



United States Department of Agriculture

Flagstaff Ranger District

Visitor Capacity Analysis and Recommendations for Determining Outfitter-Guide Allocation



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**Forest
Service** **Coconino
National Forest**

Table of Contents

Executive Summary	ii
Introduction.....	1
Process for Estimating Numerical Visitor Capacity	1
Capacity Analysis by Compartment	11
Allocation Recommendations.....	51
Monitoring Plan	53
Conclusions.....	56
Using this Outfitter-Guide Program Analysis.....	57
References.....	58

Executive Summary

This document estimates visitor capacity and recommends outfitter-guide allocations by geographic area, or compartment, on the Flagstaff Ranger District of the Coconino National Forest (CNF). Standards for encounters and group size were used to establish a maximum visitor capacity for each compartment. Forest Plan standards for the Flagstaff/Lake Mary area (Amendment 17, 2002) served as the baseline for determining standards for a range of management conditions (called Social Capacity Management Zones) representing social experiences across the forest. For each compartment, an interdisciplinary team identified desired conditions and assigned the most appropriate Social Capacity Management Zone. The team also determined the site-specific management considerations, values, issues and suitable outfitter-guide activities in each compartment.

Compartment capacity was established by identifying the season of use, the limiting factor to visitor use, and the opportunity for visitors to disperse throughout the compartment. Recommendations for an allocation of outfitter-guide service days per compartment were determined after consideration of the desired interaction between guided and unguided visitors and are displayed as a percentage of the total visitor capacity. Management considerations for outfitter-guide management are included for each compartment.

A summary table is located on pages 46-47 which details the need to address capacity by compartment and the recommended and maximum outfitter-guide allocations in service days.

Most compartments showed considerable capacity available. Others were limited by social factors such as crowding and user conflicts, while a few compartments had other resource impact concerns, in particular impacts to cultural resources. Conclusions and how to use this capacity analysis and allocation are included at the end of this document.

Introduction

Resource and social impacts of recreation use constitute long-standing issues in the field of recreation and wilderness management, and these issues are often addressed within the context of visitor capacity. Social capacity is the level of use beyond which social impacts such as crowding and conflict exceed desired conditions. Environmental or resource capacity occurs when biophysical factors cannot withstand a level of use, thereby creating unacceptable changes to resources such as soils and vegetation. These biophysical and social desired conditions are judgments that managers must make, with appropriate input from stakeholders.

Capacity Analysis and Allocation Objectives

The objective of this analysis is to establish numerical visitor capacity estimates that can be used to support how much use will be allocated to outfitter and guides. The intent is to establish a baseline for estimating a current level of use appropriate for outfitter and guides with the understanding that subsequent monitoring will help refine visitor capacity estimates and appropriate allocations for both commercial and non-commercial use over time (as new information becomes available).

Process for Estimating Numerical Visitor Capacity

The numerical visitor capacity estimates for the Flagstaff RD are based on “A Guide to Numerical Visitor Capacity in Wilderness”, (Cole and Carlson 2010). Although this guide is written for use in wilderness, with examples taken from wilderness, it is equally applicable on national forest lands outside wilderness. This guide identifies various numerical capacity methodologies including capacity estimation based on Recreation Opportunity Spectrum (ROS) coefficients as well as establishing capacity estimates based on freezing current use levels. Based on recent experience, the guide suggests that numerical visitor capacity estimation can be applied most effectively through formulation of thresholds and indicators for biophysical conditions (resource capacity) and for the visitor experience (social capacity).

There is no perfect approach to determining visitor capacity. For small, linear features such as a river corridor, managers may choose to use available campsites and parking spaces. Some capacity analyses have considered "useable acres," though this can be problematic as visitors tend to concentrate in favorite areas. This analysis considered available data, visitor use patterns, known resource and social issues, and desired conditions from both the Forest Plan and from the interdisciplinary team.

Process Overview

This capacity analysis considered both biophysical conditions and visitor experience in making numerical visitor capacity estimates within the context of three phases.

Flagstaff Ranger District

- Define Analysis Areas and Determine Need to Address Capacity
- Establish Desired Conditions for Social Capacity Management Zones
- Estimate Capacity for each Compartment and Allocate Use

