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Values, Attitudes and Beliefs Toward National Forest System Lands: The Tonto National Forest



Values, Attitudes and Beliefs Toward National Forest System Lands: The Tonto National Forest

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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 Tonto National Forest (NF). 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. This information was collected and synthesized to identify local perspectives about key issues and concerns about forest resources and management. These perceptions and assessments of participants 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.

Identification of values, attitudes, and beliefs was achieved by the use of a discussion group or focus group approach (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 Tonto NF. 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. Four discussion groups were conducted to collect values, attitudes, and beliefs about the Tonto NF. These groups were conducted in locations intended to be convenient for participants from the wide geographic area occupied by the Tonto NF. Locations for the groups were Mesa, Globe, Payson, and Young.

The data were 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 comments were then identified to illustrate specific points where the issue could benefit from a statement by participants in their own words. Analysis indicated the data are in four major categories: the planning environment; multiple-use; resource benefits and values; and, desired futures.

Context: The Forest and Socioeconomic Setting

Located adjacent to the Phoenix megapolitan area, the Tonto NF has the largest acreage of all Southwestern Region national forests with more than 2.9 million acres. The Tonto NF is located within portions of Gila, Pinal, Yavapai, and Maricopa Counties. Population growth is noteworthy, especially in Maricopa County, which has one of the highest growth rates in the western United States.

Results

The Planning Environment

Forest planning and management occurs in the context of social, economic, political, cultural, and ecological conditions and trends. The configuration of these factors can influence what topics are identified as requiring management attention, desired solutions to identified issues or problems, and how publics choose to participate or not in planning and collaboration activities. This work

identified several key factors affecting the Tonto NF planning environment: social setting, forest characteristics and conditions, Tonto NF management, assessments of Agency-wide policies, and procedures, and sidebar issues that are not usually addressed in forest planning such as the Endangered Species Act and Clean Water Act.

Multiple-Use

Participant statements expressed values and beliefs about the multiple-uses of the Tonto NF, including access, enforcement, fees, grazing, power line rights-of-way, problem uses, recreational uses (especially OHV use), and restriction of uses. There is some overall support for the general notion of multiple-use, although with qualifications about what types of uses can occur in which places. The "every use in every place" approach was not generally expressed among participants. A more common theme is the assessment that not all uses are suitable for all places. Participants identified the following multiple-use issues and topics: access and restrictions on use of forest lands and resources; positive and negative evaluations of fees for use; assessments of the suitability of grazing on Tonto NF managed lands, the rise of problem behavior and the need for increased enforcement, power line and transmission tower uses of forest lands, and multiple issues regarding OHV use on national forest lands.

Resource Benefits and Values

Participants identified Tonto NF resource benefits and values in three major categories: biological and natural resources, ecosystem services, and socioeconomic benefits. Biological and natural resource benefits and values include wildlife, vegetation, watersheds, timber, open spaces, and wilderness. Ecosystem services benefits and values concern the ecological benefits of national forests such as their contribution to clean air, flood control, biodiversity, and especially the importance of water supply and quality. Socioeconomic benefits and values include economic benefits to local government and industry, respite and psychological values, quiet, and lifestyle support.

Desired Futures

Participant comments about desired futures were categorized into three groups: resources; uses; and, management policy and community interaction. The major themes about forest resources include managing for sustainability, protection of riparian areas and watersheds, the intrinsic values of forest resources, the role of fire in forest health, and the management of noxious weeds. Comments about the desired futures for the use of Tonto NF lands and resources include emphasis on management of recreation, increased attention to trail design and maintenance, consideration of the role of OHV use on Tonto NF managed lands, improved approaches to managing recreational shooting, and consideration for how to balance the demands on water for grazing, recreation, and consumption. Participant comments about desired futures for management of the Tonto NF emphasized assessing the limits of local environments before management approaches are implemented, using science rather than politics as a basis for making management and planning decisions, attention to enforcement issues, assessment of the costs and benefits of user fees, consideration for any need to control the numbers of users in some areas, encouragement of non-motorized recreation, a more transparent approach to land exchanges, development of meaningful approaches to collaboration, support for rural communities, and consideration of the potential economic and ecological benefits of resource-based uses (e.g., timber and grazing) for the future health of forest resources.

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 Tonto NF. 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 and cultural factors that may influence forest planning and management. This VAB information is part of a suite of socioeconomic and cultural information being assembled for planning purposes. Scholars at the School of Natural Resources at the University of Arizona have prepared a comprehensive socioeconomic assessment for all Arizona national forests, including the Tonto NF (Arizona National Forests Socioeconomic Assessment Team 2005). Additionally, the Rocky Mountain Research Station is preparing to administer a survey to Arizona and New Mexico residents that will provide forest-specific and regionwide population based information about forest resource and management issues. This collection of information provides forest managers with forest-specific data to compare with similar state and regional data.

The VAB information presented in this document provides a different set of information than either 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. These perceptions and assessments of participants 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 relevant factors affecting public evaluation of forest planning and management. Similarly, the VAB 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 for the Tonto NF.

Methods and Data Collection

Identification of values, attitudes, and beliefs was achieved by the use of a discussion group or focus group approach (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 Tonto NF. The goal was to select participants with a range of perspectives about forest management issues by identifying individuals with knowledge about their community or forest management issues. This targeted sampling approach (Bernard 1995; Morse 1998) is not intended to result in groups "representative" of their communities. Instead, the intent is to include individuals knowledgeable about forest and community issues.

The interviews and discussion sessions were focused by a discussion guide (see apendix) 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 to interpret the content of other discussion topics. The social environment discussions were oriented to how the social environment has changed since the last forest plan. 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 directly address topics participants wish to see addressed by decisionmaking or planning. For each of these topic areas, the strategy was to avoided 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 collected for other national forests. This existing information can be used to structure follow-up questions and probes. The discussion groups conducted for this work had such a base of information based on similar work conducted for other national forests in the Southwestern Region, including the Coronado, Prescott, Apache-Sitgreaves, Coconino, Kaibab, Gila, Carson, and Cibola National Forests as well as three National Grasslands (e.g., Russell 2005; Russell and Adams-Russell 2005, 2005, 2005, 2006).

Four discussion groups were conducted to collect values, attitudes, and beliefs about the Tonto NF. These groups were conducted in locations intended to be convenient for participants from the wide geographic area occupied by the Tonto NF. Locations for the groups were as follows:

- Offices of the Tonto NF, Mesa Ranger District were used for a discussion group attended by thirteen persons representing recreation, environmental, water rights, mining, transportation, OHV, and educational interests.
- The Globe Chamber of Commerce offices were the site for a second discussion group attended by 12 persons, including water interests, local government, ranching, off-road vehicle users, other recreation interests, transmission tower interests, and local businesses.
- A meeting room at a local college was the site for a third discussion group held in Payson. Nine persons attended this session, including water interests, local government, Arizona Game and Fish, power transmission line interests, ranchers, economic development groups, fire management, and off-road vehicle groups.
- A fourth meeting was held in the community of Young in a meeting room at the offices of the Pleasant Valley Ranger District, Tonto NF. This meeting was attended by approximately 19 persons, mostly from the community of Young and surrounding areas of Gila County. These individuals included timber, ranching, local business, community development, local government, and Natural Resource Conservation District interests.

Additional individual interviews were conducted with persons who could not attend the scheduled discussion groups for various reasons. These individuals included local government, ranching, wildlife, and environmental 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 for non-recorded sessions (Sanjek 1990; Emerson, Fretz, and Shaw 1995). 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 issues were grouped within these categories. Representative comments were then identified to illustrate specific points where the issue could benefit from a statement by participants in their own words.

Presenting this material presents several challenges. 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.

Context: The Forest and Socioeconomic Setting

Located adjacent to the Phoenix megapolitan area, the Tonto NF has 2.9 million acres. It is the largest national forest in the Southwestern Region. As with other forests in the West and Southwest, the Tonto NF was created at the turn of the last century (Baker and United States. Forest Service 1988).

The forest was created in 1905 to protect the watersheds of the Salt and Verde rivers. This continues to be a central focus of the Tonto National Forest while the reservoirs built along these rivers have created recreational opportunities for thousands of Arizonans.

The Forest Supervisor's Office is located in metropolitan Phoenix. Additionally, there are six ranger districts:

- 1. Cave Creek Ranger District contains about 570,000 acres with offices in Scottsdale.
- 2. Globe Ranger District contains about 450,000 acres with offices in Globe.
- 3. Mesa Ranger District contains about 430,000 acres with offices in Mesa.
- 4. Payson Ranger District contains about 450,000 acres with offices in Payson.
- 5. Pleasant Valley Ranger District contains about 420,000 acres with offices in Young.
- 6. Tonto Basin Ranger District contains about 510,000 acres with offices in Roosevelt.

The Tonto NF is adjacent to other northern Arizona national forests. The Apache-Sitgreaves NFs is to the north and east and the Coconino and Prescott National Forests are west and north. Combined, these four forests occupy about 9 million acres in northern Arizona. Table 1 shows a ranking by acreage of Southwestern Region national forests, including the Tonto. Figure 1 is a map showing the relationships of the forest to surrounding counties. County populations are also incorporated into this map. Table 2 and Figure 2 show land ownership for adjacent counties, including national forest acreage.

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 | 5 | 2,761,386 | 2,632,018 | 129,368 |
| Cibola NF | 3 | 2,103,528 | 1,631,266 | 472,262 |
| Coconino NF | 4 | 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: USDA Forest Service http://www.fs.fed.us/land/staff/lar/LAR04/table3_r3.htm

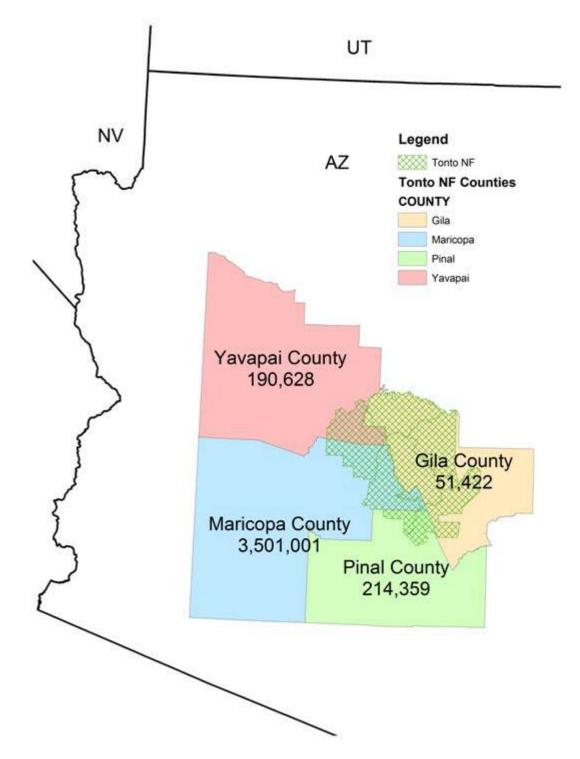


Figure 1. Tonto National Forest Counties with Census 2000 Population

Table 2: County Land Ownership

| County | BLM | FS | State | Private | Indian | Other Public Lands | Total Area |
|----------|-------|-------|-------|---------|--------|-----------------------|---------------|
| Gila | 65 | 1,705 | 31 | 71 | 1,159 | 20 | 3,051 |
| Maricopa | 2,431 | 658 | 650 | 1,833 | 264 | 53 | 5,889 |
| Pinal | 290 | 223 | 1,206 | 748 | 774 | 196 | 3,437 |
| Yavapai | 567 | 1,969 | 1,264 | 1,327 | 8 | 64 | 5,199 |
| Total | 3,353 | 4,555 | 3,151 | 3,979 | 2,205 | 333 | 17,576 |

