3. Outgroup Power

As discussed in Section 6.3.3, and consistent with the central tenets of the Wise Use movement, ORV drivers' distrust of the FS was complemented by the perception that environmental groups wield extraordinary power. ORV drivers made what amounted to a three-part argument that environmentalists were able to influence the NEPA process more ably than were ORV drivers because: (1) environmental groups have more money and larger staffs than do ORV driver groups; (2) environmental groups have a national letter-writing constituency; (3) environmentalists are more white-collar than ORV drivers, and therefore have more time and the appropriate skills to influence the process. Further, many ORV drivers defined environmentalists as outsiders, suggesting that ORV drivers represent a near-monolithic local community, and that anti-ORV views come from the moneyed out-of-state environmentalists. The sum is that environmentalists are defined as a fundamentally different group, and ORV drivers can "perceive their own group as more moral, honest, peaceful, virtuous, and obedient than outgroup members. The outgroup's perceived moral failings justify utilitarian, self-maximizing decisions that dispense with concerns about their well-being" (Opotow 1990, 6).⁵⁶

This definition of an ingroup and outgroup complements definition of the recreation conflict as one that fundamentally threatens the identity of ORV drivers. That is, to the extent that ORV drivers define their recreational pursuits as fundamental to their identity (e.g., by making being an ORV driver synonymous with being blue collar, hard working, and local), and ORV allocations as fundamental to those pursuits, they feel their identity threatened by allocation reductions. Gray has identified the use of identity frames in another ORV-related dispute, and argues that use of identity frames exacerbates and perpetuates conflict "because people become extremely defensive when the essential

⁵⁶ There were some signs of this same group definition in the hiker sample, but they were less pronounced; while hikers sometimes condemned ORV drivers as a group, and some favorably contrasted their own ethics with those of ORV drivers, hikers simply didn't sharply define "us" versus "them."

beliefs and values that define who they are are questioned or threatened. They are not willing to compromise on these issues.” (Gray 2003, 21; 2003)

The widespread acceptance of these perceptions further permits those ORV drivers who believe the FS is a fundamentally good organization to explain “bad” decisions as a result of environmentalist power, rather than agency bias. Belief in a disproportionately powerful opponent aids in the construction of a narrative in which ORV drivers are victims—a narrative that may be used to mobilize sympathy, anger, and supporters (Clark 2001).

The outcome of all this is (1) additional justification for distrusting FS decisions; (2) additional fragmentation of the polis; and (3) a diminished likelihood of any kind of collaborative decisionmaking. It is not clear how often collaborative decisionmaking can work to determine recreation allocations, but if ORV drivers think environmentalists are outsiders who threaten the drivers’ identity, and environmentalists think that many ORV impacts and some ORV driver behavior is unethical and “repugnant,” it may be difficult to persuade them to engage constructively and cooperatively in decisionmaking processes.

7.2.4. Summary of Framing and Discourse Analysis

Framing and broader discourse in the recreation analysis debate have a symbiotic relationship with claims. The claims flesh out the narratives that frame these issues, while the narratives lend support to each claim, placing it within a story that is compelling and internally consistent for those who subscribe to it.

In this case, the way the two user groups frame the issue of allocation creates a number of challenges to both resolution and good FS decisionmaking. The most fundamental challenge derives from problem definition: the ORV drivers did not see a problem with the allocations made in the first round of national forest planning, while hikers described a problem that demanded reductions in motorized allocations. While problem definitions are always political and contested (Weiss 1989), here the complete lack of agreement that there is a problem precludes meaningful dialogue, until that disagreement is resolved.

At the same time, hiker (and FS) definition of the problem as a fundamentally technical one related to environmental impacts makes dialogue difficult. On an aggregate basis, the issue is not ripe for technical resolution. Framing the issue as a technical one distracts attention from the political dialogue that could potentially lead to greater understanding, and focuses attention on an aspect of planning that, in most instances, will not be determinative on an aggregate scale.

The two user groups' broader discourse also creates challenges to issue resolution and sound decisionmaking. One challenge is created by the ORV drivers' belief that the FS lacks integrity, which diminishes the hope of constructive driver engagement in decisionmaking, as well as the hope that drivers will accept adverse decisions. Another challenge is created by ORV drivers' use of identity framing, borrowed from the Wise Use movement. Identity framing makes cooperation and concessions very difficult, because those who adopt such a frame feel that something fundamental and uncompromisable is threatened. Finally, the differences between the discourses of Wise Use and environmentalism result from or reveal fundamental value differences. Those value differences make agreement on issues like problem framing and the importance of environmental impacts more difficult.

For all these reasons, analysis of framing and discourse indicate that changes in the dynamics of this wicked problem will be difficult to achieve. To the extent that decisionmakers seek lasting resolution of the allocation issue, they will need to in some way bridge some of these fundamental frame and discourse differences, as well as foster public deliberation on the consequences, justifications, and specifics of application of potential principles of allocation.

7.3. A Framework for Decisionmaking

Adams and McCool (2009) have argued elsewhere that the FS needs a national recreation policy to guide its allocation decisions. In the absence of such a policy, decisionmakers need a conceptual framework to guide decisionmaking. I use the term conceptual framework to denote a way to think about the issue of allocation, rather than to prescribe a particular procedure, such as those implementing NEPA. Decisionmakers and stakeholders should keep the following suggestions in mind during planning.

First, decisionmakers and stakeholders need to begin with consideration of what principles might help determine appropriate *aggregate* allocation, utilizing evaluation both within this dissertation and elsewhere as a springboard. The result should be an agreed-upon determination of appropriate aggregate allocations. The key here is that establishment of aggregate allocation principles should precede site-specific decisions. Travel planning cannot simply be the sum of a series of unrelated, site-specific decisions: it must be built upon broader determinations of what opportunities will be provided on national forests.

Second, decisionmakers and stakeholders need to recognize that aggregate allocations are political decisions. Recreation allocations are not simply a matter of technical evaluation of resource impacts—they are a determination of what kinds of recreation opportunities will be supported and given primacy in our national forests, and in what measure. This is a political question. Deliberation and dialogue should be framed with that recognition rather than being framed as technical planning.

