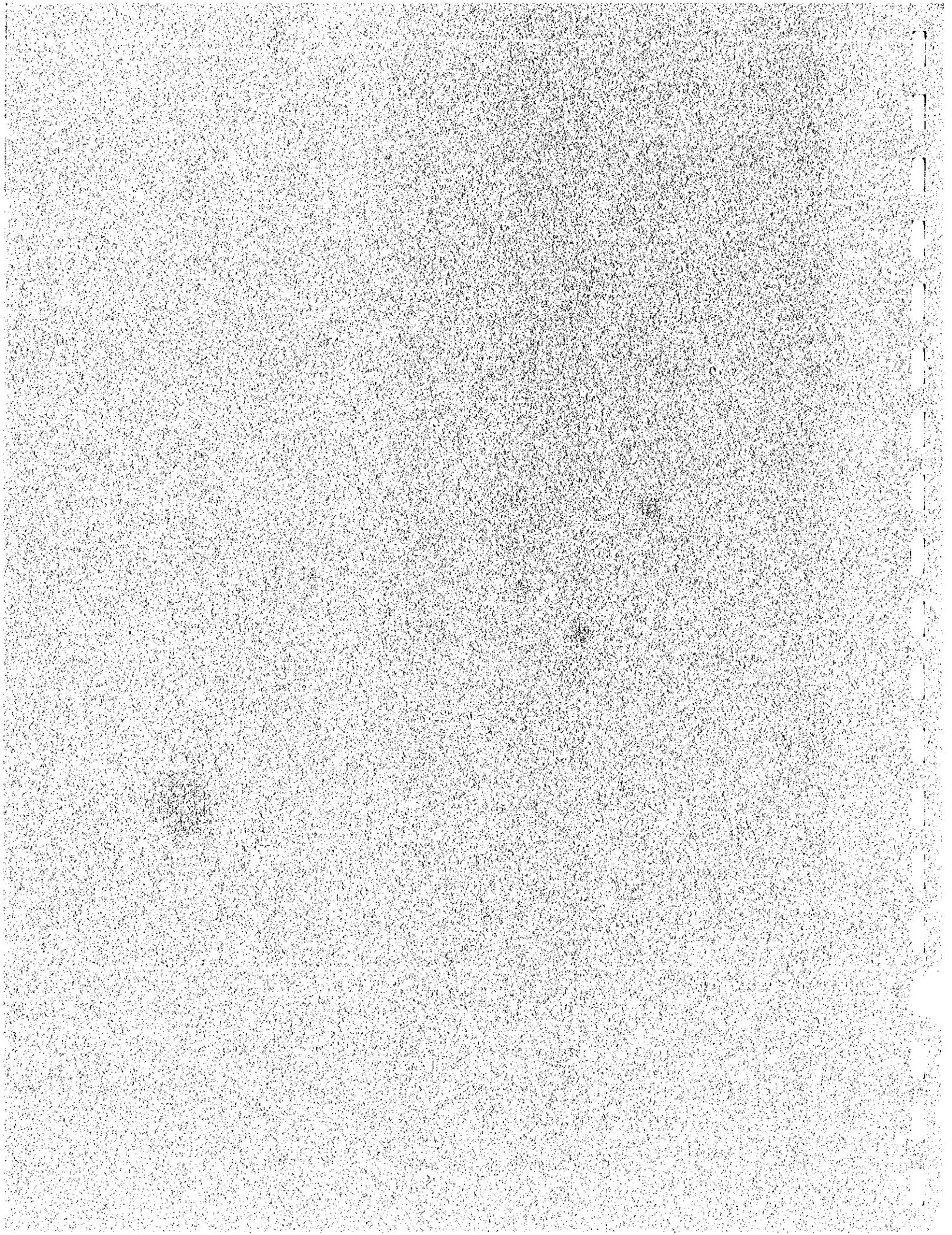


DATA AND SOURCES

Audience Analysis

Sedona / Oak Creek Ecosystem
1996



Guide to Sedona Audiences

Contents:

- Resident Use / Visitor Use (of National Forest)
- Personal / Group Profile
 - group size
 - families
 - couples and friends
 - solitary visitors
- Geographic Origin
 - home community size
- Age
- Cultural Background
- Education
- Employment
- Household Income
- Volume of Use / Length of Stay / Visitor Loyalty
- Access and Large Scale Destinations
- Accommodations
- Destinations
- Preferred Activities
- Commercially Guided Activities and Rental Equipment
- Season of Use
- Desired Benefits
- Visitor Satisfaction, Concerns, and Suggestions
 - general satisfaction
 - user conflicts
 - a house without a host
 - preferred orientation / information / interpretive services
 - interests
 - environmental concerns
- Resident Satisfaction, Concerns, and Suggestions
 - need for improved communication
 - preferred orientation / information / interpretive services
 - interests
 - environmental concerns

by **Ann Wendland, Coconino Interpretive Specialist**

This report gives you a chance to get to know your audience before you meet them. Who are you serving? What did they come here for? What are they interested in? Read on, and get to know the boss..... It summarizes data from dozens of surveys in a short analysis, and suggests implications for interpreters. Its data file (see ecosystem management files) synthesizes the findings of dozens of surveys and scoping efforts.

AUDIENCE NATURE AND IMPLICATIONS FOR COMMUNICATORS

Resident Use / Visitor Use:

Overall, less than 1 in 10 users of the National Forest lives in Sedona. The percentage of visitors from outside Sedona is higher in the Red Cliffs and Schnebly areas, and Bell Rock (93%). Almost no jeep tour passengers live in Sedona. Significant resident jeep tour use occurs only at Honanki, in the Red Cliffs Management Area (5%).

- ⇒ Most of the people served by interpretation will take their education and inspiration home to a different community--not to Sedona; well-crafted interpretive messages will provoke learning in and care for their home communities as well as this one. Also, most National Forest users will not be familiar with the issues and ecology of this area, because they live in significantly different settings and ecosystems.

Residents have higher dispersed use levels at locations such as Soldier's Pass (49%), Broken Arrow, and Dry Creek road--all areas within easy foot and bike access of neighborhoods--in the Neighborwoods, Red Rock Front Country, and Dry Creek Management Areas.

- ⇒ Activities and services that emphasize residents as the target audience should focus in areas within easy foot and bike access of neighborhoods.

Personal / Group Profile:

Group size:

Visitors to Sedona's dispersed National Forest sites come in groups averaging three people. Jeep tour user groups average 3.5 people. Only about 2% of visitors come with organized groups. Group sizes drop in the Neighborwoods and Dry Creek areas, and at the vortexes, and are higher on Schnebly Hill and at Honanki and Palatki.

- ⇒ This information (in more detail) can show how many people are likely to use interpretive / info. facilities at once; together with vehicle / fee counts, it provides target audience size ranges. Organized groups, except school groups, shouldn't be target audiences for messages that need wide dissemination. Activities / facilities at vortexes and near neighborhoods should provide opportunities for solitary visitors.

Families:

About half of all dispersed National Forest visitors come as families (only a quarter of jeep tour passengers). Groups of families-with-friends account for 8% of all National Forest use, with higher use levels in the Neighborwoods. Family use is low (8-21%, in increasing order) in the Neighborwoods, Red Rock Front Country, Schnebly Hill, Dry Creek, Red Cliffs and in Munds Mountain Wilderness, and is noticeably low at vortex sites. In Oak Creek Canyon, campgrounds and trails see the highest family use (40% and 33% respectively), while sightseers and day users are only 24% and 20% families, respectively. One third of summer visitor groups include children, relative to a fifth of winter groups, with an average of two children per group.

- ⇒ Family oriented facilities and programs should concentrate in Oak Creek Canyon. Services for families need to appeal to very diverse ages and levels of experience (erring on the side of the younger).

Couples and Friends:

41% of dispersed National Forest visitors and 51% of jeep tour passengers come as couples. These percentages are a bit higher in the Dry Creek and Red Cliffs areas, and lower for dispersed visitors in the Neighborwoods and Red Rock Front Country (except at vortexes, where they are average). 21% of visitors to Sedona come as groups of friends (12% of jeep tour passengers). More groups of friends use the Neighborwoods and Red Rock Front Country, and less use Dry Creek, Red Cliffs, and Munds Mountain Wilderness.

- ⇒ Audiences outside of Oak Creek Canyon may have fairly even ages and experience levels, and desire fairly sophisticated activities and facilities because of the high percentages of visitors that come as couples and friends.

Solitary visitors:

One in ten visitors comes alone; slightly more dispersed National Forest users come alone, and significantly less jeep tour passengers. Single individuals most commonly use the Neighborwoods, Dry Creek, and Red Rock Front Country areas, and least commonly use Oak Creek Canyon, Schnebly Hill and the Red Cliffs area.

- ⇒ Because a fairly high proportion of visitors experience Sedona alone (especially in listed areas), activities and facilities should support this experience and not significantly interfere with opportunities for solitude. This audience has more capacity for un-interrupted reflection than families or groups of friends, and may be very receptive to activities that enhance reflective, solitary visits (such as self-guided tours, field journals, field guides, etc.). They may also be alone of necessity and enjoy chances to participate in informal group activities.

Geographic Origin:

A third of Sedona residents moved from California (more than all other western states combined) and 15% moved from the Midwest. Most residents weren't raised here, and came from ecosystems that differ significantly from this one. Former California residents may be familiar with water conservation, fire danger, and traffic issues.

- ⇒ As the human population here continues to swell, demand and need for orientation to this ecosystem also increase. Newer residents may be receptive to programs and activities that familiarize them with the conservation issues that prevail here, with the best ways to minimize impacts here, with local history and native cultures, and with native plant and animal ecology and observation / identification.

Just over a third of our visitors live in Arizona. Of those, 63% come from metro Phoenix, 10% from Flagstaff, and 8% from Tucson. Sedona appears to be primarily an out-of-state

destination, with over half of visitors coming from other states (32% higher than the Arizona average). A quarter of visitors come from California (only 15% of Wilderness trail users), and nearly another quarter arrive from midwestern and eastern states. Sedona has less visitors from neighboring states than the Arizona average.

⇒ Since almost all of our visitors come from very different ecosystems, they may have the same need for / interest in orientation to this ecosystem as residents (above).

Less than 1 in 10 visitors to Sedona are foreign (below the state average). In decreasing order, they come from UK, Canada, Germany, Australia, and France.

⇒ Because we have relatively few foreign visitors, many of whom come from English speaking nations, multi-lingual interpretation will not be a critical service, except perhaps to non-English-speaking Americans. Basic orientation should still be accessible to all (universal symbols, etc..)

Home community size:

Users of local National Forest are very urban, with over half living in cities of at least 75,000 people. Jeep tour passengers are even more urban--nearly half live in cities with populations over 350,000. Nearly a quarter of visitors are from metro-Phoenix. Oak Creek Canyon and the Dry Creek and Red Cliffs areas see more urban visitors, while the Neighborwoods and some sites in the Red Rock Front Country have much less urban use (primarily because of high use by Sedona residents). Trends show that Arizona's spiraling population growth (four times the national average) will concentrate increasingly in urban areas.

⇒ Visitor urbanization signifies growing ignorance of natural ecosystem function and hazards. Visitors aren't likely to come adequately prepared for recreation in a desert environment and don't often know what their impacts are or how to minimize them; they are used to moving about in a place designed for exclusively human use and in which sophisticated facilities accommodate human impacts *en masse*. Stewardship and basic ecological messages should be emphasized. Our visitors may find a rugged "wilderness" experience much easier to find than would visitors with rural origins.

Age:

Sedona can be looked at as a retirement community, with over half of residents over 50, and nearly half 60 or older, substantially higher than state averages. Sedona visitors are also older than the US average, with an average age over 46 years. Winter visitors are older, with more than half over 50, and a third over 60. Although jeep tour passengers average slightly older than dispersed visitors, those on rougher rides (Broken Arrow and Soldier's Pass) average slightly younger (1-2 yrs). Average age doesn't vary much throughout the area. The strongest variation is at Broken Arrow, a popular mountain biking destination in the Red Rock Front Country, where dispersed visitors average 37 (tour passengers 45). Visitors (not on tours) in Oak Creek Canyon, Dry Creek, Red Cliffs, Schnebly, and Red Rock Front Country areas are slightly younger than average.

⇒ Interpreters should expect older audiences for facilities and activities, and plan for a higher level of experience and of disabilities related to aging. Although disability statistics are scarce, the above-average age of Sedona's residents and visitors suggests a higher level of mobility, hearing, and vision impairments, especially in the Neighborwoods, Red Rock Front Country, and Dry Creek. 2% of visitors to Oak Creek Canyon are both hearing and mobility impaired. Although much of the retired resident population is physically active, there may be a significant and growing *non-user audience* of residents who love this environment but are homebound, or can only get outdoors on foot or with friends, no longer able to drive. In-home and backyard interpretive services such as videos, books and backyard wildlife may gain the support and appreciation of this audience.

Cultural Background:

Hispanics are the primary minority users, but almost all users are Caucasian. Over 98% of Sedona residents are Caucasian, and 91% of National Forest visitors are Caucasian. Diversity increases in Oak Creek Canyon, Dry Creek, and in the Munds Mountain Wilderness. Some sites have much higher minority use: dispersed visitation at Broken Arrow is only 83% Caucasian, and developed sites in Oak Creek Canyon average 11-15% Hispanic use. Manzanita and Cave Springs campgrounds have averaged nearly a third Hispanic use for at least 17 years.

⇒ Many visitors to Oak Creek Canyon may speak English as a second language, if at all, and want interpretive programs in Spanish. Interpreters in Oak Creek Canyon have found that Hispanic audiences there prefer programs with a high level of interaction.

Education:

Visitors and residents are highly educated. More than 80% of adult residents have studied at college, and 41% have 4 or more years of college. Nearly three quarters of our visitors have studied at college, and nearly a third have some graduate school education. Visitors to National Forest have higher education levels: over a third have been to graduate school, and 68% are college graduates. Jeep tour passengers are better educated still, with three-quarters possessing at least one college degree. Summer visitors have an average of 2 years more education than winter visitors. Visitors tend to be more educated than average in the Neighborwoods (especially on tours), Dry Creek, Schnebly Hill, and the Red Cliffs (except dispersed visitors at Honanki). National Forest users in Oak Creek Canyon and at Bell Rock are less educated (in Oak Creek Canyon, less than half entered college). Vortex visitors have inconsistent education levels--below local averages in the Red Rock Front Country and at Bell Rock, but well above average at Boynton Canyon.

⇒ Our highly educated audience can absorb technical information (which always must be well-presented) and complex concepts, and have much to contribute to programs. Interpreters must be exceptionally careful to research thoroughly, checking for outdated data, inaccuracies or inconsistencies, or simplistic assumptions.

Employment:

Less than half of Sedona residents are in the labor force; of those who are, about 70% work in Sedona, and 30% in other communities. There are 5,640 jobs in Sedona, over 2,000 of which are occupied by people who commute from other communities. About half of working Sedona residents work in managerial or professional positions, and half work in the service industry (not mutually exclusive). A third of retirees describe themselves as artists.

60% of our visitors work full time (more in summer), and 17% are retired (more in winter). Slightly less National Forest visitors are retired. The student-visitor population climaxes at an overwhelming 6% in summer. Half of working visitors are in managerial positions (substantially higher than U.S. averages). Slightly less visitors in Oak Creek Canyon are employed full-time.

- ⇒ Our high percentage of retired residents suggests the capacity for plenty of community involvement in interpretive activities, planning and scoping, adult education, workshops, field seminars, and volunteer activities. Volunteer organizations and civic groups thrive here, generally only weakened or defeated by divisive politics and cliques.
- ⇒ Sedona has a strong potential connection to other Verde Valley communities and Flagstaff, since so many people commute into and out of Sedona to get to work. Publicity for community events and interpretive activities should extend valley-wide, and the ranger districts in the Verde Valley Center should collaborate intensively on interpretive messages and services.

Household income:

Sedona residents have a median income of \$38,000 / year. The high percentage of retired residents, who may have substantial assets and investments but have fixed annual earnings, may make this figure difficult to interpret.

Visitors to the red rock area are wealthier than the U.S. average: half make over \$50,000 / year. A quarter make over \$100,000, a quarter make \$60 - 100,000, almost a quarter make \$40 - 60,000, and almost a quarter make \$20 - 40,000. Overnight users and jeep tour passengers make substantially more than day users and dispersed users, respectively. Visitors to the Red Cliffs area make substantially more than those in other areas (almost 3/4 of dispersed users in the Red Cliffs area make over \$50,000, and jeep tour passengers at Honanki top the charts, with more than 40% earning over \$100,000).

- ⇒ Once again, it becomes clear that visitors and residents will expect sophisticated services. It's also clear that both visitors and residents have the disposable income to support the development of those services. Fee interpretation can work well here, however, we should not add to the existing sense of commercialized nature or limit our services to those who can pay.

Volume of Use / Length of Stay / Visitor Loyalty:

The city of Sedona and the Village of Oak Creek are expected to continue growing rapidly. Sedona is expected to nearly double its current population of 8850 (which may not include all seasonal residents) by 2010. The statewide volume of use is increasing dramatically, and Sedona is keeping pace. More than 1.3 million people visited developed Forest sites in 1995, a 46% increase since 1974. A million and a half used Forest Service sites or sponsored activities.