Source: U.S.D.A. 2004 Arizona Agricultural Statistics Bulletin

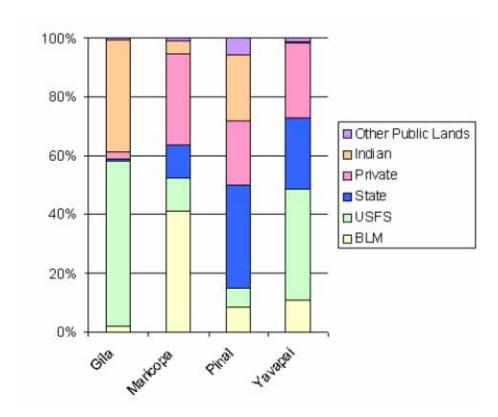


Figure 2. Tonto National Forest County Land Ownership

The socioeconomic assessment prepared by the University of Arizona provides a detailed analysis of existing demographic, economic, and other relevant socioeconomic issues concerning the relationship of the Tonto NF to surrounding counties and communities (Arizona National Forests Socioeconomic Assessment Team 2005). This analysis should be consulted for information about the social and economic context of the VAB information presented in this discussion. Other VAB reports prepared for this study have included summary census information as basic background about population trends potentially affecting participant responses to discussion guide topics. This summary census information is presented in table 3 and figure 3 on the following pages.

Table 3: Tonto National Forest

| | | | Tonto NF | | |
|---|-----------------------|---------------------------|------------------------|--------------------------|-------------------|
| People QuickFacts | Gila County, AZ | Maricopa County, AZ | Pinal County, AZ | Yavapai County, AZ | Arizona |
| Population, 2003 estimate | 51,448 | 3,389,260 | 204,148 | 184,433 | 5,580,811 |
| Population, percent change, April 1, 2000 to July 1, 2003 Population, 2000 | 0.2% 51,335 | 10.3% 3,072,149 | 13.6% 179,727 | 10.1% 167,517 | 8.8% 5,130,632 |
| Population, percent change, 1990 to 2000 | 27.6% | 44.8% | 54.4% | 55.5% | 40.0% |
| Persons under 18 years old, percent, 2000 | 25.1% | 27.0% | 25.1% | 21.1% | 26.6% |
| Persons 65 years old and over, percent, 2000 Median Age | 19.8% 42.3 | 11.7% 33 | 16.2% 37.1 | 22.0% 44.5 | 13.0% 34.2 |
| White persons, percent, 2000 (a) | 77.8% | 77.4% | 70.4% | 91.9% | 75.5% |
| Black or African American persons, percent, 2000 (a) American Indian and Alaska Native | 0.4% | 3.7% | 2.8% | 0.4% | 3.1% |
| persons, percent, 2000 (a) White persons, not of Hispanic/Latino origin, percent, 2000 | 12.9% 68.9% | 1.8% 66.2% | 7.8% 58.8% | 1.6% 86.6% | 5.0% 63.8% |
| Persons of Hispanic or Latino origin, percent, 2000 (b) Language other than English spoken at | 16.6% | 24.8% | 29.9% | 9.8% | 25.3% |
| home, pct age 5+, 2000 | 18.2% | 24.1% | 25.2% | 9.7% | 25.9% |
| Median household income, 1999 | \$30,917 | \$45,358 | \$35,856 | \$34,901 | \$40,558 |
| Per capita money income, 1999 | \$16,315 | \$22,251 | \$16,025 | \$19,727 | \$20,275 |
| Persons below poverty, percent, 1999 | 17.4% | 11.7% | 16.9% | 11.9% | 13.9% |
| Land area, 2000 (square miles) | 4,768 | 9,203 | 5,370 | 8,123 | 113,635 |
| Persons per square mile, 2000 | 10.8 | 333.8 | 33.5 | 20.6 | 45.2 |
| Agriculture | | | | | |
| Number of Farms 1997 to 2002 % Change | -27.4% | -13.7% | 4.2% | -12.1% | -14.3% |
| Land in farms (acres, 1997 to 2002) % Change Average size of farm (acres, 1997 to 2002) | (D) | -15.5% | -12.1% | -9.7% | -2.1% |
| % Change | (D) | -2.3% | -15.7% | 2.7% | 14.1% |

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

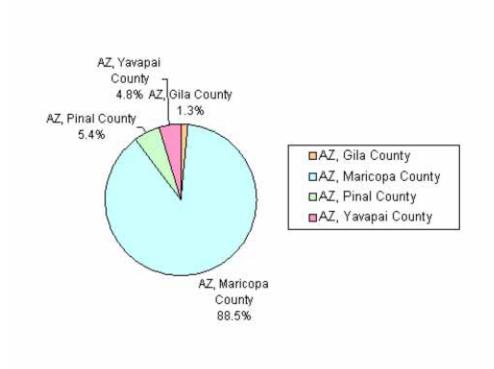


Figure 3. Percentage of Project Area Population by County

As noted, in the University of Arizona socioeconomic assessment, Maricopa County contains a majority of the state's total population with about 3.4 million of the nearly 5.6 million persons in the state. Additionally, it is noteworthy that the growth rates in counties adjacent to the Tonto NF are among the highest in Arizona and the western United States. The Phoenix "megapolitan area" also has the highest growth rate of 10 identified megapolitan areas in the United States, showing an increase of about 9.5 percent between 2000 and 2003 (Lang and Dhavale 2005:15). The scale of this demographic growth is significant because of its implications for the interaction with national forests and other public lands.

The implications of other basic demographic and economic information for surrounding counties are discussed in the University of Arizona socioeconomic assessment. Especially noteworthy for this discussion is the scale of the demographic changes in the surrounding counties. These changes have implications for increased use of forest resources and the demand for development and housing adjacent to national forest lands. Similarly, the ethnic diversity of the region and the presence of tribal interests are other noteworthy features of the socioeconomic environment that influence the use and assessment of forest resources and lands. Tribal issues for Arizona national

¹ Some scholars define a megapolitan area by the following criteria: Combines at least two, but may include dozens of existing metropolitan areas; totals more than 10 million projected residents by 2040; derives from contiguous metropolitan and micropolitan areas; constitutes an "organic" cultural region with a distinct history and identity; occupies a roughly similar physical environment; links large centers through major transportation infrastructure; forms a functional urban network via goods and service flows; creates a usable geography that is suitable for large-scale regional planning; and, consists of counties in the U.S. as the most basic unit (Lang and Dhavale 2005:5-6).

Context: The Forest and Socioeconomic Setting

forests are addressed in a separate report (Russell and Adams-Russell 2006) that builds on similar work for New Mexico tribal interests (Russell and Adams-Russell 2005).

Results

Four discussion groups and six additional individual interviews resulted in data for analysis from about fifty stakeholders with a range of perspectives. This information is contained in more than 10 hours of recorded material and approximately 75 pages of sketch notes concerning values and beliefs about the Tonto NF and its management. The results presented in this report are not intended to be a full record of this information. Although that task may be useful for a broader understanding of the social and cultural environment affecting forest management, it is beyond the scope of this work. The results presented here focus on public perspectives about what needs consideration as forest managers revise the existing forest plan. This information may be useful to assist publics and Tonto NF managers to collaborate in the plan revision process.

The differences in scale and the diversity of communities adjacent to the Tonto NF initially suggested presenting these results based on the comments specific to particular discussion groups, especially distinguishing Mesa and Payson from Globe, Young, and other rural areas surrounding the Tonto NF. Participants from rural communities expressed concern that their contributions might be over-whelmed by those from the more metropolitan areas of Mesa and Payson. This approach was considered, but the authors decided to present the findings based on all discussion groups and interviews for several reasons:

- Forest managers requested a forest-wide rather than district-based or location-specific perspective on project findings.
- Meetings were structured to develop a forest-wide perspective based on both geography and the participants identified as active stakeholders.
- The other reports for this project have focused on presentation of findings from a forest-wide perspective (e.g., Russell and Adams-Russell 2005, 2005, 2006). This aids in the comparability of the findings across forests in the Southwestern Region.

Consequently, the presentation of results here is based on a forest-wide perspective, but with some attention to any significant differences in the themes from different categories of users or the geographic location of discussion groups.

These results are grouped into several major categories that correspond with the coding and analysis of the focus group and interview data: the planning environment; multiple-use issues; resource concerns; and, desired futures for the Tonto NF. Each of these topics is summarized in separate sections in the remainder of this document.

Planning Environment

Forest planning and management occurs in the context of social, economic, political, cultural, and ecological conditions and trends. The configuration of these factors can influence the what topics are identified as requiring management attention, desired solutions to identified issues or problems, and how publics choose to participate or not in planning and collaboration activities. Identifying the configuration of socioeconomic and cultural issues particular to the Tonto NF can assist planning and management staff to assess likely areas of public concern in future discussions about plan revision issues.

For the purposes of this work, the following categories of information express values, attitudes, and beliefs relevant for the planning environment:

- The social setting identifies participant assessments of the social environment and noteworthy interactions between communities and forest resources and uses.
- Forest conditions and characteristics describe public assessments of conditions and trends that influence the identification of issues for plan revision.
- Management approaches of the Tonto NF addresses public assessments of Tonto NF management and the capacity to achieve desired future conditions.
- Agency-wide policies and procedures describe aspects of Forest Service culture and policy that are perceived by publics to affect Agency capacity to complete its mission.
- Sidebar issues are topics not usually addressed in Forest Service land management and resource planning (e.g., Clean Water Act or the Endangered Species Act). However, these issues are expressed by participants as concerns affecting forest conditions, uses, and management. Such issues affect the planning environment because they also contribute to participant assessments of forest management problems and solutions.

Social Setting

The variability of social settings adjacent to the Tonto NF is noteworthy. From metropolitan Phoenix to resource-based communities such as Globe and rural Payson, community scale and differences in lifestyles and culture are prominent. Participants describe the following notable characteristics of this social environment.