Third, decisionmakers and stakeholders need to consider what principles might help determine appropriate site-specific allocation, to what extent, and under what circumstances, utilizing evaluation both within this dissertation and elsewhere as a springboard. Site-specific decisions need to be made within the broad outlines of aggregate allocations.

Fourth, during deliberation, decisionmakers and stakeholders should attempt to identify the allocative principles embedded in claims, so that they can more rigorously and transparently discuss and consider them. For example, if a stakeholder claims that some particular use is historic, and should therefore be continued, deliberation should ensue over what constitutes a historic use, and under what circumstances such a use should be privileged. It may help to attempt to express these principles as standards that can be applied across multiple sites within a decision area, e.g., “we will continue to provide experience opportunities that have been continuously available for more than 20 years.”

Fifth, decisionmakers and stakeholders need to engage the broader narratives that underlie and inform claims-making. Because user groups’ narratives are embedded in a broader discourse that may be inextricable from individuals’ self-identity and world view,

engaging these narratives in a productive fashion may prove challenging. Still, the effort is necessary and worthwhile because addressing claims discretely, no matter how satisfactorily, will not change the narratives of the user groups, and one user group or another is likely to fit a disadvantageous decision into an extremely negative narrative. To improve decisions and their acceptance across a spectrum of stakeholders, dialogue at some more fundamental level will probably be necessary.

The result of all this should be that at some point decisionmakers clearly articulate the principles that will guide decisionmaking in the aggregate and site-specifically; why; and how those principles will be applied. It is not enough to simply assert that the agency is responding to demand, maintaining existing use, reducing environmental impacts, or striving for balance. It is incumbent upon decisionmakers, hopefully as a result of fruitful dialogue, to address some of the issues identified in this chapter, e.g., why demand is determinative in some instance and how it was measured, what impact standards will be established to determine when a use is unacceptable, and so forth. Further, decisionmakers should attempt to articulate the relative importance of potential factors in their decisions, or the circumstances under which certain factors or principles are elevated in importance. This need not result in a mechanistic evaluation, but coherent and consistent explanation of how decisions are made is critical; the alternative is an apparent grab-bag of explanations, each of which can be deployed post-hoc to justify decisions.

I will finally note that decisionmakers should attempt to frame allocation in terms of experience opportunities, not activities. Framing recreation allocation as “travel management” (i.e., allocating to means of locomotion rather than experience opportunity) misstates what recreationists desire, and thus what the agency should be managing for.

FS travel plan decisionmakers are in an unenviable position. This framework will not address all the institutional and policy challenges that beset such decisionmaking, nor eliminate the appearance of arbitrariness in relationship to other units’ decisions. Nonetheless, this framework should help decisionmakers make more clear, understandable, credible, and wise recreation allocation decisions.

7.4. Discussion of Initial Propositions

To close this chapter, here I briefly consider the extent to which the propositions with which I began the project, identified in Section 2.6, were borne out by analysis. Proposition 1 was: *Recreationist claims and discourse will vary significantly between groups; significant commonalities will be found within groups.* The study found this to be supported. In the first regard, the two groups obviously employed very different claims and discourse, exemplified by the two discourses' respective relationships with environmentalism and Wise Use. In the second regard, there were significant variations within each group, particularly with regard to the specific claims individuals advanced, e.g., one ORV driver explicitly rejected the common claim that off-route driving could be corrected through increased enforcement. However, the commonalities within the groups were vastly more prominent, and were very evident in the general narratives advanced by respondents.

Proposition 2 was: *Recreationists will try to construct community identities that make their group worthy of public support and allocations, while disparaging the worthiness of competitor groups.* In the first regard, ORV drivers were very conscious of their public image, and some did argue that drivers are particularly worthy of allocations, because, e.g., they clear trails of deadfall. Further, some ORV drivers did contrast a construction of ORV drivers as local and blue-collar with desk-jockey, out-of-state environmentalists, creating and denigrating an environmentalist outgroup. Interestingly, most ORV drivers appeared to distinguish between environmental organizations, which they denigrated, and hikers, about whom most spoke positively. Altogether, the analysis found this to be true for ORV drivers, although the prominence of this construction in public comments and advocacy organization outreach materials was not mirrored in respondents' interviews.

Hikers did not generally attempt to create a group identity in any obvious way. However, many hikers either explicitly or implicitly expressed disapprobation for the behavior of ORV drivers, such as in their evaluation of ORV impacts, or by suggesting that a significant percentage of ORV drivers will inevitably and deliberately drive where machines are prohibited. No hikers disparaged ORV drivers in general, and several

expressly stated that their dislike of ORVs does not extend to their drivers. All in all, hikers did not attempt to create a community identity, but did, to some extent, disparage the allocation deservingness of ORV drivers.

Proposition 3 was: *Recreationist claims and discourse will reflect the larger discursive context exemplified by the discourse of the Wise Use and environmental communities.* This expectation was clearly borne out by the study. I did speculate in Section 2.6 that hikers might need to negotiate a tension between the environmental impacts of nonmotorized use and the ethic advocated as part of environmentalism. This did not appear to occur—while several hikers expressly stated that they would eliminate their own use if it had significant impacts, the hikers universally appeared to regard nonmotorized impacts as nonsignificant.

Proposition 4 was: *Hikers will claim that joint allocations fail to accomplish the goals of public land recreation management, while ORV drivers will claim that joint allocations best accomplish the goals of public land recreation management.* There were some exceptions, but the vast majority of respondents expressed views that supported this proposition. Most hikers explicitly called for the segregation of motorized and nonmotorized use. Many ORV drivers explicitly argued for “shared” trails, and most struggled to understand why hikers did not like encountering ORVs, contesting in a variety of ways that segregated trails are necessary or desirable.

These propositions’ correspondence to study results may more reflect the obviousness of the propositions than the author’s perspicacity. At any rate, the analysis suggested that these propositions are, in fact, part of the structure of the allocation dialogue.

8. CONCLUSION

This chapter concludes the dissertation by reviewing the study's limitations; reiterating the study's main results; discussing potential causes of the results; identifying the most significant implications of the study results; and identifying potential avenues for future research.

