



United States
Department of
Agriculture

Forest
Service

Southwestern
Region

May 2006



Values, Attitudes and Beliefs toward National Forest System Lands: The Apache-Sitgreaves National Forest

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Acknowledgements

Deryl Jevons, Julia Faith-Riveria, and other staff of the Apache-Sitgreaves National Forests were instrumental in identifying participants and arranging the discussion groups for this project. Their professionalism and patience in assisting with this work is noteworthy. Richard Periman and Reuben Weisz have provided useful consul on the structure and content of reports and their contributions are sincerely appreciated. Participants in the interviews and discussion groups deserve special thanks and acknowledgement for their willingness to contribute their time and thoughts in a true spirit of cooperation and concern to improve the future of the Apache-Sitgreaves National Forests.

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Executive Summary

This document reports on the results of a project to identify values, attitudes, and beliefs (VAB) about forest resources and their management for all national forests and grasslands in the Southwestern Region, including the Apache-Sitgreaves National Forests (NFs). Combined with other available socioeconomic data, results of this work are intended to assist forest managers and planners to identify strategic issues for revision of the existing forest plan and to assess other social or cultural factors that may influence forest planning and management. Identification of values, attitudes, and beliefs was achieved by the use of a discussion group or focus group approach (Bloor 2001; Morgan 1997). Additionally, some individual interviews were conducted with persons who were unable to attend the discussion group sessions. Participants were selected for these groups by consultation with district rangers, forest planning staff, and other individuals within the Apache-Sitgreaves NFs. The goal was to identify a range of perspectives about forest management issues and to invite individuals with knowledge about their community or forest management issues. Two discussion groups and five individual interviews were completed.

Results of discussion groups and interviews are presented in categories that correspond with the coding and analysis of the discussion group and interview data: the planning environment; multiple use issues; resource concerns; and implications for collaboration regarding revision of the existing forest plan.

Forest plan revision is occurring in what can be termed a “planning environment” that is affected by socioeconomic, cultural, political, organization, ecological, and other variables. The configuration of these variables influences issues such as: who participates, what issues are raised as important, the assessment of solutions and desired futures, and how publics choose to participate or not in planning and collaboration activities.

- This social environment is similar to others in the west where there has been a transition from traditional associations with natural resources (logging, ranching mining) to more tourism and amenity based economies and lifestyles. Communities transitioned from having common lifestyles in which economies, social institutions, and values were consistent to ones characterized by different economic associations with natural resources and more diversity in social institutions and values. Residents continue to share a strong sense of place. They continue to value the aesthetics and benefits of open space and ready access to forestlands and resources. However, meanings attached to those resources and the relationship of individuals and communities to them is transitioning from relatively shared lifestyles to more diverse lifestyles. In these types of social environments, forums such as the Natural Resources Working Group provide an important means to identify and resolve differences that can inhibit more socially disruptive polarization about natural resource and forest management issues.
- Participants value forestlands in part because of the lifestyle and aesthetic benefits provided by a readily accessible and aesthetically pleasing combination of trees, water, mountains, and wildlife. At the same time, participants perceive this forest is vulnerable to the effects of both development and deteriorating ecological conditions associated with tree density, drought, disease, and fire danger. Assessments of existing forest conditions and desired futures are filtered through memories of the Rodeo-Chediski fire. This event is likely to be fundamental to public assessments of a future vision for the Apache-Sitgreaves National Forest because it highlights the potential for destruction of valued resources and lifestyles.
- Agencywide policies and procedures appear to affect assessments of the capability of local managers to manage resources and achieve desired futures from a public perspective. Public

views about agencywide policies and procedures appear to have consistent themes as expressed by participants in other discussion groups in Arizona. These themes include concerns about agency capacity, expertise and local knowledge to manage resources, concerns about the community effects of rotation of senior personnel, trust between the agency and stakeholders, and a litigation and bureaucratic based approach to resource management.

Multiple-use continues to be a key concept that focuses dialogue about the uses of forestlands. Key topics in this dialogue include:

- Concept continuity and adaptation. The desirability of continuing traditional multiple-use management or the need for change is a key point in the dialogue about this topic. Participants who support continued use of this management approach suggest the concept needs adaptation to address current types of uses of forest resources. The counterpoint in this dialogue is the need to adapt the concept to include limiting or prohibiting certain uses if they are not consistent with goals for ecosystem and forest health.
- Benefits and values of traditional multiple-use activities such as logging and grazing. Some participants emphasize there are important benefits to traditional multiple use activities such as timber harvesting, grazing and, mining. These benefits include promoting forest health, maintaining forest resources, reducing the cost of forest management, and contributing stewardship to forest management. Collectively, these benefits are believed to provide benefits that favor support for these traditional activities. These assessments are amplified given other assessment of poor forest health, and diminished agency capacity to manage forest uses and resources
- Emergence of new recreation activities such as off-highway vehicle (OHV) use as key multiple-use issues. Population growth and changes in population composition are resulting in an increase in the importance of recreation as a use of the Apache-Sitgreaves NFs and other national forests in this region. Although there are other issues about the use of forest resources, most participants acknowledge that recreation is among the topics that needs focused attention in Plan Revision because of the increased volume of use, the potential for conflicts that disturb user experiences, and the potential dangers associated with fire
- Education and enforcement issues. Rule violations and illegal activities are perceived to be emerging problems as the volume and types of use increase. Themes about these activities include: beliefs that the use of forest resources are a privilege and not a “right;” limited resources for enforcement while there is a growing problem requiring enforcement; forest service closures as a response to misuse; and, using peer pressure and education as an alternative response to problem behavior.

Participants expressed values and beliefs about particular resources such as trees, wildlife, scenery, and trails. However, the over-riding concern expressed about forest resources is the assessment of vulnerability of all resources to the combined effects of tree density, insect infestations, and fire danger. The focus for a desired future vision of the forest is addressing forest vulnerability to catastrophic fire.

Revision of the existing forest plan will proceed under new planning rules that incorporate collaboration with interested publics. Findings from this project as well as the University of Arizona Socioeconomic Study (Arizona National Forests Socioeconomic Assessment Team 2005) and recent work by the Ecological Restoration Institute at Northern Arizona University (Abrams 2005) suggest one noteworthy implication for future collaboration with interested publics: issues

are connected to one another in some predictable clusters and understanding their interconnections will contribute to productive collaboration. Dialogue that explores connections among issues such as fire, tree density, water availability, and traditional multiple-use will assist in identifying areas of common ground that can be a basis for a shared vision for the future of the Apache-Sitgreaves NFs. The collaboration process is also likely to be influenced by differing perspectives about the economic benefits of forest resources, desires for interagency cooperation and partnerships with stakeholders to resolve resource concerns, and an emphasis on science and monitoring in decisionmaking and planning.

Chapter 1. Background

This document reports on the results of a project to identify values, attitudes, and beliefs (VAB) about forest resources and their management for all national forests and grasslands in the Southwestern Region, including the Apache-Sitgreaves National Forest (NFs). Results of this work are intended to assist forest managers and planners to identify strategic issues for revision of the existing forest plan and to assess other social or cultural factors that may influence forest planning and management. The VAB information presented in this report address what is a category of values, beliefs, and attitudes about American assessments of natural resources and their implications for understanding the linkages of humans to public places such as national forests. Such beliefs and values are linked to the structure of American society (cf. Kempton, Boster, and Hartley 1995) and usually associated with fundamental assumptions and understandings about human-nature relationships (Cronon 1995; Ellen and Fukui 1996). The work presented in this discussion acknowledges the implicit models and the broader set of values about national forests and public lands (Bengston and Xu 1995). These results should be considered as a first step toward understanding public values and cultural models about natural resources and their implications for forest managers. This work is thus a starting point providing some focused information and analysis about the links between values and beliefs and expectations about future forest management for the Apache-Sitgreaves NFs.

This VAB information is part of a suite of socioeconomic and cultural information being assembled for planning purposes. The University of Arizona has prepared a comprehensive socioeconomic assessment for the Apache-Sitgreaves NFs and other Arizona forests (Arizona National Forests Socioeconomic Assessment Team 2005). Additionally, the Rocky Mountain Research Station is preparing to administer a survey of Arizona and New Mexico residents that will provide forest-specific and region-wide population based information about forest resource and management issues. This collection of information will provide planners with forest-specific as well as state and regional level information for comparison.

The VAB information presented in this document provides a different set of information than either the survey or socioeconomic assessment data. This information was collected and synthesized to identify local perspectives about key issues and concerns about forest resources and management. This information may be factually correct or in error, but most importantly it portrays local perspectives from selected individuals that frame issues and imply solutions relevant for forest management and planning. The VAB information may also be used in conjunction with socioeconomic data to understand issue amplification, assessments of agency effectiveness, or other factors affecting public evaluation of forest planning and management. These results were used by researchers at the Rocky Mountain Research Station as one source of information to formulate the content of the population-based survey to be administered in 2006. The information from this work thus offers a local perspective about key issues from concerned publics that can be placed within a broader context of information about the social environment that interacts with the Apache-Sitgreaves NFs.

Methods and Data Collection

Identification of values, attitudes, and beliefs was achieved by the use of a discussion group or focus group approach (Bloor 2001; Morgan 1997). Additionally, some individual interviews were conducted with persons who were unable to attend the discussion group sessions. Participants were selected for these groups by consultation with district rangers, forest planning staff, and other individuals within the Apache-Sitgreaves NFs. The goal was to identify a range of

perspectives about forest management issues and to invite individuals with knowledge about their community or forest management issues. Consequently, these groups are not intended to be “representative” of their communities, but they are a targeted sample (Bernard 1995) intended to include individuals knowledgeable about forest and community issues.