Population Growth

While population growth is a prominent characteristic of metropolitan Phoenix and environs, rural areas have had more modest population growth (Arizona National Forests Socioeconomic Assessment Team 2005:10). However, population growth and the response to it is a thread running through most of the comments about the social setting of the Tonto NF. This growth is believed to have the following characteristics and consequences:

- The scale of population growth is significant:
 - Twenty or so years ago when the forest plan was made there were less than three million people, maybe 2.7 million people in the whole state. Now, there are more people than that in the Phoenix metro area. The Phoenix metro area is encroaching on this whole area and I have observed an increase in recreation at certain sites. In general, the forest has not been able to keep up with it.
- Population growth is creating demand for land to develop for housing and infrastructure needs.
 - o This will result in more development closer to the Tonto NF and increase the volume of use and the potential for conflicts among users of different types.
 - o Wildland-urban interface areas are increasing with results for threats from fire dangers.
 - o Rights-of-way access to Tonto NF managed lands is becoming problematic as developers buy lands adjacent to the Tonto NF. Once public access points are now becoming essentially "private" access points for residents of gated communities.
- Population growth results in an increased number of persons using national forests and more potential for conflicts among users. For example,

I do all kinds of activities in the (Tonto) National Forest. I mountain bike, I hike, I do four-wheel driving, and other things. What I am seeing is that just the percentage of population change and the development of especially State Trust lands have pushed more users towards the forests. It has caused conflicts among users that in my experience, we just did not see before. It was much easier to find a place to go. Twenty years ago there was enough land that people spread out and there was an area the motorcycle people went to and an area the four-wheel drive folks went to and so on. Some of it was terrain and some was location, but there was enough that it all sorted itself out. But, with new communities and new housing developments it is harder to find places where residents and users don't interact. Both sprawl and just the percentage of people who can create problems is increasing. In the past, there were a few people causing problems because they were shooting in the wrong places, but now with population growth, there are more of them just because the total population has grown so much.

Use is being concentrated because of the volume of visitors and the growth of interface between Tonto NF managed lands and developing communities.

- Growth is resulting in an increased use of land exchanges as a means to maintain lands that, from an Agency perspective, have "national forest values." The effect is additional reduction of national forest lands near developed communities wherein residents desire the open space and watershed values associated with Tonto NF lands. For example, The Forest Service is looking at some of these areas affected by sprawl and there tendency is to want to trade it because it does not have what they call 'forest value.' We don't see it that way. Trading away those lands is closing down open space and it has potential affects on our watersheds. You have to remember the Tonto was created to protect the watersheds.
- Valued resources are being adversely affected by pressures related to increased growth.
 For example,

My concern is primarily with resource protection and I see growth as directly affecting wildlife, habitat, and the intrinsic values that exist. There are many people who do not come to these types of meetings who care about the forest, but they don't hike, ride a motorcycle or mountain bike, or really actively use the forest much. But, they care about protecting that resource. It is their forest too, and they want to see it protected and that protection is threatened by increased growth.

Population growth is contributing to problem uses and abuses:

The sprawl is directly affecting me because I live right in the middle of where it is happening. There is all kinds of stuff happening to the resources here

• Tonto NF management is perceived to require more effort to accommodate how population growth interacts with national forest lands and resources:

The problem isn't growth. The problem has been the lack of management of the forest and the accessibility. The Pinals in comparison to Mount Graham? There is a paved road there (Mount Graham) and we don't have that here. Growth has not caused the lack of improvements on the mountain.

Transitioning Rural Lifestyles

Rural communities outside of metropolitan Phoenix are valued places to live because of the surrounding forest lands and the lifestyles they enable. For example, participants in the Payson, Young, and Globe discussion groups emphasize the current lifestyle and amenity values of their communities.

I like to think of this place as the perfect mountain community. We are surrounded by the national forest and we have a diversity of climate and significant opportunity for outdoor recreation. When I think of this place we have a great quality of life with places such as the Mogollon Rim, Tonto National Bridge, Shoofly Archaeological Site, Roosevelt Lake, and Green Valley Lake. We have activities like the world's oldest rodeo and summer concerts in the park that add to the value of living here. Our economy is dominated by tourism, construction, gaming, and government employment, especially the Forest Service.

There is also a theme about the transition of rural communities from "robust" resource-based economies to ones based on amenities and tourism.

A lot of people also say that this is a good place to live, but a hard place to make a living. More and more, people are brining their income with them rather than earning their income in the community.

In rural communities, we now have a soft economy. The soft dollars are the ones coming from recreation, speculative real estate, and those kinds of things. Hard dollars are ones that come from natural resources, renewable or non-renewable. Hard dollars generate new wealth. Soft dollars just recirculate money and don't generate new wealth. Up till the mid-nineties or so, we used to have a good hard dollar economy from ranching and timber. In the seventies, it was a robust ranching and timbering economy and now it has gone to zilch. In the southern end of the county (Gila) we had a thriving mining economy and now that is next to nothing compared to what it used to be. ... Forest planning in the 70's and 80's were big contributors to the demise of ranching and timbering.

A similar sentiment was voiced by residents in the community of Young, which is essentially surrounded by the Tonto NF:

This is a community that is primarily driven by resource use that has been severely crippled by drought, then Environmental Protect Act, and the Endangered Species Act. There is no primary industry here except for government. Most of the good jobs in this county are driven by tax dollars: post office, schools, county, state, and the Forest Service. Beyond that, if you do not bring your income to this community, it is very difficult to survive here. People come here to enjoy being away. ... We are a community of about a 1,000 residents.

Participants attribute changes in custom and culture associated with resource-based lifestyles to environmental regulations that are believed to affect harvesting natural resources:

What changed in our community is the environmental regulations. They have shut down a way of life and businesses that are based on the use of natural resources. We are not doing that anymore. It is hard to live here now because there just is not much going on for infrastructure.

Participants assess the consequences of such changes as a loss of "social capital" such as community infrastructure and professionals who contribute to community stability and growth:

In the last year, we have lost a lot of our infrastructure. And, our road is a problem. Life has become uncertain for the ranchers, too. They never know if they are going to be in business tomorrow because of de-stocking. It is a change in our custom and culture that shouldn't be happening.

Economically and socially the community has declined in the last 10 to 15 years. This decline is represented in the loss of our only grocery store, our only hardware store, one restaurant, one church, most ranching, most timber business, all mining, our only auto center, three concrete and gravel firms, two craft stores, our only accounting firm, elimination of the USFS Senior Program, a reduced number of school enrollees, and the incumbents of two top positions in Young, the School Superintendent and the USFS District Ranger, living outside of Young.

While metropolitan Phoenix is a source of Tonto NF visitors and contributing to changes in the relationship of publics with the forest, rural communities are transitioning from resource-based lifestyles to ones based on the amenity values of the forest and its recreation opportunities.

Forest Conditions and Characteristics

Participant comments about the characteristics and conditions and characteristics of the Tonto NF emphasize the diversity of ecological conditions and environmental changes such as tree density, the fragility and health of the forest, and fire danger.

Tonto NF Characteristics

The diversity of forest environments is one prominent theme illustrated in the following comment:

This forest has incredible diversity, maybe more diversity than any forest in the United States. We go from the desert environment around Phoenix to high mountain pine trees and lakes. That diversity is part of what makes this forest what it is.

Some participants suggest the desert environment is consistent with designation as a national forest because of the history of the Tonto NF:

Where are the trees? Why is this landscape called a national forest? Well, it is called a forest for one particular reason and that is to be preserved so there would be no growth and development and the rainfall and precipitation that fell on that land would make it to the reservoirs and provide water for the community.

The comments of other users about suggest the amount of other Fderal and state lands results in some confusion about the location and identity of Tonto NF lands:

A lot of the Tonto National Forest is not recognized as a forest by lots of casual users. The Sycamore Creek area is a good example. I talk to people about it and ask if they even know who manages the land, and most people I talk to do not know. There needs to be some awareness building about it. I think people's mentality changes when they go into a national forest because of preservation and use and cleanliness and that sort of thing.

For the Tonto, we really need to work on that, especially areas closer to the city that are more heavily used. Those areas are treated as places out in the desert rather than as a national forest. No area should be treated badly, but a national forest is different and we could change some behavior by just signage.

Participants also distinguish the more urban and rural areas of the forest, with special attention to the loss of forest characteristics in those areas nearby urban areas:

Some parts of the forest are affected by sprawl and urban growth. Those parts are becoming more like a city park than a forest as the cities grow.

Other comments suggest the proximity value of the forest to urban and rural areas is an important Tonto NF characteristic:

It is widely used by local people and the forest is within walking distance for most people. It is a five-minute drive from anywhere in Payson to be away from it all. That is a big feature of living in this community. The forest is also used a lot by people from the valley. This is the closest highmountain recreation area to Phoenix.

And.

On a busy summer weekend, we can have an eight to ten miles backup of people coming into town. We can have maybe 50,000 people here on the weekend. We also get a lot of people who will come up here shopping on the weekend to get out of the heat.

Another prominent theme is a perception of the Tonto NF as a fragile environment that requires management that is appropriate for an easily damaged ecosystem:

This forest is not like a forest in Colorado or somewhere else. It has to be treated differently. You can't turn a thousand head of cattle onto it or just walk across a meadow without damage.... The landscape of this forest does not repair itself in a short space of time. It takes years. There needs to be recognition among those in the upper management positions that some areas are different and need to be managed differently rather than falling under some big umbrella idea that we are going to manage it this one way. They have to be able to make local rules that are different. Those rules have to make local sense for the land under their jurisdiction.

Tonto NF Conditions

Participant comments emphasize a perceived change in overall forest conditions and a decline in forest health:

In the past 50 to 60 years, the conditions have changed and the health of the forest has changed. The Indians recognize timber is a renewable resource and they have been able to harvest trees and keep the forest healthy and looking good.

It is a dead and dying watershed. It is a dead and dying forest. A great deal of that is a result of 100 years of failed Federal policy. It is not something that is terminal. It is if we continue as we have in the past. We need to acknowledge that this is not a wetland forest, but a dry forest.

Prominent themes about forest conditions emphasize a perceived connection among drought, tree density, fire danger, and past management practices. For example, increased tree density and its effects are described as follows:

We talk about we have been in a drought. There is land that in my great grandparents' day had 30 trees per acre on it and today an acre has up to 3,000 trees on it. That tree density turns a little dry spell into a drought. ... If we had 30 trees per acre rather than 3,000, then these trees could withstand the bugs. But now, they cannot. ... That is a function of the lack of management.

A hundred years ago this country looked a lot more like a park or like a ponderosa savannah. It was park-like. The trees were healthy because they took only a small percentage of the water falling on them and the rest of the water ran off in a natural way or became part of the ground water.

I have seen pictures where in this valley it used to be huge areas of grasslands. Now, what you see are these thick stands of trees. I have seen pictures from 1901 and 1904 that don't show any juniper trees. There are open grasslands and some ponderosa. Now, you see a different forest.

This area (Pleasant Valley) is a grasslands savannah. It is not supposed to be heavily carpeted with juniper. The impact is far greater than just for ranchers or small businesses. Those junipers are unhealthy for the forest and that is they key point that is lost.

The relationship between tree density, forest health, and especially water availability is a prominent sub-theme in the interview and focus group data:

You can think of the ground here as a sponge. With all the ground cover we have right now, when a fire starts it burns so hot it burns that sponge right up. Then after that here comes the floods and they are very damaging, specifically they damage the riparian areas. ... Things have been mismanaged by letting the vegetation get too high and causing problems with fire that is too hot.