8.1. Limitations

Like most case studies, this study's most significant limitations relate to generalizability; such limitations are identified here in five regards. In the first regard, as discussed previously, I deliberately selected respondents who self-identified as "thoughtful" about travel planning. Accordingly, it is possible that study of the general population of hikers and ORV drivers would have yielded different results. Because those who are thoughtful about travel planning are more likely to participate in and influence the process, I believe this tradeoff was worth making, but it was, in fact, a tradeoff.

In the second regard, I believe that the claims hikers and ORV drivers made will encompass most of the claim-types likely to be made by other recreationists. For example, equestrians are likely to assert that existing horse use argues for continued horse use. While this claim would differ from the existing use claims made by hikers and ORV drivers in some specifics, it would raise most of the same issues and questions. However, it is important to recognize that, in fact, other types of recreationists may articulate claim-types not yielded by this sample. Further, the study did not capture the narratives that other kinds of recreationists might voice, and which are important to understanding specific claims. Accordingly, while the decisionmaking framework should have applications beyond hikers and ORV drivers, it is important to recognize that other user groups may make unreported claims, and certainly present different narratives.

In the third regard, it is probable that recreationists in other places voice a few claim-types that differ, based on regional or site-specific differences. Further, it is likely that narratives differ locally and regionally. Accordingly, while I believe that the study results should be useful to recreation managers and stakeholders throughout the U.S., the

results cannot simply be generalized to all engaged hikers and ORV drivers in every location.

Fourth, the study population was universally Caucasian, at least by superficial appearance, and universally of at least moderate income. That sample composition is defensible in this case, given that Gallatin County is more than 96% white. Nonetheless, the study does not capture claims that might be made, and the framing that might be employed, by individuals of other ethnicities, heritages, or subcultures. The importance of exploring in the future how claims from these groups might differ is underscored by the fact that, even in this relatively homogeneous area, the GNF did receive at least one claim not identified by the study, specifically that respecting Crow Tribe spiritual values required managing the Crazy Mountains for nonmotorized use (GNF Draft Environmental Impact Statement Comment Record, #806, July 28, 2005; #901, July 29, 2005).

In the fifth and final regard, much national forest use, particularly in a destination area that abuts Yellowstone National Park, like Bozeman, is by out-of-area visitors. It is possible that the claims and frames of visitors differ from those of residents. As with my deliberate selection of “thoughtful” individuals, I judged locals more likely to be actively and creatively engaged in making claims on the GNF, but non-locals may make some different types of claims.

8.2. Main Results

The most important substantive results were fivefold. First, it is clear that hikers and ORV drivers have fundamentally different conceptualizations of the purpose of national forests: hikers believe the purpose of national forests is the preservation of nature, while ORV drivers believe that public lands are for multiple uses, and that this includes extensive opportunities for ORV driving.

Second, hikers and ORV drivers have fundamentally different evaluations of the significance and appropriate response to environmental impacts caused by recreationists. Specifically, hikers believed that ORV impacts on the environment necessitate reductions in the site-specific and, thereby, aggregate allocations to motorized use. ORV drivers, on the other hand, believed that ORV impacts on the environment are no greater than those

of other recreationists, and, to the extent that they occur, should be addressed by FS mitigation, rather than diminished allocations.

Third, hikers and ORV drivers told fundamentally different stories about what was happening on the GNF, encompassing not just the differences described above, but dichotomous evaluations of the fairness and adequacy of previous allocations and the competence and integrity of the FS. Specifically, hikers believed that previous allocations had been unfair to nonmotorized recreationists and inadequate to protect national forest resources, while ORV drivers believed the previous status quo to have been fair and environmentally benign, with little justification for changes. ORV drivers were profoundly distrustful of the FS, almost universally evaluating the GNF travel planning process as institutionally or deliberately biased against their interests.

Fourth, the study found that there is a great need for further dialogue regarding the foundations and implications of commonly-advanced claims regarding allocation. Even relatively straightforward claims about allocation—such as that allocation should be proportional to demand—require considerable elaboration and discussion before they can be effectively, fairly, and transparently incorporated into decisionmaking. Consideration of these sorts of complications was typically absent even given a study sample of respondents who were engaged, interested, and thoughtful about travel planning.

Finally, the lack of stakeholder agreement on the purpose of national forests is crippling. This is a foundational issue: appropriate allocations, evaluation of impacts, and many other determinations will necessarily depend on what the FS is managing our national forests for. Without greater agreement on this issue, it will be difficult for the FS and diverse stakeholders to agree on things such as standards for unacceptable recreation impacts on wildlife, to say nothing of appropriate aggregate allocations.

These differences are fundamental. There are few areas of agreement between the two user groups, and those that exist, such as the agreement that environmental impacts should affect allocations, or that enforcement should be improved, tend to disappear under even mild scrutiny.

8.3. Causes of Main Results

These stark differences in views regarding appropriate allocation, public land purpose, and environmental impacts may result from any number of dynamics, from simple self-interest to differences in the way recreationists experience the backcountry. Of greatest interest, though, as the study indicated, is that the discourse of hikers is consistent with the more general “environmentalist” world view, while the discourse of ORV drivers is consistent with the more general Wise Use—or cornucopian—world view. These discourses express views about natural resource management that are fundamentally at odds with one another. It is not impossible to be a cornucopian and a hiker, or to believe in environmental finitude and drive an ORV, but it is, apparently, unusual. As a result, the claims and arguments made about recreation allocations are embedded in deep-seated, oppositional world views that are difficult to change. Further, these world views inform claims, as much as the reverse. That is, if one believes that humanity is headed toward ecological disaster, it may not be necessary to rigorously evaluate the effect of ORV driving on the environment: tread marks through a meadow may be understood as symbolic of the behavior that leads us toward disaster. Similarly, if one believes that humanity’s general impact on nature is negligible or beneficial, a few ruts on a trail not be a cause for concern. The narratives heard on the GNF may, to a great extent, be reflections of broader narratives, largely independent of whatever reality may exist on the GNF.