The interviews and discussion sessions were focused by a discussion guide (see appendix) that includes topics about the social environment, forest characteristics, the use of forest resources, values and benefits associated with forest resources, desired futures, and assessments of issues for forest plan revision. The social environment and forest characteristics topics provide some context for other topics. The social environment discussions developed the linkages of the social environment to the Apache-Sitgreaves NFs. The forest characteristics discussions were intended to establish broad scale strategic assessments of existing forest conditions. Use and resource discussions were intended to develop participant assessments of patterns of use and resource conditions. Desired futures and issues for plan revision concern topics participants wish to see addressed by decision making or planning. For each of these topic areas, the strategy was to avoid direct questions in favor of open-ended questions that allow participants to structure responses from their perspective.

The open-ended interview approach is consistent with qualitative interview techniques that begin with the most general types of issues and then focus the discussion to develop the specifics from the participant’s perspective (Spradley 1979; Agar and Hobbs 1985). This approach also benefits from having a base of information to draw on about existing issues, beliefs, values, and attitudes. Other VAB studies for Arizona and New Mexico (Russell and Adams-Russell 2005, 2005, 2005, 2006) as well as other relevant information concern beliefs and values about forest management (Abrams 2005) was useful background material that was helpful in forming follow-up questions and probes.

Two discussion groups were conducted for the Apache-Sitgreaves NFs:

- One discussion group was held at the Arizona Game and Fish Department facilities in Pinetop. Participants from Show Low, Pinetop, Black Mesa and other areas bordering the western portion of the Apache-Sitgreaves NFs.
- A second discussion group was held in Springerville in an Apache-Sitgreaves NFs meeting room. This meeting was attended by participants residing in the environs of Springerville including communities east and south.

Additionally, five individual interviews were conducted with local government, ranching, conservation, and recreation interests.

Data Processing and Analysis

All of the discussion sessions and some of the individual interviews were recorded. Sketch notes were taken for the recorded sessions and interview field notes (cf., Sanjek 1990; Emerson, Fretz, and Shaw 1995) for non-recorded sessions. Sketch notes were annotated with the time mark in the recordings by topic area. This material was coded by topic area using a combination of predefined and emergent codes (Strauss 1987; Strauss and Corbin 1998). The predefined codes correspond with the discussion guide categories and the emergent codes were developed from participant statements that did not correspond with the predefined categories. Major categories for presentation were then constructed and specific issues were grouped within these categories.

Representative statements were then identified to illustrate specific points where the issue could benefit from a statement by participants in their own words.

Time, budget, and page limitations require a strategy to present consumable and useable information that also expresses the participant's perspectives on the issues discussed. The strategy used here identifies key issues by topic category to illustrate the range of issues of concern to project participants. The authors recognize this strategy abbreviates and under-develops complex issues. However, future collaborative efforts should offer the opportunity to develop these topics in the detail that is useful for stakeholders, the Forest Service, and others participating in the planning process.

Chapter 2. The Forest and Socioeconomic Setting

As the second largest national forest in Arizona and the third largest in the Southwestern Region, the Apache-Sitgreaves NFs contains about 2.6 million acres in the northeastern portion of the state. The forest contains about 200,000 acres of wilderness and primitive area, including the Blue Range Primitive Area. The Apache-Sitgreaves NFs has four ranger districts: Alpine, Back Mesa, Springerville, and Lakeside. The Forest Supervisor's Office is located in Springerville. The Gila NF is to the East and the Tonto and Coconino NFs are to the west and north.

From mid-June to early July in 2002, a fire that started on nearby Indian lands of the Fort Apache Reservation burned about 462,000 acres of forested land, including about 180,000 acres of national forest land. Named the Rodeo-Chediski fire, this fire also consumed over 400 structures and threatened nearby communities. This fire is a significant ecological and social characteristic of this national forest.

Table 1: Southwestern Region Forests Ranked by Total Area

Southwestern Region	Rank by Size	Gross Acreage	NFS Acreage	Other Acreage
Tonto NF	1	2,969,543	2,872,935	96,608
Gila NF	2	2,797,628	2,708,836	88,792
Apache-Sitgreaves NF	3	2,761,386	2,632,018	129,368
Cibola NF	4	2,103,528	1,631,266	472,262
Coconino NF	5	2,013,960	1,855,679	158,281
Coronado NF	6	1,859,807	1,786,587	73,220
Santa Fe NF	7	1,734,800	1,572,301	162,499
Kaibab NF	8	1,600,061	1,559,200	40,861
Carson NF	9	1,490,468	1,391,674	98,794
Prescott NF	10	1,407,611	1,239,246	168,365
Lincoln NF	11	1,271,064	1,103,748	167,316
National Forests (11)		22,009,856	20,353,490	1,656,366

Source: U.S. Forest Service http://www.fs.fed.us/land/staff/lar/LAR04/table3_r3.htm

The Apache-Sitgreaves NFs resides in portions of four Arizona counties and Catron County, New Mexico. Coconino, Navajo, Apache, and Greenlee are the four Arizona counties that contain the majority of forest lands. The University of Arizona has compiled a comprehensive socioeconomic overview of the Apache-Sitgreaves NFs and its socioeconomic relationship with these counties (Arizona National Forests Socioeconomic Assessment Team 2005). That document should be consulted for a summary key socioeconomic issues affecting forest management. As context for discussions in this report, table 2 presents an overview of socioeconomic information prepared for the five counties associated with the Apache-Sitgreaves NFs.

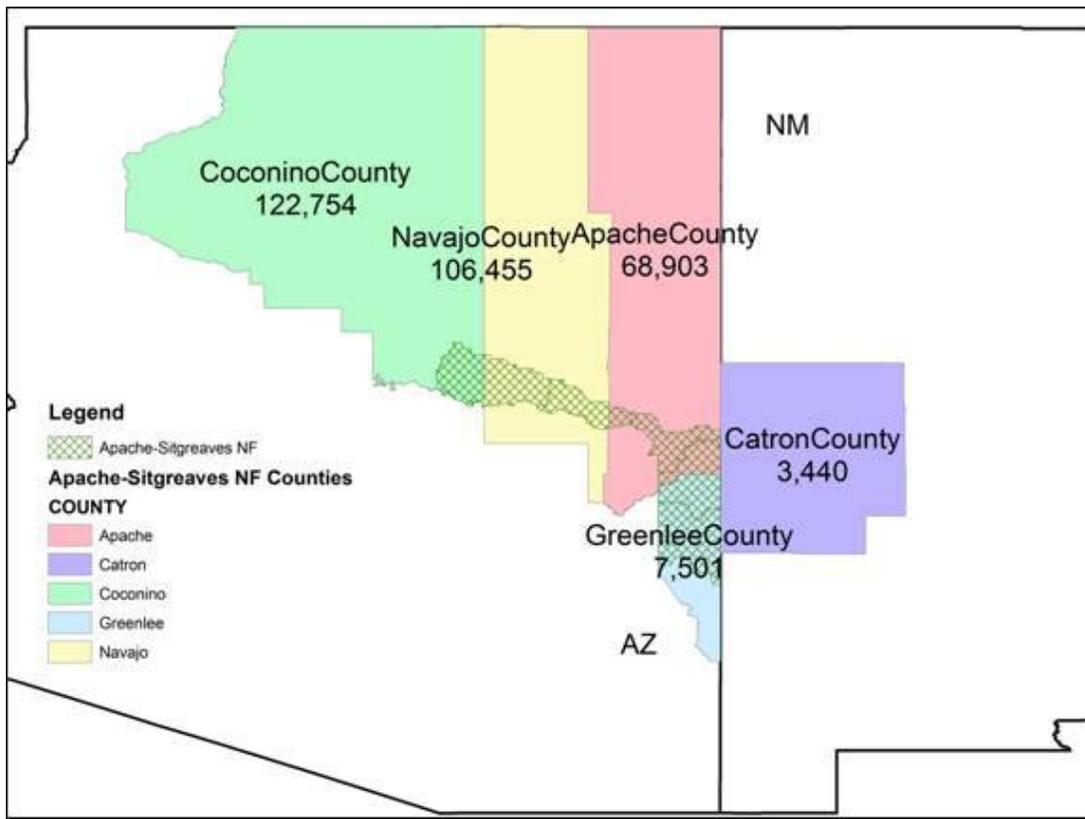


Figure 1: Apache-Sitgreaves National Forest Counties

Table 2: Apache-Sitgreaves National Forest

People QuickFacts	Apache County, AZ	Coconino County, AZ	Greenlee County, AZ	Navajo County, AZ	AZ	Catron County, NM	NM
Population, 2003 estimate	68,129	121,301	7,517	104,280	5,580,811	3,415	1,874,614
Population, percent change, April 1, 2000 to July 1, 2003	-1.9%	4.3%	-12.1%	7.0%	8.8%	-3.6%	3.1%
Population, 2000	69,423	116,320	8,547	97,470	5,130,632	3,543	1,819,046
Population, percent change, 1990 to 2000	12.7%	20.4%	6.7%	25.5%	40.0%	38.2%	20.1%
Persons under 18 years old, percent, 2000	38.5%	28.7%	31.7%	35.4%	26.6%	21.1%	28.0%
Persons 65 years old and over, percent, 2000	8.3%	7.0%	9.9%	10.0%	13.0%	18.8%	11.7%
Median Age	27	29.6	33.6	30.2	34.2	47.8	34.6
White persons, percent, 2000 (a)	19.5%	63.1%	74.2%	45.9%	75.5%	87.8%	66.8%
Black or African American persons, percent, 2000 (a)	0.2%	1.0%	0.5%	0.9%	3.1%	0.3%	1.9%
American Indian and Alaska Native persons, percent, 2000 (a)	76.9%	28.5%	1.7%	47.7%	5.0%	2.2%	9.5%
White persons, not of Hispanic/Latino origin, percent, 2000	17.7%	57.6%	53.9%	42.3%	63.8%	75.8%	44.7%