Over half of Sedona visitors spend more than one day in town (higher for National Forest users), and about half have visited before. The average stay of overnight visitors is almost 4 nights, in line with national averages. Summer visitors stay a night longer than winter visitors. Generally, the farther away visitors live, the longer they stay, and the closer they live, the more frequently they return. Campground users, however, repeat visits frequently *and* stay several nights. Almost all jeep tour passengers and most developed day-use and dispersed site users (not including Slide Rock) are first-time visitors (those at developed day-use sites stay about 2-5 hours, except at Oak Creek Vista, where stays are shorter). Repeat visitors indicate Sedona as a primary destination and use Forest land significantly more than first-time visitors.

- ⇒ Most visitors can enjoy multi-day / sequential activities or may combine several activities; activities should be congruent with each other and feature easy combination and progressive learning.
- ⇒ First-time visitors will need clear orientation and strong stewardship messages to set the tone for their next visit, during which they're likely to use the Forest more.
- ⇒ Repeat users are probably ready for meaty interpretation--lots of natural and cultural history to continually enliven and enlighten their experiences here. The depth of interpretation depends partly on the visitor's familiarity and the length of time they stay; the statistics below can help you estimate your audience's level of interest, familiarity and availability.

In contrast to other areas, surveyed sites in the Neighborwoods experience 2/3 repeat use, dominated by people who have used the area at least nine times before. Jeep tour passengers still tend to be first-time users (95%).

Oak Creek Canyon has a high and increasing volume of use--traffic doubled between 1990 and 1994. Campers tend toward shorter stays (1 to 2 nights) than most overnight users. Hikers stay in the area longer than average (60% stay 24 - 72 hours). The majority of visitors to Oak Creek Canyon visited in the last year to engage in the same activity.

Use in the Red Rock Front Country comes largely from first time visitors, especially at certain locations including Airport Saddle and Back O' Beyond; most of the repeat visitors in this area, however, have used the area many times (for example, although 2/3 of the visitors at Back O' Beyond had never been there before, a quarter have used the area at least nine times).

Schnebly sees slightly more first-time use than average for dispersed visitors (60%). During the lowest use season (Dec - end of March) lower Schnebly Hill road averages 880 vehicle passes per day.

The Red Cliffs area has the highest proportion of first time users: over 3/4 at surveyed sites. Although many destinations in the area involve long, rough drives, substantial numbers of people visit the area (for example, 51 vehicles per day at Palatki during the slower visitor months [8/95 - 3/96]).

Almost all Wilderness use is day-use, with only 2% overnight use, concentrated in Red Rock Secret Mountain Wilderness. Wilderness-access trails that have high percentages of first time users (no statistics available for Oak Creek Canyon trails) include Bell Rock, Boynton, Palatki and Honanki, which range from 66% to 90% first-time users, in increasing order. Only 1/3 of dispersed visitors on the Soldiers Pass trail, which accesses Wilderness, are there for the first time; 2/3 of repeat visitors have been there at least 9 times.

Access and large-scale destinations:

3/4 of visitors access information about Sedona before they come here, mainly through TV, radio, travel books and brochures, and magazines. About half plan their trips a month to a year before leaving. Their other sources of information include travel clubs, chamber of commerce or visitor centers, word of mouth, and newspapers (in decreasing order of use from 12% to 3%).

Over half of visitors get here in their own cars, and a third come in rental vehicles. These proportions are even higher for people staying less than a full day. One of the primary reasons people choose to take jeep tours is that their vehicles can't handle the rough roads. The number of people using personal vehicles may drop when a shuttle becomes a convenient option.

⇒ Until shuttles run regularly, we can assume that visitors have a high level of mobility (they don't have to adhere to scheduled stops) and may choose to go to interpretive activities without much advance planning. When the shuttle becomes viable, we can plan activities to meet its scheduled stops.

Sedona / red rock country is an increasingly well-known national and in-state destination. Sedona / Oak Creek Canyon is the main destination of over half of its visitors (up to 90% of in-state visitors). While visiting Sedona, about half of overnight visitors take day-trips to Verde Valley towns (Camp Verde, Jerome, Clarkdale) and / or north of the rim (Flagstaff, Grand Canyon, Flagstaff Area National Monuments). A quarter of visitors spend a night in another location in Northern Arizona before they get here (a third of visitors to the South Rim included Oak Creek Canyon in their itinerary). Many visitors also arrive from Phoenix; they aren't as likely to have encountered interpretive messages along the way. On the way out, visitors head for Flagstaff, the Grand Canyon, or Phoenix (which together account for over 50% of visitors' next stopping places).

- ⇒ Visitors are very likely to encounter other interpretive services on the Colorado Plateau and in the Verde Valley, before, during, and / or after their stay here. Interpretive services and messages should be planned and executed in concert to provide Verde Valley-wide learning opportunities and consistent / complimentary messages with destinations throughout the Colorado Plateau.

Accommodations:

About 3/4 of visitors to Sedona stay in hotels, resorts, or bed and breakfasts, which usually use personal contacts (concierges), printed materials, and even specialized equipment such as interactive computers (Los Abrigados) to provide recreation information. Resorts and some bed and breakfasts go beyond information and actually provide activities (hence the expanding Resort Naturalist / Ranger program). Almost half of the visitors that aren't at these private accommodations stay at developed Forest Service campgrounds--another captive audience!

- ⇒ These private accommodations and campgrounds are great distribution points for messages that need wide dissemination, such as high quality recreation guides, event notices, and important visitor alerts (i.e. prolonged, extreme fire danger).

Only 5% of visitors stay in RV parks, and they stay the longest (over 7 days average).

- ⇒ RV park visitors may enjoy extended activities such as multi-day self-guided tours or sequential interpretive programs.

One of the hardest audiences to reach will be those that stay with friends or family in Sedona--500 visitors each day (7%).

- ⇒ Resident-targeted activities and word-of-mouth may be the best ways to reach the substantial number of people who stay with residents.

Destinations:

In Arizona, developed Forest sites are generally more popular than other recreation sites. Of Forest sites and sponsored services in Sedona, day-use areas get over half of the total visits: sites that provide scenic viewing, picnicking and swimming account for most of the developed site use. 16% of visits go to trails, 11% to campgrounds, and 8% to commercial guide services. Among day-use areas, Oak Creek Vista has the most visitors, and Slide Rock State Park comes in second, with over twice the visits (paid) of all of the other developed sites in Oak Creek Canyon combined. Crescent Moon day-use area is the only primary developed Forest day-use destination outside of Oak Creek Canyon. Palatki is the most popular dispersed sites (not including trails) in the area.

About twenty times as many people visit the chamber of commerce than the ranger station, but the highest information contact point is at Oak Creek Vista, with about 600,000 visits / year.

- ⇒ Oak Creek Vista is the best existing developed site for orientation / information dissemination because of its extremely high use.
- ⇒ Partnerships with Slide Rock State Park and the Chamber of Commerce will be essential to effective visitor information.

The most popular trails in the area are Wilderness trails in Oak Creek Canyon or the heart of red rock country (Dry Creek and Red Cliffs areas and Broken Arrow and Bell trails). Remote trails, strenuous trails, or those with especially unmarked or difficult access have the lowest use.

People tend toward concentrated use in the Sedona / Red Rock Ecosystem, preferring particular destinations regardless of crowding; they prefer Wilderness destinations (which makes adhering to Wilderness Law preserving solitude extremely difficult). Over 80% of Wilderness visits occur in Red Rock Secret Mountain Wilderness, with about a quarter of that use in West Fork and a quarter in Boynton. 13% of Wilderness visits occurred in Munds Mountain Wilderness, almost all at Bell Rock. Only 3% of Wilderness users went to Sycamore Canyon Wilderness. Over half of the total Wilderness use concentrated on three trails: West Fork, Boynton Canyon, and Bell.

- ⇒ Effective and continuous interpretation at the three most popular trails can communicate Wilderness ethics and safety to over half of Wilderness users and enhance their Wilderness experience (by mitigating the impacts of heavy use).

Destinations by origin:

Arizona residents account for over half of the estimated use of West Fork. Other than West Fork, remote and seldom-used trails have the highest proportions of in-state visitation. The most popular Wilderness trails for out-of-state residents are the Bell trail, heavily used trails in the Red Cliffs and Dry Creek areas, and Wilson trails.

Preferred Activities:

Of Arizona residents' favorite 5 activities (visiting outstanding scenic areas, visiting historic places, visiting zoos / botanical gardens, picnicking, and walking) all but visiting zoos and botanical gardens are possible here. Statewide, fishing in a natural setting, visiting historic places, tent camping, picnicking, and visiting scenic areas have the greatest unmet demand. These uses are all available here. Arizona residents also enjoy environmental education and feel that it is extremely important.

- ⇒ interpretation and education in this area, which accommodates all the most desired activities of AZ residents, will meet strong demand and are appropriate focus areas.

The recreational activities that local residents most desire, which include walking, jogging, hiking, picnicking, recreational swimming, road biking, horseriding, and mountain biking (in that order), are all natural / relaxing activities (not organized team or urban activities) which residents can enjoy on local National Forest. This signifies that

this community makes more use of National Forest than would other communities more oriented toward traditional parks and recreation. The recreation facilities that top locals' desired-recreational-facility list affirms that viewpoint: they include pedestrian and bike paths, primitive / natural parks, hiking / nature trails, and parks adjacent to Oak Creek. Other interest items: nearly a third of locals would like to use historical parks. A third of retired residents identify their present occupation as "artist."

⇒ residents will enjoy interpretive activities that enhance their experiences of primitive natural areas, riparian areas, and historic sites, and involve art, walking, or biking.

Despite the close availability of National Forest and the desire for National Forest type activities, locals have strong unmet demand. Gradeschool children, teenagers, and adults 18 - 39 feel they don't have enough to do (adults over 40 feel that they have enough recreation opportunities). Also, locals seem constrained by the lack of safe opportunities and facilities. For example, although most residents would like to jog, about a third of residents want to road bike, and a fourth want to mountain bike, most residents did not jog or use their bikes at all last year (the root of this discrepancy may lie in another statistic: bike and pedestrian paths are the community's most desired facility).

Touring, sightseeing, recreation and vacation make up over 75% of all visitor use of this area. Although the most popular activities in general are shopping, sightseeing, eating and hiking (reverse order for satisfaction), National Forest users are slightly less interested in shopping and slightly more interested in spiritual experiences and visiting friends in the area. The most popular activities for dispersed visitors on National Forest: sightseeing, day-hiking, driving for pleasure, walking, photography, watching wildlife, looking at wildflowers, and meditation (ranging in decreasing order from 85% to 30%).

Some activities concentrate in particular locations, and some show localized trends. Nature study (32%!), swimming, and fishing peak in Oak Creek Canyon. Mountain biking concentrates in Red Rock Front Country and Dry Creek, picnicking concentrates in Red Rock Front Country and Oak Creek Canyon, viewing Indian rock art and ruins concentrates in the Red Cliffs, and meditation clusters at 4 vortexes (as does vortexing, obviously). In trends, driving for pleasure and photography peaked on Schnebly Hill; nature observation was stronger in Dry Creek, Neighborwoods, Red Cliffs, and Red Rock Front Country; day-hiking increased and walking dropped in Dry Creek; and both day-hiking and walking increased in Red Cliffs, except at Honanki.

⇒ planning for interpretive activities should capitalize on the activities that people come to the site for: for instance, naturalist led walks will be more effective in the Neighborwoods where people already walk for pleasure.

Although less than 1 in 10 visitors comes here for health or spiritual reasons (11% of NF users), 64% of visitors anticipate a spiritual experience here (about 40% at vortexes, about 30% at churches or chapels). Over 30% of visitors were "vortexing" at the four main vortexes (Airport, Back O' Beyond, Bell, Boynton) and meditating at all but

Boynton. The highest proportion of meditation and vortexing occurred at Back O' Beyond.

⇒ A substantial proportion of people use particular National Forest sites to experience a phenomenon that we land managers have no expertise on and can't research or explain; we can provide information through partners and their publications, and reasonably support the natural qualities (solitude, quiet) that enable this special use.

Visitors also have some unmet demand, focused on cultural and art events. About 2/3 of people interested in cultural events want folk music or art exhibitions, and half want historical drama / living history (more in winter). One out of five wants museum exhibits.

⇒ New art and cultural events can strongly communicate ecological themes. Effective living history programs will meet very high demand, and an interpretive center is definitely worth study.

Commercially Guided Activities and Rental Equipment:

12% of visitors use guide services, and 5% use equipment outfitters. The average daily expenditure per visitor is \$46 for guided tours, and \$33 for rental equipment. Summer and overnight visitors spend more on guided tours. Of the 132,786 visitors served by permitted commercial outfitter / guides, 101,572 used jeep tours. Guide companies offer an incredible variety of services (from New Age jeep tours to fishing trips) and prices (from \$700 per evening to \$10 per 2 hours), and can't keep up with demand.

People who use tour guides and outfitters are older, more affluent, more likely to be female, and more likely to be employed in managerial or professional positions or retired than the general visitor population. Guide companies feel that they depend on drop-in clients rather than people who planned to take tours in advance of their trip. Most customers are first-time visitors from outside Arizona.

The primary reason people choose to take a guided tour is to go with someone knowledgeable about the area. Other reasons for taking a tour include not having an appropriate vehicle, not being familiar with the area, and simply enjoying guided tours.

⇒ These customers are experienced and educated and expect sophisticated services. They pay enough to ensure a high quality of interpretation. Illegal tours can not be regulated to ensure quality interpretation and should be effectively stopped. Similarly, permitted guided tours must have a very high interpretive quality. Our own free / fee interpretive programs may have high turnout without impacting our permittees.

Season of Use:

Despite the long, hot summers and Sedona's status as a retirement community, over 90% of residents live here 9 or more months each year. Local schools recess for the summer, but many day-care facilities, private schools and camps continue through summer.

The main tourist use of this area occurs between April and October. Commercial guide companies report the highest number of customers in the quarter from April to June. Fee sites collect the most fees between May and October (reflecting high demand for swimming and heavy summer and fall use of Oak Creek Canyon). The Sedona Tourist Intercept Survey suggests that people who live close to Sedona visit in March and April before summer crowds, desert dwellers escape the heat from June to August, and out of state visitors migrate here in early summer.

Desired Benefits:

In general, visitors desire restorative benefits such as being away from crowds and demands, quiet, solitude and mental rest. They also enjoy natural scenery and being with people who share their values. Jeep tour customers emphasize learning about natural and cultural history and spending time in a wilderness setting. Getting away from crowds seems especially important: even in Oak Creek Canyon, 85% of visitors rated solitude important (lest you worry, 73% said they experienced it).

Local variations in desired benefits include a very strong visitor desire to learn about natural and cultural history in the Red Cliffs; stronger trends toward exercise-type benefits (feel better physically, reduce stress, etc.) in Neighborwoods, Red Rock Front Country, and Dry Creek; desire to feel stronger spiritually and focus inward occurring at the four vortex sites; and the desire to spend time with friends and family occurring in the Red Rock Front Country (no statistic for Oak Creek Canyon). People highly value the heightened awareness of nature they get at Red Rock State Park.

Visitors to Oak Creek Canyon desire solitude and a primitive outdoor experience, and they do and will take stringent measures to retain this experience:

- 70% would use a reservation system,

- 40% agreed with a reservation system to cut crowds and impacts at West Fork

- 75% of hikers and sightseers would use a shuttle.

- Most campers use tents even when RV sites are available.

- RV sites are often used as group camps for tents.

- 43% of visitors wanted to slow and limit development of this area.

⇒ People gravitate toward particular destinations for particular benefits, and seem willing to accept restrictions that are necessary to preserve the benefits they're looking for. Stewardship messages may meet a largely receptive audience when they relate to the experience qualities that people are looking for.

The strongest conflicts in desired benefits occur between jeep tour customers and dispersed visitors. Most have to do with motorized versus non-motorized access. However, dispersed and jeep touring users at Soldier's Pass have particularly conflicting desired benefits. Dispersed users have a stronger emphasis on traditional exercise-type benefits such as physical and mental health improvement, stress reduction, and self-confidence boosting, while jeep tour members want more safari-type benefits (wilderness

adventure, low contact frequencies, largely undisturbed nature, big views). Dispersed visitors felt that encounters with tours and other jeeps detracted from their experience.

Dispersed visitors prefer settings that appear largely undisturbed and natural and are accessible only by foot or mountain bike. They don't want to encounter many people, signs, or regulations, except at more urban areas such as Airport Saddle and Schnebly Hill, where they do want on-site controls and helpful and attractive information signs. The atmosphere is as important as the red rocks--people want comfortable temperatures; clear, blue skies and clean, fresh air; gorgeous sunsets and sunrises, and long-distance views. Other important features include healthy vegetation, sounds and smells of nature, large trees, red rocks and cliffs, well preserved rock art and ruins, and wildlife. Most of these desired setting characteristics are common to jeep tour customers.