Other themes about forest conditions include the following:

- Forest conditions are suffering because of littering and vandalism. Differences in land ethnics and values are more apparent with the increase in the total numbers of persons and population composition:
 - I have been in the recreation business more than 20 years. There have always been a certain percentage of people who use the forest and don't care. Their attitude is 'we will leave the litter and let the government pick it up.' It is really shameful that people litter. There are many people in the world who truly care about the forest and they go and pick up behind those who litter and leave a problem.
- Facilities in some places have suffered from the volume of use relative to the resources to maintain facilities:
 - What I have observed is that campgrounds and bathrooms are suffering and conditions are poor because they (Forest Service) do not have the personnel to do it. There may be areas that are not used as much as they could be so it could be diverted to other areas. Maybe this population growth has caught them (FS) by surprise or their funding has been cut back, but I see they are struggling and there is not a good plan they can follow to keep ahead of the curve.

In other areas new facilities have been built and well maintained:

In some areas they (Forest Service) have done very well in maintaining facilities. In the Pinals, those facilities have been rebuilt. There are some issues with how you access those places. But, in the next few years the pressure is going to come from new growth and I am not sure they are prepared to handle it.

- Fire danger and its relationship to past management practices is also a prominent theme: I think we all have watched the forest burn up because of Forest Service management. The only places I know where (the forest is in good condition) is where the Forest Service is not managing it. That is my strong opinion of it.
- Noxious weeds and invasive species in general are perceived to be contributing to deteriorating conditions.

As the country dries out, noxious weeds are getting to be more and more of a problem. At this point, we probably cannot win against the weeds. It is a huge problem here.

Invasive species in general are a problem on this forest. The functions and values of the watershed and the impact on fish and wildlife are affected by invasive species. Sonoran desert type plant communities are disappearing on the Tonto National Forest. It is probably an issue that really needs to be emphasized for the future. It is important to watershed health and overall health of the forest.

• Participants emphasize a perception of the adverse effects of juniper on overall forest health and conditions:

It is difficult to over-emphasize the problem we have on this forest with juniper. It is out of control and causing a whole range of forest health problems. Juniper is contributing to the declining conditions on this forest and for the future; they need to get a handle on it. They should use some of the local expertise we have about juniper and how to deal with it.

• One future of the forest is perceived to be as follows:

We are about to have a fundamentally different environment here than we have had in the past. We have large stands of diseased and dying trees. We are going to lose those trees. We are not going to be just a little town in the mountains surrounded by pine trees any more. Those trees may not be here in the future.

These comments about forest conditions and characteristics indicate a forest that is valued for its amenity and economic values, but one that is also in "poor health" because of a combination of drought, increasing tree density, beetle infestations, and fire danger.

Tonto NF Management

Participants offered a wide range of comments about past and present management practices. These assessments are relevant for this discussion because they are likely to influence how publics approach the opportunity to participate in revision of the existing forest plan. In general, these comments are more critical than complimentary, although there are some positive assessments of recent management approaches. Critical comments are not uncommon in public assessments of forest management in the Southwestern Region (Russell and Adams-Russell 2005,

2005, 2006) and elsewhere (Russell and Adams-Russell 2004; Russell and Downs 1995). In part, such criticism may be a result of limited opportunities for citizens to voice their concerns about how government functions; and, when asked about the Forest Service, then Agency management bears the burden for the entire government. While this explanation may account for some of the critical comments, others are responses to past or ongoing assessments of Tonto NF managers and management practices. These comments thus represent an opportunity to (1) understand perceptions that may influence the content of collaboration work with interested publics and (2) begin a dialogue with interested publics about developing a mutually beneficial working relationship between interested publics and forest managers.

• Some participants perceive under-management as a direct contribution to their assessments of poor forest conditions:

It is the Agency's management practices that have the forest in the condition it is. They have created the thickness of timber through their management practices. They have created the problem. The fire danger we have is not the result of ranching or timber or anything else but the Agency's management practices. They seem to have no accountability for the decisions they make.

The ultimate problem is the mismanagement of the natural resources in Gila County. I don't believe that mismanagement came from loggers, ranchers, or miners. I don't think it is wrong to say you are an environmentalist or a tree hugger. We all want to protect this environment, but what has happened in the last 25 or 30 years is horrible and it is caused directly by the regulations of the Forest Service.

- Participants expressed a desire for the Tonto NF to improve communication about management approaches and actions. For example:
 - I ask questions and I usually don't get a straight answer. We ask them questions about why they close roads, especially and we don't get clear answers. I would like to see some clarity in the policies and more attention to dealing with the public. They need to improve how they communicate with us.
- Participants also expressed other themes about desired changes in future management, including the use of good science, managing for local ecological conditions, and managing with creative solutions in mind. For example:
 - We want them to use good science when they make decisions. Sometimes they develop their own protocol that is outside of peer review and outside even the Rocky Mountain Research Station peer review. They have an agenda, so they develop their own stuff (protocols). So, that is why we need to be in on those meetings so we can hold their feet to the fire and get a scientific peer review when it's needed. ... They have too many predetermined answers and they get very narrow opinions about how things need to be.

... We have not managed by what the land tells us. We have managed through litigation or by mitigation, but we have not managed by what the land tells us it needs to be. We have not listed to the land telling us things are not working. We just managed and said it is working and never looked back. We never managed and said, 'we could be wrong. Let's measure and see if we are right.' ... Health, functioning, and productivity and measures for those are the key to managing the forest. We have been measuring things because they

are easy to measure and not because they tell us something about health, functioning, and productivity.

Some time ago I put together a proposal to do low-impact logging using horses. We had the pieces here to do it. Well, you could hear the laughter (from the Forest Service) all the way from here to the back end of the building. ... The idea was dismissed. They ridiculed us and mocked us and there was no willingness to think about solutions that are working in other places to have low-impact logging in a place that it makes sense. They used to log this country with horses and wagons and it used to make sense, so why not now?

 Participants suggest there is an appearance of confusion in decisionmaking and politically influenced debate about management approaches. Participants expressed a desire for promoting internal teamwork and presenting a shared message about management goals.
 For example:

There are different perspectives about what they are trying to accomplish and that divisiveness is problematic. Frequently, it reminds you of the old parable of three blind men describing a camel. One guy says it is like a furry wall. The next guy says it like a snake. The third guy says it is like rope because he grabbed hold of the tail. A lot of times dealing with the Forest Service is just like that. You wonder if they all work in the same building and talk to each other.

It is not clear when we need to deal with the District Office and when we need to deal with the Supervisor's Office. Sometimes it is not clear when the District does not have the resources to support a decision and when it does.

• Participants expressed concern about the consistency in forest management policy and procedure among the districts:

We deal with four different Districts on the Tonto. I am sure they are all guided by the same regulations, but it is like dealing with four separate Agencies rather than one because of the way each one interprets the rules.

The Forest Service Manual is huge. It is so thick it is like the New York City phone directory. And at the end of each section there is a little add-on that says that it is at the discretion of the local Supervisor or Ranger. So, there is this huge manual that is hard to read anyway and they have opened it up to interpretation and so consistency is down the drain.

- Turnover is perceived to result in some of the inconsistency in management perceived by project participants:
 - There has been a lot of turnover and I would suggest that they have a better education about the NEPA process and how to implement it. The newer people do not seem to appreciate that there is a lot of flexibility allowed in those laws. In some offices they cut corners and open themselves for lawsuits and in other offices they are overly strict. As turnover occurs, it will be very important for them to pay attention to the NEPA process.
- There is a perception of bias among Tonto NF managers that is also a prominent theme in the data: Some participants perceive undue weight is given to the interests of some stakeholders, including cattle interests:

On this forest cattle growers are heard from and have an influence on this forest far out of proportion to their numbers and their economic importance to the region.

Active users have more influence than passive users. And passive use can be interpreted in a number of ways. Hikers could be considered a passive user and the people who just like to take a ride in the forest might also be considered passive users.

Other participants describe this perceived bias in the following comment:

We have people on the Tonto, in the Forest Service that are holding hands with some of the people in the environmental movement. ... People at the forest (staff) have become less diverse over the years. With more turnover, what we are being insulted with these Washington D.C. types of politically correct environmentalists. They don't understand. They don't understand the West and they don't understand this forest. They don't care. They want to lock it up for their own use. The Forest Service is being converted from a local-oriented Western-oriented kind of operation to a kind of Washington-centric organization.

- Other participants suggest Tonto NF managers under-appreciate the value of ranching: You take places like Roosevelt Lake. It was developed for recreation, but at the expense of thousands of head of cattle being forced to move away from the lake to provide for recreation. If you look at it from a dollar point of view, it is probably a multi-million dollar loss. And, there is more fire danger since the cattle have gone. And, there isn't an access road that would allow people to get out easily. People out there are stranded. The grass is up over a foot high and we have had fires out there. If you had cattle grazing, that grass would be down. I don't think they (Forest Service) appreciate that.
- Some participants perceive Tonto NF managers can be unwelcoming in their work with the public while others suggest the opposite:

For them (Tonto NF managers) it is a matter of control and who controls the forest. They think we are the enemy and that we have no right to be in the forest. The Forest Service wants to close the forest up. The forest was created for multiple-use and not for single use. They are trying to shut us out by closing down roads and make it all wildernesses. That restricts the forest to people who can hike and ride on horseback. What happens to the handicapped and the elderly people?

They act like it is their forest and it pisses me off when they act like it belongs to them and not to us.

• There is also a strong theme about positive working relationships with Tonto NF managers. The following comments illustrate these positive evaluations:

We have had a very good working relationship with the forest and the local Ranger District. They have done very well in working with us and we could not be happier with the working relationship.

I have worked with a lot of people on the Tonto National Forest and by in large they are very good and know their profession. They have some excellent scientists on the forest and unlike some other forests; they have made an effort to collect data. There are times when that data is ignored and ... the answer might not be what people want ... and they

seem to make decisions that ignore the data. Maybe they just need to be better communicators about how they make decisions and use data.

They have managed some of the fire issues very well. But, they have done a lousy job managing around the lakes. They have driven people away. On the other hand, they have put relatively huge amounts of money on the mountain recreation areas and those are not being used as much. It is just crazy. Some of it is access. But, the facilities have never been better. They have tried to accommodate mixed uses, but things like grazing have pretty much been killed off. You have private and public recreation, the communications opportunities up on the Pinals. They have done a pretty good job overall in managing those multiple-uses. But, they are grossly under-funded and they are not ready for what happens in the next 20 years when people look at this mountain from a distance and say, 'That looks like a great place to go.' I don't know if they are ready to handle that.

Agency Policies and Procedures

Participants also expressed other themes about the Forest Service that appears to represent an Agency-wide assessment of policies, procedures, and concerns. Among these themes are the following:

- The ability to manage and maintain resources is perceived to be compromised by insufficient budgets and staffing.
- Problems in decisionmaking received significant attention in the comments by discussion group participants. Themes about decisionmaking include the following:
 - o Political influence from Washington and elsewhere is inhibiting decisionmaking based on good science and what is best for the land in favor of the political agenda of one administration or another.
 - o The National Environmental Protection Act (NEPA) process and other Agency decisionmaking has become so cumbersome that little effective work is perceived to be accomplished. Studies rather than management are believed to be "paralyzing" Forest Service management.
- The Agency has a defensive stance that has inhibited effective management of the land and resources:

A Ranger does not raise his hand and say he does not want to do something because they are afraid of getting sued. Getting sued can hurt their retirement, so they are not interested in doing that. They have the authority to manage, but they don't have the gumption to come in and manage and take care of the forest the way it needs to be to help the forest. They can do it if they want to, but all they do or don't do is based on CYA (cover your ass). Sometimes it seems it is just easier for them to say no than to get something done.