Table 2: Apache-Sitgreaves National Forest

People QuickFacts	Apache County, AZ	Coconino County, AZ	Greenlee County, AZ	Navajo County, AZ	AZ	Catron County, NM	NM
Persons of Hispanic or Latino origin, percent, 2000 (b)	4.5%	10.9%	43.1%	8.2%	25.3%	19.2%	42.1%
Language other than English spoken at home, pct age 5+, 2000	61.7%	28.2%	26.0%	39.9%	25.9%	16.9%	36.5%
Median household income, 1999	\$23,344	\$38,256	\$39,384	\$28,569	\$40,558	\$23,892	\$34,133
Per capita money income, 1999	\$8,986	\$17,139	\$15,814	\$11,609	\$20,275	\$13,951	\$17,261
Persons below poverty, percent, 1999	37.8%	18.2%	9.9%	29.5%	13.9%	24.5%	18.4%
Persons per square mile, 2000	6.2	6.2	4.6	9.8	45.2	0.5	15
Agriculture							
Number of Farms 1997 to 2002 % Change		-25.5%	-8.1%	-27.6%	-14.3%	-28.0%	-15.1%
Land in farms (acres, 1997 to 2002) % Change	(D)	(D)	-17.9%	17.4%	-2.1%	-9.5%	-3.0%
Average size of farm (acres, 1997 to 2002) % Change	(D)	(D)	-10.5%	62.1%	14.1%	25.7%	14.4%

Source: U.S. Census Bureau 2002 People Quickfacts and U.S.D.A. 2002 Census of Agriculture

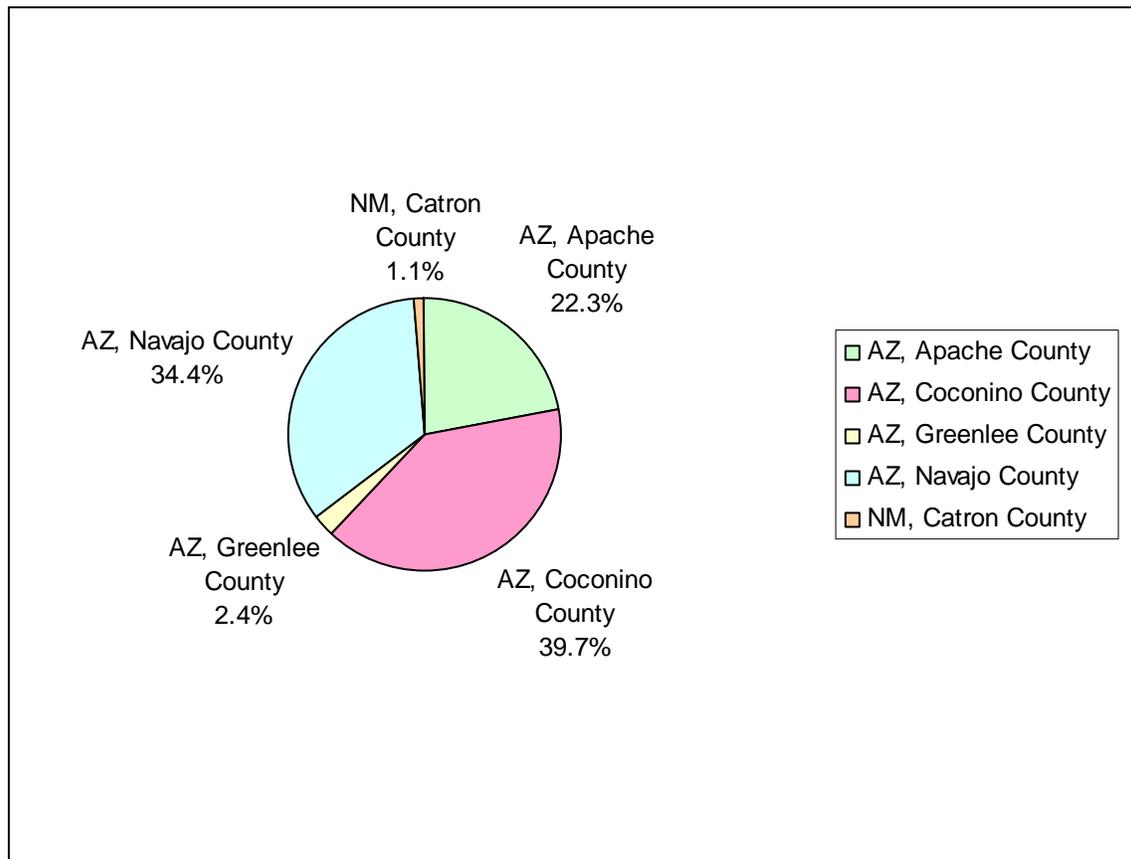


Figure 2: Percentage of Project Area Population by County

Chapter 3. Results

Discussion groups and individual interviews contain information about values and beliefs concerning forest resources, the social environment of surrounding communities, Forest Service management policies and procedures, and interagency and stakeholder relationships. This is rich and detailed information. The results presented here are not intended as a full record of the discussions among participants in these groups and interviews. Although that task may be useful for a broader understanding of the social and cultural environment affecting forest management, presenting such information would blur the more focused goal of this work to identify local perspectives on issues relevant for collaboration regarding revision of the existing forest plan. This more focused goal necessarily reduces complex issues about resources, lifestyles, and values into information that is intended to be useable for the study's purpose.

Results are grouped into several major categories that correspond with the coding and analysis of the discussion group and interview data: the planning environment; multiple use issues; resource concerns; and implications for collaboration regarding revision of the existing forest plan.

The Planning Environment

Forest plan revision is occurring in what can be termed a “planning environment” that is affected by socioeconomic, cultural, political, organization, ecological, and other variables. The configuration of these variables influences issues such as: who participates, what issues are raised as important, the assessment of solutions and desired futures, and how publics choose to participate or not in planning and collaboration activities. For example, recent experiences with fires on public lands may influence values placed on urban interface issues and the value of timber harvesting and thinning. Similarly, an increase in population diversity may affect the characteristics of forest users and the types of recreation demand; and, assessments of agency management may affect expectations about the process of collaboration and the nature of decisionmaking in forest planning. The configuration of variables affecting the planning environment will vary across forests. The information presented here is intended to be one contribution to understand the social, economic, and other factors that interested publics and the Forest Service can use to refine collaboration and public participation activities for forest plan revision

Several categories of information about the planning environment were identified: the social environment of adjacent communities; forest conditions and characteristics; Forest Service policies, procedures, and management approaches; and, “sidebar” issues. Information about the social environment identifies characteristics of adjacent communities and interactions with forest resources. Values and beliefs about forest conditions and characteristics describe public assessments of existing forest conditions and trends that influence the identification of issues for plan revision. Information about Forest Service presence and procedures describes participant assessment of the capacity and capability of the agency to effectively plan and manage Apache-Sitgreaves NFs resources. Sidebar issues are ones not usually addressed in Forest Service land management and resource planning. However, these issues are expressed by participants as concerns affecting forest conditions and use and therefore contribute to the identification of perceived problems and solutions for forest management.

Social Environment

The four counties of northeastern Arizona total about 45,000 square miles of which nearly 18 percent is managed by the USDA Forest Service. Additionally, the presence of Indian lands as well as other Federal and State Trust Lands result in some counties having limited private lands. For example, about 18 percent of Navajo County, 8 percent of Greenlee County, and 13 percent of Apache and Coconino counties is in private ownership. In Catron County, New Mexico, more than 50 percent of all lands are managed by the Forest Service and private ownership is less than 20 percent of all lands. Most of the population centers such as Flagstaff, Showlow, Whiteriver, Pinetop, and Clifton are immediately adjacent to Forest Service managed lands. The Apache-Sitgreaves NFs has an important link to its community neighbors if only because of its significant presence of federally managed lands.

Participants also describe social, economic, and cultural linkages to Apache-Sitgreaves NFs managed lands that contribute to strong place attachment and place awareness.

- The areas adjacent to national forest lands have strong local identities. In the western areas, the White Mountain Region organizes the identity of many communities:
People know this area as the White Mountains. Rural communities, lakes, streams, mountains, and the Aspens in the fall all make us the White Mountains. It has become a draw for a lot of new residents, but the mountains and forest meet here and create something important for everyone who lives here.

The “Blue” is another strong local identity organizing communities in the eastern and southern areas adjacent to the Apache-Sitgreaves NFs:

Alpine, Springerville, Eager St. Johns, and places like that are all part of the Blue. We live in northern Greenlee County and when we come out of the valley we consider ourselves home. We have all worked together as a community.

Participants note there are connections between the eastern and western communities, but they have distinct identities that are socially important because they represent the linkages of communities to one another and to particular areas of the Apache-Sitgreaves NFs.