The relatively unsophisticated dialogue about recreation allocations stems from different sources. First, it may, in part, stem from the fact that the FS, many ORV drivers, and many hikers frame allocation as a technical, environmental issue, rather than as a political or social issue. Framing allocation as a technical issue obviates the need for further consideration of other potential guiding principles—if decisions are simply based on some imagined standard of environmental harm, questions about public land purpose and what activities should be prioritized on national forests are irrelevant.

It is not surprising that ORV drivers frame the issue as a technical one: given that some acknowledgement of environmental limits must be made, the best possible scenario for ORV drivers is to achieve agreement that the use of machines should only be limited

where environmental harms can be demonstrated. While this will inevitably result in minor reductions in ORV driving allocations, the default principle that ORVs should be permitted where they do little harm is very favorable to motorized use. It is equally unsurprising that the FS frames allocation as a technical issue. The FS built itself as a model Progressive Era government agency—a collection of impartial experts who could scientifically manage public resources for the public good, maximizing sustainable returns (Hays 1959; Nelson 2000). Seeing recreation allocation as a largely technical question about environmental impacts plays to the strengths of this model, and to the forms of the rational-comprehensive decisionmaking framework within which the agency operates. As is discussed below, framing allocation as a political issue would raise questions about why the FS is making such decisions, and how. Accordingly, the agency frames travel planning as a technical question of environmental review and achieving “balance.” What is somewhat surprising is that hikers, to a very great extent, framed recreation allocations as a technical issue. Hiker framing was not monolithic in this regard: some hikers flirted with demand as a allocative principle, many suggested that providing particular kinds of experience opportunities is part of the purpose of public lands, and a majority asserted that the first purpose of public lands is preservation of nature. But most hikers also appeared to believe that framing travel planning as a question of environmental impact would result in the reduced motorized allocations that they desired.

A third partial explanation for the relative lack of complexity in recreationist discourse is that it may be the case that the process through which allocations are made encourages a particular type of advocacy. Others have argued that the NEPA process through which the FS makes allocation decisions encourages both adversarial position-taking and the generation of laundry lists of issues. The reality of how public comments are processed, how FS decisions are made, and how FS decisions are justified probably make complex and nuanced philosophical arguments significantly less likely to affect GNF allocation decisions than claims that are politically potent or which address specific, technical issues, such as impacts to wildlife. Thus, to the extent that travel plan decisions are framed as scientific decisions about impacts, and accomplished through NEPA,

recreationists may simply be executing a rational strategy for maximizing the likelihood of impact on FS allocations.

Another potential contributing explanation is simply that study respondents, like most of us, have a variety of demands on their time and interest, meaning that even people who were “thoughtful” about travel planning were unlikely to have carefully developed policy positions regarding recreation allocation. Analogously, I am an avid user and supporter of public libraries. However, if I were asked in an interview to explain the sorts of stock and services my local library should prioritize, and why, I would struggle to articulate a coherent policy or philosophy to inform those decisions, even though I have strong opinions about what the library should stock. In fact, even though I believe I am “thoughtful” about many public policy issues, there are less than a handful that I have considered carefully enough that, on the spur of the moment, I could provide a clear and fully-developed argument for my position. Similarly, it should not be surprising that respondents could not deliver polished position presentations on this particular issue.

Relatedly, the organizations that focused and fostered engagement in the Travel Plan may not, themselves, have encouraged more nuanced foundational arguments. In fact, while firm conclusions would require further study, the frames, claims, and discourse of respondents appeared to closely mirror that of active user groups. On the motorized side, comments by representatives of Citizens for Balanced Use (GNF Draft Environmental Impact Statement Comment Record, #844, July 28, 2005), the Montana Trail Vehicle Riders Association (GNF Draft Environmental Impact Statement Comment Record, #837, July 28, 2005), and the Capital Trail Vehicle Association (GNF Draft Environmental Impact Statement Comment Record, #1836, Aug. 29, 2005) addressed allocations on specific trails in detail. However, these organizations’ broader arguments reflected those of the study sample, asserting that ORV drivers are losing ground, that they are the majority of forest users, that there is too much wilderness, that their use has no impacts, and that there is no legitimate reason to reduce ORV driving allocations. Environmental organizations, similarly, provided detailed comments on specific locations, but with the exception of The Wilderness Society (GNF Draft Environmental Impact Statement Comment Record, #1617, Aug. 1, 2005; # 1882, Sept. 1, 2005), did not articulate a nuanced, complex, non-technical argument for particular aggregate

allocations. The Montana Wilderness Association (GNF Draft Environmental Impact Statement Comment Record, #1440, Aug. 1, 2005), for example, argued implicitly, but without explication, that demand for nonmotorized opportunities should impact allocations. The Greater Yellowstone Coalition (GNF Draft Environmental Impact Statement Comment Record, #1301, Aug. 1, 2005) argued, with the support of many citations, that natural resource impacts should result in diminished ORV allocations. Thus, there are some indications that the discourse, framing, and claims of respondents reflected those of the groups that organize public comment, litigation, and political action on allocation issues, and otherwise influence their members.

8.4. Implications

The implications of these findings are manifold, but, in the interest of brevity, only the most important will be considered here, under the categories of broad policy implications, management implications, and implications for theory.

8.4.1. Broad Policy Implications

This study provides support for the argument that greater policy direction is needed at the federal level. Such a policy could take any number of forms (Adams and McCool 2009), or could be part of a larger change to the system's organic direction. Regardless, the absence of such a policy exacerbates the conflict surrounding recreation allocation; encourages intransigently dichotomous views not just about what allocations should be, but what the law requires them to be; fosters distrust of the FS and its' seemingly-arbitrary decisions; and leaves both the FS and stakeholders struggling to articulate why any particular recreation decision is appropriate. A clear national forest recreation policy would not eliminate disagreement about appropriate allocations, but it would, presumably, ground and bound local discussions and decisions, reducing the sources and scope of conflict.

8.4.2. Management Implications

The most important implications for recreation allocation—outside of some foundational national policy decision—are fivefold. First, both the FS and stakeholders

need to direct most of their attention to the issue of appropriate *aggregate* allocations. Decisions about aggregate allocation should precede and inform site-specific allocations.