Sidebars

Sidebar issues are likely to affect the content of public-Agency discussions about forest management. These are issues that are perceived to affect current and future management, but they are issues the Agency cannot directly address. Acknowledging the relationship of these issues to the decision space of forest managers can place them in perspective of what can be

accomplished in the revision of existing forest plans. The prominent sidebar themes identified in the data include the following:

• Congress, environmental laws and regulations, and the courts have limited the perceived effectiveness of Agency management:

I think the Forest Service has been hamstrung by the environmental regulations. It is easy to blame the Forest Service because they are on the firing line. Really it goes back to Congress and all the environmentalists that have forced these rules on the Forest Service. ... One of the other problems is the rules they have set down is how the Forest Service can divest Forest Service lands into private ownership. You need to do it through the Townsite Act or land exchange or appropriations by Congress. By the time you deal with Congress ... it is not the Tonto National Forest, but Congress that is the problem. It is too easy to blame them for the problems. As far as I am concerned, we have good relationships with the Forest Service and they have been good to work with. They have given us a lot of cooperation and we can't fault them.

What has happened is that nothing is being done in a positive way because the courts are managing the forest. The lawsuits that have come from environmental regulations have crippled management.

- Standards and guidelines for forest management are being set-aside in favor of planning approaches that provide no accountability to assess the success or failure of management actions.
- Environmental laws are perceived to be used to achieve political agenda in Southwestern Region forests, especially willow flycatcher and leopard frog management.

Multiple-Use

Participant statements expressed values and beliefs about the multiple-uses of the Tonto NF, including access, enforcement, fees, grazing, power line rights-of-way, problem uses, recreational uses (especially OHV use), and restriction of uses. There is some overall support for the general notion of multiple-use, although with qualifications about what types of uses can occur in which places. The "every use in every place" approach was not generally expressed among participants. A more common theme is expressed in the following comment:

You can have a multiple-use environment that can respond to the potential for user conflicts. But, you can't have all uses in all places. You have to fit the use to the place. But, you need to manage the forest and the trails as a system so some areas don't get hammered and then larger areas get closed for access. You have to have a big picture view of multiple-use.

Some ranchers observed there are Tonto NF lands not suitable for grazing and some environmentalist participants observed there were places that could be used for grazing. Other environmental interests expressed some general opposition to certain types of commodity uses such as grazing and timber harvesting on public lands.

The dialogue about what uses in which places coexists with beliefs about the changes in the overall pattern of use and its effects on forest resources. Participants agree that there has been a change from commodity production uses such as timbering, mining, and grazing to predominately recreation uses. Some participants applaud the decline of commodity uses as the future for a

healthy forest that can recover and provide a broader set of ecosystem services. Other participants believe the essence of many perceived problems associated with resource conditions and user conflicts are directly related to the decline in commodity production activities. For example,

Recreational users don't do much for management of the land, if anything. But, the ranchers and other users like that make a contribution to management of the land. It is the land of multipleuses. It used to be primarily ranching, timbering, and around here mining. Recreation came in later on. They need to go back and take a good look at what ranching, mining, and timbering did for the land. You have to keep in mind sustainability is the key.

Beliefs coexist that the future health of the forest is either in the return or minimization of commodity production activities. Dialogue about these different perspectives is likely to carry forward in future discussions among the publics with an interest in the Tonto NF.

Access and Restrictions

With a perceived increase in recreational use of Tonto NF lands and resources, access is among the most valued aspects of this multiple-use forest. Management closures of roads, trails, or other forest resources and restricted access associated with new development abutting Tonto NF lands are among the specific concerns of participants. There is also a more general sentiment about the value of access that is expressed in the following comment:

The user groups are the conservationists. If there is a trail that is a problem, we volunteer to go out and work with the forest to do something about it. Frankly, a forest that no one can use is not a forest. Who is going to enjoy it? It is great to have saved it for future generations, but if there is no access to it and no one gets to use it, then is it a forest? I kind of thought the Forest Service was a public service. The public should get to access and enjoy the forest.

This comment questions if forests can maintain their value for the American public without access to use its resources. There are others who perceive that access may need restriction in order to protect forest resources:

There are places and maybe times of the year when you just don't go there. They have value because they are important places and some uses and some types of access can be a detriment. It is important to look at the larger values of a place. For some areas, restriction of use and restriction of access may be needed.

However, many of the sentiments about access are explicit and implicit in the following comment from a participant who expressed concern about a question in the Discussion Guide about the identification of favorite places and activities on the Tonto NF:

I have an issue with your asking us to bring a picture of a favorite place or mark on a map places we like to visit. If we mark on a map if there are historical sites and what trails we are using and what our favorite places are, then next year that road is going to be closed or that historical site will be bulldozed, and then we will have less access. So, I really take issue with that because it lets them (Forest Service) know what to close next.

This comment expresses a deeply felt sentiment among some participants about a perceived willingness by the Tonto NF to restrict access to valued places and uses. Other participant

comments regarding the Forest Service acting as if the Tonto NF is "their" forest and not the people's forest were often made in association with access issues. For example,

The community needs the help of the Forest Service to assist in the management of the forest, not for the Tonto National Forest to control the forest as their own. These are public lands and need to be respected as such.

These sentiments indicate that values and beliefs about restrictions on access and uses are important concerns for some participants. For example, a written comment by one participant expresses this concern:

There is too much control and restriction of forest resources. We would like to see greater respect and freedom for individuals who wish to use the forest and its resources....

Another set of written comments also expresses a similar sentiment:

Residents at one time were able to go anywhere in and around Roosevelt Lake and the Salt River to hunt, fish and just going (out and) enjoying the outdoors and take a ride. (It is not like that now). The public and the residents can no longer enjoy the outdoors due to the restrictions the Forest Service has placed in and around Roosevelt Lake and the Salt River. ... Ten to fifteen years ago there were more benefits for the public to enjoy the Tonto National Forest, especially around Roosevelt Lake and the Salt River. There were no restrictions of any kind.

Clearly, access and the restriction of use are problematic for some users. These topics are likely to be among those in the forefront for discussion in future interactions between the Tonto NF and interested publics.

Fee for Use

Participant comments about fees for use were expressed in association with dialogue about (1) access to resources and (2) solutions to perceived problems with facilities and resource conditions. Some participants believe that the increased pressure on forest resources combined with declining budget and personnel of the Forest Service imply a solution of user fees. For example:

I think the forest is missing an opportunity to bring in funds through user fees. In general, I think user fees are a good solution to some of the problems. I am happy to pay a user fee, but I am concerned because the things that really need more funding are law enforcement and resource protection. What I fear is that user fees will be an incentive to spend more money on developed recreation because that brings in the fees. I would like to see more of that fee money going into things other than building more facilities.

The following comments express some limited support for certain kinds of fees, but only if those funds are used to support local facilities:

I have been taking some visiting friends, first time visitors to Arizona, up to Sedona. And you go and drive into a parking area off the road and you see this great big sign that you have to have a permit to park and then go out and look at the forest. This was a very negative impression on the people we were with. I don't mind having to pay to use facilities, but at the same time to pay for in a sense almost driving through, then you are turning people off and it is upsetting. I pay taxes, so

what in the hell am I paying taxes for? I am driving down this road and now I have to pay to park? I got a copy of their flier that says where the funds go and 70 percent goes for enforcement and collections. Five percent went to the National Forest System and the rest goes to taking care of improvements in the area. To me, if I am going to go to an area and use it, that is where I want the money spent. But, if it is just casual use just to stop and pay to take a picture is a problem.

A contrasting perspective expresses a value about national forest lands being important resources for access by all citizens. From this perspective, user fees restrict access to a resource of benefit to all citizens, especially those with limited incomes:

People don't want to pay to camp. They don't want to pay to boat. The fees are keeping people from using the national forest and that is not what I think it should be.

When Roosevelt dedicated the dam, he said it was a poor mans lake. He made a statement that whatever they put in for pay, they had to put in for free for the poor man. Well, the Forest Service has taken that away. Now, you have to go buy a permit every year just so you can drive into the parking lot and get out. If you get out and you don't have that permit, they will write you a ticket. It is our forest. Why should you have to pay just to enjoy your forest?

Grazing

Participant comments about grazing express a history of controversy about grazing issues on the Tonto NF. The following themes express either support for this type of use, some limited support in selected areas, or opposition to grazing as a use of Tonto NF resources. Support for grazing is often embedded in what might be termed a "utilitarian" worldview that perceives a need to tend public lands resources to ensure they are maintained. This worldview is expressed in the following comment that assesses grazing as part of the Tonto NF ecosystem:

What people don't understand is that if you rest watersheds in a desert environment, you lose biodiversity. You build up fuels that can cause fires. But, what we really lose is the biodiversity that protects the watershed. Grazing is a natural process. We did not invent grazing. God invented it. The grazers evolved with the browse and the grass and we have always been a part of it. .. Grazing has to be part of how things work here.

From this perspective grazing is integral to ecosystem functioning and it is perceived to provide a range of benefits including water for wildlife, reduction of grasses that increase fire danger, infrastructure needs such as fences and road maintenance, and economic benefits for rural communities. For example,

We have lost what is probably a thirty million dollar industry here in our area. We can go out and recreate that industry here without building one more road, one more school, one more power line, or one more service station. We are taking solar energy ... and converting it to material harvested by animals and we are creating wealth and putting it into the community. Without another dollar invested in infrastructure that can cause pollution, we can create new wealth.

Grazing advocates also note that the ecological knowledge of ranchers is an asset for managing their allotments; and this has broad public benefit. Similarly, they also suggest that although there may have been grazing abuses in the past, these generally do not occur under existing grazing management schemes:

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My family has been ranching a long time. We have stayed in business because we take care of the land and take care of our cows. We are not going to put our selves out of business by risking damaging the land. Caring for the land is in our self-interest and we have done that.

Belief in some limited value for grazing on the Tonto NF is expressed in the following comment:

In Arizona generally, over-grazing has been a problem. My view is that in the lower country, there should be no grazing. In the higher country, it can be suitable for livestock grazing, but we mostly have too much there. I don't advocate removing grazing from the entire forest. A lot of times it is an issue of the amount of grazing.

This limited support also identifies grazing as having adverse consequences for Tonto NF resources, especially those of the more desert portions of this landscape:

In a lot of the desert county, a lot of the vegetation has changed because of livestock grazing. A lot of the perennial grasses have been lost. ... If you look at places like Dutch Woman Butte on this forest, it has not been grazed and the diversity and quantity of grasses is so much more than in areas that have been grazed. Grazing has totally transformed riparian areas by increasing soil erosion and contributing to losing the vegetation cover. It can alter stream flows and it degrades local watersheds. Riparian areas that used to be perennial now are ephemeral because there is less water storage capacity in the soil. All this affects wildlife habitat and there is also soil loss.

In these desert lands, grazing is an unproductive use. It supports very few animals, provides very few jobs, and causes a lot of environmental destruction. The Tonto is probably the driest national forest in the county I would assume. It is the most desert like. ... The lack of economic productivity from grazing but the enormous destruction it does is a problem. And, there is a particular problem with grazing on the Tonto. (Forest Service personnel) on this forest have done valiant jobs trying to protect this forest from over-grazing. But, the last few years those people have been squashed by higher-ups in Albuquerque and Washington. I am very concerned. I was proud of the way this forest was moving a few years ago, but now I am distraught at how this forest has been turned around and moved off of that good direction.