- Family experiences connected with outdoor lifestyles have been associated with forest uses thereby linking personal and social experiences with forest resources:
We grew up in the Forest. We hunted, we fished, we hiked and we worked there. My Dad taught us a lot about stewardship and caring for the land in the Forest. It is a place I take my kids to teach them too. It has been part of our lives and it is painful to see it declining. When my brother visits, we go out to the Forest, we remember what we did when we were kids. It is a place of memories for us and we don't want to loose those memories in a big fire.
- Timber harvesting, mining, and grazing have been traditional economic activities in these communities; and, labor income as well as lifestyles has linked communities to national forests. Although these traditional economic activities have changed, the lifestyles associated with them continue to be important. Values and beliefs associated with economically based lifestyles continue to link residents to national forest lands and resources. Ranching participants expressed this linkage as follows:

Cattle on the mountain are part of our heritage. If grazing is done right, it is an asset for the forest. There are ways to protect riparian areas and managing grazing can benefit the community and the forest. We want our family to be part of this forest and part of caring for the land that we care about.

There are values about how you live your life, about hard work and caring for your family, and caring for the land that supports you. You don't find many cut and run types in this business around here. We have been in it for a long time and plan to pass it on to our children. If you lose this way of life, our country loses something that is important to more than just my children.

Participants note that declines in traditional activities, especially timber harvesting, have changed some of the connections between communities:

When there was a mill here in Springerville, we were the hub for eastern Arizona and western New Mexico. We still have people coming here from Reserve and we go there to hunt. But, when we lost the mill, someone of those connections changed.

- As noted in the University of Arizona Socioeconomic Report, county governments receive a portion of income derived from federal lands within their respective counties (Arizona National Forests Socioeconomic Assessment Team 2005:38-40). The “25 percent” monies or Secure Rural Schools and Self Determination Act (Public Law 106-393) revenues have traditionally been important for maintaining county roads and providing school funding. Some county officials desire more consideration for the linkage of fiscal benefits and forest management:

We get very few fiscal benefits from the forest the way we used to. How they manage the forest affects our future and we want to have more say in the decisions they make.

- Although economic conditions are changing in the Apache-Sitgreaves NFs associated counties, national forest resources continue to be perceived as linked with economic well-being:
 - o Second homes residents are attracted by the scenic resources, climate, and outdoor lifestyles opportunities.
 - o Retirees and individuals who bring their employment with them are attracted by the same resources as second home residents.
 - o Tourism, recreation, and second homes exemplify the perceived connections between forest management and local economic well-being:

The forest is the backbone of our economy. The decisions the Forest Service makes can influence our future. We want to work with them to make sure our economic interests are considered in management decisions. ... It is critical that the Forest Service recognize that the forest is critical to our economy with hunting, fishing, wildlife, OHVs, and all the other things. ... Maybe they need to have a program for any of the new Forest Service people who come in here to meet with local business people and people who depend on the forest so they can understand our environment and what it means to us.

- The White Mountain Stewardship Contact was awarded to a local business. This is perceived as a positive step toward some economic benefit from forestlands that also provides action toward restoration of forest health. Some of the critical comments about this project suggest it

provides too little treatment and in comparison to commercial timber harvesting of multi-age class trees, it provides too little economic benefit. However, even critical comments acknowledge that any economic benefit from forestlands is positive in the rural economies of the White Mountains and vicinity.

In addition to these socioeconomic linkages, participants also suggest other noteworthy conditions and trends of this social environment:

- The presence of Indian lands to the south and west of the Apache-Sitgreaves NFs is described as a noteworthy characteristic of this social environment because it contributes to surrounding private lands with additional forest and undeveloped lands. This creates a “buffer” from additional development and contributes to a desired setting for these rural mountain communities.
- Population growth is changing the composition of communities and the relationships of residents with Apache-Sitgreaves NFs lands and resources.
 - o Urban residents from other areas of Arizona and elsewhere in the United States are moving to this region. These residents tend to have less knowledge and understanding of local ecosystems than longer-term residents.
 - o Second homes and year round residents are being built so they intermix with forestlands. This is creating wildland interface and intermixture issues that concern longer term residents because of perceptions of limited knowledge about the fire dangers of activities that urban residents may not appreciate.

People need education. And, people want to know. I had one lady call me who moved here from the valley. She wanted to know if her trees are healthy and what she can do about it. ... We need to have information out in front of people so they can get educated about what to do and what not to do. ... If we don't, then we can lose it all because someone didn't know about the right way to prevent fire.
 - o “Wildcat subdivisions” are creating interface issues as “sprawl” development occurs:

You see some places, these little wildcat subdivisions and they go in and there is really not good access in and no access out. They have no protection and those are a worry. It is unreasonable for us to demand the Forest Service protect our communities if we do not approach them first before developing next to the forest.
 - o Newer residents appear more prone to desire limitations on future development: *They want to lock the door behind them.* At the same time, participants suggest newer residents usually desire more services than rural communities are accustomed to providing: *They want it like it was where they came from and it causes some friction every so often.*
- Improvements in road conditions will increase visitation and the demand for more development. This is perceived as increasing concern about rights-of-way access as development occurs.
- An organized group of stakeholders meet in a natural resources working group, which also includes Forest Service participation. This ongoing group provides a forum for diverse stakeholders to work on issues of mutual interest and communicate about common ground as well as differences. Such a forum provides a problem solving arena that can inhibit stalemates, extreme polarization, and other common community-based problems in forest and natural resources management (cf., Ewert 1996). For example,

There has been cooperation (with the Forest Service) and I have had a representative go out in the forest with me. This is a change. I am not a forester and I appreciate someone who knows going out with me, but I do know the forest from my own experience. .. Right now, from what I can see, we are headed in the right direction because the different groups are talking. There was a time when the Forest Service didn't get along with Game and Fish and State Lands didn't get along with somebody else, and all of that did not do anyone any good. They were not talking and now everyone has something to offer. The mayors in the towns have something to offer. The environmentalists have something to offer and we will come out with a better Plan if everyone listens to each other rather than the groups going off in their different directions the way they have in the past. That is the way we are headed now.

Another participant noted that the working group has not been a solution to all differences about resource issues, but it has addressed stalemates that inhibited communication and finding common ground:

In the mid-nineties we all realized something had to be done. There was a low level of trust among the stakeholders on the forest and there still may be some of that. But, we have made some improvement, especially the last few years with implementation of the Stewardship Contract. We are on a forward path now and we were in a downward spiral before that. ... The Rodeo-Chediski fire may have had something to do with that. It really shook people and created a realization that something has to be done with the health of this forest. ... It has taken us a long time to get to where we are, but there is a change in the level of trust among the stakeholders who live here and work here. We are trying to work together to solve things we see are common problems. I know we have a way to go and the Forest Service has jumped in as best they could, but we have a ways to go to remedy some of these situations.

This social environment is similar to others in the west where there has been a transition from traditional associations with natural resources (logging, ranching mining) to more tourism and amenity based economies and lifestyles. Communities transitioned from having common lifestyles in which economies, social institutions, and values were consistent to ones characterized by different economic associations with natural resources and more diversity in social institutions and values. Residents continue to share a strong sense of place. They continue to value the aesthetics and benefits of open space and ready access to forestlands and resources. However, meanings attached to those resources and the relationship of individuals and communities to them is transitioning from relatively shared lifestyles to more diverse lifestyles. In these types of social environments, forums such as the natural resources working group provide an important means to identify and resolve differences that can inhibit more socially disruptive polarization about natural resource and forest management issues.

Forest Characteristics and Conditions

A national forest is a particular type of place that has characteristics and conditions that identify norms about its uses and values about its resources. These assessments influence participant concerns about management issues and the desired future for a particular national forest. Prominent themes about Apache-Sitgreaves NFs characteristics and conditions include the following:

- The Rodeo-Chediski highlighted the aesthetic and quality of life values associated with trees and the ecosystem in which these exist. As participants noted:

Without the trees we are just another Holbrook or St. John's. ... What we learned in the Rodeo-Chediski fire is that without the trees are homes are worth nothing.

This fire also highlighted the vulnerability of the forest to extensive destruction:

It is not what I want to live next to. It is a sad thing to see, especially when you know what was there before. I think we know now that we can lose it all. It can all burn up if the conditions are right. I never thought about it that way before. But, anyone who saw that fire knows it could be worse the next time and we will just be scorched earth.

Participants also link fire prevention with the socioeconomic future of the forest:

If we cannot get some long term contracts, ten or fifteen years, if we don't have the ability to have long term contracts to thin and clean and remove slash, then we will not get the clean industry to go in and do that for you. It will continue to cost more and more to harvest that material and burn. ... We will not see any industry to help prevent fire if we do not have the long term contracts to do the thinning This is a big switch from the old days when people used to pay to log the forest and it didn't cost the taxpayer any money and now it is costing us. ... Our communities are at risk and we need these long-term contracts. ... How do we do this so we can at least break even?

- Participants describe forest vulnerability as constituted by a combination of drought conditions, high tree densities, bark beetle and other insect infestations, and vegetation undergrowth. These conditions are generally evaluated as “unhealthy” and as predisposing forests to unusually hot fires. These conditions are compared to memories of forest conditions that were different in the past:

This forest used to be wide-open and very different than it is now. Then it was clear-cut and it changed the forest so that we have these dog hair thickets, none older than twenty-five years, which are a real fire danger. The whole thing is going to go up.