Phase 1 - Define Analysis Areas and Determine Need to Address Capacity

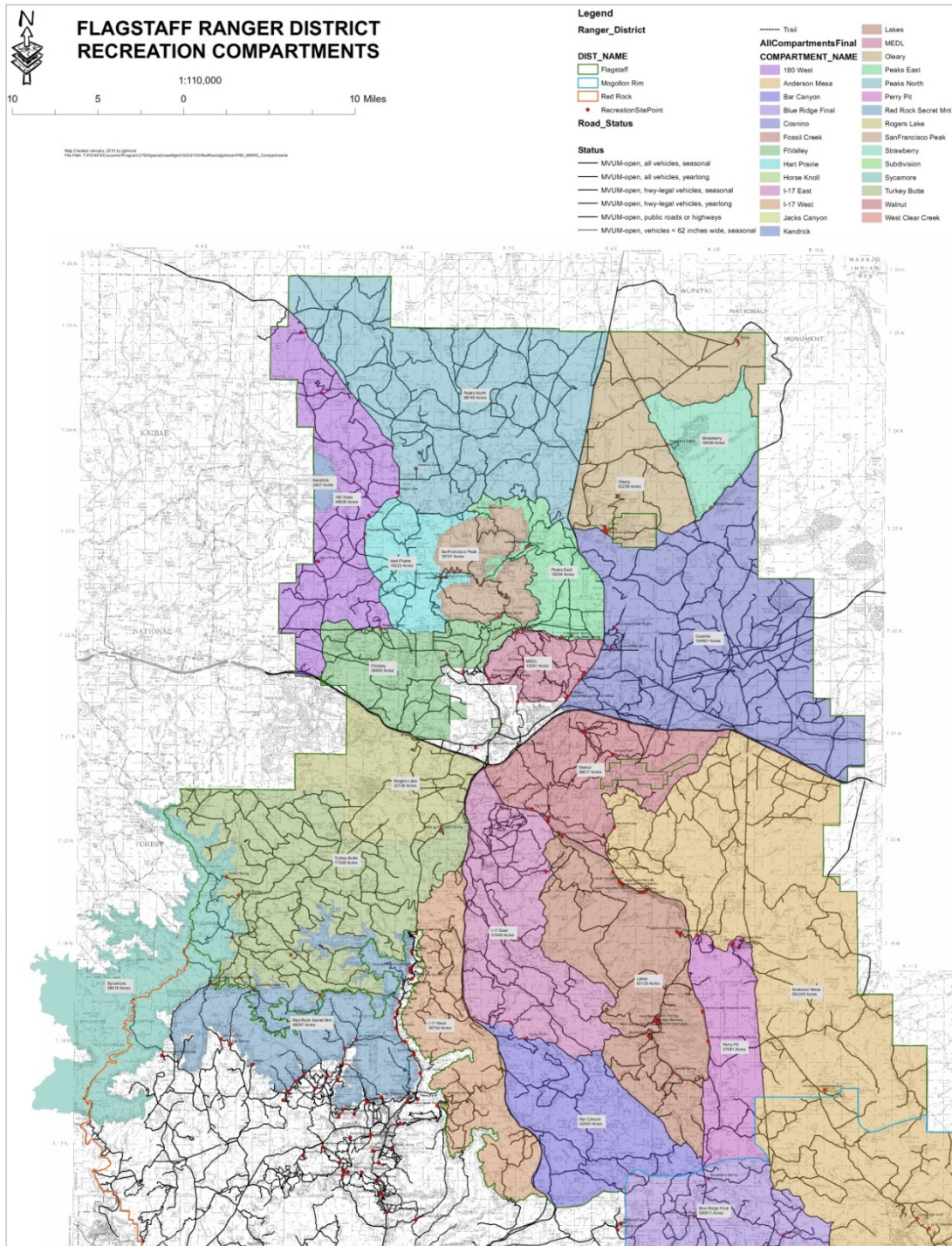
The capacity analysis began by mapping analysis areas, or compartments, where the current visitor use or demand is below, meeting or exceeding social and/or resource capability.

Compartments for this analysis were based on geographic areas drawn by the recreation and wilderness team. These were areas where visitor use, geography, and types of users were similar and allowed the team to break the forest into manageable parts. Each wilderness area became a separate and distinct compartment. The purpose of this phase was to determine which compartments had a low, moderate or high need to address capacity based on a broad overview of social, managerial and/or resource issues and concerns within the compartment.

Capacity mapping resulted in three situations: (a) areas where visitor use or demand is not an issue (low need to address capacity), (b) areas where visitor use or demand is moderate and/or resource concerns exist (moderate need to address capacity), (c) areas where visitor use or demand is high and/or resource concerns exist (high need to address capacity).

In this phase, 17 compartments were considered by an interdisciplinary team. The team identified the need to address capacity based on a series of questions related to social, environmental and/or managerial concerns.

Figure 1. Compartments on the FRD. Zoom document to see full extent.



Phase 2 - Establish Desired Conditions and Social Capacity Management Zones

This phase established desired conditions and quantified a maximum amount of acceptable use based on the desired visitor experience for various landscape-level management zones across the District (referred to as Social Capacity Management Zones).¹

Desired conditions for visitor experience are based on social indicators. Indicators are specific quantitative variables that define the resource and social conditions to be managed (Cole and Carlson 2010). Encounters are a commonly used indicator of visitor experience used to reveal levels of unacceptable social impacts such as crowding and user conflicts. Encounters occur when individuals or groups of people recreating see each other on a trail, road, campsite or other location within the landscape. Group size is also commonly used, since some visitors prefer encounters with smaller groups rather than large ones, although research suggests tolerance can also be tied to behavior. Other indicators sometimes used include perceived crowding, opportunities for solitude and the amount of human presence that can be expected in an area, though these are largely dependent on individual preference and tolerance. Amendment 17 to the Forest Plan prescribed daily encounter rates for the Lake Mary-Flagstaff Ecosystem Analysis Area (FLEA) of FRD; however, these are being revised to recognize the existing condition, which far exceeds these prescriptions. In addition, these encounters per day were meant for commercial operators only and did not reflect the majority of use by the unguided public. For this analysis, encounters per hour was determined to be the most important social indicator.