Cattle used wisely on the forest can be done and it can enhance the forest. (Ranch) in the corner of Idaho, Utah, and Wyoming is a perfect example of what can be done in comparison to what is being done. We all live in fear of another fire and we are concerned we will be burned out. ... The wise use of natural resources is what should exist and we should protect those resources and use them wisely.

Other participants may agree with the sentiments about the adverse consequences, but believe there is no economic or other argument to support grazing on the Tonto NF. From this perspective, grazing has been subsidized to the detriment of caring for other resources, it results in damage to riparian areas and undermines water quality, it damages the habitat for sensitive species of the desert environment, displaces native grasses and promotes invasive species, and it provides limited economic benefit. This perspective prefers a retirement or buyout of grazing permits or other alternatives to achieve the open-space, wildlife watering, and other benefits asserted by the advocates for grazing on the Tonto NF.

Problematic Uses and Enforcement

Participants identified a range of problematic uses and problem behaviors such as vandalism and littering. Problem uses include OHV riding off and on-trail, powerboats on lakes, shooting, and illegal activities such as drug use and production and violent crimes. Some of these problematic uses are associated with those areas near urban communities:

Anywhere in the city there are problems with the trash and the people using the forest are doing the same thing as they do in the city: just dumping where they can. The people I work with here on the Tonto are trying hard to do what they can. They have their heart in the right place. But, it is a huge problem.

Illegal uses are especially troublesome because they undermine the sense of safety users expect on national forest lands. For example,

They are doing everything you can imagine out there, taking drugs, growing marijuana, producing meth (methamphetamine), and everything that goes with it. They dump trash; they dump bodies, and who knows about the toxic stuff they put out there. It is not what you want to think about when you visit a national forest.

Vandalism, littering, and these other problematic uses are perceived to be the result of a growing urban area with populations who, aside from criminals, either have no land ethics or they are uninformed about the expectations for conduct on public lands. Education and enforcement were described as solutions to these problems. However, participants in the more urban discussion groups were generally more supportive of increased enforcement action than those in rural areas. For example, a participant from the Mesa discussion group observed:

As the population grows and gets closer to the Tonto National Forest, there are going to be more users. Those areas closer to the city have to be monitored more closely and there has to be more enforcement than the one person they have doing it now. It is just not enough and there is too much harm being done to ignore it. I definitely think a priority needs to be more attention to enforcement in the future.

Some rural participants expressed a different point of view:

The use of Tonto National Forest enforcement officers is an unnecessary affront to private citizens. We have a County Sheriff and Deputies to handle legal enforcement.

And,

You can't even go out on the forest without somebody meeting you with a ticket book in their hands. They have become ticket-happy and there is just too much of that going on. They should be out there caring for land and not aggravating citizens. The last thing I want to see out there is a Federal official with a gun.

The sentiments about enforcement are diverse and to some extent express differences in rural and urban views about the need for increased enforcement on the Tonto NF. However, other participants from rural communities also expressed a desire for increased enforcement to respond to problematic uses and violations of regulations.

Power-Line and Transmission Tower Uses

Discussion groups included participants with interests in power lines and microwave and other radio transmission towers. These are permitted uses of the Tonto NF. These users indicated they believe there are both forest specific and general societal benefits from their use of forestlands and resources. The specific benefits include building roads and creating passage across rough terrain that has value for fire crews and other forest users. The societal benefits include the services that result from the access to sites on the Tonto NF. Other participants commented on the roads and other facilities associated with these permitted uses, but in the discussion groups, these types of uses were not topics of focus. In tribal discussion groups, general comments were offered about ensuring these types of uses consider the potential for disruption of archaeological sites, sacred sites, and traditional cultural properties.

In general, these types of permitted users appear to represent commercial use that is different from traditional permitted uses such as outfitting and guiding, grazing, timber harvesting, and mining. The later commercial users are often associated with resource-based lifestyles that depend or rely on the use of forest resources whereas power line and transmission towers are more "corporate permitted users." Nonetheless, all permitted users, including the power line and transmission tower users, emphasize the values and benefits received by local and distant publics for the access granted by their permit.

Recreation and Off-Highway Vehicle Use

As noted previously, participants describe recreation as the most prominent use of the Tonto NF:

Overall, recreation is a huge issue for this forest. It is wedged between several mountain communities and the Phoenix metropolitan area combined with the growth happening on the eastern fringes means there will be a million more people who will be in the area.

Participants also perceive these recreation uses are under-managed, especially some of the enforcement issues associated with recreational activities:

The recreation issues are under-managed and under-funded across the board. They have only a handful of enforcement officers to get the job done. Wildcat shooting, off-road vehicles, poaching, illegal dumping, and things associated with increasing pressures are all a problem. I know there are OHV planning efforts underway that are cross-jurisdictional and that concentrate on broad-scale landscape size solutions. There needs to be the same scale of thinking about recreation in general.

In addition to traditional recreational activities such as hunting, fishing, camping, boating, and hiking, participants focused on OHV use as a particular concern. The remainder of this subsection describes some prominent themes in these discussions.

Most participants acknowledge that motorized use is part of the multiple-use environment, but there is also recognition there are problems and issues associated with current uses. Some participants believe that future growth of OHV (including all terrain vehicles) riders implies the need for accommodating their use in the form of additional trails, designated use areas, and planning that incorporates OHV as a component of multiple-use trails. This theme suggests that OHV use is inevitable:

The future of recreation use is OHV use. There are other places that have over 2000 miles of ATV trails, but we don't have that (on the Tonto NF). Around Roosevelt Lake there are very few trails we can use. They need to be paying attention to developing a trail system and designated areas. It is the future.

And,

OHV use is related to population increase. OHV use is skyrocketing according to a U of A (University of Arizona) study. They did a phone and mail survey and they found that in the more rural counties there is a high percentage of use, but in urban areas it is often just weekend use. So, this type of use is not going away and you have to face up to it.

There are some participants who question the potential for increased use:

I am not so sure about the statistics that show so much increase. We are ATV owners we have two, but we use them mostly on private land. And, there are lots of people that may be buying them, but you don't know how many are using them on public lands. Ownership is one thing, but use of them is another and it seems there is too little information about that.

The most prominent theme about OHV use concerns restrictions on use. Some perceive restrictions as necessary to address how OHV use is perceived to affect the experiences of other users:

They have caused a lot of destruction on trails and in meadows. They are ruining the experience of going to the forest for me and my family. You camp and then there are these groups that roar by raising dust, creating noise, and scaring away the animals. We go camping to get away, to have some peace and quiet, and relax. Have you ever tried to relax with the sound of motors roaring around all the time? Why should their use of those machines be able to intrude on my experience of the forest? You can be miles away and still hear them. If you are close by, you can't have a conversation without having to raise your voice. ... I think their use should be restricted more. Maybe you can't eliminate them, but you have to restrict them and control them more than what they are now.

Similarly, other participants suggest that motorized use on national forest lands is problematic:

Forests are better off with less motorized use. I am not saying that you close it all off to motorized use, I am just saying the forest is better off with less rather than more use.

Some advocates for OHV activity perceive the need to control use so that it does not jeopardize access to the national forest by responsible users:

Riding my ATV is how I get away and relax. I enjoy seeing the land from the seat of my ATV. I can cover more ground and see more than I could by walking or on horseback. With the limited time I have to be out, it is an efficient way for me to use the forest. I don't want that type of use to go away because some idiot rides across places they are not supposed to or they don't respect other users. Maybe we have to think more creatively about how multiple-use trails can be designed, but we also have to deal with the idiots who may restrict all of us from the forest.

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Other participants suggest restrictions may only displace problem users to other locations:

There are more people buying them and they are looking for a place to ride. So, if you close lands to their use, then they will find a place to ride.

And.

There is a big percentage of the Arizona population, maybe 25 percent from one survey I saw recently, that does off-highway vehicle riding. What I am afraid of is that it will be displaced from areas where it can be controlled and preserved to areas where it cannot be controlled. You look at eighty-seven (Highway 87) going to Payson and what you see is that things are getting squeezed farther and farther north. If we don't get those things under control, then we will just push the people who don't want to be responsible father out. Then you can't monitor them and they are going to destroy the backcountry. It becomes unmanaged use that is a real problem for all users. ...

Other participants suggest there needs to be dialogue and information about how restrictions may affect OHV use on national forest lands:

Does restricting uses just push people to other areas? Or, if you restrict use, does it just reduce the numbers of those types of users? I am asking a question. I don't know the answer, but that is an issue worth considering. Maybe you just reduce the number of those types of users when you restrict their use and you don't really displace them to other areas.

There are some OHV advocates who perceive a need for fewer rather than more restrictions. This perspective is expressed in the following comments about closures and restrictions:

The biggest problem right now is how they restrict use. If they don't want me to use it, then build a fence around it and shut everyone out. Why don't they open the country up rather than shut it down? They have a mindset that they own the land. It comes from upper management and it rolls downhill. When they run around in trucks all day long burning up gas trying to find some kid on an ATV, then that tells me they need some lay offs down there.

These guys in green suits think they are cops. They are not worrying about maintaining the forest. They are worrying about people riding up a wash on an ATV. I have told people about how they are interested in just restricting what people do out there.

In the Roosevelt area they will give you a ticket if you are on your four-wheeler and going up a wash. My four-wheeler is insured and licensed. Arizona Highway Patrol tells me you are legal to go anywhere I want to. All these little trails I used to go drive in my pickup and go bird hunting or go deer hunting, you can't go back in there. They don't want you to. If you get over in this area with this Ranger, you can ride all over. ... Some Rangers just want to cut you off (from using an area).

I have been four-wheeling this country for 35 years. They can't get a handle on the problems out there now. They don't have the funding or the personnel to keep people from dumping their old sofas in the forest, so how can they do something about the bigger problems of OHV use?. ... They are closing off areas because of some of the (OHV problems). The issue with that is they are not the property owners. They are the stewards who take care of it for the property owners who are 'we the people.' Their funding mechanisms are such that they just don't have enough money,

enough people, enough of any kind of resources to properly administer it (Tonto NF). So, they think the only way they can get a handle on it is to close it off and keep people from going in there. That means that people who are avid hikers can still go in there and the other segment is the people who don't give a dam and they will violate every rule and regulation there is. They then go in there and tear the place up. They vandalize what is there and destroy natural resources. They are making new quad trails and new roads. They are basically increasing the problem. So, the Forest Service gets their back up and closes more areas.

The last prominent theme about OHV use concerns a belief about the effects of unenforceable regulations. This point was raised specifically in discussions about whether "closed unless posted open" is an appropriate regulatory approach to OHV use on national forest lands. The core theme in these discussions concerns the effect of enacting regulations that cannot be enforced. The policy "closed unless posted open" is perceived to be unenforceable because of limited resources and staff for enforcement. The effect is believed to be unwitting violations by otherwise responsible users. For example,

If you adopt an unenforceable rule, then you create a generation of people who are violating the rules.