- Forestlands create a “surround” for communities and rural residents. This surround value has aesthetic and social benefits.
 - o The aesthetic values are associated with the varied topography, trees, and the presence of streams and lakes. Additionally, participants note the combination of tree types and the presence of Aspen add to the aesthetics of this forest.
 - o There is a social component to the surround value that derives from the benefits associated with open space and a buffer between communities and neighbors. Participants desire to live adjacent to open space and “undeveloped land.” There is some dialogue about the variability of the open space concept:

Some people move here and think they are next to national forest and they never have to worry again about neighbors. They think there will be trees there forever. They may not be thinking about logging or land exchanges or a forest fire. It isn't necessarily forever, but some people think that way.

- Forestlands are valued because they provide ready “out the front door” access to recreation opportunities:

Before we moved here we had a drive to go hiking or picnicking. Now, I can pack a lunch, walk out the front door and we are there. You get this feeling of having a big space close by

where you can go and get away from CNN or whatever is on your mind. It just takes less time when you live here and have it so close.

- Participants also describe forestlands as rich habitat for a variety of wildlife, including game valued by hunters and other species valued by those who enjoy wildlife viewing:

Sometimes in the evening we will go out for a drive just to look for elk. We can drive a back road or even see them along the highway. We are birders too and the forest is a wonderful place to go for birding. I don't think people appreciate how much birders come here. It is one of the reasons I am concerned and involved. Birds and wildlife need to be part of how they think about the future of the forest.

Wildlife habitat is also an important component of the desired future for the Apache-Sitgreaves NFs:

If you have a forest that has no wildlife, then that is not going to be a healthy forest. Everything depends on everything else. ... Wildlife needs clumps of trees and if you have forest health, then you have wildlife.

- In addition to its physical resources, some participants describe the Apache-Sitgreaves NFs as a place where natural sounds and scenic views provide psychological benefits:

I can still find a place where there is no ATV noise or snowmobile noise. I can get on the trail and walk into a mountain meadow and just sit there and watch. Just listen. That is one of the biggest reasons I go, just to be in a place that has beauty, peaceful sounds, and hear myself think. I need to be in place like that, we all need a place to go to like that once in a while.

In summary, participants value forestlands in part because of the lifestyle and aesthetic benefits provided by a readily accessible and aesthetically pleasing combination of trees, water, mountains, and wildlife. At the same time, participants perceive this forest is vulnerable to the effects of both development and deteriorating ecological conditions associated with tree density, drought, disease, and fire danger. Assessments of existing forest conditions and desired futures are filtered through memories of the Rodeo-Chediski fire. This event is likely to be fundamental to public assessments of a future vision for the Apache-Sitgreaves NFs because it highlights the potential for destruction of valued resources and lifestyles.

Agency Presence and Procedures

Each discussion group conducted for the Apache-Sitgreaves NFs had considerable dialogue about how the Forest Service manages resources and interacts with stakeholders. Some of this dialogue addressed issues about agencywide policies and procedures and others described the Apache-Sitgreaves NFs interaction with communities and stakeholders. Each of these topics is important to describing the environment for forest plan revision because these establish expectations about what the agency can accomplish in “Caring for the Land and Serving People”

Agencywide Policies and Procedures

Agencywide policies and procedures appear to affect assessments of the capability of local managers to manage resources and achieve desired futures from a public perspective. Public views about agencywide policies and procedures appear to have consistent themes as expressed by participants in other discussion groups in Arizona. These themes include concerns about

agency capacity, expertise and local knowledge to manage resources, concerns about the community effects of rotation of senior personnel, trust between the agency and stakeholders, and a litigation and bureaucratic based approach to resource management (Russell and Adams-Russell 2005, 2005). These findings are also consistent with themes about Forest Service policies and procedures expressed in some social assessment work on the Pacific Northwest Region, Montana and Idaho (Russell and Adams-Russell 2003, 2004; Russell and Downs 1995; Russell and Mundy 2002). The particular themes expressed in these discussion groups include the following:

- The working relationship with stakeholders and consistency in forest management is undermined by what is perceived as a rotation of senior forest managers including rangers and forest supervisors. Policies and procedures should include consideration of how to address the disruptive effects on communities of leadership personnel changes.
- Turnover in forest leadership is perceived to undermine consistency and the implementation of management plans.
 - o Forest management is perceived to be characterized by “in-action” that results from a bureaucratic structure and insufficient personnel and funding to complete the agency mission.
 - o Forest management has been “politicized” to the detriment of effective forest management. A solution is to rely on the “best available science” to assess what will improve forest health. It is acknowledged that this may result in the limitation of activities for some types of uses:

If the goal is a healthy forest, then some people may not get to use it the way they want. The Forest Service will have to stop saying, ‘we can’t touch them because of pressure from Washington.’ If they manage by the best science, then I think most people can accept it.
- The agency is perceived to have a defensive stance focused on prevention of litigation rather than one focused on effective resource management.

There is a great deal of paranoia within the Agency about new processes like stewardship contracts. They are used to this NEPA processes that can take years and years or how ever long they want it to be to get things done. ... You see some people doing what they should be doing professionally and there are others in there that are undermining it because they are yielding to political pressure or they don’t want to harm their career. Somewhere here there are people who have their priorities wrong. The Forest Service should not be afraid of someone filing a lawsuit. They should stand their ground.
- The Forest Service his perceived to have lost the ability to maintain resources because of the combination of limited budgets and the loss of revenues from activities such as grazing and timber harvesting.

These are strong criticism that suggest public concern about the capacity and will of the agency to manage valued resources. Although these criticisms are focused on personnel and policies beyond the boundaries of the Apache-Sitgreaves NFs, such assessments affect how participants perceive the long and short-term effectiveness of forest planning and management.

Apache-Sitgreaves NFs Interactions with Communities and Stakeholders

Interactions between stakeholders and Apache-Sitgreaves NFs managers (district rangers, the forest supervisor, and other management staff) affect the expectations about capacity, trust, and effectiveness of the agency to complete its mission. The following themes about these interactions were expressed in the interviews and discussion groups:

- Agency involvement in the Natural Resources Working Group enhances the working relationship with communities and provides a forum to address management issues and concerns.
- Although there is ongoing contact with county government, a “standing meeting” between the forest supervisor and county government is desired. This can facilitate effective communication regarding community concerns about forest management. In some instances counties receive “only a letter” about important issues.
 - o Relationships at the “project level” are described as productive.
 - o There is a desire to have more coordinated planning efforts between the Apache-Sitgreaves NFs and adjacent counties.
 - o There is some desire to have more understanding of the potential impacts to adjacent lands of management actions and more consideration of the potential benefits to counties of economic activities on Apache-Sitgreaves NFs lands.
- The Stewardship Contract also provides another working forum in which problem-solving and cooperative working relationships can be fostered. This encourages constructive working relationships on more difficult issues.
- Forest Service collaboration with local interests is a solid foundation that participants desire to see progress to more “partner relationships” to address management issues of mutual concern.
- Participants express “trust” in the management of the Apache-Sitgreaves NFs, but there is an opinion that this trust is not reciprocated. This appears to be an issue with permittees of various types.
 - o There is a “punitive” approach to Apache-Sitgreaves NFs relationships with permittees rather than one that recognizes the stewardship and benefits to forest resources of permitted uses. Participants desire to see a change in the orientation of trust for permitted uses of forestlands:

About trust, I think I trust them more than they trust me and that worries me. If they are going to do something, I trust they are going to do that. I have dealt with them extensively and I don't feel as if they trust me. Every little “t” has to be crossed and every little “I” has to be dotted. That shows me there is a lack of trust. Maybe part of that is they have been put through the ringer because of what they (USFS) have been through with the environmentalists. ... I would like to see them trust us more and work with us on problems....

- o Participants suggest most Apache-Sitgreaves NFs managers, especially the forest supervisor have earned their trust:

One of the best things is the Forest Supervisor is a fair person. She has some problems with people underneath her, but she is one of the best things has happened to management of this forest. ... We have been able to get good cooperation.

- o The effect of increased trust is a perceived change in the filing of lawsuits:

We are not getting the lawsuits on this forest the way we once did because there has been a build up of trust and a different kind of management. Maybe it is policy changes, but I think we have a community up here that after the Rodeo Chediski fire we know we have to do something. ... A strong Forest Plan that incorporates flexibility will make a difference.

- Some decision making is perceived to be influenced by “biased personal agendas.” For example,

There are people in the Agency that will make something happen because it is the right thing to do, there are some that are hiding because they don't want the confrontation with the environmentalists, so they say they can't do anything. Then there are some that have an environmental agenda, so they push it that way. So, I think there is a full spectrum of people in the Agency. ... So, what do you do when you have that full spectrum of individuals? ...

And,

I have been a good permittee and if you have a grazing or outfitting and guide permit, you will find people that have been responsible permittees for a long time, more than twenty years. My livelihood depends on that permit, but they can wake up in the morning and take my permit away and then I am out of business. ... There are certain individuals here on this forest that have their own agenda, they go off on their own tangents and if there is something they don't like, they will work against you because of their bias.

- o Ranching participants expressed concern about a bias against grazing rather than managing grazing based on good grazing practices.
- o Other participants perceive the agency “kowtows” to ranching interests because of the historical connections with this industry. This is also perceived to be a bias that affects management decisions.
- o Off road vehicle stakeholders expressed some concern about perceived bias among selected managers; and, they desire to see decisions made about OHV use that considers their values and uses of forestlands and resources.
- Participants desire more consistency in policies and procedures across District boundaries and with adjacent forests.