⇒ Although visitors desire well developed interpretation and orientation, they don't want to encounter a lot of eyesore signs and kiosks; diverse methods should be chosen, and signs should borrow design elements from the natural landscape as much as possible.

Visitor Satisfaction, Concerns, and Suggestions:

General visitor satisfaction:

Visitors are generally very satisfied with the National Forest, although they have specific concerns. 95% of visitors feel positive about Forest land, describing it as "beautiful," "clean," and "breathtaking." The prevalent descriptor in the 5% negative response was "damaged," but "crowded," "dirty," "touristy," "expensive," and "inaccessible" also appeared in responses.

Visitors are more satisfied with National Forest than with Sedona itself (15% negative response) or with jeep tours (10% said they had a negative experience). Less than 9 out of 10 jeep tour customers said their knowledge of natural and cultural features of the area increased at least a moderate amount. Schnebly seems to be excepted: 100% of customers said they'd take a guided tour again (general statistic is 9 out of 10).

⇒ tours need stronger interpretation and guide knowledge of natural and cultural history and of audiences to raise satisfaction levels.

User conflicts:

Some uses of the Forest conflict, detracting from visitor experiences. The uses that detract from the experiences of more than half of visitors include airplanes and other aircraft, rental or private 4WD vehicles, and guided tours (in that order). Many people said that guided tours detracted from their experiences when they were in places where no guided tours are allowed, but frequent illegal tours occur (Boynton, Palatki, etc.).

⇒ A house without a host:

The lack of orientation, interpretation, information and friendly / informed contacts with Forest Service rangers was the most serious and prevalent problem visitors reported. We appear to be a house without a host.

⇒ Visitors' preferred orientation / information / interpretive services:

In every management area surveyed, visitors asked for more trail maps, better trail marking, more information and interpretive signs, and lots of easily available information about the area. Although visitors perceived parking and crowding as major problems in Oak Creek Canyon, they favored informational facilities as the most important developments. In survey after survey, visitors ask for friendly, respectful, high-quality, and regular orientation and interpretive signs, materials, and contacts with rangers. Winter visitors, especially, ask for more activities, and most respondents want more low-impact, high-learning ways to enjoy the National Forest. Users surveyed at Red Rock State Park in the Red Rock Front Country most desire visitor centers, museums, and written materials they can take with them (maps, brochures, info-sheets) followed by self-guided activities (wayside and trailhead signs, nature trails). They feel that slide programs are the least enjoyable and educational interpretation.

⇒ Visitor interests:

Visitors are most interested in interpretation and information about geology, botany, recreation activities, archaeology, travel / recreation safety, recreation facilities, zoology, history, maps and directions, and local culture (in decreasing order from 65% to 29%).

Environmental concerns of visitors:

Visitors reported no serious environmental damage in any area. However, they do feel commercialization of nature and abuse of land / overbuilding are prevalent in the area. Localized environmental problems they perceive are vandalism and graffiti in the Red Cliffs and Neighborwoods; too many powerlines in the Neighborwoods, Red Rock Front Country, and Schnebly areas and at Bell Rock (W); not enough parking in Red Rock Front Country, Oak Creek Canyon, Schnebly, and Bell Rock; noisy people at Airport (RRFC), Schnebly and in the Neighborwoods; litter, trash, and campfire rings in Schnebly and Neighborwoods; soil erosion at Soldier's Pass in the Neighborwoods; traffic in Oak Creek Canyon and on Schnebly; and crowds in Oak Creek Canyon.

A detailed list of visitor requests and suggestions is attached in the data appendix.

Resident Satisfaction, Concerns, and Suggestions:

⇒ Need for improved communication:

Residents are also strongly interested in improved communication services, although they are more issue oriented. In one 1995 "issue-gathering" scoping session, two of fourteen issues that the public brought up were "weak communication between USFS and community" and "not enough interpretive and educational services" and over half of the

solutions they proposed to other issues involved intensified and improved communication / education.

Resident preferred orientation / information / interpretive services (in decreasing order):

- ⇒ Add natural and cultural history interpretation to high interest and high visitation sites, especially at archaeological sites;
- ⇒ develop consistent, high quality, well maintained signs designed in response to this ecosystem for trailheads, recreation areas, archaeological sites, and "gateways" to Sedona at Oak Creek Vista, Bell Rock and 89A to Cottonwood;
- ⇒ develop a more extensive / higher quality personal services program including adding more Wilderness and recreation rangers and provide and mandate an outstanding training program for outfitter / guides, recreation site hosts, USFS rangers and Friends of the Forest;
- ⇒ offer more contributions to local newspapers / newsletters, create a redrock / USFS newsletter published twice yearly for visitors and residents
- ⇒ establish an office of communication services to coordinate outreach.

⇒ Residents' interests:

Residents' interests are evenly divided between management issues and natural / cultural history. Issues residents asked to know more about included preservation of sites, grazing, land trades, Red Rock Crossing bridge, helicopters, concessions, shuttle, timber sales, water quality, alternative transportation options, wilderness protection, impact management of trails, and "all the controversial issues." Their natural and cultural history interests include general interest and specific interests in area orientation, history, geology, archaeology, cultural resource protection, wildlife, vegetation, camping and minimum impact techniques, Wilderness, and water.

Residents' environmental concerns

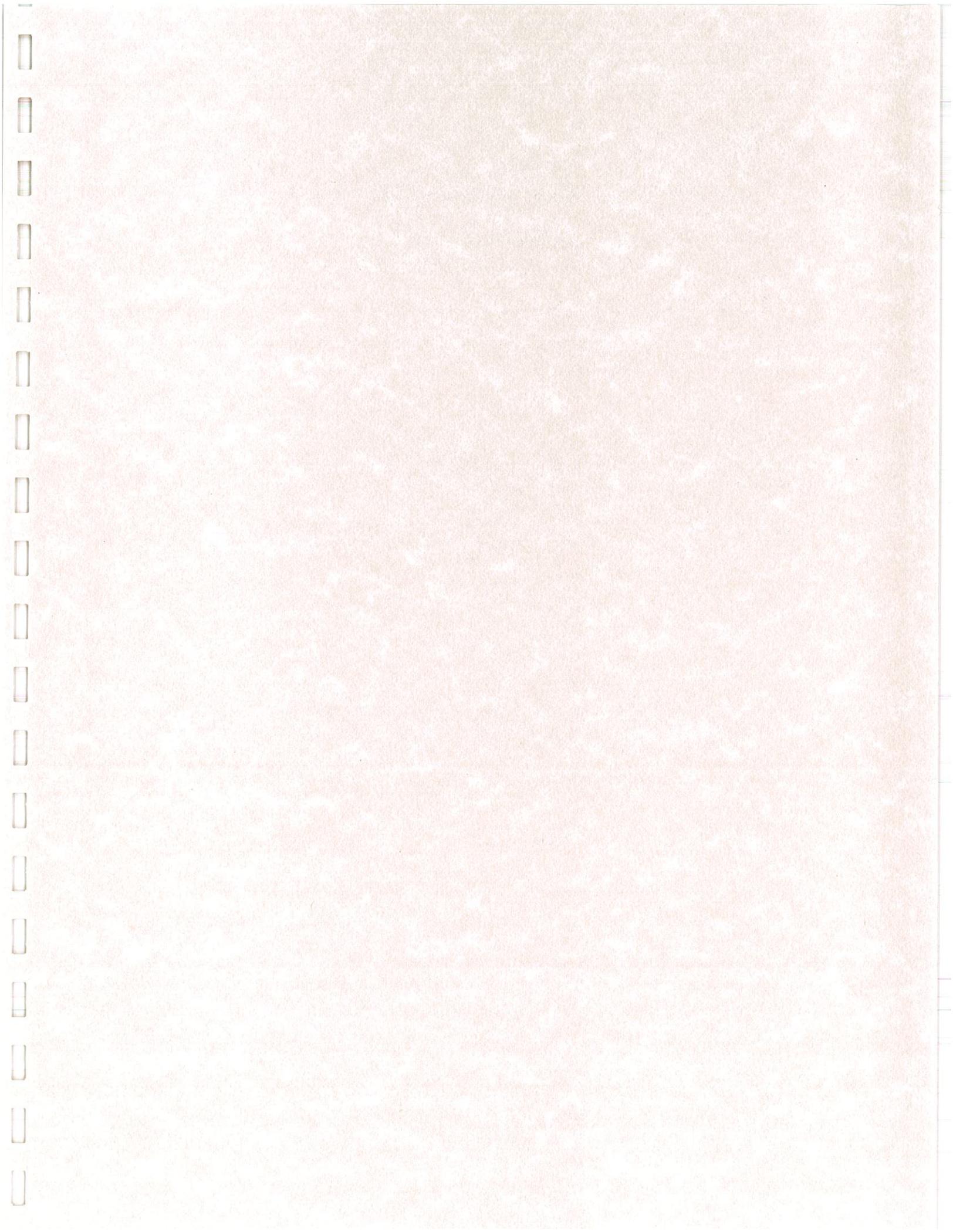
Residents are generally concerned about protecting their environment and stopping urban sprawl. Residents take issue with:

- ⊗ urban sprawl--emphasis on stopping land trades to developers
- ⊗ recreational overuse / overuse of land, especially at archaeological sites
- ⊗ traffic congestion and safety problems
- ⊗ visitors increasing in number and ecological impact
- ⊗ increasing levels of pollution (water, air, and litter)
- ⊗ not enough local input into management decisions
- ⊗ Forest Service inadequate communication with community
(residents are increasingly supportive of FS communication)
- ⊗ FS approach not dealing with finite land / space and conflicting uses
- ⊗ lack of educational and interpretive services and activities.

Comparison w/ visitor's issues (in decreasing order of resident emphasis):

- ⊗ disturbance by commercial tours and air overflights

- ⊗ damaged ecosystems
- ⊗ abuse of land / urban sprawl
- ⊗ trash
- ⊗ traffic, parking problems, and difficult road condition
- ⊗ commercialization of nature
- ⊗ lack of clean, appropriate facilities
- ⊗ lack of interpretive / educational opportunities and activities
- ⊗ crowds
- ⊗ lack of transportation options





DATA AND SOURCES, 1996 SEDONA ECOSYSTEM AUDIENCE ANALYSIS

All general visitor data is covered in the Area-Wide section, and all general resident information is covered in the Neighborwoods section. *You will also find information on identified target audiences highlighted in certain areas* (such as New Age users, mountain bikers, etc.). Each management area has the same categories (such as age, employment, interests...), but if there is no data specific to a category in one management area, the category won't appear. Some management areas don't appear because we have no audience information specific to them.

AREA-WIDE

Resident Use / Visitor Use:

92% of visitors to dispersed National Forest sites reside outside of Sedona; 99% of jeep tour passengers reside outside of Sedona (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996).

Personal / Group Profile:

Visitors to Sedona come in family groups (59%), friendship groups (21%), alone (10%), with friends and family (8%), and in organized groups (2%). 32% of summer groups included children, and 19% of winter groups, with an average of 2 children per party. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

The average group size of dispersed National Forest visitors is 3 people. Visitors come as couples (41%), in family or friendship groups (44%) and 13% are solitary visitors. Average group size of jeep tour passengers is 3.5 people. 51% are couples, 22% families, 12% friends, 8% family and friends, 3% solitary individuals, and 3% organized groups. (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry, 1996)

Geographic Origin:

56% of visitors to dispersed National Forest sites reside in communities of at least 75,000 people; 60% of jeep tour passengers live in cities of more than 75,000 people, and 42% live in cities of more than 350,000 (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996).

32.5 % of visitors to Sedona are from CA (Sample size 883). (1991 NAU Arizona Visitors Profile)

20.8% of visitors to Sedona are from Metro-Phoenix, 18.6% are from CA, and 11.6% are from foreign countries (Sample size 500) (1990 Sedona Tourist Survey by Research Advisory Services)

Sedona has 55% out-of-state visitors, 37% in-state, and 7% foreign; 27% less in-state visitors than the AZ average, 6% less foreign visitors, and 32% more out-of-state visitors than the AZ averages. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Compared to AZ visitors: In general, Sedona has more visitors from Eastern and Midwestern states such as NY, NJ, PA, MA, FL, OH, ILL and less from neighboring states such as CA (2% less), NM, NV, and TX. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

7% Foreign origin, come from, in order: UK, Canada, Germany, Australia, France ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

55% out-of-state, come from, in order: CA 25%, NY 6%, IL 6%, NJ 5%, TX 4%, PA 4%, MA 4%, OH 4%, FL 4%, CO 3%. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

37% of visitors come from AZ, 63% of whom from Metro Phoenix, 10% from Flagstaff, and 8% from Tucson (S. Forum XII Bkgd. Report 1996)

Trends in AZ population: AZ grows at 4X the national avg (20% population increase every 5 years). Primary growth is immigration, 15% retired and 85% working. AZ population urbanizing and motivations to recreate outdoors are diversifying. ("Trends Influencing Outdoor Recreation", 1988, no documentation)

Population projections show 79% urban dwellers populating Arizona in 2000 (Timothy Hogan, "Arizona Population Trends," Arizona's Changing Economy, Arizona Department of Commerce, 1986.)

At developed day use sites, over 50% of visitors are from out of state. In campgrounds, nearly 60% of visitors are state residents, with another 20% from California. (USFS and RRM developed site use data)

Gender:

60% of the respondents to the Sedona Visitor survey are female ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU).

Age:

The average age of visitors to dispersed National Forest sites is 44 years; average age of jeep tour passengers is 47 years (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996).

Majority of tourists questioned were between 30 and 60. (1990 Sedona Tourist Intercept Survey conducted as part of the Economic Base Study for the Sedona Community Plan)

Compared to US Visitors: Sedona visitors are older, with 35% of visitors over 55, relative to the US average of 20%. (S. Forum XII Bkgd. Report 1996)

Avg. age 46.5 years, Over 55% of winter visitors are over 50 (almost 1/3 are 60 or older), 55% of summer visitors are evenly distributed between 30 and 50. Less than 15% of visitors are under 30 and less than 4% are under 20, at any time of year. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU).

40% of campers are 25 - 44, and 30% are 45 - 64
(Jennifer Burns, Ecosystem Management Social Assessment, USFS, Sedona)

Arizona Retirement Industry Trends: By the year 2020, according to US Census Bureau Projections, the number of people aged 65 and over in AZ will increase from 481,000 in 1990 to 1,120,000. The percentage of retirees living in AZ is expected to be 3% higher in Arizona than nationwide (19.6 / 16.4) This will lead to increased interest in volunteer opportunities and stronger interest in the clean environment that retirees strongly desire. ("An Analysis of the Size and Importance of the retirement industry in AZ, 1994).

Active retirees are expected to comprise 14% of the AZ population in 2010. ("Trends Influencing Outdoor Recreation", 1988, no documentation)

Cultural Background:

91% of visitors to dispersed National Forest sites are Caucasian; 92% of jeep tour passengers are Caucasian (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996).

Education:

43% have 1-4 yrs college, 31% some grad school, 25% < or = 12 years total school. NF users had higher education levels: 35% had more than 17 years of education (non-Forest users 25%). Summer visitors had an average of 2 years more education than winter visitors (16y / 14y). ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU).

68% of visitors to National Forest dispersed sites are college graduates; 74% of jeep tour passengers have at least one degree (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996).

Employment:In general:

- 60% employed full time (65% of summer visitors),
- 17% retired (11% of summer visitors, 24% of winter visitors, 15% of NF users, 14% of day users, 19% of overnight users),
- 10% students or unemployed (students 6% in summer, 2% in winter)
- 8% part-time,
- 5% homemakers.

Of those not retired:

- ◆ 51% were in managerial positions (relative to 32% US average, almost 20% higher)
- ◆ 13% other
- ◆ 9 % technical, administrative
- ◆ 6% service
- ◆ 4% craftsman or laborer

("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Household Income:

50% make over \$50,000 / year (wealthier than the US visitor: 11% higher than 39% US visitor avg.) ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

40% had incomes 60,000 +, over 60% earn over 40,000 annually. (1990 Sedona Tourist Intercept Survey conducted as part of the Economic Base Study for the Sedona Community Plan)

25% make 60-100,000, 23% make 100,000 +, 22% make 20-40,000, 21% make 40-60,000, 9% make < 20,000. Average gross income of day users is substantially less than that of overnight users (38,000 / 55,000) (S. Forum XII Bkgd Report 1996).

57% have household incomes of at least \$50,000 (71% of jeep tour passengers; 32% of jeep tour passengers have household incomes of at least \$100,000) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996)

Disabilities:

only statistic is for Oak Creek Canyon (see Oak Creek Canyon)

Activities and Character of Use:**Volume of Use / Length of Stay / Visitor Loyalty:**

The number of visitors to Arizona has increased 61.5% between 1984 and 1994 ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

54% of Sedona visitors spent more than one day in town (71% of chamber of commerce visitors, 62% of NF users, 38% of non-Forest users). The average stay for

overnight visitors was 3.7 nights, in line with national averages. Summer visitors stay a night longer than winter visitors (4.3n / 3.2n). ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

75% of visitors from Northern AZ stay for only one day, while more than 33% of tourists living farthest away are likely to stay more than 5 days. (1990 Sedona Tourist Intercept Survey conducted as part of the Economic Base Study for the Sedona Community Plan)

Campground users tend to come more often on repeat visits and stay longer, on average two to four days. People at day-use sites tend to be first time visitors and stay 2-5 hours. (USFS and RRM developed site use data)

Almost 50% of repeat visitors stay from 2-6 days (1990 Sedona Tourist Intercept Survey conducted as part of the Economic Base Study for the Sedona Community Plan)

One half of respondents said that they had visited Sedona before. Repeat visitors indicated Sedona as a primary destination and used Forest lands significantly more than first time visitors (who used the Chamber of Commerce center and obtained prior information with greater frequency). ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Two thirds of dispersed visitors were visiting the area for the first time, and 96% of jeep tour visitors are first time visitors (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996).