This is perceived as undermining the sense of civic responsibility in otherwise responsible citizens:

What happens is that people who are normally willing to follow the rules will do things they might not otherwise do because they know they are not going to get caught because there isn't enough enforcement to do anything else about it.

Such beliefs indicate some of the dialogue that is likely to occur about the relationship between regulations, responsible use, and enforcement resources for managing OHV use on the Tonto NF.

Resource Benefits and Values

Participants identified Tonto NF resource benefits and values in three major categories: biological and natural resources, ecosystem services, and socioeconomic benefits. Biological and natural resource benefits and values include wildlife, vegetation, watersheds, timber, open spaces, and wilderness. Ecosystem services benefits and values concern the ecological benefits of national forests such as their contribution to clean air, flood control, biodiversity, and especially the importance of water supply and quality. Socioeconomic benefits and values include economic benefits to local government and industry, respite and psychological values, quiet, and lifestyle support. Major themes about each of these three categories of resource benefits and values are summarized in the following subsections.

Biological and Natural Resources

Participants describe particular Tonto NF resources as having important benefits and values. Those noted in the bullet list below are not the full range of resources available on the Tonto NF. However, those listed are among the resources prominent in the minds of participants in these discussion groups.

• Fire is described as an important resource that is perceived to be natural to the ecosystems of the Tonto NF. As a resource, fire has been essential to the maintenance of Tonto NF health. For example,

This is a brittle environment. And, when they started the fire abatement practices, then we started having more trees, more juniper growing. That led to less water in the creeks. The creek that used to run here is a result of those fire abatement practices that allowed so many trees to suck up water. We have billions of trees that were not part of this environment until they began fire abatement. Fire has been part of the environment here for thousands of years that made this county favorable to live in.

There is also a theme present in some of the discussion data that describes fire as consuming resources that can be used for economic benefit rather than as contributing to ecosystem health.

• Minerals are noted as a resource of the Tonto NF that has historically provided benefits to local communities. For example,

Mining has been the history of our community. The regulations keep it from being used more, but it could be part of our future that would allow us to have a more diverse economy than we do now. My family was all miners, but I don't know if that is going to be part of our future if we can't use those resources that are part of the forest.

Other participants perceive minerals as a noteworthy resource, but there is less support for development of those resources, primarily because of concerns about the potential for environmental damage.

The Mining Law of 1872 is the scourge of the forest. It allows development of one resource at the expenses of a whole range of other important resources. You have to look at mineral resources in relationship to how mining can damage other resources and not just the benefits you get from one resource.

 Resource banking is a perceived benefit of the Tonto NF. From this perspective, forests function to provide habitat, vegetation, wildlife, and other natural resources for future generation. For example,

The Tonto has a range of resources that are important to me such as water and wildlife. It is one of the few places where we can be sure that if we take care of those resources, then they will be there for my grandchildren.

- Soils are described as a foundation resource of the Tonto NF:
 - If you don't have soil and you don't have water, then you don't have anything on this forest. These have to be self-sustaining and they are of fundamental importance. People overlook soil as one of the resources that needs to be conserved.
- Timber continues to be described as one of the resources of the Tonto NF. Some view timber as a potential economic resource that can be converted to biomass for energy production or as fiber for the wood products industry. Some timber participants describe a transition from larger to smaller or "scrap" material:

The pressure on those in the logging industry is to find uses for scrap material. There used to be two large mills in Young, but we don't have those mills anymore. As big as the

forest is around here, sawmills cannot get timber from this forest. The only trees the logging industry could harvest are ones NEPA cleared that are some distance from the road. Timber has ceased to be a resource on the forest because of all the restrictions and the lawsuits.

Others note that some timber is a "nemesis" especially juniper:

The juniper is our nemesis. And, you cannot even get a permit to harvest it. For me to get a piece of juniper to use, you have to get a permit, go through a long process, and then pay \$75 a ton to get it. They should be paying me to harvest it.

- Vegetation, including grass for grazing, is described as a resource for wildlife as well as
 cattle. Vegetation also provides ground cover to prevent erosion and it contributes to the
 biodiversity values of the Tonto NF.
- Water in the form of lakes and streams for recreation is described as a valued resource that also provides habitat and ecosystem services benefits. Participants also describe riparian areas as important resources for recreational use, but especially as habitat and a source for contributing to biodiversity. For example,
 - Those areas have to stay. There are maybe only 20 or so in the whole state. They are an important part of the forest and they need to stay protected.
- Watersheds are distinguished from water in lakes or streams. Watersheds include a set of
 connections among water, vegetation, wildlife, and other biological resources that
 produce a range of benefits, including ecosystem services, wildlife habitat, and water for
 human consumption.

Water production is important. We need to keep these forests to produce water.

The Tonto is an important watershed that contributes to the capability for continued growth in the valley.

Proper management of the forest up here would increase the ground water up here (Payson), but it would also increase the capability of the Salt River Project to produce water. The amount of surface water they are getting (Salt River Project) is drastically reduced because of the tree load on the forest. Reducing the tree load on the forest for fire protection is important, but so is water production.

- Wilderness is described by some as a valued resource and others perceive it as essentially a "dead zone" that is a source of fire danger. Other participants suggest existing wilderness is sufficient and there is no need for any additional wilderness.
- Wildlife and wildlife habitat are described as especially important biological resources of the Tonto NF. As development occurs on private lands and as state lands are sold for future development, the value of Tonto NF lands as wildlife habitat is especially important.

It is habitat for wildlife and that is a huge benefit. For viewing and just the intrinsic value of just knowing it is there. Then there is value for the hunters and fishers. As Phoenix grows and grows, it becomes more and more important to us to have places where wildlife can have the room it needs. As more and more fragmentation occurs, it is important we have places where wildlife can thrive.

Ecosystem Services

The theme about ecosystem services has strong consistency and coherence in its evaluation of biodiversity and other traditional non-market values and resources. Participants emphasized that some of the essential ecosystem services are: watersheds, soil, wildlife habitat, carbon storage, and pollination of native plants. The following comment expresses the central theme about the benefits and values of ecosystem services:

Forests are resource banks and they produce things besides timber and grazing. It is hard to recognize the benefits of something like biodiversity, but places in the Southwest are really important sources of biodiversity. Our Sonoran ecosystem can be fragile and the Tonto is an important contribution to the sustainability of that ecosystem and its biodiversity. The Forest Service is not used to thinking in other than functional terms. They think and they are funded by programs like range and timber and recreation. I would like to see them appreciate the local and national benefits of those other types of services their lands provide.

Socioeconomic

Participants describe diverse socioeconomic benefits that result from Tonto NF lands and resources. These values and benefits include the following:

Economic benefits result from fiscal contributions to local governments, the direct use of
forest resources, and from businesses that supply goods and services to users of the Tonto
NF. For example,

A lot of the increased use of the forest is about recreation. And there are lots of businesses that are supplying the resources for people to recreate. In this entire area, there are businesses that started because of the easy access for recreation on the forest.

The forest is full of natural resources such as logging, mining, timber, ranching. But, they refuse to recognize those and they seem to go more to recreation and don't seem to recognize the natural resources that can benefit communities. ... These resources can be mined, they can be used for ranching, and I hope we can return to wise timber use. We can harvest the forest in a wise way. We all made mistakes in the past in those processes. We have learned, we have grown, and instead of just saying those things can't be done, we need to take advantage of good use and good planning.

Several participants emphasized fiscal benefits to local government as an important value of forestlands and resources:

Timber and the money the county got for grazing, all of that helped to pay for schools and roads. We have lost all of that. ... Recreation is starting to get hit too because roads are getting closed and the county will get hurt because of that too.

Gila County does not have any deeded land. The Tonto (National Forest) is our breadbasket. That is all we have. This is what supports our county and this is how we make our money. ... Everything we have comes off that forest. It has always been that way. There are very few pieces of deeded property. ...

Our counties are just not receiving the monies from PILT and forest receipts that we used to. Now, because of the way it is calculated, most of that money goes to Maricopa County

where it is being used for completely different uses than we could use it. We used to use it for our schools and roads and we have lost important funds to the county.

The inter-dependency of grazing, local economics, and forest resources was also emphasized:

De-stocking hurt the ranching industry. There was a legitimate concern with the drought, but there is a problem with how it was done. When we had to stop grazing on public lands, there was nowhere for us to put the cattle, so we had no options. They told us we had "x" amount of weeks to get our cows off the forest and that was it. Then that hurt the tax base for the county and the revenues generated by cattle sales hurt us. That has meant increased property taxes, new fees, and other ways to try and make up the differences. The increase in property taxes alone has been radical and it hurt lots of people. Some people have gone from three hundred dollars a year to fifteen hundred dollars a year.

- Forests also provide education benefits by offering the opportunity to directly learn about natural resources, ecological processes, and the ethics and values about how to responsibility use natural resources.
- Some participants emphasize the heritage value of cultural and historic resources on Tonto NF managed lands. These resources are perceived to embody a historical legacy that is expressed in old ranches, Indian ruins, old trails, and historic buildings.
- Open space was noted as an especially important value and benefit of national forest lands. Some participants emphasize the "buffer" value of open space in a region where development is increasing housing density. Other participants emphasize the psychological benefits of forests as open space:

Everyone needs open space and quiet to clear your mind. That is one of the values of this forest for our communities.

And,

When my wife drives home from the city at night, she tells me she can feel the stress going right out of her. She can't wait to get back into the forest.

- Quiet was also noted as a valued resource of forest lands:
 - I live up here because I like being away, but even here (Payson) there is still traffic and lots of people and machine noise. I go out to the Tonto to find quiet. I take my camera and I just try to find a place where I can sit and hear the sounds around me. It settles me. We live in such a noise-polluted world that you just have to have places where human noise is not all you hear.
- Outside of the Phoenix metropolitan area, especially in areas such as Payson, Young, and the rural areas of Gila County, the presence of the Tonto NF is an essential contribution to a rural lifestyle in which outdoor activities and open space are valued. Participants in the Young discussion group emphasized the importance of the Tonto NF as a setting for their community. And, the dirt road into and out of Young expresses the tensions about maintaining a rural lifestyle given changes in population and regulations affecting resource-based communities:

A lot of us moved to these types of places because we want a rural lifestyle and the forest contributes to that. We also don't care if the road is paved because it helps to maintain that lifestyle and it is a break against housing developments and everything else that comes with it. There are people who want the road paved, but there are people who do not. If they just kept the road maintained, then that would be an improvement.

Other participants expressed a similar assessment of the value of Tonto NF managed lands for enabling a rural lifestyle:

I moved here (Payson) because of the forest. We are nearly surrounded by it. It gives me the opportunity to take my kids out and we can learn about nature. We have plenty of open space and places to ride horses. Payson would just not be the same without the forest here. It lets us be who we are, people who like the outdoors and doing things outdoors.

Desired Futures

The category "desired futures" describes desires and expectations participants suggest for consideration in future management and forest planning. The content of this category includes three major categories: forest resources, types of use, and forest management policy and community interactions. The key points in each of these three categories are summarized in the bullet list below. These issues supplement previously discussed issues about forest resources, multiple-use, and forest management.