Thresholds represent managers' decisions regarding the dividing line between impaired and unimpaired values, and between acceptable and unacceptable conditions (Cole and Carlson 2010). Thresholds can sometimes be found in existing plans but in many cases they will need to be developed. The Coconino Forest Plan identified general thresholds for Recreation Opportunity Spectrum (ROS) classes in both wilderness and non-wilderness; however explicit thresholds for all zones were not available and were determined through this analysis (Table1).

Desired encounters/hour x 8 hour days=daily encounter rate

Daily encounter rate x 6² = total people per day x the length of season (365 days) for theoretical maximum capacity.

¹ A Social Capacity Management Zone is a descriptor based on desired conditions, typically encounters and group size that is applied to a compartment. Zones range from the more primitive to the urban interface, and can be derived from Forest Plan standards, ROS class standards, and a desired range of visitor social experience.

² The Districts have defined an encounter in this manner: one encounter is equal to a party of 1-6 people or one vehicle. Therefore the maximum amount of people in each encounter would be 6 and the daily rate would represent the theoretical maximum.

It is important to realize that the maximum capacities listed below are determined before considering environmental or social limiting factors and opportunities for dispersal. Estimated capacity of individual compartments was adjusted after considering these factors.

Social Capacity Management Zones and Desired Conditions

Amendment 17 of the Coconino Plan prescribes the following (p.206-65) commercial encounters per day objective for the FLEA area: 15/day for Semi-Primitive and 6 for Primitive. The following guidelines also apply:

Generally, do not place additional outfitter/guide activities or group activities in the Mt. Elden/Dry Lake Hills Trail System, Pumphouse Wash, Deadman Wash, Walnut Canyon from Fisher Point east, any spring or perennial stream site, except in support of approved research and/or to improve safety or provide site rehabilitation.

Table 1. Desired Conditions, Thresholds and Maximum Capacity

Desired Conditions	Management Zone: Remote	Management Zone: Wilderness Transition	Management Zone: Backcountry	Management Zone: Front Country	Management Zone: Urban Interface
Related ROS Classes	Primitive	Transition	Semi-Primitive Non-motorized; Semi-Primitive Motorized	Roaded Natural	Rural
Characteristic	Sights and sounds of humans are rare	Sights and sounds of humans are occasional	Sights and sounds of humans are low in most areas	Sights and sounds of humans are moderate	Sights and sounds of humans are dominant
Evidence of human contact/use	Little to no contact with other visitors. No evidence of use.	Moderate to high contact with other visitors. Moderate evidence of use	Low contact with other visitors; some evidence of use.	Moderate to high contact with other visitors; Moderate evidence of use.	High contact with and evidence of other visitors.
*Limit of Acceptable Social Impact	Perceived crowding is non-existent.	Perceived crowding can occur in most areas.	Perceived crowding is low; infrequent on popular trails but not at dispersed campsites.	Perceived crowding is moderate and generally occurs on trails; may occur at dispersed	Perceived crowding may be expected at all sites

Flagstaff Ranger District

Desired Conditions	Management Zone: Remote	Management Zone: Wilderness Transition	Management Zone: Backcountry	Management Zone: Front Country	Management Zone: Urban Interface
				campsites; generally tolerated more on trails than at campsites.	
Range of Social Encounters Expected per hour*	2 No camps within sight	15	5 1 or 2 camps within sight	15 5 camps within sight	Unlimited Encounters and camps within sight not regulated.
Recommended Group Size (except rec events)	12	12	20	25	Group size not regulated
Maximum Range, Per Day (8 hour day* encounter rate* an encounter is 1-6 people)	16 encounters/day; 96 people/day	120/day; 720/day	40/day; 240 people/day	120/day; 720/day	Unlimited
Max Capacity/Year	35,040	262,800	87,600	262,800	Unlimited
Inconsistencies Expected	Social encounters are higher within 1/2 mile of trailheads	Social encounters are higher within 1/2 mile of trailheads	Social encounters are higher within 1/2 mile of trailheads and at destination features (e.g., sinkhole, water, natural or cultural formation)	Social encounters are higher within 1/2 mile of trailheads and paved roads and residential areas	Social encounters are higher within 1/2 mile of trailheads and paved roads and residential areas

Social Encounters expected = 8 hours/day X # encounters/hour

*Maximum Range, Daily Capacity = Encounters X 6 (Forest Plan): *Definition of an “encounter”: one encounter is equal to a party of 1-6 people or one vehicle*

No definition of encounter was included in the Forest Plan. What constitutes an encounter has been debated among wilderness and recreation managers for decades. Encounters have typically been defined as direct social or physical interaction between groups (passing on trails, sights and sounds of others at campsites). New national wilderness solitude monitoring protocols have

defined encounters as the number of people seen or heard.