Visitors from Northern Arizona who live close to Sedona have the highest proportion of repeat visits (1990 Sedona Tourist Intercept Survey conducted as part of the Economic Base Study for the Sedona Community Plan)

Gateways and Access:

25% of visitors to Sedona spend a night in another location in Northern Arizona before they arrive here from the north, 20% spend a night in Phoenix before they get here, arriving from the south. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

57% of visitors drive private vehicles, and 35% drive rental vehicles (63% and 41% respectively for day-trippers). ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Accommodations:

About 3/4 of visitors stayed in hotels / motels (46% avg. 2.4 days), resorts (16%, avg 3.8 days), or bed and breakfasts (6%, avg. 2.1 days). 10% camped in developed USFS campgrounds (avg. 2.2 nights), 1% in dispersed NF sites (avg. 2.1 nights), and 5% in an RV park (with the longest average stay, at 7.6 days!). 7% stayed with friends or

family (avg 4.1 days). Total camping = 19%. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

20% stay in campgrounds, RV parks, and campgrounds (1990 Sedona Tourist Intercept Study conducted as part of the Economic Base Study for the Sedona Community Plan).

Almost 500 visitors / day stay with Sedona friends or relatives rather than in commercial lodging accommodations (1990 Sedona Resident Survey, Center for Urban Studies, ASU).

Primary Destinations:

More than 1.3 million people visited developed Forest sites, a 46% increase since 1974. Of all the types of facilities available, those that provide swimming, picnicking and scenic viewing accounted for 86% of the developed site use, with only 14% of visitors to developed sites using campgrounds. Use of campgrounds increased 66% between 1974 and 1995. (USFS and RRM developed site use data)

In 1995 433,574 persons visited district fee sites, a 28% increase since 1974 (USFS and RRM developed site use data)

National Context: Sedona / Redrock country is the third most popular destination in AZ, and AZ is the 4th or 5th most popular U.S. destination for American and international tourists (AZ Office of Tourism, 1995 statistic taken from Sedona Forum Background Research Report, 1996)

AZ Context: Developed Forest areas are among the recreation areas most preferred by Arizona residents. The 97% satisfaction level that survey respondents felt toward federal outdoor recreation opportunities is higher than levels for state and local facilities. (ASU, Outdoor Recreation Needs Survey, 1992)

Sedona is the primary destination for 58% of Sedona's visitors. 50% of day trip visitors, Chamber of Commerce visitors, and non-Forest users indicate that Sedona is their primary destination. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Of the approximate total 1,500,000 visitor uses of USFS sites or USFS sponsored services in 1995, day use areas got 63% of the use, trails got 16% of the use, campgrounds got 11%, commercial guide services got 8%, and the ranger station got 1% (USFS use figures).

Half of overnight visitors to Sedona took day trips to towns or areas near Sedona, including Camp Verde, Jerome, and Clarkdale. Additionally, a third of those visitors took short trips north of the Mogollon rim to Flagstaff, the Grand Canyon, the Flagstaff Area

National Monuments and other N. AZ attractions. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Visitors leave Sedona for Flagstaff, the Grand Canyon, or Phoenix (together accounting for >50% of visitors' next stopping places). ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Preferred Activities:

Visitors travel to Sedona for 1) touring and sightseeing, and 2) recreation and vacation experiences (higher for NF users) (together make up > 75% of all visitor use). No other reason averaged higher than 6%. 9% of visitors come here for health or spiritual reasons (11% of NF users). More NF users come to visit friends in the area (8% / 7%), and less Forest users come to shop (20% / 22%). ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Only 6.3% of tourists said they would visit Sedona more often or stay longer if there were more camping, hiking, Wilderness, or park opportunities. The majority wanted more arts / cultural events. (1990 Sedona Tourist Intercept Survey conducted as part of the Economic Base Study for the Sedona Community Plan)

Most popular activities: Shopping (21.7%), Sightseeing (19.8%), Eating (15.4%) and Hiking (12.8%). (Sedona Forum Background Research Report, 1996)

"The most popular activities among [dispersed visitors] include sightseeing (85%), day-hiking (63%), driving for pleasure (49%), walking (48%), photography (45%), watching wildlife (33%), looking at wildflowers (34%) and meditation (30%). The most popular activities for jeep tour passengers include taking a guided tour (87%), sightseeing (90%), ATV driving (58%), photography (44%), driving for pleasure (40%), walking (37%), viewing Indian ruins (25%) and rock art (22%), looking at wildflowers (20%), and day hiking (19%). (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry, 1996).

Favorite activities: Hiking (24%), Sightseeing (20%), Shopping (14%), also mentioned swimming, jeep tours, eating, and photography. Jeep tours and sightseeing were the only activities on Forest land that some participants rated negatively. (Sedona Forum Background Research Report, 1996)

64% of respondents wanted some type of a spiritual experience
vortexes 42.5% including Airport, Boynton, Bell, and others..
church or chapel 29.3%

("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

69% of people interested in cultural events wanted folk music, 65% wanted art exhibitions, 47% wanted historical drama (52% of winter visitors wanted historical

drama or living history), 20% wanted museum exhibits ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Arizona residents' top 5 preferred recreational activities include: visiting outstanding scenic areas, visiting historic places, visiting zoos / botanical gardens, picnicking and walking. They expressed the least interest in motorcycle/ATV use, sno-mobiling and rock climbing. Areas with the greatest unmet demand include fishing in a natural setting, picnicking, visiting historic places, tent camping, and visiting scenic areas. They also consider environmental education to be extremely important. (ASU, Outdoor Recreation Needs Survey, 1992)

Fishing makes up less than one percent of visitor use.

(Jennifer Burns, USFS Sedona, Ecosystem Management Social Assessment, 1996)

Commercially Guided Activities and Rental Equipment:

Respondents who used tour guides and outfitters differ from the general visitor population: 5% more are female, 1.1% more are retired and the average age is almost 2 years older, they are generally more affluent (\$60-79K / \$40-59K), and 17.2% more are employed in a managerial or professional position. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Guide companies depend on "drop-in" clients, not loyal customers; companies provide a service generated from a need developed while visiting Sedona (from Interviews with Permit Holders, Outfitter/Guide Draft Background Report, 3/96).

17% used a guide or outfitter, 65% of whom used a jeep tour, and 9% of whom took an aerial tour on a plane/helicopter/balloon ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Outfitter guides served 132,786 visitors in 1994

2 New Age guides served 3,183+

2 Horse tours served 11,070

5 Jeep tours served 101,572

2 Balloon tours served 3897

1 Helicopter tour company (\$500 ea) served 48

wide variety of services offered: balloon, horse, fishing, biking, hiking, jeeping, spiritual, climbing, helicopter, photography, archaeology, nature education

The average daily expenditure per visitor for guided tours is \$46, with 12% of visitors spending in this category. 5% of visitors rent equipment (bikes, jeeps, etc.), spending an average of \$33 each. Summer visitors spend more on guided tours and rental equipment, and overnight users spend more per day on guided tours. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Most visitors choose to take a guided tour to go with someone who is knowledgeable about the area. Other reasons for taking a tour include not having an appropriate vehicle, not being familiar with the area, or simply enjoying guided tours. Most commentators were first time visitors from outside Arizona. Visitors are generally satisfied with jeep tour experiences. (NAU / Sedona Red Rock Visitor Study: as summarized in Outfitter/Guide Draft Background Report, 3/96).

Season of Use:

Season of highest use extends from April through October for repeat visitors and Chamber of Commerce users, with April and October each welcoming more than 10% of total visitors. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Peak visitation from May to August for repeat visitors. People who live close to Sedona visit in March and April before summer crowds. Desert dwellers escape the heat from June to August. Out of state visitors come during early summer. (1990 Sedona Tourist Intercept Survey conducted as part of the Economic Base Study for the Sedona Community Plan)

Commercial guide companies highest use quarter is April to June (quarterly reports to USFS, 1995)

Desired Benefits:

Topics of interest: 65% wanted to know about geology, 60% botany, 55.5% recreation activities, 53% archaeology, 47% travel and recreational safety, 41% recreation facilities, 40% zoology, 39% history, 38% maps and directions, 29% local culture (Sedona Forum Background Research Report, 1996)

"Visitors desire restorative experiences such as getting away from crowds and the demands of life, experiencing quiet and solitude, and mentally resting. They also enjoy the natural scenery and being with people who share similar values (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry, 1996)..

Dispersed visitors generally prefer settings that are largely undisturbed natural areas (56%); accessible only by hiking or on mountain bikes (63%); where there is very little contact with other people (6 or fewer groups a day);" and relatively limited / primitive regulations and information facilities.

"Moderately to very important setting characteristics include clean, fresh air, healthy vegetation, a comfortable temperature, being able to see long distances, beautiful sunrises / sunsets, sounds and smells of nature, large trees, red rocks and cliffs, a hospitable climate, well preserved rock art, a clear blue sky, and wildlife. (3 paragraphs above from Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996)

Jeep tour passengers are seeking restorative recreation experiences such as getting away from crowds and the usual demands of life to enjoy natural scenery, experience quiet, and rest mentally. They also desire to learn more about the natural and cultural history of the area and spend time in a wilderness setting. They chose to take a guided tour to go with someone knowledgeable about the area (80%), because they didn't have and appropriate vehicle (68%) or weren't familiar enough with the area (68%) to go out on their own; and because they enjoy guided tours (42%). (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry, 1996)

Jeep tour passengers prefer and undisturbed or largely undisturbed natural area (84%), that is accessible only on motorized trails and primitive roads (68%), where there is very little contact with other people (15 or fewer groups each day) (77%), with a few facilities such as trails and signs present (51%), and a few visitors regulations and information facilities (49%). They want clean, fresh air, red rocks and cliffs, wildlife, healthy vegetation, being able to see a long distance, large trees, a hospitable climate, a clear blue sky, and well preserved Indian rock art or ruins. (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry, 1996).

Satisfaction / Concerns:

Visitors perceptions of Sedona area character: Visitors used words "peaceful," "breathtaking," "picturesque" and "majestic." 85.1% positive response to community, with the most common descriptors "beautiful," "friendly," and "clean." Negative responses (14.9%) included "touristy," "crowded," and "expensive." About Forest lands, the 95% positive response most commonly included "beautiful," "clean," and "breathtaking" and also included "scenic," "awesome," and "relaxing." The prevalent descriptor in the 5% negative response was "damaged" (1.7%), but negative comments included "crowded," "touristy," "dirty," "inaccessible," and "expensive." ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

"Minor problems focused on a lack of available information about the area such as trails not signed, too few information signs, and too few brochures and maps." (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996)

Experiences with guided tours were generally positive, but 10% of respondents indicated that they had a negative experience. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Jeep tour passengers are generally satisfied with their jeep tour experience. 88% said that their knowledge of the natural and cultural features of the area increased at least a moderate amount and 92% said they would take a guided tour again. They perceived few environmental problems in the area, but evidence of vandalism or graffiti and not enough parking areas were seen as minor problems. (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry, 1996)

"Visitor types that detract from visitor experiences include airplanes or other aircraft (70%), rental or private 4WD vehicles (60%), and guided tours (58%). No visitor types add to experiences, but those having no effect include hikers (64%), horseback riders (56%), and visitors with dogs (52%). Visitors are split in their feelings toward encountering mountain bikers--42% said they detract from and 47% said they have no effect on experiences." (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU, 1996)

Visitors issues / concerns about general area:

- 45% say they encountered undesirable conditions:
- 29.4% traffic
- 10.8% crowds
- 10.3% trash
- 10.3% parking problems
- 7.4% touristy
- 7.1% bad attitudes
- 5.1% abuse of land / overbuilt
- 7.3% traffic specifically on 89A

43% of visitors wanted to slow and limit (+ 19% control) development of this area ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Visitors issues / concerns specific to NF land:

- 7.9% trash
- 2.9% traffic
- 2.9% crowds

National Forest visitors also listed parking problems, bad attitudes, and abuse of land / overbuilding. Visitors perceived trash as a problem primarily in the Oak Creek area and Bell Rock, with Schnebly Hill, Boynton Canyon, and West Fork also mentioned (note to myself: these are all of the main destinations of visitors here). They identified traffic as a problem primarily in Oak Creek Canyon and along Schnebly Hill road, and crowds especially in the campgrounds. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

To enhance satisfaction with services, summer visitors said we need to invest more effort, re-educated campground hosts, provide more picnic tables in picnic areas, and make USFS ranger more available. winter visitors wanted cleaner restrooms, lower campground fees, bigger parking areas, more maps and information, and better educational and interpretive services. Said trails need better markers and trailhead maps, need more help stations, more inspection, cleaning of facilities, more information provided. Need access to Forest land better marked, esp. at Cathedral rock. Desire more options for transportation onto forest and a limit on # of vehicles. Desire more high quality and low impact activities on Forest land, more diversity of activities and more information about them. (Sedona Forum Background Research Report, 1996)

Summer visitors concerned about commercialization of nature, winter visitors concerned about overpriced activities, guided tours, commercialization of nature and lack of activities. (Sedona Forum Background Research Report, 1996)

55% highly satisfied with USFS personnel. To increase satisfaction USFS should: cultivate friendliness, provide more help to visitors, give more info., demonstrate greater courtesy ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Visitors' recommended improvements to Forest Service personnel, services, facilities, recreation sites, trails, and access, transportation and activities within the Forest:

note--*demonstrates recommendations that are communication related

s indicates summer visitors, w indicates winter visitors

personnel: (55% very satisfied, 26% somewhat satisfied)

*cultivate friendliness (s, w)

*provide more help to visitors (s, w)

*dispense more information (s, w)

*demonstrate greater courtesy (s, w)

services: (38% very satisfied, 40% somewhat satisfied)

*invest more effort (s)

*re-educate campground hosts (s)

provide more picnic tables in picnic areas (s)

*make Forest Rangers more available (s)

clean restrooms (w)

lower campground fees (w)

expand parking areas (w)

*provide more maps and information to the public (w)

*improve educational efforts (w)

facilities: (33% very satisfied, 35% somewhat satisfied)

add and clean restrooms (s)

*maintain structures in good condition (s)

*mark trails better (s)

add campsites (s)

*provide help stations (s)

cut parking fees (w)

inspect facilities more (w)

reduce trash in public areas (w)

*provide more information at appropriate facilities (w)

recreation sites: (36% very satisfied, 36% somewhat satisfied)

improve access to sites (s)

create more remote sites (s)

*provide more hosted campsites (s)

add more parking spaces at sites (s)

limit the number of people at individual sites (s)

- maintain cleanliness of sites (s)
 - open sites year round (w)
 - *provide more / better information (w)
 - trails: (47% very satisfied, 29% somewhat satisfied)
 - *mark trails better
 - *provide maps at trailheads
 - ensure safety by improving trail conditions
 - improve trailhead parking (w)
 - provide more education and information (w)
 - access 43% very satisfied, 36% somewhat satisfied
 - control parking areas but ensure parking availability (s)
 - better control access to the Forest (s)
 - mark access locations to the Forest more clearly (s)
 - provide better signage to Cathedral Rock (s)
 - transportation: 34% very satisfied, 40% somewhat satisfied
 - limit number of vehicles on Forest lands (s)
 - provide more transportation options (s)
 - improve roads and signs on roads and trails without damaging plants (w)
 - activities: 42% very satisfied, 31% somewhat satisfied
 - limit and regulate activities more closely (s)
 - provide good quality activities (s)
 - allow guided tours on the Forest (s)
 - ensure that all activities have limited impacts on Forest land (s)
 - diversify activities and publicize better (s, w)
- ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Information and Marketing: actual and desired

73% of visitors obtained information about Sedona before arriving here (61% of day-trippers, 78% of overnight visitors, 67% of non-Forest users). All sources:

- TV / radio: 36%
- Travel brochure / book: 29%
- Magazine: 20% (only 11% of non-Forest users)
- Travel club: 12%
- Chamber of commerce or visitor center: 10%
- Word of mouth: 8% (only 3% of day-trippers).
- Newspaper: 3%
- Other: 8% (travel agents, school, time-share exchanges, *prior visits*)

While in Sedona, 32% visited the Sedona Chamber of Commerce to seek information. 51% of visitors plan their trips a month to a year before leaving (20% < 1 week).