Second, we need to improve the quality of our dialogue about such aggregate allocations. As noted above, it is not reasonable to expect complex policy positions on recreation allocation even from individuals with real interest in recreation allocation. However, both the FS and stakeholder groups have the capacity to help stakeholders consider, explore, and address directly with decisionmakers and each other the nuances, complications, implications, wisdom, fairness, and foundations of their views, and of different methods of allocation. If we want to achieve sound and beneficial recreation allocations, we will be well served by more nuanced and thoughtful discussion.

Third, and relatedly, the FS must understand, consider, and engage the narratives that stakeholders expound. This study indicates that these narratives are more puissant and persuasive to many recreationists than treatment of any particular claims. In this case, addressing individual claims—e.g., through response to each discrete concern identified through formal public comment periods—is unlikely to increase the amity of dialogue on this issue; the understanding of competing arguments; the understanding, credibility, and acceptance of decisions; the quality of dialogue; or trust of the agency. Given the relationship between recreationists' narratives and the broader social narratives of environmentalism and Wise Use, as well as ORV drivers' profound distrust of the FS, engaging and addressing those narratives in a productive way will be very challenging. Nonetheless, the effort is necessary.

Fourth, the study indicates the need for proactive management of new recreation trends and technologies. The respective user groups could not agree on problem definition in large part because of the legacy of the FS and GNF policy of permitting ORV use virtually everywhere until it became problematic. This policy created a sense among ORV drivers that previous allocations were fair, and that they had consistently lost driving opportunities over the last two decades. This, in turn, had dramatic impacts on both the dynamics of the dispute and the decision-space of the GNF. The GNF would have been far better off had it made a well-considered decision long ago, or if it had a default policy of prohibiting new uses (such as four-wheeled ATVs) until clear decisions to permit them were made. As the FS wrestles with increasing mountain bike use, side-

by-side ATVs, and other social and technological innovations, it would be well served to manage such innovations proactively, rather than reactively.

Finally, the study results indicate caution in the use of collaboratives to resolve recreation allocation issues. By collaboratives, I mean non-traditional decisionmaking processes that “are generally place-based, cooperative, multiparty, and grounded in high-quality information” (Wondolleck and Yaffee 2000, 4). To date, academic opinion on this issue has been mixed, with some suggesting that some motorized-nonmotorized disputes are unripe for collaborative decisionmaking processes (Gray 2003; Cestero 1999, 39), and others arguing that collaboratives are indicated (Brooks and Champ 2006). Site-specific conditions will vary, and with them the likelihood of successful collaboration, but this study generally supports the view that many motorized-nonmotorized disputes are unripe for collaboration. In the case of the Gallatin, the fundamental disagreement about whether there was, in fact, a problem to be addressed would have made any compromise on the ORV drivers’ part unlikely. Many hikers’ concerns about the impacts and ethicality of ORV driving made their acceptance of ORV allocations likely to be grudging, at best. ORV drivers’ lack of trust for the agency and their portrayal of hikers as outsiders with no legitimate place at the table would have made productive collaboration challenging as well. Without attempting to plumb the literature identifying the successful conditions for collaboratives (see, e.g., Wondolleck and Yaffee 2000; Cestero 1999), the level of distrust and sometimes anger experienced by ORV drivers, the zero-sum nature of much of the travel management equation, the fundamental disagreement about the significance and/or magnitude of recreation impacts, the lack of agreement about problem definition, and the ways that hikers and ORV drivers frame this issue indicate the existence of many barriers to successful collaboration.

Despite these concerns, improved resolution of this issue is possible, for two reasons. First, because recreation allocations were often unplanned, there may be significant opportunities for achieving efficiencies through planning, functionally increasing the size (or quality) of the recreational pie, and thereby diminishing the losses that many users feel they are experiencing. Relatedly, there may be an opportunity to convert a portion of the FS’s massive road system to trails.

Second, improved dialogue and decision rationales may increase the credibility and acceptance of decisions. In a zero-sum equation any change will produce a “loser,” but there is a qualitative difference between feeling that an adverse decision resulted from a legitimate process, and feeling that a loss was produced by an arbitrary or unfair process. The goal, in this regard, is not to achieve universal agreement about the desirability of any particular allocation, but to increase understanding and decrease the perception of inequities. Some study respondents explicitly identified a willingness to compromise in order to accommodate the needs of the other user group, and some exhibited resignation to the fact that their vision of appropriate allocations would not be realized on the GNF. Through collaboratives where they are possible, through improved dialogue, through dialogue designed to achieve efficiencies, through a clear focus on aggregate allocation, and through better decision rationales, it is reasonable to hope to replace frustration, confusion, and anger with acceptance and resignation—for recreationists’ reconciliation to understandable-if-adverse decisions.

8.4.3. Implications for Theory

The study provides opportunities to reflect upon and refine theory in two distinct areas. First, in terms of discourse analysis, the claims, frames, and discourse conceptualization proved useful both as a way to organize analysis of frames and discourse, and as a way to analyze the composition, logic, and quality of claims that are supposed to sway the FS decisionmaking process. While other conceptualizations might have proven equally useful, I found this conceptualization particularly congenial to understanding not just frames and discourse, but the substance of claims that are frequently made in decisionmaking processes. I would recommend consideration of this conceptualization to others addressing issues of this nature.

Second, this research indicates the value of further qualitative research in recreation management. The study provided new insight into a number of recreation management issues, e.g.:

- The study indicates that managerial inequity may, in some instances, play a key role in increasing the symmetry of recreation conflict. The perception of unfair or unequal treatment of similar groups by land managers has been recognized as a potential source of conflict since at least Blahna et al. (1995). Most ORV drivers

- perceived their activity to be continually and unfairly losing territory, and perceived the allocation decisionmaking process to be unfair to them. Many believed the FS to be biased against them, and several suggested that hikers contribute nothing to trail upkeep but are permitted everywhere. These perceptions appeared to contribute to ORV drivers' "social conflict" with hikers, as well as their skepticism about the GNF Travel Plan.
- The study indicates that existing measures of "social conflict" may understate the extent to which conflict and experience degradation are inherent in differing uses, rather than dependent upon recreationist behavior or mitigable factors.
 - The identification of the importance of collective narratives suggests the need to consider this element of discourse in other methods of analysis.
 - The study provided new understanding of a conflict that is long-standing, politically important, and central to management decisions.