The problem is the inconsistency between the Districts. On one District you can do things one way and everything is fine. You go to the other District and you do things the same way and it is a problem. They are not consistent among their own Districts and that is a problem.

- Participants desire attention to communication within the organization and with interested publics.

There are some communication silos in their offices. One group does not always know what the other is doing. Some more coordination of effort and better communication would make them easier to deal with.

There seems to be some communication breakdown between the Forest and people in the Districts and between the Forest and the Region. They need to shore up their communication and leadership.

- The bureaucracy associated with decision making, issuing permits, and working with volunteers is perceived to be cumbersome and not user-friendly:

The process just to get a permit (to do log cutting) takes too long. Even if you want to take the smaller diameter trees, it is just ridiculous how long it takes. Look at (small local logging company), they have to go all the way to Colorado to get logs and right along side the road here we have what they are going to Colorado to buy.

We have offered our services as a club numerous times and they have only asked us to help once. They need to see more outreach and involvement with volunteers. Simplify the process so that volunteers can be involved. Let the public that wants to help do it. Figure out a way to make it happen without five months worth of permits or whatever.

The problem with the process is that it is too long and it just wears people out. It starts to make you think that is all they ever do is plan and plan to act, but never act. They need to get away from planning and start doing something.”

Sidebars

Sidebar issues are ones not usually addressed in forest planning, but which nevertheless influence public assessments of the outcome of planning actions. Participants noted three sidebar issues that are also commonly identified by participants in other discussion groups: The Endangered Species Act, the complexity and duration of the National Environmental Protection Act process, the use of litigation as a means to inhibit implementation of management actions on national forests.

Multiple-Use Values and Beliefs

Multiple-use continues to be a key concept that focuses dialogue about the uses of forestlands. Key topics in this dialogue include:

- Concept continuity and adaptation.
- Benefits and values of traditional multiple-use activities such as logging and grazing.
- Emergence of new recreation activities such as OHV use as key multiple-use issues.
- Education and enforcement issues.

The content of key ideas is summarized for each of these topic areas in the following subsections.

Continuity and Adaptation in Multiple-Use

Participants acknowledge multiple-use has been a cornerstone of forest management. The desirability of continuing traditional multiple-use management or the need for change is a key point in the dialogue about this topic. Participants who support continued use of this management approach suggest the concept does need adaptation to address current types of uses of forest resources:

Multiple-use does not mean every use in every place. It means intelligent use of the forest and that every use has a place. There needs to be a place for the different types of users.

This sentiment appears to be a response to conflicts among forest users, often OHV riders and others. These conflicts have resulted in a desire to have designated places for certain types of uses

or the restrictions on uses for some activities. Proponents of multiple-use suggest that open, free, uncontrolled use of all types in all places is no longer reasonable given population changes, increased demands, and the variety of use types. One participant well expressed the need for adaptation of the concept to suit existing conditions:

I don't think the concept of multiple-use is flawed. Sometimes the implementation is flawed. Multiple-use does not mean on every acre it means over a whole forest. There are places where you can have lots of things going on at the same time and other areas where you need to be restrictive. Livestock has a place, timber harvest has a place, OHVs have a place. It is when and where you do certain things. That is smart management and science gets into it too.

The counterpoint in this dialogue is the need to adapt the concept to include limiting or prohibiting certain uses if they are not consistent with goals for ecosystem and forest health. For example,

Every national forest you enter, you see the sign 'Land of Many Uses.' That has been an interesting philosophy and it has contributed to the mess we are in. Why don't we change those signs to 'Land of Intelligent Uses.' We just need to acknowledge that we cannot continue to let everybody do what they want to do on the forest. If a use is damaging the forest, let's do something about it, even if it means restricting or limiting some types of uses.

Proponents of this perspective believe that other values may have precedence over maintaining all types of uses with some restrictions. Instead, the belief is that if science-based information indicates that particular uses are damaging resources more than they are contributing to forest and ecosystem, health, then prohibition of these uses should be considered.

Benefits and Values of Traditional Multiple-Use Activities

Some participants emphasize there are important benefits to traditional multiple use activities such as timber harvesting, grazing and, mining. These benefits include promoting forest health, maintaining forest resources, reducing the cost of forest management, and contributing stewardship to forest management. Collectively, these benefits are believed to provide benefits that favor support for these traditional activities. These assessments are amplified given other assessment of poor forest health, and diminished agency capacity to manage forest uses and resources.

Participants believe that traditional uses have in the past provided direct benefits to forest health by activities that include, reducing the volume of trees on the forest, grazing the undergrowth to reduce fire danger, and, promoting wildlife habitat. For example,

Taking cattle off the forest has been detrimental to wildlife. You take the salt, the water, and the ranchers improvements, and then the country goes stale. For instance, just take the Triple X ranch. They took all the cattle out of that country. It used to be loaded with Mule deer. If you ride through there today, you will not see one deer. They have no salt, no water, the cattle used to graze off the high grass, but now nothing lives there. There is nothing in that country and it used to be loaded with game. My dog can't even find a squirrel in that country. Those of us that know this country know that cattle help the wildlife. If we don't use the forest, then you lose it. It gets burned and you lose the game and the other resources.

In areas that I go and visit and know something about conditions on the land, those are areas that have been logged, and those are the areas where the spotted owl is doing the best. The places I have seen the spotted owl is next to Alpine. ... The point is we have gotten along well for over a hundred years with man as part of the ecosystem. Man has been active here in the ecosystem for well over a thousand years and things have been fine.

Traditional uses also are perceived to assist the Forest Service to provide roads and trails for other users, water for wildlife, and other activities that assist the agency to maintain resources in a time when users question the agency's capacity to maintain trails, roads, campgrounds, and other resources of interest to forest users.

The economic component of traditional use is believed to have been a significant value that is not replaced by more contemporary management activities such as stewardship contracting:

If you look at the forest say thirty years ago when logging was going great guns, it was a lot healthier than it is now. With the stewardship program, the Forest Service is paying people to remove stuff rather than being paid. The roads out there were built and maintain by the loggers. The first guys on a fire used to be the loggers because they didn't want to lose their resources.

Some proponents of traditional use also question if a traditional timber industry could reemerge:

I am not sure there is a large log company that would move to this area. Maybe some smaller businesses are the ones that are really going to work. The larger more merchantable trees may not be there for the larger companies. It is probably the smaller companies that will be able to make it.

Some participants suggest the White Mountain Stewardship Contract is a step in the direction of promoting small-scale timber harvesting and thinning, while others are skeptical that such efforts will have any meaningful effect on forest health. Yet, there remains some hope that this approach will assist with the economic costs of forest management:

The Stewardship Contact is our only hope to reduce the cost to the forest of management.

The other benefit of traditional multiple-use activities is the stewardship benefit that results from permitted use by timber and ranching interests. The belief is that self-interest as well as a love of the land results in applying stewardship values that benefit forest resources and other users. Some participants believe this is an under-appreciated value of traditional multiple-use activity. The self-interest and lifestyle based caring for the land is an opportunity for the agency to cultivate mutual benefit. Some participants suggest the stewardship values of loggers and especially ranchers should be an item for future discussion among stakeholders:

Some people call ranching now just 'hobby ranchers.' But, when you are diversified, it is not because this is a hobby. ... You need multiple sources of income to stay in business, you need to diversify to adapt. ... We keep hearing from the Forest Service that we should get into the bed and breakfast business because recreation is going to save us all. If the forest burns down, we are not going to have any bed and breakfast. You have to take care of what you have or you won't have anything. ... We provide something to the forest with our permit and our grazing and it is not something you get from a bed and breakfast guest. We are out there

on the land every day and we know it probably better than they do. And, we have been caring for it longer than anyone in their office has.

Traditional activities on a “working landscape” are also perceived to have direct benefits for fire prevention:

It is a symbiotic community forest. It is an amenity forest and a forest that has economic benefits. We need to have clumps and uneven tree stands so fire is broken up and does not carry the way they have in the past. We have to be able to cut trees to create that and have a market for the trees. And, cows also create some of those open areas that break a forest up. You know a working landscape is a healthy landscape. It needs to work.

Recreation, OHVs, and Multiple-Use

Population growth and changes in population composition are resulting in an increase in the importance of recreation as a use of the Apache-Sitgreaves NFs and other national forests in this region. Although there are other issues about the use of forest resources, most participants acknowledge that recreation is among the topics that needs focused attention in Plan Revision because of the increased volume of use, the potential for conflicts that disturb user experiences, and the potential dangers associated with fire. For example,

Recreation is probably going to be the largest and most difficult topic to deal with in this new Forest Plan. Somehow, we need to use the expertise on the forest to manage multiple-use. We can't shut everything out and recreation is going to get bigger and bigger.

Participants describe the full range of uses of forest resources for recreation such as birding, wildlife viewing, and hunting, color watching, fishing, hiking, backpacking, and horseback riding.

You also have the hunters, the color watchers, and you have people collecting firewood, and all kinds of other recreation users. It is hard to find a place all by yourself on this forest unless you go way off the beaten track.

A prominent theme expressed by participants is the importance of access to forestlands for recreational purposes:

A huge issue for me is access. We need to have the roads and trails in good shape so we can get in to see and enjoy the resource that is there. And, we don't have to pay to do it and that is also very important to us. We are lucky that it is not like California where you have to pay to go and use it. But, we need to make sure that access is on the list for them to think about in Plan revision.