("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Visitors four topics of greatest interest are geology, botany, recreation activities, and archaeology. ("Maximizing Benefits and Minimizing Impacts," Sedona Forum XII Bkgd. Research Report, 1996, NAU)

Non-User Audiences:

Sedona's captivating National Forest scenery is often featured in outdoor programming on television and in magazines. These features offer us an opportunity for education beyond our actual user audience.

GATEWAY MANAGEMENT AREA

Commercially Guided Activities:

Kachina Stables accesses Savannah Management Area north of 89A through the Gateway management area (Outfitter/Guide Draft Background Report, USFS 3/96).

WILDERNESS MANAGEMENT AREA

User Demographics:

Resident Use / Visitor Use:

93% of visitors to Bell Rock live outside of Sedona (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Personal / Group Profile:

Visitors to Bell Rock come with an average group size of 2.5 people, as couples (39%), families (21%), friends (17%), solitary individuals (13%), and families and friends (8%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Geographic Origin:

60% live in communities of more than 25,000 people (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

44% of Wilderness trail users come from states other than California and Arizona, 37% come from AZ, 15% from California, and 4% from foreign countries. (Wilderness trail usage data compiled from trail counters and trail registration boxes)

Bell Rock trail: 53% other states, 22% CA, 22% AZ, International 3%
Long Cyn trail: 46% AZ, other states 35%, CA 12%, International 8%
Secret Cyn trail: 59% AZ, 28% other states, CA 9%, international 3.3%
S. Wilson: 45% AZ, 40% other states, 10% CA, international 6%
Vultee Arch: 49% AZ, other states 40%, CA 14%, international 3%
Devil's Bridge: 48% other states, 33% AZ, 16% CA, 4% international
Fay Canyon: 54% other states, 28% AZ, 16% CA, international 3%
Boynton: 54% other states, 19% CA, 22% AZ, 5% international
West Fork: 53% AZ, 33% other states, 11% CA, 4% international
Parsons: 82% AZ, other states 14%, 3% CA, 1% international
Bear Mtn.: 49% other states, 28% AZ, 18% CA, 4% international
Loy Canyon: 39% AZ, 38% other states, 16% CA, 7% international
Dogie: 80% AZ, 14% other states, 6% CA, 0% international
Woods: 63% AZ, 27% other states, 10% CA, 0% international

In decreasing order of use by non-AZ users (note that use by AZ users increases in the opposite direction with a few very minor exceptions)

Bell, Boynton, Fay, Bear, Devil's, Loy, Long, Wilson, Vultee

In increasing order of use by AZ residents

Bell, Boynton, Bear, Fay, Devil's, Loy, Wilson, Vultee

Trails used by primarily AZ residents (in decreasing order of AZ users and directly opposed increasing order of non-AZ users)

Parsons, Dogie, Woods, Secret, and West Fork
(from 1995 trail use data gathered from trail counters and registers)

Age:

Bell Rock visitors average 46 years old (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Cultural Background:

87% of visitors to Bell Rock are Caucasian (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Education:

66% of visitors to Bell Rock have at least one college degree (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Income:

49% of visitors have household incomes of at least \$50,000 (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Activities and Character of Use:**Volume of Use / Length of Stay / Visitor Loyalty:**

More than 224,000 people visited Sedona's three Wilderness areas in 1995. More than 54,000 visitors accessed RRSW Wilderness through West Fork, and more than 47,000 through Boynton in 1995. Search and rescue missions have steadily increased in Wilderness. (Sedona / Oak Creek Canyon Ecosystem Plan Social Assessment Narrative, Jennifer Burns, 1995)

66% of Bell Rock Visitors are first time visitors (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

98% of Wilderness use is day-use; the 2% overnight use is highest in Red Rock Secret Mountain Wilderness (2,812 users; (1,529 in Sycamore Canyon, and 69 in Munds Mountain) (Wilderness trail usage data compiled from trail counters and trail registration boxes)

Primary Destinations:

84% of use (188,312 users per year) occurs in the Red Rock Secret Mountain Wilderness, 13% (29,953 users) in Munds Mountain Wilderness, and 3% (5,779 users) in the Sycamore Canyon Wilderness. 58% of the total Wilderness use occurs on Boynton Canyon, Bell Rock, and West Fork trails (129,993 users). (Wilderness trail usage data compiled from trail counters and trail registration boxes)

Preferred Activities:

The most popular activities at Bell Rock include sightseeing (80%), day hiking (70%), vortexing (56%), meditation (49%), walking (49%), and driving for pleasure

(46%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Commercially Guided Activities:

Sedona Adventures uses Wilderness trails including Brins Mesa, Secret Canyon, H.S. Canyon, Long Canyon, and Sterling Canyon, off of Vultee Arch Rd.; Earth Wisdom Tours uses Fay Canyon Trail; and Sedona Adventures uses Loy Canyon Trail (Outfitter / Guide Draft Background Report, USFS, 3/96).

6 air tour companies fly over Wilderness areas near Sedona. (USFS air travel data and map, 1995)

Desired Benefits:

Bell Rock visitors desire restorative experiences such as getting away from crowds and the demands of life to experience quiet and solitude and to rest mentally. They also want to feel stronger spiritually and gain a sense of peace. They also wish to enjoy the natural scenery. They prefer a largely undisturbed natural area (55%) where no motorized use is allowed and access is only by hiking cross country (56%), with very little contact with other people (6 or fewer groups per day) (64%), with a few primitive facilities such as trails, signs, and information facilities (56-7%). They desire clean, fresh air, red rocks and cliffs, healthy vegetation, a comfortable temperature, sounds and smells of nature, a beautiful sunrise or sunset, being able to see a long distance, and wildlife. (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry)

Satisfaction / Concerns:

Bell Rock visitors reported no serious environmental problems in the area. Things described as problematic included inadequate parking, too many powerlines, and a lack of information such as too few maps of the area, lack of available information about the area, and trails not adequately signed. Visitors said that rental or private 4WD vehicles (68%), aircraft (66%), guided tours (53%), and mountain bikes (53%) detracted from their experience; visitors with dogs also detracted from the experiences of 46% of visitors. (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry)

Identified Target Audience:

Mountain Bikers:

The most frequent ticket areas for mountain biking in the Wilderness have been the trails between Dry Creek / Vultee Arch Road and Soldiers Pass. The number of citations per year more than tripled in frequency between 1988 and 1995, even with law enforcement personnel cuts (Law Enforcement records, USFS). Bell Rock, the Wilderness bordering Broken Arrow and the Little Horse trail, the back of Wilson Canyon and the Steamboat Rock area, Bear Mountain area, and the Wilderness near Deadman's Pass trail are also frequent violation areas, but aren't as regularly patrolled (John Nelson, USFS).

The absolute average mountain biker is a young, highly educated, affluent male from an urban area, who has less than four years of mountain biking experience and is visiting with mountain-biking friends (not family). He probably has other activities in mind including car camping, backpacking and hiking, but also averages 20 mountain bikes rides per year on 3.5 National Forests. 68% of mountain biking is off-road on trails and abandoned roads, gravitating to gravel roads in more mountainous terrain. 18% of regional mountain biking is in formal rides or races. (USFS SW Field Station, Recreation Research Update: "Wildland Recreation and Urban Culture")

The relationship between the Sedona ranger district and local mountain biking outfitters and mountain bikers has transformed recently from deadlocked antipathy to partnership (in some cases ambitious and in others, mutually supportive). New civic groups including Red Rock Pathways and the Trails and Recreation Access Coalition of Sedona collaborate with the Forest Service to develop a network of recreation and transportation opportunities for mountain bikers, which may alleviate pressure on Wilderness trails (verbal, Ann Wendland, 1996).

Off-Road Vehicle Drivers:

Off-Road vehicle drivers primarily enter Wilderness on Mooney trail, once a jeep road, and in other areas near Mooney and Robbers Roost (verbal Wilderness Ranger patrol report, 1996).

"I would estimate the typical user to be local, probably from the Verde Valley. The Verde Valley is not an established name in terms of places to go riding or wheeling. If I was from out of state and planning a vacation where I could go to ride a motorcycle/ATV or drive a 4WD vehicle, I'd go to a place where I know there are trails that suit my style and ability level and where it is legal to go. Since there is nothing organized within the area with a map or other information about what to do and where to go, it is basically the locals who use the area (except the jeep renters). They know it from past trips (to places they want to return to or places to avoid next trip) and/or other users who have told them about routes to take. There may be some folks coming up from Phoenix, but they would probably be returnees or riding with friends in the know." (Steve Barth interview record, Ecosystem Planning OHV use summary, 1995)

Canyon Jeep Rentals tell their customers about Schnebly Hill, Chapel of the Holy Cross, and Palatki, but discourage use of Soldier's Pass and Broken Arrow (because of likely jeep damage); they also don't mention Hononki, since people miss the turnoff and end up on the Hancock Ranch, and then the ranch gives Canyon Jeep a call. (Steve Barth interview record, Ecosystem Planning OHV use summary, 1995)

Other jeep companies have the same destinations, but also include Soldier's Pass. Customers must usually be older than 21 or 25 to rent jeeps. (Kat Buchan, interview record, Ecosystem Planning Jeep Rental summary, 1995)

NEIGHBORHOODS MANAGEMENT AREA

Identified Target Audience: residents

User Demographics:

Resident Use / Visitor Use:

49% of Soldier Pass visitors live in Sedona, but no jeep tour passengers at Soldier Pass live in Sedona (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Personal / Group Profile:

Visitor groups at Soldier Pass average 2 people (5.4 people on jeep tours)--group types include solitary individuals (35%; 9% of jeep tour passengers), friends (22%; 4% of jeep tour passengers), families and friends (22%; 7% of jeep tour passengers), couples (13%; 41% of jeep tour passengers), and families (8%; 31% of jeep tour passengers). Organized groups make up 7% of groups using jeep tours. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Geographic Origin:

33.2% of residents lived in CA prior to Sedona--more people moved to Sedona from California than all other western states, including other locations in AZ. 15% came from the Midwest. (1990 Sedona Resident Survey, Center for Urban Studies, ASU).

66% of dispersed visitors to Soldier Pass live in communities of less than 25,000 people; 58% of jeep tour passengers live in cities of over 75,000 people, and 37% live in cities of over 350,000 people. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Age:

35.7% of survey respondents are ages 55-69 (the highest percentage), and nearly half of residents were 60 or older, substantially higher than the statewide proportion of 15.8%. Overall, the resident age profile strongly supports the view of Sedona as a retirement community. (1990 Sedona Resident Survey, Center for Urban Studies, ASU)

A City Parks and Recreation Survey confirms that viewpoint, with 52% of respondents over 50 years old (1993, Parks and Recreation Department, Sedona).

Average age of Soldier Pass visitors is 46 years; jeep tour passengers average 44 years old (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Cultural Background:

Sedona residents are 98.2% Caucasian, with a very low population of minorities (1990 Sedona Resident Survey, Center for Urban Studies, ASU).

Soldier Pass dispersed visitors are 95% Caucasian, and jeep tour passengers are 86% Caucasian (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Education:

Over 41% of residents over 20 years old have 4 or more years of college, 82% have 1-3 years of college, and 2% have an elementary school education or less (1990 Sedona Resident Survey, Center for Urban Studies, ASU).

81% of visitors to Soldier Pass have at least one college degree; 93% of jeep tour passengers have at least one college degree (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Employment:

Less than half of Sedona residents are in the labor force; of those who are, 54% work in managerial or professional occupations, 58% work in the service industry (not excluding managerial or professional occupations), and 69.2% work in the community of Sedona (1990 Sedona Resident Survey, Center for Urban Studies, ASU).

5640 total jobs in Sedona, 40% of people working in the Sedona area commute from outlying communities. ("Social Assessment Narrative," Sedona Oak Creek Canyon Ecosystem Plan, Jennifer Burns, 1995.)

Income:

The median annual household income in Sedona is \$38,000 (1990 Sedona Resident Survey, Center for Urban Studies, ASU).

52% of dispersed visitors and 51% of jeep tour passengers at Soldier's Pass have household incomes over \$50,000 / year (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Disabilities:

Because of Sedona's high population of older residents, residents recreating may have a higher level of vision, hearing, mobility, and other physical disabilities and may not be able to drive a personal vehicle or choose activities that take them far from developed facilities or emergency services or which seem physically strenuous or risky.

Activities and Character of Use:

Volume of Use / Length of Stay / Visitor Loyalty:

City population projections for residents and seasonal residents through 2010 range from 14,323 to 17,270. Current population by recent census is 8850 (may not account for all seasonal residents) with VOC estimate at 11,000. ("Social Assessment Narrative," Sedona Oak Creek Canyon Ecosystem Plan, Jennifer Burns, 1995.)

According to preliminary traffic counter data (USFS, 7/95 - 4/96) Broken Arrow gets an average of 210 round trips per day (low # because no #'s for April, May, or June)

66% of Soldier Pass visitors are repeat visitors and 2/3 of those visitors have used the area 9 or more times in their lifetimes, but 95% of Soldier Pass jeep tour passengers were first time visitors (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Primary Destinations:

SRD = 10-13,000 visitors/year, Chamber 2-300,000 visitors/year (visitor use tallies, SRD and Chamber, 1996)

High Use Trail: Sterling, Wilson Cyn., Wilson Mtn., Allen's Bend, Parsons, Vultee Arch, West Fork, Broken Arrow, Brins Mesa, Boynton Canyon, Devil's Bridge, Doe Mtn, Fay Cyn, N. Wilson, Honanki, Slide Rock, Palatki and Red Cliffs.

Medium Use Trail: Loy Cyn., Jack's Cyn., Bear Mtn, Secret Cyn, Long Cyn, Harding Springs, Dry Creek, Bear Sign, Deadman's Pass, Cookstove, Thomas Point, Dogie

Low Use trails: Taylor Cabin, Munds Mtn, Mooney, Little Horse, Woods Cyn, Schuermann Mtn, H.S. Cyn, Casner Cyn, Casner Mtn, Turkey Creek, Hot Loop, Schnebly Hill, AB Young, Jim Thompson.

Wilderness trails ranked by amount of use: West Fork, Boynton, Bell, Fay, Devil's Bridge, Vultee, Wilson, Secret, Parsons, Long, Bear, Loy, Dogie, Woods (not complete) (USFS trail use data, 1995)

Crescent Moon 84,300 people in 1994 (RRM 1994 Visitation Report)

Chavez Crossing group campground 1185 users (RRM 1994 Visitation Report)

Private and public schools in the area that may desire field trips / environmental education involving the National Forest are in these locations:

- Sedona School (special programs including Head Start), Brewer Road, Sedona
- Waldorf Red Earth Kindergarten, Sedona
- Sedona Montessori School, Deer Trail Dr., West Sedona, preschool, 45 students
- Sedona Christian School, Kallof Pl, West Sedona, pre-K to 8th g., 100 students
- West Sedona Elementary, Posse Ground Rd., West Sedona, K-8, 625 students
- Big Park Community School, Saddlehorn Court, V.O.C., K-8, 360 students
- Sedona Red Rock High School, Upper Red Rock Loop Rd., g. 9-11, 300 students
- Verde Valley School, Verde Valley School Rd., V.O.C., 9-12 g., 120 students
- Yavapai College, W. Hwy 89A, West Sedona, 2 year college

Preferred Activities:

The most popular activities for Soldier Pass dispersed visitors are day hiking (79%), looking at wildflowers (55%), walking (53%), and watching wildlife (45%)

(Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

The most popular activities for Soldier Pass jeep tour passengers are sightseeing (93%), taking a guided tour (89%), 4WD driving (75%), driving for pleasure (41%), photography (36%) and walking (32%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Sedona Residents, especially including families with kids, would like to walk, jog, hike, and picnic the most of all activities. The next most desired activities are recreational swimming (38% overall, only 27% of retirees), 31% road biking, 26% horseriding, 23% mountain-biking. Natural and relaxing activities topped the list, with more organized team/urban activities much less desired.
(Parks and Recreation Survey, 1993, Parks and Recreation Dept. of Sedona)

Top 5 activities done > 10 times in the last year:

- 65% walking for exercise / retired highest at 67%
- 57% liesurely walking / adults highest at 62%, retired 55%
- 36% nature hiking / 17% of residents had not done at all
- 14% bicycling / 53% of residents had not done at all*
- 10% jogging / 66% of residents had not done at all*

Dry Creek - Soldiers - Coffeepot area residents were the most interested in opportunities.
(Parks and Recreation Survey, 1993, P and R Dept. of Sedona)

Asked about park and recreation facilities Sedona residents were interested in:

1. 65% interested in Pedestrian paths
 2. 63% interested in Bike paths
 4. 50% ...in primitive, natural parks (esp adults)
 5. 49% ...in hiking/nature trails (esp adults)
 6. 45% ...in NF trailhead access (esp adults)
 7. 42% ...in parks adjacent to Oak Creek
 - 10 and 11. 37% ...in scenic overlooks and picnic areas
 12. 36% ...in shady, passive areas
 19. 28% ...in historic parks (kids 30, adults 33, retirees 25)
- * of top 12 facilities desired, 75% are characteristic of / exist on local NF land
(Parks and Recreation Survey, 1993, Parks and Recreation Dept. of Sedona)

Adults from 40-60+ increasingly feel that they have enough recreation opportunities in Sedona. Gradeschool children, teenagers (strongly), and adults 18-39 feel that they do not have enough opportunities. (Parks and Recreation Survey, 1993, Parks and Recreation Dept. of Sedona)

A third of retired residents identified their present occupation as "artist" (1990 Sedona Resident Survey, Center for Urban Studies, ASU)

Commercially Guided Activities:

In addition to tours that access other areas through the Neighborwoods, Pink Jeeps, Sedona Photo, Sedona Red Rock Jeeps, Sedona Adventures, Northern Light Balloons, and Red Rock Balloons use the Red Rock Loop Roads; Sedona Red Rock Tours uses the contentious Soldier's Pass jeep road; Pink Jeeps uses the Broken Arrow jeep road; Pink Jeep, Dorian Tours, and Free Soul guided tours use the Verde Valley School Road and southern Cathedral Rock area; Pink Jeeps, Sedona Photo Tours, and Earth Wisdom Tours use Red Rock Crossing; Earth Wisdom and Sedona Adventure use the Chavez Ranch area (FR 788); and Sedona Nature Excursions visits the Chavez Crossing Windcaves (FR 9867) (Outfitter / Guide Draft Background Report, USFS, 3/96).