(http://fsweb.wo.fs.fed.us/rhwr/wilderness/wimst/solitude_monitoring.docx).

Phase 3 – Estimate Capacity for each Compartment and Allocate Use

During Phase 3, further consideration of Forest Plan direction and social and resource values and issues related to visitor capacity was given to the compartments identified during Phase 1. As described in [“A Guide to Numerical Visitor Capacity in Wilderness, David Cole and Tom Carlson, 2010”](#), an entire compartment must be allocated to just one Social Capacity Management Zone in order to establish an initial desired social experience for each compartment. The maximum level of use or capacity for the Social Capacity Management Zone was then adjusted to reflect the specific issues at the compartment level. For example, in one compartment the concern might be disturbance to wildlife; in another it might be crowding. Consequently, the maximum social capacity established in Phase 2 would need to be reduced in order to address resource or social issues and concerns at the compartment level. The maximum compartment capacity was determined by the most limiting of the factors. The opportunity for dispersal was also considered. For example, a compartment may have only one or two access points and very few trails. Terrain may funnel visitors into one main area. All of these factors affected capacity.

The steps for this phase are summarized as follows:

1. Identify Social Capacity Management Zone for the compartment.
 - a. Identify season of use and adjust maximum capacity if necessary.
2. Identify issues, indicators and desired conditions for the compartment.
 - a. Use additional management direction and results from Phase 1.
3. Determine the adjusted visitor capacity for the compartment.
 - a. Identify the limiting social and/or resource factor for the compartment.
 - i. Adjust capacity based on the limiting factor reduction (Table 2).
 - b. Determine the limiting opportunity factor for the compartment.
 - i. Adjust capacity based on the opportunity factor reduction (Table 3).
4. Recommend a range of service days for outfitter-guides.
 - a. Determine desired interaction with outfitter-guides
 - b. Recommend a range of service days based on interaction factor (see table 6) and on other factors discussed above.

Adjustment Factors

This framework emphasizes the primary limiting factor and opportunity for dispersal as the basis for estimating capacity at the compartment level. Adjustments were made in a two-step process which involved a reduction for the most limiting social or environmental factor followed by a

reduction that accounts for the opportunity to disperse. Tables 2 and 3 describe the factors and criteria used to reduce maximum capacity for each compartment.

Table 2: Social and/or Resource Limiting Factors and Percent Reduction

Resource Severity	Definition (Wilderness & Non-Wilderness)	Percent Reduction from Maximum Capacity
Low	Low potential exists for an environmental or social factor to limit capacity and occasional instances may occur (e.g. conflicts, crowding, and impacts to environmental resources); however, instances are very limited.	None
Moderate	Moderate potential exists for an environmental or social factor to limit capacity; documented instances have occurred (e.g. conflicts, crowding, impacts to environmental resources); instances occur on a site-specific and occasional basis.	25%
High	High potential exists for an environmental or social factor to limit capacity; there are on-going instances of impacts to the limiting factor from visitor use (e.g. conflicts, crowding, impacts to environmental resources); instances occur regularly and over a large part of the compartment.	50%

Table 3: Opportunity to Disperse Limiting Factors and Percent Reduction

Opportunity to Disperse	Definition (Wilderness & Non-Wilderness)	Percent Reduction from Limiting Factor Capacity
Low	Opportunities for visitors to disperse are limited due to small compartment size (less than 50,000 acres), terrain, a low number of trails/roads; few desired destinations with high scenic/recreational qualities, length of season and/or few access points and parking.	50%
Moderate	Opportunities for visitors to disperse are moderate due to moderate compartment size (50,000 to 100,000 acres), terrain and moderate number of trails/roads, a moderate number of desired destinations with high scenic/recreational qualities, length of season and/or a moderate number of access points and parking.	25%
High	Opportunities for visitors to disperse are high due to large compartment size (more than 100,000 acres), terrain, a high number of trails/roads, a high number of desired destinations, length of season and/or a high number of access points and parking.	None

Allocation of Use

Once visitor capacity was established for each compartment, a recommendation of allocation of use to commercial/non-commercial sectors was made. Allocation can best be supported by collaborating with stakeholders and focusing monitoring on data needed to determine which group (i.e., commercial vs. non-commercial) may be causing the greatest social and/or resource impacts and at what specific locations. Thus, allocation between guided and unguided visitors

used an allocation factor based on the desired interaction of visitors with outfitter-guides and the need for outfitter-guides to assist with management (as displayed in Table 4).