The ability of the study to generate new insight into these important recreation management issues suggests that qualitative research may be underutilized in the recreation management field.

8.5. Further Research

This study suggests a number of lines of inquiry that would be valuable and interesting to pursue. In terms of policy, the study assumes and implies that recreation allocation decision rationales will vary widely from decisionmaker to decisionmaker, creating the appearance of arbitrariness and disjointed, ineffective management of our national recreation resources. This premise, and the concerns it raises, would be well-served by research into whether, in fact, this is happening, through analysis of the decisions made by each national forest unit currently revisiting travel planning.

Second, there are indications that the GNF identified many, but not all, of the views that recreationists expressed in this study. With the results of this study in hand, analysis of the GNF travel planning comment record and relevant media should be undertaken. Such analysis could indicate whether these different forums yield fundamentally different evaluations of stakeholder views, or whether stakeholder views are forum-neutral. Such knowledge could better inform future agency evaluation of stakeholder views.

Third, aspirations for civic engagement and collaborative decisionmaking hinge on our collective ability to learn. The power of the narratives in this conflict argue that

such learning would be challenging. Better understanding of where and how such fundamental narrative disjunctions have been overcome could be critical to resolution of the recreation allocation. Accordingly, a study of travel planning collaborative efforts in the U.S. and Canada is indicated.

Fourth and finally, this study indicates a need for reflection about what the U.S. ought to manage national forests for, recreationally. What experience opportunities are desired and valuable? Who wants them? Why? Why do should those opportunities be provided on public lands? What is needed is a careful consideration of what Americans believe the national forests should provide recreationally—what do we want to prioritize and support in allocation? Answers to this question will depend upon both engaging in a dialogue about these questions, and utilizing both qualitative and quantitative tools to identify the intensity and distribution of opinions. Without undertaking this fundamental task, national forest allocation decisions will not realize their potential.

APPENDIX A – SAMPLE CHARACTERISTICS

Two tables below provide a crosswalk between hikers and some tracked attributes, and ORV drivers and some tracked attributes. Some explanatory notes on the categorizations within the tables precede them.

Respondent numbers: Respondent numbers were generated randomly.

Age: Age is approximate, and based on visual data and information provided in the interviews.

Location: Four locations are identified in the table. *Bozeman*, self-explanatory, is for residents within the city limits. *Near Bozeman* describes areas that are within Gallatin County and at the north end of the Gallatin Basin, such as Manhattan and Three Forks. *Livingston/Paradise Valley* describes areas between Livingston and Gardiner. *West Yellowstone* is self explanatory.

Length of Residence: This category is approximate, based on information provided in the interviews, and refers to residence within the study area. Individuals who were raised in Montana, moved away, and returned ($n = 2$), were classified as “Lifetime” residents.

Affiliation With Environmental or Recreation Group or ORV Driver Group: Respondents were classified as “affiliated” if they served in a leadership capacity for such an organization; mention of a membership did not meet this threshold requirement.

Level of Engagement: As identified in Section 5, and figure 5.1, I classified respondents’ “level of engagement” by identifying both respondents’ general level of expertise and their intensity of engagement with the GNF Travel Plan. As figure 5.1 demonstrates, each respondent could have been intensely or only slightly engaged with the GNF travel planning process, and could have general expertise in FS procedure or not. Regardless of whether engagement or knowledge was characterized as “minimal,” each respondent met the threshold requirement of basic familiarity with the GNF Travel Plan.

Table A.0.1. Hiker respondent characteristics by pseudonym (n = 18)

Respondent	Age (years)	Sex	Location	Length of Residence (years)	Affiliation With Environmental or Recreation Group	Level of Engagement
H05	60+	M	Bozeman	Lifetime		3
H06	50-59	F	Bozeman	< 10	yes	4
H07	40-49	M	Bozeman	Lifetime	yes	4
H08	60+	M	Bozeman	10+	yes	4
H10	40-49	M	Bozeman	Lifetime	yes	3
H16	60+	M	Bozeman	Lifetime	yes	4
H18	30-39	F	Bozeman	Lifetime		1
H19	50-59	F	Bozeman	10+		2
H21	50-59	F	Bozeman	10+		3
H22	60+	F	Near Bozeman	10+	yes	1
H23	30-39	M	Bozeman	10+	yes	1
H24	30-39	M	Bozeman	Lifetime		1
H26	40-49	M	Livingston/Paradise Valley	Lifetime		4
H27	30-39	F	Bozeman	< 10		1
H28	60+	F	Bozeman	10+	yes	4
H30	50-59	M	Bozeman	10+		3
H32	50-59	F	Livingston/Paradise Valley	10+		1
H33	40-49	F	Livingston/Paradise Valley	10+		1

Table A.0.2. ORV driver respondent characteristics by pseudonym (n = 17)

Respondent	Age (years)	Sex	Location	Length of Residence (years)	Affiliation With ORV Driver Group	Level of Engagement	Preferred Vehicle
M01	30-39	M	Near Bozeman	10+	yes	2	Motorcycle
M02	50-59	M	Bozeman	10+	yes	3	Motorcycle
M03	40-49	M	Bozeman	Lifetime	yes	4	Motorcycle
M04	50-59	M	Livingston/Paradise Valley	Lifetime	yes	4	ATV
M11	20-29	M	Bozeman	Lifetime	yes	3	Motorcycle
M12	30-39	M	Bozeman	Lifetime	yes	4	Motorcycle
M13	50-59	F	Bozeman	Lifetime	yes	3	ATV
M14	60+	M	Bozeman	< 10		1	ATV
M15	30-39	M	Bozeman	< 10		2	Motorcycle
M17	20-29	M	Bozeman	Lifetime		2	Motorcycle
M20	60+	M	Bozeman	10+	yes	1	ATV
M25	30-39	M	Bozeman	10+		1	Motorcycle
M29	60+	M	Near Bozeman	< 10		4	ATV
M31	30-39	F	Bozeman	unknown		2	Motorcycle
M34	50-59	M	Bozeman	10+	yes	4	Motorcycle
M35	60+	M	West Yellowstone	< 10		1	ATV
M36	40-49	M	West Yellowstone	Lifetime		2	Motorcycle