Dialogue about recreational uses focused on OHV riding and its interaction with other users. Several themes were present in this dialogue:

- OHV use is increasing and this is likely to continue in the future because of population changes and the desirability of the Apache-Sitgreaves NFs as a resource of OHV riding. For example,

The grey wave folks are buying utility ATVs and coming up and enjoying the forest again. They can't or won't walk and it is happening all over. The grey wave has caught on they can

come out and recreate with ATVs and it is something we have to deal with. If we don't get the trails in ... then they are going to be riding wherever they want. The retired and semi-retired folks are the ones that are starting to ride again.

- There is a desire for more trails. Some participants suggest the need for designated trails while others perceive that “multiple-use” trails are necessary for the future. For example, *Having OHV trails is a good thing. It directs the use, it allows for other uses elsewhere, and people can have their experience on OHVs without disturbing others. The Forest Service needs to be able to make some hard decisions about OHV use in this next Forest Plan. The vast majority of people can agree that multiple-use is a good thing. ... Managing that use is important or else their will be more and more conflict out there.*

We just have to realize that with the numbers of trails we have, there are going to have to be multiple-use trails here in the future. They are doing it elsewhere. Horseback riders share trails with ATVs. It is an issue of education and respect, but it can be done and we are going to have to do it.

- OHV use is disturbing some users and a perceived solution is designated use areas: *There is nothing I enjoy more than going for a quiet walk, seeing some birds and just enjoying being away from town. No cars, no stoplights, and no noise. I am out there just walking along, and around a corner comes a herd of ATVs. Now, it is everybody's forest, but I need a place just like they do. When I walk, I am not disturbing them. When they roar by, that noise is a problem. Designated places are the solution I see.*

A final prominent theme about OHV use is the need for education and enforcement. This is part of a larger topic about education and enforcement needs that are addressed in the following subsection. However, there is belief that some of the problems with OHV off-trail riding are related to limited resources:

OHV is huge. You take places like Utah. They are years ahead of us. They have a 274-mile trail ... that generates 60,000 riders a year. We got thirty miles a trail here and we probably have 60,000 riders here too. Guess what happens then? Ranchers get their fences cut and problems develop.

Education and Enforcement

Rule violations and illegal activities are perceived to be emerging problems as the volume and types of use increase. Themes about these activities include: beliefs that the use of forest resources are a privilege and not a “right;” limited resources for enforcement while there is a growing problem requiring enforcement; forest service closures as a response to misuse; and, using peer pressure and education as an alternative response to problem behavior.

- Participants suggest beliefs such about the “right” to use public lands do not fit the current conditions of increasing demand and growing problems with abuse of resources. Cultivating stewardship and meaningful enforcement are perceived as solutions to problem behavior: *Using our forests are more of a privilege than a right. We need to think of it that way and it is a mindset that needs some education. People think they have a right to go out there, but they need education that it needs to be used in a particular way or that privilege gets taken away. I*

would like to see the Forest Service and Game and Fish write a few more tickets. Some enforcement and some civil actions should be taken against some of these people.

- With more people moving to the area and increased visitation from metropolitan areas such as Phoenix, abuses such as vandalism in campgrounds, littering, and damage from off-trail riding are perceived to be increasing. Resources to respond to these problems are perceived to be insufficient to address the scope of the enforcement demands:

We have three enforcement officers on this whole forest. The reality is there is not much in the way of enforcement on this whole forest.

- Participants expressed concern about policies that favor closure of areas where problem behavior occurs rather than exploring other solutions. These closures are assessed as adversely affecting the majority of legitimate users because of the actions by a few problem users.
- Increasing education about appropriate behavior, using volunteer groups as a means to exercise peer pressure for appropriate use, and also providing designated places for legitimate use are each perceived as viable alternative solutions to enforcement issues:

So, why not provide some options where people can voluntarily comply so people can participate and enjoy it. ... If we get permanent trails in, then ninety percent of the wildcat riding will go away. There will be the two percent who will not abide by the law, but the bulk of the people will be law abiding.

Resource Issues and Desired Futures

Participants expressed values and beliefs about particular resources such as trees, wildlife, scenery, and trails. However, the over-riding concern expressed about forest resources is the assessment of vulnerability of all resources to the combined effects of tree density, insect infestations, and fire danger. The focus for a desired future vision of the forest is addressing forest vulnerability to catastrophic fire. A sentiment similar to those noted in the discussion about forest characteristics expresses this concern:

We are a tourist destination because of the tree and our scenery. We have elk and wildlife and birds and people are building houses here because we are a beautiful spot. Our houses have gone up in value and we are happy. But, we learned in 2002 that all that can be lost in a fire. All of it can be lost if we don't deal with the basic problem we have about the health of this forest. None of the rest of these things will matter if there isn't habitat or there, isn't a pretty place to visit or live.

This concern appears fundamental to participant assessments of a desired future for the Apache-Sitgreaves NFs:

We can have it all here. We can have cattle, and elk, ATVs and all of it. But, we have to think of the big picture. We have to think at the watershed level. ... If you just manage for the Apache trout or the spotted owl, then you lose sight of the big picture. You can't be everything to everybody. And maybe managing for the Apache trout or any one species is the downfall of the forest. But, if we focus on watersheds, then tree density and water flows get your attention. If we don't deal with the watershed level and manage tree densities, then it will all become irrelevant.

Forest restoration is perceived to be one of the paths to a future that will reestablish balance and protect communities as well as promote forest health:

Restoration is one of the keys to the future. Forest restoration is going to help livestock, it will help wildlife, it will help recreation. If you get those natural processes back on the ground, then things will get back into balance.

Such assessments define what are likely to be key issues in future public dialogue about particular resources and their contemporary and future value.

Fire, Water, and Trees

Although some consider fire more of a danger than a resource, the association of fire, tree density, and water availability is linked in participant assessments of forest resources. For example,

There are areas that after a fire there is more water. Streams that had little water in them before the fire are streams that have water full flowing in them.

Participants perceive there is a higher tree density than in historical times and this is currently predisposing the forest to fire and posing a threat to adjacent communities. Managing to protect communities from fire is perceived by some to be the first step in creating a new future for the Apache-Sitgreaves NFs:

They do not have the tools to do what they need to do. They have made some big progress in the past few years, but they need to protect communities. You can't do much in forest management unless you protect communities first. ...

Prescribed burns, natural fire, and timber harvesting are linked as solutions to creating desired futures:

There needs to be this three-pronged approach to forest management, and the first priority needs to be to protect communities, protect the WUI. Then there is the land outside of that. We have the ability to use timber management and controlled burns on those lands. Then we have land in steep rugged areas that, well we are crazy to think we are ever going to log that. It is not economical, never has been accessible enough to do it. In those areas we have to use natural fire or even prescribed fire to restore those areas. But, we cannot do that unless we focus on the interface, then the lands beyond that, then in other areas let fire play more of a natural role.

Participants expressed a desire for a more open forest with a combination of age stands and “clumps” that can create a “mosaic” on the landscape rather than a “carpet of trees that is a fire danger.”

Invasive Species

Participants describe invasive species as a developing issue for future forest management:

We are lucky that we are not affected by invasive species like some other places like the San Francisco Peaks area or even on the Tonto. We need to stay on top of it or else it is going to be a big problem. If the weeds take over, then we have lost the war.

Participants urge attention to considering the use of volunteers and coordination with other Agencies in order to anticipate problems with invasive species, especially weeds. The concern is that without anticipation of the problem, then “the weeds will win.”

Open Space and Land Exchanges

Forestlands surround many of the growing communities adjacent to the Apache-Sitgreaves NFs. The open-space provided by these lands is a valued asset of the forest as a buffer against future development, but also as a potential resource for land exchanges to enable development. Participants expressed some concern about land exchanges as having the potential to limit access to the forest if rights-of-way are not anticipated; and, there is also concern about the potential ecological consequences if conservation or other types of easements are not part of the land exchange plan:

Conservation easements are the way you can protect a land exchange from local politics. No matter what the developer may want and the council may want the developer to do or not do, if there is a conservation easement it protects the land. Every developer wants you to change to suit his pocket. So, that ca not be the best thing for the land and a conservation easement can help to protect the land.

Local government interests also expressed concern that the needs for municipal growth should be considered as a criterion for land exchanges:

I want to make sure the Forest Plan does not take away or impede the process that municipalities are using for land exchanges. ... The communities are just surrounded by national forest. Showlow, Pinetop, those kinds of places are just surrounded. The land exchange process now takes maybe seven to ten years. That can stifle growth tremendously. ... The process of land exchange for responsible developers should not be impeded. Only seventeen percent of all lands in Arizona are open for development, so it should not take ten years to do a land exchange. Developers need guidelines along with the expedited land exchange process. There needs to be conservation easements and the right guidelines so that a land exchange is a positive effect for the community. For example, open space and trails for access might be part of the guidelines for developers when there is an exchange. It needs to be responsible. You need to be careful it is not a one size fits all conservation easement that meets wildlife and other needs. It needs to be on a case-by-case, science based perspective that also considers what the community needs.

There was some limited support for consolidation of in holdings if there is some ecological benefit. For example,

We want to get some of the old homesteads out of the middle of the fore. They could fill in those lands if there is some benefit to the forest. One of reasons they should do land exchanges is to protect lakes and streams.