Table 4: Outfitter and Guide Allocation Factors

Desired Interaction with Outfitter-Guides	Definition (Wilderness & Non-Wilderness)	Percent Allocation
Low	Interaction with outfitter-guides is low due to activities that primarily emphasize self-reliance, challenge, opportunities for solitude, personal skill development and risk and/or settings where a desired interaction with other visitors is low. Size, terrain, destinations, access and/or trails may limit the ability to disperse use and/or accommodate large groups. The need for outfitter-guides to help with management goals is low due to adequate FS presence, management and/or permit administration, CE/LNT programs, and/or for reasons based in policy (e.g. "extent necessary" in Wilderness).	10%
Moderate	Interaction with outfitter-guides is occasional due to a moderate amount of guided activities (e.g. rock climbing, white water boating) and/or settings where interaction with other visitors is expected to be moderate. Compartment size, terrain, destinations, access and/or trails provide a moderate ability to disperse use and/or accommodate larger groups. The need for outfitter-guides to help with management goals is moderate.	20%
High	Interaction with outfitter-guides is expected due to multiple opportunities for guided activities and/or settings where interaction with other visitors is expected to be high (e.g. bus tours). Compartment size may be large and terrain, destinations, access and/or trails provide a high ability to disperse use and/or accommodate larger groups. The need for outfitter-guides to help with management goals is high due to high use and lack of FS presence.	50%

Other Considerations

Numerical capacity estimates are not meant to be static. Changing conditions and application of new information can cause managers to revise capacity numbers. For example, construction of new trails, or lack of maintenance on existing trails can either increase or lessen capacity in an area. Listing of an endangered species, preparation of more restrictive wilderness plans, or Forest Plan revision efforts can all contribute to a change in the estimated capacity of an area. Managers should revisit these numbers on a regular basis to ensure that they still reflect the best professional judgment.

Reducing Use in Areas over Capacity

Managers may discover that current outfitter-guide use exceeds the capacity recommendations in this document. There are some options to consider:

Attrition: As outfitters retire, do not allow new businesses to apply for those permits.

Priority service day review: As directed in the 2008 policy change, a review of the last five years of actual use should be undertaken for all priority use permit holders. This often serves to effectively reduce the number of service days that are authorized, as businesses commonly hold many more days than they actually use each year.

Reducing use on existing permits: While not an attractive option to permit holders, this can be a way to reach desired allocation levels. Outfitters could be offered service days in similar compartments that are not close to reaching the capacity recommendations.

Priority and Temporary Use Pools

In some compartments, the existing outfitter-guide authorizations may be well below the recommendations. Managers have the option to continue with the status quo and monitor limiting factors or, based on need, may wish to maintain pools of service days available to businesses on a year-by-year basis based on a set of criteria (for example, a business may have a one-time increase that is not expected to carry forward into subsequent years). This allows managers to be more flexible with allocations instead of being locked into administering priority use permits that may not be needed each season. A set number of service days would be authorized on a first-come, first served basis with a deadline for requests and would be granted based on public and agency need as identified in the Needs Assessment, the validity of the request and the reasons for it, existing managerial capacity for administering the permit to standard, and other criteria as determined by the District.

Capacity Analysis by Compartment

The capacity analysis and allocation for each compartment is organized the same way. It includes:

- Compartment information
 - Social capacity management zone
 - Operating season
 - Need to address capacity
 - Total acres
- Site-specific management considerations
- Desired Social Conditions/Thresholds, Values and OG Activities
- Compartment Issues, Indicators and Thresholds
- Maximum Compartment Threshold
 - Limiting factor
 - Opportunity for dispersal factor

A recommended range of service days for outfitters based on the preceding factors is shown in a final section following the specific compartment analysis.

Anderson Mesa

Social Capacity Mgt Zone: Backcountry
Operating Season: 9 months due to weather
Need to Address Capacity: Low
Acres: 254,425 (total between 2 districts)

Site Specific Management Considerations:

- Compartment shared with Mogollon RD
- Consider seasonal closures and current opportunities for solitude
- Coordinate with Range Specialist due to high presence of cattle grazing allotments
- Reports of past illegal artifact digging; presence of OGs may assist in monitoring of sites
- Soils susceptible to compaction and damage; do not authorize OG motorized use in times of year and on areas that would cause adverse impacts
- North portion important for pronghorn: spring closures for fawning. Consider impacts to pronghorn when authorizing use, particularly motorized use
- Impacts from non-native, invasive species have been documented in this compartment. Consider additional mitigations or non-issuance of activities that would serve as vectors

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low contact with other visitors • Minimal sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,600 reduced for length of season=67,200 	<ul style="list-style-type: none"> • Marshall Lake • Important bird area • ANST • Developed campground 	<ul style="list-style-type: none"> • Hunting • Rec events (dog trials) • Request for running event

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of main use season
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils, cultural and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or

Capacity Analysis and Outfitter-Guide Allocation

Issues	Severity (H,M,L)	Indicators	Threshold
			observed incidents of cultural disturbance; <1 acre of new non-native invasive population in core recreation areas

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High .5	Moderate .75	Low 1	Adjusted Capacity
67,200 visitor days	Impacts to cultural resources/vegetation/soils		X		50,400 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High 1	Moderate .75	Low .5	Maximum Compartment Capacity
50,400 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			50,400 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

Cosnino

Social Capacity Mgt Zone: Backcountry
Operating Season: Year round
Need to Address Capacity: Moderate
Acres: 104,601

Site Specific Management Considerations:

- Occasional conflicts between residents and OHV users; consider if there is a need for OHV OG use and potential conflicts before allocating
- Beard tongue (Forest Sensitive Species) has seen impacts from recreation use. Do not allocate ground disturbing OG activities in known areas.
- Sanitation issues have been reported at the OHV area; if authorizing OGs, include portable toilet stipulations.
- Coordinate with NPS if authorizing OGs near Sunset Crater National Monument

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low contact with other visitors • Minimal sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,600 	<ul style="list-style-type: none"> • Climbing area • Designated OHV area • Near Sunset Crater NM 	<ul style="list-style-type: none"> • Big game hunting • Several rec events • Inquiries about horseback riding

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils, cultural, water and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; <1 acre of new non-native invasive population in core recreation areas

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High .5	Moderate .75	Low 1	Adjusted Capacity
87,600 visitor days	Impacts to cultural resources		X		65,700 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High 1	Moderate .75	Low .5	Maximum Compartment Capacity
65,700 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			65,700 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

Fort Valley

Social Capacity Mgt Zone: Frontcountry
Operating Season: Year Round
Need to Address Capacity: Moderate
Acres: 30,905

Site Specific Management Considerations:

- A portion of this compartment has camping/campfire restrictions; if authorizing OGs with overnight stays, consider designating campsites
- The city of Flagstaff waterline infrastructure and private land exist in this compartment; consider types of uses that would not conflict with these
- Have reached saturation for events on Fort Valley trails; do not authorize additional OG use here
- Impacts from non-native, invasive species have been documented in this compartment. Consider additional mitigations or non-issuance of activities that would serve as vectors
- High concern from residents over events, particularly biking; consider carefully timing, season of use and location for additional use in this compartment.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low to moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 120/day • Visitor days =262,800 	<ul style="list-style-type: none"> • ANST • Snowplay • Easy access from urban area 	<ul style="list-style-type: none"> • Recreation events • Big game hunting • Requests for use of Fort Valley trails

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils, cultural resources, water and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; <1 acre of new non-native

Capacity Analysis and Outfitter-Guide Allocation

Issues	Severity (H,M,L)	Indicators	Threshold
			invasive population in core recreation areas

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
262,800 visitor days	Social experience	.5	.75	1	197,100 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
197,100 visitor days	Opportunity to disperse via trailheads, destinations, acreage	1	.75	.5	147,825 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

Hart Prairie

Social Capacity Mgt Zone: Frontcountry
Operating Season: Year Round
Need to Address Capacity: Moderate
Acres: 19,223

Site Specific Management Considerations:

- Increased vehicle access would be noticed by all users. Consider activities that are not reliant on vehicle use or use shuttles instead
- There are several tracts of private land inholdings within this compartment including Camp Colton; consider implications to the private land owners if issuing OG permits
- Impacts from non-native, invasive species have been documented in this compartment. Consider additional mitigations or non-issuance of activities that would serve as vectors.
- There have been conflicts between snow play and XC skiing as well as non-adherence to the closures around the Flagstaff Nordic Center; there may be no capacity for additional snow-based activities in some areas.
- Recreation use is affecting montane meadows and non-designated road systems. Drainage problems exist. Do not authorize OGs in these areas.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 120/day • Visitor days =262,800 	<ul style="list-style-type: none"> • Snowbowl • Nordic XC Center • ANST • Scenic drive and alternate route to GCNP • Fall colors • Camp Colton 	<ul style="list-style-type: none"> • Classes • Rec events • Big game hunting • Requests for activities along ANST; highly desired for weddings

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	H	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils, cultural, water and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural	Minimal (expected from normal recreation use) increase in soil erosion

Capacity Analysis and Outfitter-Guide Allocation

Issues	Severity (H,M,L)	Indicators	Threshold
		resources, soils, water, vegetation	and/or vegetative trampling; no reported or observed incidents of cultural disturbance; <1 acre of new non-native invasive population in core recreation areas

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
		.5	.75	1	
262,800 visitor days	Impacts to social experience	X			131,400 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
		1	.75	.5	
131,400 visitor days	Opportunity to disperse via trailheads, destinations, acreage			X	65,700 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

I-17E

Social Capacity Mgt Zone: Frontcountry
Operating Season: 9 months
Need to Address Capacity: Moderate
Acres: 51,949

Site Specific Management Considerations:

- Use is expected to grow as trail system expands. Team members expressed a desire not to encourage additional OG use except possibly for motorized events.
- The communities of Mountaineer and Munds Park are located within this compartment; consider implications to these communities if issuing OG permits
- There is a good density of owls in this compartment; do not authorize events producing excessive amounts of noise during breeding season (March 31-August 1).
- Conflicts exist between motorized and non-motorized users. Consider season, activity, and location of use before authorizing outfitter-guide use and consider the need for this use.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Moderate to high contact with other visitors • Moderate to high sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 120/day • Visitor days =262,800, reduced for length of season=201,600 	<ul style="list-style-type: none"> • Easy access from Phoenix • Kelly motorized trail system 	<ul style="list-style-type: none"> • Equestrian • Big game hunting • Rec events