APPENDIX B – INTERVIEW GUIDE, ORV DRIVERS

Introduction

As I mentioned on the phone, I'm a graduate student working on a project to learn how recreationists believe public lands should be managed. The results of this study will hopefully help the Forest Service better provide for different kinds of recreation on public lands. I asked you to participate because [*so-and-so recommended you*] on the basis of your interest in recreation on public lands. I really appreciate you meeting with me today, but I want to remind you that your participation in this study is completely voluntary, and if you want to stop at any time that's completely fine. The things that you say will never be connected with your name or other identifying information.

I'd like to record our conversation today, if that's all right with you. That way I can focus on what you're saying instead of trying to madly scribble notes.

1. Well, to start with, I'm hoping you can just tell me about what sorts of recreational activities you do on national forest lands.

- How long have you been ...?
- How often do you ...?
- Do you typically ... by yourself, or with others?
- Where do you go?
- What are some of the reasons you ...?
- What role does this kind of recreation play in your life? Is it something that you might do periodically as the mood hits you, or is it something you structure your life around?

2. Okay, I'd like to shift gears and ask you some questions about national forest lands. For what purposes do you think national forests should be managed? I guess I'm asking, in your mind, what are these lands for?

- So when you think of places like Yellowstone Park, and you think of the Gallatin National Forest, do you think national forests have a different mission from other public lands?
 - o How should they be managed differently with respect to recreation?
- Do you think that the Forest Service in fact manages forests for ...?
- So what sort of public benefits should the national forests be managed to provide? What should the public be getting out of national forest management?
- Given the mission that the Forest Service has, what sorts of recreation should be provided for on national forests?
- What do you mean by "multiple use"?
 - o *Or:* Do you think that national forests should be managed for "multiple use"?
 - What does "multiple use" mean, in your mind?
- How do you think National Forest management has changed over time?

3. How familiar are you with the Gallatin National Forest?

- Is it a place that you think is special, or important?
- Have you ever gotten involved with management issues on the Gallatin?
- How would you describe the priorities of the Gallatin National Forest?
 - o Do you agree with these priorities, or would you like to see the Gallatin managed differently?
 - o How would you describe the Gallatin's goals for recreation, what is the agency trying to get done on the Gallatin?
- Did you participate in the recent travel planning process?
 - o Did you go to public meetings, write letters, etc.?
 - o What did you think of the outcome of the travel planning process?
 - o Do you have a clear sense for why the agency made the decisions it did?
 - o Does that make sense to you, do you agree with that?
 - o Do you feel the way you like to use the Gallatin will be affected by the recent travel plan?
 - How do you feel about that?
- Did you work with any groups or organizations on the travel plan?

4. So in its travel planning the Gallatin had people pulling it in a number of different directions, with different people wanting the Forest Service to provide or limit different kinds of recreation in the same places, whether it was horses, mountain bikes, ATVs, hikers, whatever. If you were in charge of the Gallatin, how would you decide where to provide different kinds of recreation activities, and where to limit other kinds?

- Do you think there are any recreational activities that should be prohibited on the Gallatin?
 - o So how would you decide what should be prohibited and what should be permitted? What is the difference between an acceptable and unacceptable recreational activity?
- Do you think it would be fair to provide more of some sorts of recreation on the Gallatin than others?
 - o Why is that?
 - o Do you think that some types of recreationists are more deserving of public land access than others?
 - o What do you think are the most compelling reasons to increase motorized use on the Gallatin?
 - o What do you think are the most compelling reasons to limit motorized use on the Gallatin?
- So if there is a place for lots of different kinds of recreation on the Gallatin, how would you decide how much of each kind, or where each kind of activity should go?

- Are there things about one kind of recreation as opposed to others that should give it priority in decision making?
 - o So what criteria would you apply to a decision? If you were deciding what kind of activities to provide in the Bridgers, or the Crazies, or the Gallatin Range, how would you choose what to provide and what to prohibit, if anything?
- The Gallatin, in its recent travel decision, pretty clearly said that it made its decision to reduce motorized use of the national forest because it believes there is greater demand for nonmotorized recreation. What do you think of dividing up recreation opportunities on the Gallatin based on the number of people that want to do different things?
- When I looked through comment letters people sent to the Gallatin, lots of them talked about how their activity provided more important social benefits than other kinds of recreation – like family bonding, or economic benefits. Do you think that some kinds of recreation provide more or better social benefits than other kinds?
- [If so] Do you think that decisionmakers should prioritize that kind of recreation for that reason?

5. Was there one particular trail or area that you were particularly interested in keeping open?

- a. What happened with that trail? OR: Did you lose any areas or trails that were particularly important to you?
 - b. Why did you think the FS should have left that spot open to motorized use?
 - c. Do you have a clear sense of what led the FS to close that trail/leave that trail open? Does that make sense to you?
- NOTE: try to get a closure story, if they lead with a success story

6. If the FS were proposing to close a trail that you like to use, is there any justification they could give that you would find legitimate?

- a. IF SO: What sort of circumstances would you have to see to be okay with a closure?
- b. Are there some areas that should never be closed to motorized use, no matter what?
- c. What points would you want to communicate to the FS in support of your perspective? [*Probe multiple times to elicit their complete response. Possibly extend their explanation/discussion by, after getting the list, possibly asking them which is the most important*]
- d. What are they?
- e. IF NOT: So would impacts to trails, or water quality, or wildlife, could any of these things necessitate a closure to some or all types of recreation activities?

- 7. Do you think the impacts of motorized, nonmotorized, bike, and equestrian users differ? Follow-up probe – How do they differ?**
- 8. Is there anything else you'd like to tell me about this issue? Anything we didn't cover?**
- 9. The last thing I'd like to ask is if there is anyone else you'd recommend that I talk with?**
 - Is it all right if I tell them that you gave me their name?