Season of Use:

93% of Sedona residents live here 9 or more months of the year, and 89.4% say that their Sedona home is their primary residence (1990 Sedona Resident Survey, Center for Urban Studies, ASU).

RRM records highest use of fee sites between May and October (RRM Visitation report for Sedona, 1994)

Desired Benefits:

Soldier's Pass dispersed visitors seek restorative recreation experiences such as getting away from crowds and the demands of life and experiencing quiet and solitude to rest mentally. Visitors desire benefits that improve their physical and mental well-being, reduce tension, and help them feel healthier, more independent and self-confident. They also want to enjoy the natural scenery and learn more about the natural and cultural history of the area.

They want a largely undisturbed natural area, where motorized use is not allowed and access is only by hiking cross-country (61%), with little contact with other people, a few primitive facilities such as trails and signs (54%), and limited information facilities (45%), the desired setting has clean, fresh air, sounds and smells of nature, healthy vegetation, red rocks and cliffs, wildlife, a hospitable climate, being able to see a long distance, large trees, a beautiful sunrise or sunset, and a clear blue sky. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Soldier's Pass jeep tour passengers seek restorative benefits: to get away from crowds and the usual demands of life and to enjoy natural scenery, rest mentally, and experience quiet. They also seek a sense of adventure in a wilderness setting and desire to learn about the natural and cultural history of the area.

They chose to take a guided tour because they didn't have an appropriate vehicle (70%), to go with someone who is knowledgeable about the area (64%), because they weren't familiar enough with the area to go on their own (61%) and because they enjoy guided tours (32%).

They prefer a largely undisturbed (65%) or undisturbed (22%) natural area, accessible on motorized trails or primitive roads (69%); with 6 or fewer contacts with

other groups (56%); a few primitive facilities such as trails and signs (47%) or no facilities (25%); with few visitor regulations and limited information facilities (47%).

They seek clean, fresh air, red rocks and cliffs, a clear blue sky, healthy vegetation, wildlife, large trees, sounds and smells of nature, a hospitable climate, a beautiful sunrise or sunset, being able to see a long distance, and well preserved Indian rock art or ruins. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Satisfaction / Concerns:

Residents perceptions of Sedona area character: Asked to mention up to 6 key words to describe the image or character of Sedona, 69.2% used the words "scenic," "natural beauty," and/or "colorful." (1990 Sedona Resident Survey, Center for Urban Studies, ASU)

Dispersed visitors to Soldier Pass reported no serious environmental problems in the area, but did describe as minor problems: too many powerlines, noisy people, soil erosion, evidence of vandalism or graffiti, litter or trash along the trail, too many campfire rings, a lack of information about the area, trails not adequately signed, and too few information signs. Encounters with rental or private 4WD vehicles (86%), aircraft (80%), guided tours (71%) and mountain bikes (63%) detracted from visitors' experiences. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Jeep tour passengers at Soldier Pass reported few environmental problems in the area, but identified not enough parking areas, soil erosion, and trails not adequately signed as minor problems. They are generally satisfied with their tour. 45% said their knowledge of the natural and cultural history of the area had increased moderately and 43% said it increased a lot as a result of taking the tour. 79% said they would take a guided tour again. The only encounters that detracted from significant percentages of visitor experiences were aircraft overflights (54%), and visitors with dogs (42%). (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Residents highest transportation priorities (receiving around 75% support) included reducing congestion, improving vehicle traffic safety, reducing pedestrian/bicycle conflicts with autos. The only transportation goal that didn't receive majority support was "providing new roadways to facilitate future growth." Bike/Pedestrian paths were most strongly favored when they linked residential and recreation areas (60.3%), residential and commercial areas (58%), residential areas to each other (57.6%), and linking tourist shopping areas (57.3%). (1990 Sedona Resident Survey, Center for Urban Studies, ASU)

Sedona residents think Sedona should be developed as a retiree community (mean value 35.1), arts and cultural community (30.4), resort community (23.9). A narrow

margin thinks Sedona should be developed as a "new age" community (mean value 6.4). (1990 Sedona Resident Survey, Center for Urban Studies, ASU)

A majority of Sedona residents believed that providing adequate public access to Oak Creek and other FS lands surrounding Sedona was *not* an important goal of public policy. (1990 Sedona Resident Survey, Center for Urban Studies, ASU)

Residents' Issues specifically with NF land management (Sedona Forum X Draft Report)

- land trades with private developers destroy open space
- overpromotion and uncontrolled use of NF land abuses land and archy sites
- FS all-things-to-all-people approach doesn't deal w/ finite land/space, conflicting uses
- lack of educational / interpretive programs
- prescribed burns and air pollution
- abuses of woodcutting
- trespass of private land boundaries
- grazing / open range
- need for more campgrounds
- illegal dumping
- FS deaf to community input

More recent scoping results (1995 USFS scoping results):

- FS inadequate communication w/ community
- perceived heavy use of land
- community divided over multiple-use and preservation
- reactive / rehabilitative mgmt instead of proactive / preventatitve
- not enough interpretive and educational services
- local priorities differ from national priorities, esp. over land exchange
- forest service policies don't acknowlede / facilitate spiritual uses
- management impacts to visual quality of landscape
- pollution, esp. prescribed burns, water quality
- traffic congestion
- user conflicts
- users not practicing minimum impact techniques, esp. at archy sites
- not enough developed and regulated-dispersed campsites
- increasing visitor #'s impacting FS land

Participants in Sedona Forum X said they'd give up on-site archeological viewing, increase fees, restrict motorized access, and restrict uses in designated areas in order to resolve these issues. (Sedona Forum X Draft Report)

Non-User Audiences:

Sedona's older and aging population brings with it unique constraints and opportunities. Many people can't get out of their homes easily or for extended intervals, or enjoy moderately strenuous activities. Still, many of these people moved here at least partly to enjoy the same National Forest attributes that active retirees enjoy. They provide

a healthy market for non-user National Forest experiences including area-specific videos, oral history recordings, books, classes on backyard birding, coexisting with urban wildlife, and more. These interpretive services may easily be self-sustaining (economically) and have no physical impact on the land, while they may improve wildlife habitat and other conditions. They will help fulfill this older population's desire to experience and learn about the National Forest around them. Classes and other group activities may also fulfill some desires to enjoy the environment in a social setting. The design of any service provided for older audiences needs special consideration of physical limitations. Trends show that this population will increase as the current retired population ages, Sedona gains recognition as a retirement community, and the population of the U.S. ages.

RED ROCK FRONT COUNTRY MANAGEMENT AREA

User Demographics:

Resident Use / Visitor Use:

84% of dispersed visitors to Broken Arrow reside outside of Sedona; no jeep tour passengers are Sedona residents (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

94% of dispersed visitors to Airport Saddle live outside of Sedona (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

96% of Back O' Beyond dispersed visitors live outside of Sedona (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Personal / Group Profile:

43% of visitors to Red Rock State Park are male and 57% are female. They tend to be married (71%), about 30% on average have 2 children in the household (Red Rock State Park, Arizona State Parks Visitor Survey, preliminary results, 1995-6).

Dispersed Broken Arrow visitors came with an average group size of 3 people, as friends (24%), families (24%), couples (19%), family and friends (16%), and solitary individuals (16%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Visitors using a jeep tour at Broken Arrow came with an average group size of 2.7 people, as couples (58%), friends (21%), families and friends (13%), and families (8%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Airport Saddle visitors come in groups with an average size of 2 people; 45% of groups are couples, 21% are friends, 13% come alone, 11% are families, and 7% are families and friends (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Back O' Beyond visitors come in groups with an average size of 2.4 people; visitors came as couples (38%), solitary individuals (25%), friends (21%), families (10%), and family and friends (2%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Geographic Origin:

44% of dispersed visitors to Broken Arrow live in a community of at least 350,000 people (54% of jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

51% of visitors to Airport Saddle live in communities of over 25,000 people (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

60% of visitors to Back O' Beyond live in communities of over 25,000 people, and 28% live in communities of more than 350,000 people (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Age:

The average visitor to Red Rock State Park is 46 years old (Arizona State Parks Visitor Survey, preliminary results, 1995-6).

The average age of dispersed visitors to Broken Arrow is 37 years (45 years for jeep tours passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

The average age of Airport Saddle visitors is 46 years (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

The average age of dispersed visitors to Back O' Beyond is 42.5 years (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Cultural Background:

83% of dispersed visitors to Broken Arrow are Caucasian (87% of jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

91% of visitors to Airport Saddle are Caucasian (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

98% of visitors to Back O' Beyond are Caucasian (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Education:

The average education level of visitors to Red Rock State Park is 15 years, equalling 3 years of college (Arizona State Parks Visitor Survey, preliminary results, 1995-6).

72% of dispersed visitors to Broken Arrow have at least one college degree (69% of jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

55% of visitors to Airport Saddle have at least one college degree (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

67% of visitors to Back O' Beyond have at least one college degree (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Employment:

The majority of visitors to Red Rock State Park are employed (70%) and 23% are retired (Arizona State Parks Visitor Survey, preliminary results, 1995-6).

Income:

The largest income group is +\$75,000 (31%) (Red Rock State Park, Arizona State Parks Visitor Survey, preliminary results, 1995-6).

49% of dispersed visitors to Broken Arrow have household incomes of at least \$50,000 (67% of jeep tour passengers earn at least \$50,000; 44% earn \$100,000 or more) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

59% of visitors to Airport Saddle have household incomes of at least \$50,000 (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

59% of visitors to Back O' Beyond have household incomes over \$50,000 (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Activities and Character of Use:**Volume of Use / Length of Stay / Visitor Loyalty:**

Half of Broken Arrow dispersed visitors were visiting the site for the first time (51%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

97% of visitors on jeep tours at Broken Arrow were visiting the area for the first time (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

70% of Airport Saddle visitors were first time visitors (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

64% of dispersed visitors at Back O' Beyond were first time visitors. Of the 36% previous visitors, 42% had 1-3 previous visits and 26% had visited 9 or more times over their lifetimes. (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry)

Preferred Activities:

"Visitors would use visitor centers, museums and trailheads/trails... would participate in hiking, sightseeing, and picnicking [top three preferred activities... and wanted written materials they could take with them (maps, brochures, and information sheets, followed by self-led activities such as reading road signs or a self-guided nature hike...[and felt that] the least enjoyable and educational information delivery method would be slide programs. (Red Rock State Park, 1995-6 Arizona State Parks Visitor Survey, preliminary results)

The most popular activities among Broken Arrow dispersed visitors are sightseeing (76%), mountain biking (57%), day hiking (49%), and photography (40%); the most popular activities for jeep tour passengers are sightseeing (90%), taking a guided tour (87%), walking (87%), 4WD driving (63%), photography (50%), driving for pleasure (50%), watching wildlife (26%), and day hiking (21%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

The most popular activities for Airport Saddle visitors include sightseeing (89%), walking (62%), driving for pleasure (61%), vortexing (57%), photography (43%) and meditation (43%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

The most popular activities among Broken Arrow dispersed visitors are sightseeing (76%), mountain biking (57%), day hiking (49%), and photography (40%); the most popular activities for jeep tour passengers are sightseeing (90%), taking a guided tour (87%), walking (87%), 4WD driving (63%), photography (50%), driving for pleasure (50%), watching wildlife (26%), and day hiking (21%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

The most popular activities for visitors to Back O' Beyond include day hiking (89%), sightseeing (81%), meditation (60%), vortexing (55%), watching wildlife (47%), walking (43%), looking at wildflowers (41%), and photography (40%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Commercially Guided Activities:

Pink Jeep Tours uses the Broken Arrow jeep road; Pink Jeeps, Dorian Tours, Free Soul, Sedona Adventures, and Sedona Red Rock Jeeps use Airport Saddle; Pink Jeeps, Sedona Red Rock Jeeps, and Ancient Expeditions (Pink Jeeps) use the Bell Rock Area; Pink Jeeps, Sedona Photo Tours, Sedona Red Rock Jeeps, Sedona Adventures, Northern Light Balloons, and Red Rock Balloons use the Red Rock Loop Roads; Sedona Adventures and Kiva Serenity Tours use Back O' Beyond Road; Earth Wisdom and Sedona Adventures use the Chavez Ranch area (FR 788); Kachina Stables uses Schuermann Mountain and other areas near the Loop Roads; and Pink Jeeps, Dorian Tours, and Free Soul use the southern Cathedral Rock area (Outfitter/Guide Draft Background Report, USFS, 3/96).

Flagstaff Mountain Guides use rock outcroppings in the Red Rock Front Country near Jack's Canyon and Back O' Beyond (from USFS permit).

Desired Benefits:

"Red Rock [State Park] visitors are highly benefited by heightened awareness of natural world and enhanced mental state, reduced stress. People are visiting Red Rock to observe scenic beauty, to enjoy the sounds and smells of nature, to get away from everyday responsibilities for a while, and to enjoy the solitude" (1995-6 Arizona State Parks Visitor Survey, preliminary results).

Visitors coming to Broken Arrow seek restorative experiences such as getting away from crowds and the demands of life, experiencing quiet and solitude and resting mentally. They enjoy experiencing natural scenery and spending time with family and friends. They come for personal stimulation and growth and to improve their physiological and mental health (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Visitors using jeep tours at Broken Arrow desire restorative experiences such as getting away from crowds and life's demands to enjoy natural scenery, experiencing quiet, and resting mentally. They want to experience a sense of adventure in a wilderness setting and learn more about the cultural and natural history of the area. They choose to take a guided tour to go with someone who is knowledgeable about the area (87%), because they didn't have an appropriate vehicle (74%) or weren't familiar enough with the area (66%), and because they enjoy guided tours (51%) (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Visitors to Airport Saddle seek a variety of experiences and benefits: most desirable are restorative experiences such as getting away from usual demands and crowds and experiencing quiet and solitude. Other important benefits are to feel stronger spiritually and focus inward, to improve physiological and mental health, to learn, and to enjoy the natural scenery. They want clean, fresh air, a clear blue sky, sounds and smells of nature, red rocks and cliffs, a hospitable climate, a beautiful sunrise or sunset, being able to see long distances, wildlife, healthy vegetation, and large trees. The largest percentage group (30%) desire noticeable on-site regulations and controls and simple information facilities (26% desire no regulation, control, or information facilities), and again, the largest percentage group (32%) desire access only by foot or mountain bike (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Visitors to Back O' Beyond seek restorative, spiritual, and introspective experiences and benefits. Restorative experiences include getting away from crowds and the usual demands of life to rest mentally and experience quiet and solitude. Introspective and spiritual benefits include gaining a sense of peace and serenity, focusing inward, experiencing positive moods and emotions. They also seek to enjoy the natural environment. They desire undisturbed natural areas with no evidence of humans (53%), access only by hiking cross country, and there are a few regulations and primitive facilities, such as trails and information facilities. Important natural characteristics include clean, fresh air, a clear blue sky, red rocks and cliffs, being able to see long distances, a comfortable temperature, healthy vegetation, wildlife, a beautiful sunrise or sunset, sounds and smells of nature, and well preserved Indian rock art or ruins (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry)

Broken Arrow dispersed visitors said they prefer settings that are largely undisturbed natural areas (49%, 53% for jeep tour passengers); accessible only by non-motorized trails, mountain bikes, or on foot (54%; 75% of jeep tour passengers want

primitive roads or motorized trails), and have a few primitive facilities such as trails and signs (87%)--they want setting characteristics including clean, fresh air, sounds and smells of nature, wildlife, healthy vegetation, red rock and cliffs, a hospitable climate and being able to see long distances (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Satisfaction / Concerns:

Broken Arrow visitors reported no serious environmental problems in the area, but described the lack of information about the area and too few maps and information signs as problematic. Dispersed visitors felt that guided tours (53%), rental or private 4WD vehicles (56%; 47% of jeep tour passengers), and aircraft (62%) detracted from their experience. 65% said hikers had no effect on their experience, 62% said the same of visitors with dogs (52% for jeep tour passengers), 59% said the same of horseback riders, and 47% said mountain bikers had no effect on their experience (58% for jeep tour passengers). 32% said seeing mountain bikes added to their experience (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Broken Arrow Jeep Tour passengers said that they are generally satisfied with their jeep tour experience, said their knowledge of the natural and cultural features of the area increased a lot (54%), and that they would take a guided tour again (97%).