Resources

The major themes about forest resources include managing for sustainability, protection of riparian areas and watersheds, the intrinsic values of forest resources, the role of fire in forest health, and the management of noxious weeds.

Manage for sustainability.

What you have to look at is the context of this forest, its ecological and community context. You have to realize what can be produced and those sorts of capabilities have to be recognized. The forest plan needs to recognize the inherent limitations of the resources we have on this particular piece of ground: forest, livestock, timber, mining, recreation, and fish and wildlife. The key issue is sustainability and that is how we need to be thinking about things.

How are they going to manage the future uses without destroying the land? That is a key issue. They need to be able to manage so that it can be used, but the resources will be there for the future.

- Acknowledge and include management of the intrinsic values of Tonto NF resources in the planning process.
- Control of fire danger and its effects.

There are areas that used to be grazed that are not now. There are areas where the cattle use the graze the grass down and keep the fire danger low. Now, I am not sure how they are going to manage the fire danger.

If (Forest Service) is not going to manage the rest of the forest, what you do need to do is manage around our communities very well. The risk of wildfires is getting beyond all bounds of sensibility. Congress has promised money for these thinning projects we really need around our community, but for some reason it has not happened and I have no idea how. There needs to be a whole change.

We have had burns (forest fires) all around us. We are one area where it has not burned. Fires have a big economic cost in what it takes to deal with the erosion and other after effects. Basically, we are just one fire away from being bankrupt in this county because of the fire danger. If you can't manage the forest, then you have to put a fire buffer between the forest and these communities. Every year we don't burn, the odds go up we are going to have a big fire.

Forests are locations where power lines are located. When there is a twenty-foot swath to protect those power lines is not enough. If we lose the power lines, then small communities are without power for a long time. We need to be able to protect community infrastructure from fire danger.

Address the problem of noxious weeds and invasive species, especially juniper.

Uses

In addition to the multiple-use topics previously noted, participants identified a desired future in which there is an emphasis on management of recreation, increased attention to trail design and maintenance, consideration of the role of OHV use on Tonto NF managed lands, improved approaches to managing recreational shooting, and consideration for how to balance the demands on water for grazing, recreation, and consumption.

- Update approaches to multiple-use, especially management of recreation in a time when recreation pressure is increasing.
- Assess the use of fees as a means to address some of the issues in enforcement, resource protection, and facility maintenance. Also, address the issue of how fees may inhibit access to resources valued by recreational users living adjacent to forestlands.
- Improve the trail system with loop trails, long distance trails, and designated trails.

 If I come up to a place and it has three trails going off it and only one has a sign, and if I have a map that tells me where the trails go, then I am staying on the trail I am supposed to be on. The idea is to protect the resource and still have some use on it.

You have a trail system that works like a wave that radiates out from a place where a rock is dropped. The easiest uses and people who don't go in very far are close to the staging area. You then have a long distance trail that transfers the motorized folks or mountain bikers and hikers that can get further into the forest. So, you move the uses for different groups out so you don't have the conflict in close and you don't have the resource damage because everyone is in one spot.

• OHV recreational users express a desire to have additional facilities and trails.

The Forest Service needs to establish hundreds of miles of ATV trail to accommodate all age riders. ... The Forest Service needs to establish ATV campgrounds or modify the existing campgrounds to accommodate the public with their toy haulers and ATVs.

- Consider the use of designated areas for OHV use.
 - There were people who used to shoot in one place and then they got moved out and they went somewhere else. If you don't give people a place to do things, then they will find it on their own. The same thing goes with four-wheelers and anything else. There have to be designated areas so they can do what they want to do, but not in a little tiny space where they destroy the land. You have to give a little to get something.
- Improve the existing approach to recreational shooting.

 The Forest Service approach to recreational shooting is only at either end of the spectrum. It is only allowed unless it is prohibited. So, it is allowed but completely uncontrolled, and I mean completely uncontrolled, or else it is completely prohibited. Hunting is not included in that. It seems there needs to be a better solution than the current approach. Just don't let it grow and grow.
- Balance the use of water for recreation, grazing, and water supply uses.

 There are a number of issues about water for recreation, grazing rights, and dealing with the potential for drought, that need to be considered in managing water resources on the forest.

Management Policy and Community Interaction

In comments about desired futures for management of the Tonto NF, participants emphasized assessing the limits of local environments before management approaches are implemented, using science rather than politics as a basis for making management and planning decisions, attention to enforcement issues, assessment of the costs and benefits of user fees, consideration for any need to control the numbers of users in some areas, encouragement of non-motorized recreation, a more transparent approach to land exchanges, development of meaningful approaches to collaboration, support for rural communities, and consideration of the potential economic and ecological benefits of resource-based uses (e.g., timber and grazing) for the future health of forest resources.

- Develop a management approach that assesses the conditions and limitations of the environment when different types of uses are considered.
 Understand the limitations of the local environment and make plans that are realistic and acknowledge those limitations. Also consider the diversity of the landscape from Sonoran desert to mountains and pine trees. They need to consider local conditions and fit management approaches to the needs and demands of local conditions. Don't just use a "cookie cutter" one set of ideas but know local conditions.
- Use forest health as the central concept guiding management.

 If we manage the forest so it is healthy and not for aesthetics or some other reason, but for forest health, then we will have the wildlife habitat, we will have the watershed, and we will have a sustainable economy and a sustainable environment.
- Forest management is perceived to be prone to political influence pressure, which raises concern about the role of science in management of forest conditions.
 What we would like to see is management that is not under political pressure. We would like to a see a policy that stays the same regardless of the administration's (Washington)

political agenda. So, if the Forest Service could not be influenced by politics, good or bad, it would be nice if the Forest Service had a set of rules and politicians had no say in it. ... That sounds like heaven. Maybe it is unrealistic. As part of that, they need to rely on science as the basis for management and not what the current administration or any administration wants for the forest.

- Assess the issues in limiting the number of users who can access the forest.

 Maybe you eventually get to the point where you have to regulate how many people go on the trail system. ... If population continues to grow and the usage keeps increasing, then maybe the only solution will be to limit the number of people or spread the use out so that it is not concentrated.
- Prioritize areas for budget allocation that are more intensively used. The interface areas around urban areas need priority in budget allocations.
- Encourage non-motorized recreational uses.

 One way you deal with the population issue is to encourage non-motorized uses such as hiking. You can accommodate more people in any one area if they are doing non-motorized uses and low-impact uses. ...
- Use volunteer and citizen groups more effectively.

The Forest Service here has asked some groups to help them do cleanups and things like that. But, it does not seem very organized. They could use a volunteer program that trains people, shows people how to do volunteer enforcement, and help out otherwise. The Tonto has to do something like that because they are not going to get more money and more resources. They have to do better than what they are doing now and using citizen groups is a way to solve some of these problems in the future.

I would like to see them use volunteers for resource protection and monitoring. Most volunteer projects are building something. But, you can have people out there just monitoring things and it would be a help on the enforcement and resource protection end.

We have been trying to work with the Tonto and things are different in each District. They want us to be trained to do trail maintenance in one District and then again in another. And if you go to another forest, they want you to be trained all over again. They could do a lot to get more help by streamlining the process. There are people who have built complete trails and know as much as the Forest Service. I think a lot more volunteers would be available if they did not put so many roadblocks in the way. What they need is one volunteer agreement for the whole state or region.

- Address the problem of limited resources for enforcement when enforcement needs are rising. Creative agreements with local law enforcement, use of volunteers, and encourage ethics and values that promote good behavior.
- Develop an effective approach to collaboration that includes diverse publics and consideration of the effects of management policies on local communities.

We are the ones who have to live here. We are the ones who have to live with the results. We need to be part of the process. We are the ones they should be asking to help solve problems with rare and endangered species to create habitat and things like that. There are ways to make it economically useful for us and to help the rare and endangered

species. As ranchers, we would do everything we could for something like that. Community involvement all the way through these planning processes, we need to be.

And,

If they want to manage by consensus, then it is a good idea to broaden the range of people involved. They have started to do this and I hope it will continue. It needs to be more than just us ranchers and the environmentalists. We need a spirit of cooperation and partnership that will give us all a future.

We want to be involved with the forest in developing the plan. We want a seat at the table and why can't we do that? There needs to be representation from the community when they draft plans. Nobody understands these communities and the land the way we do. We have that tie to the land that is very deep because we were born and raised here and generations before us have been here. It is just part of us and who we are. It is not easy to describe.

- Partner with community groups to develop solutions to ecological and economic issues associated with forest management.
 - They spend a lot of time telling us why they can't do things and too little time asking how we can work together to get something done. ... There needs to be a mentality of working together and effectively partnering to get something done. ... We would like to have a seat at the table that actually means something. It has to be more than just meeting the regulations, so we met with the community and they said what they wanted to do and now we are going to do what we want to do and then develop the plan and put it on a shelf. It has to be more than just check a box. We have all been to lots of meetings where we felt like that is exactly why we were there: They needed to check a box. ... What the community is asking for to be taken seriously and trying to implement it in the plan. Come back to the community with something that the community wants. ... The Forest Service does not always know what is best and sometimes it is the people in the community who know.
- Return to active management that incorporates timber production and grazing as a means to benefit the forest and adjacent communities.
 - You have to allow some industry back in here to get some management done to improve forest health. We can't expect the Federal government, the tax payers I mean to foot the bill. We need to allow private enterprise back in here to increase the health of the watershed, bring back native species that are under attack, and bring back some jobs. Things have just gotten all out of whack and it needs to return to something sane.
- Change what is perceived to be a punitive approach to permitted users to one that incorporates the stewardship values of resource-based users to improve forest health and contribute to the future of the forest.
 - My livelihood is grazing. Yes, I act in self-interest, but I also care for the land. It is part of my family tradition and I feel that allotment is just like my deeded land. I know it is public land, but I care for it like it is my own. If they would work with me as a partner, we could all benefit.
- Think creatively to develop economic opportunities to use forest resources.

I am a big proponent of biomass. For goodness sakes, we are in the middle of the largest stand of ponderosa pine in the world. Come on, let's go and partner with the community to develop some opportunities.

Advocate for rural communities.

don't see there now.

We would like them to be a champion for communities that depend on natural resources. But, they are more interested in telling us what we can't do than what we can do. We need them to be advocates for rural communities that don't have the resources and infrastructure.

- Develop a transparent approach to land exchanges.
 - Land Exchanges: are the issues economic or for the benefit of the forest? "The Tonto was going to get some building in downtown Phoenix for the land they thought about exchanging. Is that the right reason for a land exchange? It is hard to get a handle on what the rules are for a land exchange and they seem to keep changing the rules.
- Move the Supervisor's Office to a location where it can be more aware of the needs, desires, and issues facing communities in and around the Tonto NF.
 What they really need to do is move the SO (Supervisor's Office) to Payson or Globe where they are around people who are affected everyday by what they do. Now they sit in downtown Phoenix pretty far removed from the real effects of what they do. I think people closer to the forest and the people who use it might help with the accountability that I

These three categories and the specific content of each are likely to be points of dialogue with interested publics in future interactions with managers and staff of the Tonto NF. These are starting points to explore and develop mutual understanding about the decision space of Tonto NF managers and the specific topics publics desire to see addressed by decisionmakers.

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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 Forest Service 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?