APPENDIX C – INTERVIEW GUIDE, HIKERS

Introduction

As I mentioned on the phone, I'm a graduate student working on a project to learn how recreationists believe public lands should be managed. The results of this study will hopefully help the Forest Service better provide for different kinds of recreation on public lands. I asked you to participate because [*so-and-so recommended you*] on the basis of your interest in recreation on public lands. I really appreciate you meeting with me today, but I want to remind you that your participation in this study is completely voluntary, and if you want to stop at any time that's completely fine. The things that you say will never be connected with your name or other identifying information.

I'd like to record our conversation today, if that's all right with you. That way I can focus on what you're saying instead of trying to madly scribble notes.

1. Well, to start with, I'm hoping you can just tell me about what sorts of recreational activities you do on national forest lands.

- How long have you been ...?
- How often do you ...?
- Do you typically ... by yourself, or with others?
- Where do you go?
- What are some of the reasons you ...?
- What role does this kind of recreation play in your life? Is it something that you might do periodically as the mood hits you, or is it something you structure your life around?

2. Okay, I'd like to shift gears and ask you some questions about national forest lands. For what purposes do you think national forests should be managed? I guess I'm asking, in your mind, what are these lands for?

- So when you think of places like Yellowstone Park, and you think of the Gallatin National Forest, do you think national forests have a different mission from other public lands?
 - o How should they be managed differently with respect to recreation?
- Do you think that the Forest Service in fact manages forests for ...?
- So what sort of public benefits should the national forests be managed to provide? What should the public be getting out of national forest management?
- Given the mission that the Forest Service has, what sorts of recreation should be provided for on national forests?
- What do you mean by "multiple use"?
 - o *Or:* Do you think that national forests should be managed for "multiple use"?
 - What does "multiple use" mean, in your mind?
- How do you think National Forest management has changed over time?

3. When people argue that motorized and nonmotorized uses should generally share trails, what do you want to tell them?

- What do you want people to know about or think about when they think about how to manage motorized and nonmotorized recreation?
- When you think about the goals of national forest management that you articulated, where does nonmotorized use fit in, in your mind?

4. How familiar are you with the Gallatin National Forest?

- Is it a place that you think is special, or important?
- Have you ever gotten involved with management issues on the Gallatin?
- How would you describe the priorities of the Gallatin National Forest?
 - o Do you agree with these priorities, or would you like to see the Gallatin managed differently?
 - o How would you describe the Gallatin's goals for recreation, what is the agency trying to get done on the Gallatin?
- Did you participate in the recent travel planning process?
 - o Did you go to public meetings, write letters, etc.?
 - o What did you think of the outcome of the travel planning process?
 - o Do you have a clear sense for why the agency made the decisions it did?
 - o Does that make sense to you, do you agree with that?
 - o Do you feel the way you like to use the Gallatin will be affected by the recent travel plan?
 - How do you feel about that?
- Did you work with any groups or organizations on the travel plan?

5. So in its travel planning the Gallatin had people pulling it in a number of different directions, with different people wanting the Forest Service to provide or limit different kinds of recreation in the same places, whether it was horses, mountain bikes, ATVs, hikers, whatever. If you were in charge of the Gallatin, how would you decide where to provide different kinds of recreation activities, and where to limit other kinds?

- Do you think there are any recreational activities that should be prohibited on the Gallatin?
 - o So how would you decide what should be prohibited and what should be permitted? What is the difference between an acceptable and unacceptable recreational activity?
- Do you think it would be fair to provide more of some sorts of recreation on the Gallatin than others?
 - o Why is that?
 - o Do you think that some types of recreationists are more deserving of public land access than others?

- What do you think are the most compelling reasons to increase motorized use on the Gallatin?
 - What do you think are the most compelling reasons to limit motorized use on the Gallatin?
- So if there is a place for lots of different kinds of recreation on the Gallatin, how would you decide how much of each kind, or where each kind of activity should go?
- Are there things about one kind of recreation as opposed to others that should give it priority in decision making?
 - So what criteria would you apply to a decision? If you were deciding what kind of activities to provide in the Bridgers, or the Crazies, or the Gallatin Range, how would you choose what to provide and what to prohibit, if anything?
- The Gallatin, in its recent travel decision, pretty clearly said that it made its decision to reduce motorized use of the national forest because it believes there is greater demand for nonmotorized recreation. What do you think of dividing up recreation opportunities on the Gallatin based on the number of people that want to do different things?
- When I looked through comment letters people sent to the Gallatin, lots of them talked about how their activity provided more important social benefits than other kinds of recreation – like family bonding, or economic benefits. Do you think that some kinds of recreation provide more or better social benefits than other kinds?
- [If so] Do you think that decisionmakers should prioritize that kind of recreation for that reason?’

6. Was there one particular trail or area on that Gallatin that you were [or would be] particularly interested in closing to motorized use?

- a. What happened with that trail? OR: Did you lose any areas or trails that were particularly important to you?
- b. Why did you think the FS should have prohibited motorized use on that trail?
- c. Do you have a clear sense of what led the FS to close that trail/leave that trail open? Does that make sense to you?

NOTE: try to get a loss story, if they lead with a success story

7. If the FS were proposing to open a trail that you like to use to motorized use, is there any justification they could give that you would find legitimate?

- d. IF SO: What sort of circumstances would you have to see to be okay with that change?
- e. What points would you want to communicate to the FS in support of your perspective? [*Probe multiple times to elicit their complete response. Possibly extend their explanation/discussion by, after getting the list, possibly asking them which is the most important*]

- f. IF NOT: Do you think that motorized use should be allowed to continue where it already legally occurs?
- 8. Do you think the impacts of motorized, nonmotorized, bike, and equestrian users differ? Follow-up probe – How do they differ?
- 9. Is there anything else you'd like to tell me about this issue? Anything we didn't cover?
- 10. The last thing I'd like to ask is if there is anyone else you'd recommend that I talk with?
Is it all right if I tell them that you gave me their name?

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