Airport Saddle visitors reported no serious environmental problems in the area, but said that lack of information, such as too few maps of the area, lack of available information about the area, and trails not adequately signed, and noisy people, too many powerlines, and not enough parking areas were problematic. 65% said that aircraft detracted from their experience, 64% that rental or private 4WD's detracted, and 56% said that guided tours detracted from their experience. Mountain bikers detract for 49% and add to experiences for 43%. (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry)

Back O' Beyond visitors reported no serious environmental problems in the area, but described a lack of available information, inadequate trail signs, and not enough parking areas as problematic. They felt that aircraft (84%), rental or private 4WD vehicles (80%), guided tours (63%), and mountain bikers (53%) detracted from their experiences (Sedona Red Rock Visitor Study, Draft Executive Summary, NAU School of Forestry).

Identified Target Audience:

New Age users:

Most visitors who follow or are curious about New Age seek out the vortex sites in the Red Rock Front Country. Cathedral Rock, Bell Rock, and Airport Mesa all feature on vortex maps and guides. The only other areas of such primary importance to New Age users are Boynton Canyon in the Red Cliffs management area (vortex), Rachel's Hill in the Dry Creek management area (private meditation park), and to a lesser extent, Merry-Go-Round Rock in the Schnebly management area. New Age visitors and curious vortex-

seekers need particular orientation, etiquette information, and interpretation because they have singular desires (desire to find solitude and quiet in crowded recreation areas) and environmental impacts (medicine wheel construction, disturbing / burning incense in archaeological sites, etc.) (verbal, Ann Wendland, site steward at Palatki and USFS Interpretive Specialist for Coconino, 1996). The following information may shed a little light on this target audience:

Definition and types in Sedona: New Age religions have no one defining characteristic, but "vary from group to group and even from day to day." "They all borrow from one another (new and ancient religions) and spin-offs form, both organized and individual. Most are based on different aspects of Native American doctrines, especially Hopi and Navajo." New Age religions in the Sedona area include Neopaganism, Neodruidism, Satanism, WICCA, and several spin-offs. (Notes from NAU Special Collections "New Age Collection" Bob Coody, Coordinator, Aug. 1995).

History of the Movement in Sedona: New Age became a major movement in Sedona in Summer 1985 when the harmonic convergence held its meeting here. However, the art and metaphysical movement in the area started in the 1920's when artists started coming to the area for sources of inspiration. (Notes from NAU Special Collections "New Age Collection" Bob Coody, Coordinator, Aug. 1995)

Native Americans are concerned about their rituals being exploited (Navajo Times, June 17, 1993 p 1A and Red Rock News, July 5, 1995 p 5A)

Tribes in this area are very concerned about the integrity of Sedona area archaeological sites as part of their cultural heritage. New age rituals such as burning incense and sage can damage rock art and ruins. (EM Executive Summary, 1996, Marietta davenport)

Potential block to communication between Federal workers and New Age practitioners: Some New agers believe firmly in the existence of a "secret government" with hidden information and objectives. (Shining the Light Behind the Scenes" 1/95, p 19).

The recent expanded use of Rachel's Hill, a private land parcel dedicated to meditation and spiritual development, may alleviate some need for religious expression on public land. (Personal experience)

Most popular areas, not including Cathedral Rock or Airport Mesa, based on numbers of medicine wheels dismantled between 10/94 and 3/95: Boynton (45), Bell Rock (12), Deadman's Pass (5), Fay (2), and 1 ea for Bear, Doe, Long Cyn., and Broken Arrow. (Forest Service Patrol Summary).

OAK CREEK CANYON MANAGEMENT AREA

User Demographics:

Resident Use / Visitor Use:

OCC traffic was 19% commuters, 7% canyon residents, and 74% tourists in 1977 (Eisenhower Consortium, Final Report, 1977: "Visitor Use and Preference Study, Oak Creek Canyon, Arizona)

Personal / Group Profile:

55% of campers, 62% of day users, 44% of hikers, and 71% of sightseers came in groups of 2 or more adults. 40% of campers, 24% of day users, 33% of hikers, and 20% of sightseers came with children. 5% of campers, 12% of day users, 4% of hikers, and 8% of sightseers came alone. (Customer... understanding today's recreating public, a study of Coconino National Forest, Oak Creek Canyon by the Southeastern Forest Experiment Station, Athens, GA. 1991)

Geographic Origin:

OCC-majority of out-of-state campers from CA, campers mainly from AZ (Customer, 1991), majority of OCC hikers from AZ (Customer, 1991)

OCC-campers 57% instate, esp Maricopa Ct.; hikers 54% instate, esp. Maricopa; day-use 43% instate (Customer, 1991)

Most visitors to OCC in 1977 were urban, and of those, mostly from Phoenix. (Eisenhower Consortium, Final Report, 1977: "Visitor Use and Preference Study, Oak Creek Canyon, AZ")

Age:

OCC-40% respondents age 25-44, 30% 45-64 (most sight seers) (Customer, 1991)

Cultural Background:

OCC-87% Caucasian, camping group had highest % of non-Caucasian visitors. Campers 11% Hispanic, 87% Caucasian (Customer, 1991)

OCC Campgrounds (1979 Campground Demographic Data, USFS SRD):
Caucasians 85% at Pine Flat, 70% at Cave Springs, 68.3% at Manzanita
Hispanics 30% at Manzanita, 29% at Cave Springs, 13% at Pine Flat
Native Am 1.2% at Cave Sp., 0.9% at Pine Flat, 0.6% at Manzanita
Afr. Americ 1.2% at Manzanita, .5% at Pine Flat
Asian/Pacific 0.1% at Pine Flat

OCC Developed Rec. 1986 Data (Bill Stafford, Clemson, 1993):

General: Caucasians 82%, Hispanics 15%, 1% ea. Af. Am, N. Am, and A/PI
Hispanics: 32% Cave Springs, 20% Manzanita, 16% Encinosa, 14% Pine Flat
Native Am.: 2% Manzanita, 2% Vista, 2% Encinosa
Asian/PI: 7% Vista

Education:

OCC-43% had "some college" (Customer, 1991)

Employment:

36% of OCC users were managers / professionals in 1977 (Eisenhower Consortium, Final Report, 1977: "Visitor Use and Preference Study, Oak Creek Canyon, AZ")

OCC-50% of campers and day-users were employed full time (Customer, 1991)

Income:

OCC-30-40% earn \$25,000-50,000 / year (Customer, 1991)

Disabilities:

2% of visitors are both hearing and mobility impaired (Customer, 1991)

Activities and Character of Use:**Volume of Use / Length of Stay / Visitor Loyalty:**

Traffic in Oak Creek Canyon has increased 108% between 1990-1994 (Oak Creek Canyon Survey, USFS, 1995)

32% of visitors to the South Rim of the Grand Canyon also included Oak Creek Canyon in their travel itinerary (Kaibab Visitor Study, 1994, NAU School of Forestry)

OCC-about 60% hikers stayed 24-72 hours (Customer, 1991)

Most campers stay 1-2 nights (Customer, 1991)

Majority of respondents visited Oak Creek Canyon in the last 12 months to engage in their main activity (Customer, 1991)

Primary Destinations:

Majority of people surveyed in Oak Creek Canyon said that Oak Creek Canyon was their primary destination (Customer, 1991)

Almost 90% of in-state visitors said the Sedona area was their primary destination, while visitors from out of state were significantly more likely have a different destination. (Sedona Tourist Intercept Study, 1990)

People from > 600 miles away are just passing through, while people from within 200 miles of OCC say it is their main destination. (Eisenhower Consortium, Final Report, 1977: "Visitor Use and Preference Study, Oak Creek Canyon, AZ")

Use of Slide Rock averaged 22X higher than Manzanita CG
" 48X higher than Halfway Day-Use

2x Grasshopper pulloff / swim
number of visitors is slowly climbing, dipped during WQ closures
(Recreation Resource Management and Slide Rock State Park use reports, 1995)

Oak Creek Vista, 1995: 600,000+ visitors / year, avg. stay 22 min, tour bus stop
Fee Day Use Areas in OCC (not Slide Rock), 1994 total = 60,639
Slide Rock paid visits, 1995 = 286,344
Campgrounds in Oak Creek Canyon, 1994 = 65,503

Preferred Activities:

popular mountain bike trail between Jordan Rd and Midgely Bridge (USFS law enforcement report, 1995)

Crime in developed recreation areas generally stable, declining or fluctuating regularly, although the addition of concessionaire service, and budget cuts in law enforcement may skew this picture. in 1991, only 1% of people contacted and educated about a legal violation were cited. (USFS law enforcement patrol records, 1988-1995)

Commercially Guided Activities:

Sedona Photo Tours and Ancient Expeditions (Pink Jeeps) use various Oak Creek Canyon locations including Midgely Bridge and Oak Creek Vista (Outfitter/Guide Draft Background Report, USFS, 3/96).

Flagstaff Mountain Guides (rock climbing) use rock outcrops near Encinoso and Midgely Bridge; Gone Fishin' uses undeveloped fishing holes along Oak Creek in the Canyon (from USFS permits).

Desired Benefits:

OCC-85% of visitors rated solitude important, and 73% said they experienced it (OCC survey, USFS, 1995)

Satisfaction / Concerns:

Informational facilities was the most strongly favored development, while 48% favored need for more law enforcement in OCC (Eisenhower Consortium, Final Report, 1977: "Visitor Use and Preference Study, Oak Creek Canyon, AZ")

OCC-Roads and parking least satisfactory to hikers and sightseers, facility cleanliness least satisfactory to day users. (Customer, 1991)

Campers were least satisfied with available area information (of several categories including roads, parking, facilities, etc.) 55% highly satisfied with USFS personnel. To increase satisfaction USFS should: cultivate friendliness, provide more help to visitors, give more info., demonstrate greater curiosity.(OCC survey, USFS, 1995)

OCC-Roads and parking least satisfactory to hikers and sightseers, facility cleanliness least satisfactory to day users. (Customer, 1991)

DRY CREEK MANAGEMENT AREA

User Demographics:

Resident Use / Visitor Use:

90% of dispersed visitors to FR 152 (Vultee/DC) live outside of Sedona (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Personal / Group Profile:

Dispersed visitors to FR152 come in groups averaging 2.5 people, made up of couples (47%), solitary individuals (21%), friends (15%), families (12%), families and friends (4%), and organized groups (1%). (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Illegal residents in the Dry Creek area generally fall into three groups:

- 1) Small groups or single camps of young people who work at nearby businesses/resorts, tent camping with no car (typically minimum trash and no campfires);
- 2) Larger groups (12-15 people) of campers in their 20's and 30's that live off the land and government subsistence, are often unemployed, and often harvest large quantities of natural products. Generally, their common feeling that a government representative can't be in touch with nature interferes strongly with communication and stewardship messages (impacts include trash, sanitation, vegetation and cryptobiotic soil damage, graffiti, and structure building). In this area (and sometimes in the Savannah area), these campers are often migrating to national destinations planned a year or more in advance and communicated primarily by word of mouth; groups may stay together for a few weeks, but more typically, one group establishes a camp, some move on and others move in, then they move on and others move in, thus individuals generally don't overstay the fourteen day limit, but the large camp stays for months.
- 3) Small or single camps of older, homeless people who are unemployed/unemployable, often very poor, in legal trouble, or mentally ill, and camp in vans or cars instead of tents (their main impact is sanitation and driving off roads to hide, rare campfires)
(Cat Sampson, Recreation and Law Enforcement, USFS, interview, 1996).

Geographic Origin:

62% of dispersed visitors to FR152 live in communities with populations over 25,000, 33% over 350,000. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Age:

Dispersed visitors to FR152 average 42 years old (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Cultural Background:

88% of FR152 visitors are Caucasian (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Education:

74% of FR152 dispersed visitors have at least one college degree (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Income:

52% of dispersed visitors to FR152 have household incomes of at least \$50,000, 21% at least \$100,000 (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Activities and Character of Use:**Volume of Use / Length of Stay / Visitor Loyalty:**

Vultee Arch Road (FR152) receives at least 129 round trips per day between August and March (preliminary traffic counter data, USFS)

54% of FR152 dispersed visitors are visiting for the first time (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Primary Destinations:

Illegal residents: First pull off on Dry Creek Road (Vultee arch, 152), and all pulloffs off of the paved Dry Creek Road are used by residents, occasional visitor camping; dominant resident use at intersection of Dry Creek and Long Canyon, end of Long Canyon Canyon Rd; at next pullout past Long Canyon trailhead also high level of resident use; low level of resident use on one pullout on Boynton Canyon Rd. (Cat Sampson, Recreation and Law Enforcement, interview, 1996)

New Age users enjoy Rachel's Knoll, a private meditation park accessed from Long Canyon Rd. This area has several medicine wheels, meditation areas, other symbolic structures and sculpture, and neatly defined trails and sophisticated, simple trail signs, all situated upon the top of a knoll with panoramic views of the Dry Creek area. It may be the primary destination for New Age users besides the vortexes and Schnebly. (Ann Wendland, Coconino Interpretive Specialist, 1995, based on Earth Wisdom Tour)

Preferred Activities:

Bicyclists enjoy road and primitive road opportunities, access Wilderness (USFS law enforcement report, 1996)

The most popular activities for dispersed visitors to FR152 include sightseeing (79%), day hiking (76%), driving for pleasure (43%), watching wildlife (37%), looking at wildflowers (35%), and photography (35%). (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

The most popular activities for visitors on jeep tours on Dry Creek Rd. and FR152 include taking a guided tour (80%), sightseeing (83%), 4WD driving (55%), driving for pleasure (41%), walking (36%), and photography (36%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Commercially Guided Activities:

In addition to tours accessing the Red Cliffs, Savannah and Red Rock Secret Mountain Wilderness Area through the Dry Creek Area, Pink Jeeps, Sedona Red Rock Jeeps, Sedona Adventures, Sedona Photo Tours, and Ancient Expeditions (Pink Jeeps) use the Vultee Arch Road (FR152), especially including historic Van Deren Cabin (Outfitter/Guide Draft Background Report, USFS, 3/96).

Flagstaff Mountain Guides (climbing) use outcrops in the area (USFS permit).

Arizona Helicopters offers catered sunset meals on top of Doe Mtn with a maximum of 24 events per year, each event involving a maximum of 8 people and 6 round-trip flights. Nature Hikes for Kids also explores Doe Mountain. (USFS permits)

Desired Benefits:

Dispersed visitors to FR 152 are seeking restorative benefits such as escaping crowds and everyday demands to rest mentally and experience quiet and solitude. They want to enjoy natural scenery and improve their physical and mental well-being (reducing tension and stress, feeling healthier and more self-confident).

They prefer an undisturbed natural area with no evidence of humans (50%) or one that is largely undisturbed (46%), where access is either by hiking cross country (40%) or by non-motorized trails (31%); where they will see 6 or fewer groups each day; with a few primitive facilities such as trails and signs (62%); and a few (51%) to no (35%) visitor regulations and information facilities evident.

They seek clean, fresh air, red rocks and cliffs, healthy vegetation, sounds and smells of nature, a beautiful sunrise or sunset, being able to see a long distance, a hospitable climate, large trees, and wildlife. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Jeep tour passengers on Dry Creek Rd. and FR152 seek restorative recreation experiences such as getting away from crowds and the usual demands of life to enjoy natural scenery, experience quiet, and rest mentally. They also seek to learn about the natural and cultural history of the area and experience a sense of adventure in a wilderness setting.

They chose to go on a guided tour because they wanted to go with someone who was knowledgeable about the area (82%), they weren't familiar enough with the area (77%) or didn't have an appropriate vehicle (70%), and because they enjoy guided tours (45%).

They want to experience clean, fresh air, red rocks and cliffs, healthy vegetation, large trees, being able to see a long distance, a hospitable climate, a clear blue sky, wildlife, sounds and smells of nature, large trees, and a beautiful sunrise or sunset.