Respite

There are some psychological or personal renewal benefits that are believed to be available to users of forest resources. These types of benefits are associated with places that are described as “quiet” and allow users to have experiences undisturbed by other users. These types of benefits are expressed in the following comments:

I go to the forest to listen to the silence. I think it would be nice if we could have quiet areas. It would be nice if you could go to the forest and have a place where you didn't hear chain saws or ATVs or the noise. I hear enough noise in town and I go up on the hill to hear the silence. You really have to go looking for quiet

One of the most important things about the forest for me is that I can just go there and find quiet and a peaceful place to sit and think. No chain saws, no noise, just nature and it helps me to face the next day. That is what I really find important about it.

Trails and Roads

Access to forestlands is both a valued asset and a desired future. Forestlands that continue to be accessible without fees or undue restrictions are valued as contributing to recreation opportunities and enhancing the overall quality of life in the region. As noted elsewhere in this report, some participants expressed a desire for designated trails for OHV use while others perceive the need for both designated OHV areas and multiple-use trails open to all users. Maintaining trails and planning for future demand are priority recreational issues expressed by participants.

Wilderness

Prominent themes about designated wilderness areas include the following:

- Existing wilderness designations are valued, but there is skepticism about the need for any future wilderness designations.
- Wilderness areas are perceived to be “unmanaged” because of restrictions about the types of activities that can occur in these areas. Some participants suggest these unmanaged land may put adjacent areas of the forest at risk because of limitations on responding to fires in wilderness areas.
- Wilderness areas are perceived by some to be “desolate” and unproductive areas because they are unmanaged and restrict the full range of use of public lands.
- Wilderness is a resource that evokes ambivalence because it is attached to past conflicts about diverse views and positions regarding land management and forest resources.

Wildlife

Scenery, water, trees, and wildlife are described as among the most valued resources of the Apache-Sitgreaves NFs. Participants note that hunting, birding, and wildlife viewing are activities valued by local residents that also attract visitors and result in economic benefit to local communities. Ranching and wildlife interests noted issues about elk competing with cattle for grazing resources and each interest group described a desire to see more interagency cooperation in attending to wildlife management issues.

Implications for Collaboration

Revision of the existing forest plan will proceed under new planning rules that incorporate collaboration with interested publics. Findings from this project as well as the University of Arizona Socioeconomic Study (Arizona National Forests Socioeconomic Assessment Team 2005) and recent work by the Ecological Restoration Institute at Northern Arizona University (Abrams 2005) suggest one noteworthy implication for future collaboration with interested publics: issues

are connected to one another in some predictable clusters and understanding their interconnections will contribute to productive collaboration. Dialogue that explores connections among issues such as fire, tree density, water availability, and traditional multiple-use will assist in identifying areas of common ground that can be a basis for a shared vision for the future of the Apache-Sitgreaves NFs.

Participants in collaboration are likely to raise multiple-use and resource issues identified in previous sections in this document. Developing the connections among issues in order to solve the right problem will be essential. Similarly, the dialogue about forest futures and strategic issues is also likely to include other topics about relationships with the agency and among stakeholders. For example,

We all have more common ground than we are aware of. ... It is one of the biggest challenges we have is how to make the Forest Plan revision a venue for us to keep talking. The public, the users and stakeholders, and the Forest Service all need to keep talking. There should be some way to have the Forest Plan revision process used as a method of communication to keep us looking for common ground.

Consequently, the revision process is likely to be a high visibility effort in which participants have expectations about achieving a new balance in working relationships and forest management practices. They also hope this process will enable working toward common ground solutions to benefit the resources valued by all stakeholders. Other topics that are likely to shape dialogue about the content and process of forest plan revision include:

- Economic Benefit and Resource Uses. Traditional multiple-use perspectives perceive that using practices such as sustained yields and rotational grazing result in stewardship value for the forest, savings for taxpayers, and economic benefit to the permitted users and their communities. This traditional perspective suggests that existing problems with forest management can be meaningfully addressed by reincorporation of economic benefit as an element of forest management. Concerns about lumber supply, size of operations, and long-term contracts are part of the dialogue that is likely to occur. This perspective will coexist with other concerns about assessing the trade-offs of the economic and ecological benefits and costs of traditional multiple-use activities.
- Interagency and inter-governmental cooperation is a concern of participants in this process and it is likely to become a topic for discussion as collaboration proceeds. Participants appear to expect interagency involvement, especially with the Natural Resources Conservation District, Arizona Department of Game and Fish, and county governments.
- Partnerships with stakeholder may also be raised as a topic for addressing some of the perceived limitations of the agency in meeting existing and future obligations for forest management. Topics that can be anticipated include: desires to use volunteers more effectively, streamlining bureaucratic processes for working with stakeholders and forest users (especially about permitted uses), using the stewardship values of users to benefit the resource, and creating partnerships with organized groups to address problem behavior and promote education about responsible use.
- Reliance on science and effective monitoring in the future appear to be concerns shared by a range of stakeholders. Participants suggest that science-based decisions and not politicized decisionmaking will benefit forest health, community well-being, and stakeholder cooperation. For example,

We need to act on the best science. For example, if science is telling us that cattle in the forest under certain conditions is bad for that piece of forest, then let's have the guts to stand up and not let cattle on that piece of forest. If the best science is telling us that certain kinds of roads are destroying meadows, then let's not build those roads in meadows.

So, we should not just take the easy science to implement, but do what the best science tell us. That may mean dealing with the political part of things, the OHV group, the permittees, and others. ... It has to be an acknowledged statement and commitment by the Forest Service to use best science to restrict any uses that are working against forest health. ... Maybe that means reducing the density of houses or the number of septic systems, but if we are going to use good science, then we need to get rid of all these sacred cows, literally and figuratively that we have had out there. On public lands we need to grab hold of what we know and care for the land intelligently. Every use and every user should not necessarily be entitled to the forest if their use undermines forest health.

Monitoring is perceived as a foundation of establishing the “best-science” and as a means to address politicized positions about forest management:

One the reasons we have been in this heavily conflicted state is because we have had so many interpretations of what is going on. There wasn't the type of monitoring that would show that these are the consequences of your (management) actions. It was 'this is what I think happened' or 'No, this is what I think happened.' then boom you are in the morass of indecision and stopping of everything, It is my hope we can find support for monitoring, not only in the Forest Service, but in all of us. It prevents the mess we got into fifteen years ago.

It is always in the Forest Plan and it is in every project, but it never seems to happen. It is probably never funded. I don't think it is taken seriously enough, especially when we are embarking on new forest management techniques. ... If you have good monitoring, then you can have adaptive management and you may not lose anything. You hope you can also protect communities and the forest too. ... We don't seem to have enough information about a lot of resources, like wildlife. Someone told me that after the fire the woodpecker population was down, but there are lots of doves and pigeons. We need to know those types of things to manage effectively.

Monitoring is also perceived as a solution to some participant concerns about long-term accountability:

How are you going to do long term science without monitoring? It is like what has happened to the Forest: without monitoring you don't know what is happening and how to adjust. Without monitoring, there is no accountability.

- Transparency and inclusiveness are implied in participant statements about communication concerns, internal bias, inconsistency in management practices, and other concerns about agency and Apache-Sitgreaves NFs management policies and procedures. Participants expressed desires for a meaningful Plan revision process in which stakeholders work with decisionmakers to identify issues and solutions. Who is involved in this process, the transparency of the deliberation and decisionmaking process, and the perceived fairness of the personnel involved are each likely to contribute to participant assessments of the effectiveness of collaboration.

Chapter 3. Results

These types of issues will influence discussions among stakeholders and with agency participants. Attention to these and other issues identified in the suite of available socioeconomic and cultural information can assist participants in collaboration to develop a future vision for the Apache-Sitgreaves NFs.

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Appendix – Topic Areas for Discussion

Please describe where you live and your interest in national forest lands.

Community Character and Recent Changes

How has this community changed in the last 10-15 years? What are the sources of community change?

Have these changes had any consequences for forest lands?

What communities, occupations, or lifestyles are most and least affected by how this national forest is managed?

Uses

Describe your use or the uses of family members of Forest lands. (Please indicate use areas on the national forest map.)

Are there types of uses of forest lands that you feel need to be enhanced or better managed by the Forest Service? (Please indicate on the map)

Are there areas where some types of uses are in conflict? (Please indicate on the map)

Is there anything the Forest Service should do to change how Forests are used in the future?

Resources

What are the special qualities and characteristics of this national forest?

For example, wildlife, vegetation, vistas, climate, historical structures or sties, timber, grazing, trails, quiet places, etc...

Locate on the map the forest resources that are important to you.

What changes would you like to see in the management of forest resources?

Favorite Places

Do you have a picture or a story about a favorite place on this forest? Can you describe what makes it a favorite place for you?

What are your thoughts about the benefits of Wilderness, Roadless, and similar areas for this national forest?

Do you believe there is a need for additional designations for lands or resources within this national forest?

National Forest Benefits and Values

What do you value about this national forest? (e.g., Products, Services, Opportunities, Existence)

What are the benefits to nearby communities and groups from this national forest?

Desired Futures

How would you compare the conditions in the forest now to how you would like to see them in the future?

What should the Forest Service do to achieve your future vision for these lands?

Key Management Issues and Priorities for Future Forest Management

What do you think is broken and what needs to be fixed in management of this national forest?

What has the USFS done well in its management of lands and resources here?

Are there any additional issues would like the forest to consider or address in future management?