They prefer a largely undisturbed natural area (59%); accessible on motorized trails and primitive roads (69%); where they will contact 6 or fewer groups (44%) or 6-15 groups (30%) per day; where a few primitive facilities such as trails and signs (48%) or rustic facilities such as tables and pit toilets (22%) are available; and where a few (41%),

noticeable (26%), or no (28%) on-site regulations and information facilities are present. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Satisfaction / Concerns:

Dispersed visitors to FR152 perceived no serious environmental problems in the area, describing inadequate trail signs, too few information sites, and a lack of available information and maps for the area as minor problems. Encounters with aircraft (74%), guided tours (68%), and rental or private 4WD vehicles (64%) detracted from their experiences; other encounters had no effect on the majority of visitors, but encounters with mountain bikes detracted from the experiences of 40% of visitors. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Jeep tour passengers on Dry Creek Rd. and FR152 perceived few environmental problems in the area, and saw not enough parking areas as a minor problem. They are generally satisfied with their jeep tour experience. Over 50% said that their knowledge of the natural and cultural features of the area increased a lot, and 92% said they would take a guided tour again. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Identified Target Audiences:

Illegal residents are an important audience to target for stewardship and law messages-- see demographics above

RED CLIFFS MANAGEMENT AREA

User Demographics:

Resident Use / Visitor Use:

97% of Boynton Canyon visitors and 92% of Palatki visitors live outside of Sedona. 98% of dispersed visitors and 95% of jeep tour passengers at Honanki live outside of Sedona. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Personal / Group Profile:

Visitors to Boynton Canyon come in groups with an average size of 2.6 people, made up of couples (49%), families (17%), friends (14%), families and friends (11%), and solitary individuals (7%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Visitors to Palatki come in groups with an average size of 3.2 people, made up of couples (39%), families (25%), friends (14%), solitary individuals (9%), and families and friends (6%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Dispersed visitors at Honanki come in groups with an average size of 3.6 people, made up of couples (45%), families (25%), families and friends (15%), friends (3%), solitary individuals (3%) and organized groups (2%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Jeep tour passengers at Honanki come in groups with an average size of 2.3 people, made up of couples (57%), families (22%), friends (15%), families with friends and solitary individuals (2% each) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Geographic Origin:

68% of Boynton Canyon visitors and 63% of visitors to Palatki live in communities over 25,000 people; 37% (Boynton) and 23% (Palatki) live in cities with populations over 350,000. 84% of dispersed visitors to Honanki live in cities of more than 25,000 people and 34% live in cities of over 350,000 people; 54% of jeep tour passengers to Honanki live in cities of over 75,000 people. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Age:

The average age of visitors to Boynton Canyon is 44, 45 for Palatki and Honanki visitors, and 47.5 for jeep tour passengers at Honanki (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Cultural Background:

92% of Boynton Canyon and Palatki visitors are Caucasian, and 90% of dispersed visitors and 95% of jeep tour passengers at Honanki are Caucasian (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Education:

77% of visitors to Boynton Canyon and 73% of visitors to Palatki have at least one college degree. 63% of dispersed visitors at Honanki have at least one college degree, relative to 84% of Honanki jeep tour passengers. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Income:

74% of Boynton Canyon visitors and 69% of visitors to Palatki have household incomes of at least \$50,000 (25% and 21% respectively earn at least \$100,000); 70% of dispersed visitors to Honanki and 78% of Honanki jeep tour passengers earn at least \$50,000 (household), and 30% and 42% respectively earn at least \$100,000 (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Activities and Character of Use:**Volume of Use / Length of Stay / Visitor Loyalty:**

The dead end road to Red Canyon Ranch (Palatki) receives an average of 51 vehicle round trips per day between August and March (preliminary traffic counter data, USFS, 1995-6)

77% of visitors to Boynton, 87% of visitors to Palatki, 90% of Honanki dispersed visitors, and 97% of jeep tour passengers at Honanki are first time visitors (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Preferred Activities:

The most popular activities for Boynton Canyon visitors include sightseeing (85%), day hiking (80%), walking (54%), photography (50%), driving for pleasure (42%), looking at wildflowers (41%), viewing Indian ruins (39%), vortexing (36%), and sunbathing (36%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

The most popular activities for Palatki visitors include viewing Indian ruins (93%), sightseeing (90%), viewing Indian rock art (85%), day hiking (70%), walking (61%), photography (51%), driving for pleasure (43%), and looking at wildflowers (45%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

The most popular activities at Honanki include viewing Indian ruins (95% of dispersed, 90% of tours) and Indian rock art (78% of dispersed, 87% of tours), day hiking (53% of dispersed, 30% of tours), photography (47% of dispersed,), looking at wildflowers (42% of dispersed, 30% of tours), 4WD driving (42% of dispersed, 47% of tours), walking (40% of dispersed, 47% of tours), driving for pleasure (38% of dispersed,

30% of tours), and watching wildlife (37% of dispersed, 22% of tours). Singular benefits to jeep tour passengers included taking a guided tour (92%) and sightseeing (97%). (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Commercially Guided Activities:

Ancient Expeditions (Pink Jeeps) tours Honanki and has a site stewardship partnership with the Forest Service; Sedona Adventures accesses the Loy Canyon trail with a tour through the Red Rock Cliffs area (Outfitter/Guide Draft Background Report, USFS, 3/96).

Desired Benefits:

Visitors to Boynton Canyon seek restorative experiences such as escaping crowds and everyday demands to rest mentally and experience quiet and solitude; they enjoy the natural scenery and want to learn more about the natural and cultural history of the area; they seek opportunities to feel stronger spiritually and focus inward, experience positive moods and emotions; and they want to improve physiological and mental well-being, feel healthier, reduce tension and stress and feel more self-confident.

They prefer a largely undisturbed natural area (60%) where no motorized use is allowed and access is only by hiking cross country (59%), where they contact 6 or fewer other groups each day; where they have a few primitive facilities such as trails and signs (61%), a few visitor regulations evident with limited information facilities (50%) or noticeable on-site regulations and simple information facilities (26%).

They seek clean, fresh air, sounds and smells of nature, healthy vegetation, wildlife, red rocks and cliffs, large trees, a clear blue sky, being able to see a long distance, a beautiful sunset or sunrise, a hospitable climate, well preserved Indian rock art or ruins, and well signed trails. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Visitors to Palatki seek the same recreation benefits as dispersed visitors to Honanki, below. They prefer a largely undisturbed natural area (80%); accessible by all vehicles (32%), motorized trails and primitive roads (28%), or non-motorized trails (23%); contacting 6 or fewer other groups (54%) or 6-15 groups (39%); primitive facilities such as trails and signs (52%), tables and pit toilets (36%); on site regulations or controls are noticeable with simple information facilities present (41%), or only a few visitor regulations and limited information facilities are evident (31%).

They desire clean, fresh air, well preserved Indian rock art or ruins, sounds and smells of nature, wildlife, healthy vegetation, red rocks and cliffs, clear blue sky, being able to see a long distance, a beautiful sunrise or sunset, a comfortable temperature, and helpful and attractive information signs. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Dispersed visitors to Honanki seek to learn about the natural and cultural history of the area and to increase their knowledge of the Native people who once lived in the area. They desire restorative experiences such as getting away from crowds and the

demands of life to experience solitude and quiet and rest mentally and view natural scenery.

They prefer a largely undisturbed natural area (70%); accessible by motorized trails and primitive roads (mountain bikes and 4WD) (39%), by all vehicles (24%), or only by non-motorized trails (20%); contact with 6 or fewer (57%) or 6-15 (32%) groups per day; a few primitive facilities such as trails and signs (54%), tables and pit toilets (30%); a few evident visitor regulations and limited information facilities (52%), or noticeable on-site regulations and simple information facilities (31%).

They seek clean fresh air, healthy vegetation, wildlife, sounds and smells of nature, well preserved Indian rock art or ruins, red rocks and cliffs, large trees, trails not heavily trampled, being able to see a long distance, a beautiful sunrise or sunset, a comfortable temperature, a landscape with scattered trees and open spaces, and well signed trails. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Honanki jeep tour passengers seek to learn more about the natural and cultural history of the area; to escape crowds and the usual demands of life to enjoy natural scenery, experience quiet and rest mentally; and to experience a sense of adventure in a Wilderness setting.

They chose to go on a jeep tour to go with someone who was knowledgeable about the area (89%), because they weren't familiar enough with the area (71%), or didn't have an appropriate vehicle (66%), and because they enjoy guided tours (42%).

They prefer a largely undisturbed natural area (69%), accessible on motorized trails and primitive roads (69%), contact with 6 or fewer groups per day (71%), a few primitive facilities such as trails and signs (66%), and a few visitor regulations and limited information facilities (72%).

They want clean, fresh air, red rocks and cliffs, well preserved Indian rock art or ruins, wildlife, sounds and smells of nature, a hospitable climate, a beautiful sunrise or sunset, healthy vegetation, large trees, being able to see a long distance, and a clear blue sky. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Satisfaction / Concerns:

Visitors to Boynton Canyon reported no serious environmental problems in the area, and said that too few maps of the area, trails not adequately signed, and too few information signs were minor problems. Aircraft detracted from 77% of visitors' experiences, rental or private 4WD vehicles from 72%, mountain bikers from 65%, and guided tours from 56% (guided tours are illegal in Boynton Cyn.). No other encounters affected the majority of visitors. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Dispersed visitors to Honanki and Palatki reported no serious environmental problems in the area, said that evidence of vandalism or graffiti is a moderate problem, and that too few information signs, too few maps of the area, a lack of available information about the area, too few visitor information brochures, and inadequate trail

signs are minor problems. Visitors to Palatki said that there were too many powerlines.

At Honanki, aircraft detracted from the experiences of 71% of visitors, but other encounters had no effect on the majority; 45% felt that guided tours detract from their experience, and 42% feel that visitors with dogs detract from their experience.

At Palatki, 50% of visitors said that guided tours detracted from their experiences (all guided tours at Palatki are illegal) and 37% said they had no effect; 74% said that aircraft detracted from their experiences. No other encounter detracted from the experiences of the majority of visitors, although mountain bikers and visitors with dogs detract from the experiences of 44% and 43% of visitors, respectively. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Jeep tour passengers at Honanki are generally satisfied with their experience. 71% said their knowledge of the natural and cultural features of the area increased a lot, and 92% said they'd take a guided tour again. They perceived few environmental problems in the area, and saw evidence of graffiti and vandalism as a moderate problem. 71% said aircraft detracted from their experience, 60% said visitors with dogs detracted, 59% said mountain bikes detract. Other encounters had no effect on the majority of jeep tour passengers, but none added significantly to their experience. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

SCHNEBLY MANAGEMENT AREA

User Demographics:

Resident Use / Visitor Use:

96% of surveyed Schnebly Hill dispersed visitors, and 100% of jeep tour passengers, live outside of Sedona (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Personal / Group Profile:

Dispersed visitors to Schnebly Hill have an average group size of 3.3 people (3 for jeep passengers). Groups come as couples (41%), friends (20%; 17% of jeep tour passengers), families (17%; 30% of jeep tour passengers), families and friends (10%; 7% of jeep tour passengers), individuals (9%; 5% of jeep tour passengers), and organized groups (2%) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Illegal residents on Schnebly Hill generally fall into three groups:

- 1) Small groups or single camps of young people who work in town at low paying, food service and retail jobs, often move up for the summer from other Verde Valley / Flagstaff locations, don't want to commute and can't afford to live in Sedona (typically minimum trash and no campfires);
- 2) Larger groups (12-15 people) of campers in their 20's and 30's that live off the land and government subsistence, are often unemployed, and often harvest large quantities of natural products. Generally, their common feeling that a government representative can't be in touch with nature interferes strongly with communication and stewardship messages (impacts include trash, sanitation, vegetation and cryptobiotic soil damage, graffiti, and structure building);
- 3) Small or single camps of older, homeless people who are unemployed/unemployable, often very poor, in legal trouble, or mentally ill, and camp in vans or cars instead of tents (their main impact is sanitation and driving off roads to hide, no campfires)
(Cat Sampson, Recreation and Law Enforcement, USFS, interview, 1996).

Geographic Origin:

79% of visitors to Schnebly Hill live in communities with a population over 25,000 (67% of jeep tour passengers), 38% live in cities with populations over 350,000 (35% of jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Most weekday campers live in Sedona (illegal residents). Weekend campers are from metro Phoenix, or come for the weekend from local areas (Cottonwood, Flagstaff, etc.). (Cat Sampson, Recreation and Law Enforcement, USFS, interview 1996).

High impact campers coming from Phoenix are only ignorant of wild areas and natural ecosystems, not malicious, and are often sorry and alarmed when they are confronted with their impact, but some traditional users from local areas will not accept

changes in management, want big fires, 4 wheeling on closed roads; they rip out closure efforts and want to make campsites in virgin areas (Cat Sampson, Recreation and Law Enforcement, USFS, interview, 1996).

People in their 20's from Cottonwood, Sedona, Flagstaff (NAU), etc. come to party on Schnebly on the weekends, the most vegetation damage is Friday and Saturday nights for campfires, litter = beer cans and bottles (which explode in the fires) (Cat Sampson, Recreation and Law Enforcement, USFS, interview, 1996).

The only time you find that a large number of families camp on Schnebly Hill are holiday weekends when campgrounds fill up. (Cat Sampson, Recreation and Law Enforcement, USFS, interview, 1996).

Age:

The average age of visitors to Schnebly Hill is 43 years (48 for jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Cultural Background:

Schnebly Hill dispersed visitors are 93% Caucasian (100% for jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Mainly Caucasian, percentage of Hispanics increases when Oak Creek Canyon campgrounds fill (Cat Sampson, Recreation and Law Enforcement, USFS, interview, 1996).

Education:

71% of Schnebly Hill dispersed visitors have at least one college degree (73% for jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Income:

50% of Schnebly Hill visitors earn household incomes of at least \$50,000 (65% of jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Activities and Character of Use:

Volume of Use / Length of Stay / Visitor Loyalty:

62% of Schnebly Hill visitors are first time visitors (93% of jeep tour passengers) (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry).

Preliminary results from traffic counters show that the lower end of Schnebly Hill rd (just past the cattle guard) receives 880 vehicle passes per day (round trips count as 2 passes, one way as one pass) between December and the end of March (USFS, 1996).

Preferred Activities:

The most popular activities include sightseeing (92%), driving for pleasure (64%), photography (51%), day hiking (46%), walking (44%), and watching wildlife (32%). (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

People chose to take guided tours because they wanted to go with someone who knew about the area (79%), didn't have an appropriate vehicle (58%), weren't familiar enough with the area (58%), and because they enjoy guided tours (39%). On guided tours, the popular activities were taking a guided tour (95%), sightseeing (90%), photography (54%), 4WD driving (49%), looking at wildflowers (29%), and walking (22%). (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Commercially Guided Activities:

Pink Jeeps, Dorian Tours, Free Soul, Kiva Serenity, Sedona Adventures, Sedona Photo Tours, Sedona Red Rock Jeeps, and Ancient Expeditions (Pink Jeeps) all tour the Schnebly Hill Road, some continuing on into the Schnebly Rim Management Area (Outfitter/Guide Draft Background Report, USFS, 3/96).

Desired Benefits:

Schnebly Hill visitors are seeking restorative experiences such as getting away from life's usual demands and crowds of people to a place where they can rest mentally and experience quiet and solitude. They also want to enjoy natural scenery. Jeep tour passengers also seek a sense of adventure in a wilderness setting and desire to learn about natural and cultural history of the area. They prefer a largely undisturbed natural area (55%), and are fairly divided over their desired allowable means of access, level of facilities, level of information, and level of regulation. Jeep tour passengers generally want more sophisticated facilities and regulations than dispersed visitors, but emphasize that the area should be undisturbed (31%), largely undisturbed (31%), or natural-appearing (25%). They want clean, fresh air, red rocks and cliffs, long distance views, beautiful sunrise or sunset, wildlife, healthy vegetation, large trees, sounds and smells of nature, a clear blue sky, large trees, a hospitable climate and comfortable temperature. Jeep tour visitors want helpful and attractive information signs. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

Satisfaction / Concerns:

Schnebly Hill visitors reported no serious environmental problems in the area (jeep tour passengers reported few, and included powerlines as minor problems), but described litter or trash along the trail, noisy people, not enough parking areas, and a lack of information about the area (too few maps and inadequate trail signs) as problematic. They felt that aircraft (68%) and guided tours (59%, no effect or add for jeep tour

passengers) detracted from their experiences, were split over rental and private 4WD vehicles (47% detract, 45% no effect), and said that hikers, mountain bikers, horse riders, and visitors with dogs had no effect on their experiences. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

2/3 of Schnebly Hill jeep tour passengers said their knowledge of the natural and cultural features of the area increased a lot, and 100% said they'd take a guided tour again. (Sedona Red Rock Visitor Study, Draft Executive Summary, 1996, NAU School of Forestry)

CASNER MANAGEMENT AREA

Commercially Guided Activities: none

SAVANNAH MANAGEMENT AREA

Activities and Character of Use:

Volume of Use / Length of Stay / Visitor Loyalty:

Preliminary results show that an average of 111 vehicles per day pass the traffic counter on the 525 road where it leaves 89A, between August and the end of March (1996). Round trips counted as 2 passes, one way as one. (traffic counter data, USFS)

Commercially Guided Activities:

Sedona Photo Tours, Sedona Adventures, and Kiva Serenity tours use the Robbers Roost Area; Pink Jeeps, Sedona Adventures, and Kiva Serenity tours use FR 525C; and Kachina Stables uses a wide area flanking 89A (Outfitter/Guide Draft Background Report, USFS, 3/96).

LOWER OAK CREEK MANAGEMENT AREA

Commercially Guided Activities:

Kachina Stables uses special-use permit, mutually maintained trails throughout the Lower Oak Creek Management Area (Outfitter/Guide Draft Background Report, USFS, 3/96).

HOUSE MOUNTAIN MANAGEMENT AREA

Commercially Guided Activities: none