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	H	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; <1 acre of new non-native invasive population in core recreation areas

Flagstaff Ranger District

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
		.5	.75	1	
201,600 visitor days	Social experience	X			201,600 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
		1	.75	.5	
201,600 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			201,600 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

I-17West

Social Capacity Mgt Zone: Frontcountry
Operating Season: 365 days
Need to Address Capacity: Moderate
Acres: 39,704

Site Specific Management Considerations:

- Quiet areas and seasonal closures exist in this compartment. Ensure that activities permitted do not impact these areas.
- Conflicts exist with Kachina Village residents and dispersed camping. Consider not authorizing OG activities that require overnight stays in the vicinity of this residential area.
- Concern over sustainability of the road system. Evaluate existing conditions before authorizing additional motorized use.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Moderate to high contact with other visitors • Moderate to high sights and sounds of others 	<ul style="list-style-type: none"> • Encounters: 120/day • Visitor days=262,800 	<ul style="list-style-type: none"> • Climbing access • Camping • NCGU • Canyoneering 	<ul style="list-style-type: none"> • Big game hunting • Rec events • Jeep pass through from RRRD • Interest in equestrian and jeep tours

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Flagstaff Ranger District

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High .5	Moderate .75	Low 1	Adjusted Capacity
262,800 visitor days	Impacts to social experience: exceeding of group size/encounters		X		197,100 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High 1	Moderate .75	Low .5	Adjusted Capacity
197,100 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			197,100 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

180W

Social Capacity Mgt Zone: Backcountry
Operating Season: Year round
Need to Address Capacity: Low (except at Lava River Cave)
Acres: 49,626

Site Specific Management Considerations:

- Lava River Cave is at capacity with conflicts; do not authorize additional use here unless it is specifically to assist with management.
- Conflicts exist between campers and day users. Consider not authorizing OGs who require overnight stays.
- Concern over sustainability of the road system. Evaluate existing conditions before authorizing additional motorized use.
- Large concentrations of people would be detrimental to peregrine/gold eagle nesting area at Red Mountain. If authorizing OG activities here, keep groups small and do not stay overnight.
- Some illegal obsidian collection has been reported. The presence of outfitter-guides could assist with monitoring and compliance in this area.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low to moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,6000 	<ul style="list-style-type: none"> • Caves • Red Mountain • Alternate route to GCNP • Scenery • Less people than areas closer to town • Wing Mtn. Snowplay Site 	<ul style="list-style-type: none"> • Photography • Big game hunting • Rec events • Requests for caving • Use to be a snowmobile permit

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural	Minimal (expected from normal recreation use)

Flagstaff Ranger District

Issues	Severity (H,M,L)	Indicators	Threshold
		resources, soils, water, vegetation	increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
87,600 visitor days	Social experience	.5	.75	1	65,700 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
65,700 visitor days	Opportunity to disperse via trailheads, destinations, acreage	1	.75	.5	65,700 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

Lakes

Social Capacity Mgt Zone:	Backcountry
Operating Season:	Year round
Need to Address Capacity:	Moderate
Acres:	62,129

Site Specific Management Considerations:

- Issues with public use of non-designated roads and off road travel and between horse riders and rec events. Consider timing and location of recreation events when authorizing and allow for areas where these events do not occur.
- Impacts from non-native, invasive species have been documented in this compartment. Consider additional mitigations or non-issuance of activities that would serve as vectors
- Owl breeding season is from March 1- August 31 and there is significant owl presence in this area. Consider noise conflicts when authorizing use during this time period
- Large groups have been documented around Mormon Lake. Adding outfitters here may increase conflicts in this area.
- Quiet area for non-motorized hunting Aug-Dec; avoid this area when authorizing motorized events
- Priest Draw may be at capacity: do not authorize OG here unless there is a clear benefit to public and agency. A climbing OG may be beneficial.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low to moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,600, 	<ul style="list-style-type: none"> • Lakes • ANST • Water sports • Rec residences 	<ul style="list-style-type: none"> • Recreation events • Big game hunting

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	L	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils, cultural, water and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or

Flagstaff Ranger District

Issues	Severity (H,M,L)	Indicators	Threshold
			observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High .5	Moderate .75	Low 1	Adjusted Capacity
87,600 visitor days	Soils/erosion from off road travel		X		65,700 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High 1	Moderate .75	Low .5	Maximum Compartment Capacity
65,700 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			65,700 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

MEDL

Social Capacity Mgt Zone: Backcountry
Operating Season: Year round
Need to Address Capacity: Moderate
Acres: 12,991

Site Specific Management Considerations:

- This compartment has reported road and trail use conflicts between downhill biking and horses; shuttles and pedestrians. Consider the conflict potential before authorizing any of these OG activities here.
- This compartment is adjacent to Flagstaff city limits (e.g. urban interface). Consider impacts to residents before issuing new OG use.
- Concern over capacity in this compartment especially for active events. Consider only permitting “passive” events if additional OG use is desired.
- Group sizes are small, but encounter levels are probably often exceeded. Consider timing, location and season of proposed OG use.
- There is a proliferation of social trails and soils are coarser here; events have had to be re-routed due to monsoon erosion and fire events. This is also an important watershed. Do not authorize off-trail outfitter-guide use in this compartment.
- Residents are very sensitive to fire threat in this area. Do not authorize outfitter-guide campfires in the portion of the compartment that allows camping/campfires (half the compartment does not).
- Owl breeding season is from March 1- August 31 and there is significant owl presence in this area. Consider noise conflicts when authorizing use during this time period.
- Ensure that outfitted groups are not to pass through the tribal inholding area unless authorized to do so.
- Inadequate parking/sanitation in areas where people concentrate. Do not permit outfitters who need parking or toilet facilities for their operations unless this can be accommodated on private land.
- Mt. Elden Environmental Study Area is located in this compartment; consider Conservation Education OG opportunities for this location
- Coordinate with City of Flagstaff to utilize Buffalo Park for staging large group events

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low to moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,600 	<ul style="list-style-type: none"> • Backyard access • Interesting topography 	<ul style="list-style-type: none"> • Climbing • Big game hunting • Rec events • Biking

Flagstaff Ranger District

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
		<ul style="list-style-type: none">• ANST• Hang-gliding• Birding	<ul style="list-style-type: none">• Requests for birding, biking, shuttles

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
87,600 visitor days	Social experience	.5	.75	1	65,700 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
65,700 visitor days	Opportunity to disperse via trailheads, destinations, acreage	1	.75	.5	65,700 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

Peaks East

Social Capacity Mgt Zone:	Backcountry
Operating Season:	Year round
Need to Address Capacity:	Moderate
Acres:	19,204

Site Specific Management Considerations:

- Use was high here before the Schultz fire and will be again once area fully recovers. There are concerns with gully erosion, loss of topsoil, weed invasion and flooding. Do not authorize use that would add additional impacts to the fire damage, or events that would need re-routing from expected monsoon events.
- Concern from residents “not in my backyard” mentality. Adding additional OG use would be controversial. Consider existing and potential conflicts before authorizing OG use. “Passive” activities may be better than active, recurring ones.
- Motorized/non-motorized use conflicts have been reported in this compartment. Consider timing, season and location if authorizing use, especially motorized.
- Lockett Meadow is heavily used. Do not authorize additional OG use here.
- Owl breeding season is from March 1- August 31 and there is significant owl presence in this area. Consider noise conflicts when authorizing use during this time period.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low to moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,600 	<ul style="list-style-type: none"> • Fall colors • Visuals • Campground • Lockett Meadow 	<ul style="list-style-type: none"> • Historical horse permit • Big game hunting • Rec events • Day rides/sleigh rides • Requests for rec events

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural	Minimal (expected from normal recreation use) increase in soil erosion

Capacity Analysis and Outfitter-Guide Allocation

Issues	Severity (H,M,L)	Indicators	Threshold
		resources, soils, water, vegetation	and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
		.5	.75	1	
87,600 visitor days	Social experience		X		65,700 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
		1	.75	.5	
65,700 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			65,700 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

Peaks North

Social Capacity Mgt Zone: Backcountry
Operating Season: Year round
Need to Address Capacity: Low
Acres: 98,749

Site Specific Management Considerations:

- Kendrick Park is relatively crowded; other places are not. Consider excluding Kendrick Park from OG allocations.
- Concern from residents “not in my backyard” mentality though no conflicts have been reported. Consider impacts to residents before authorizing new OG use.
- West of 89, the eastern part is dense culturally and there have been some incidental reports of woodcutting impacting cultural resources as well as pot hunting. The presence of outfitter-guides could assist with compliance and monitoring here.
- Important area for pronghorn. Consider sensitive times for this species when authorizing OG use.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low to moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,600 	<ul style="list-style-type: none"> • Cinder Cone • Abineau Canyon • Kendrick Park/rental cabin • Wildlife area 	<ul style="list-style-type: none"> • Big game hunting • Rec events • Requests for rec events

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	L	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native

Capacity Analysis and Outfitter-Guide Allocation

Issues	Severity (H,M,L)	Indicators	Threshold
			invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
		.5	.75	1	
87,600 visitor days	Social experience			X	87,600 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
		1	.75	.5	
87,600 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			87,600 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

Perry Pit

Social Capacity Mgt Zone: Backcountry
Operating Season: 9 months
Need to Address Capacity: Moderate
Acres: 27,081

Site Specific Management Considerations:

- The expectation is to see large groups here. The area is often very crowded; additional OG use here would depend on activity.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> Low to moderate contact with other visitors Moderate sights and sounds of others 	<ul style="list-style-type: none"> Encounters = 40/day Visitor days =87,600 reduced for length of season=67,200 	<ul style="list-style-type: none"> Large group areas Ashhurst Lake Campgrounds 	<ul style="list-style-type: none"> Rec events Big game hunting Rec events

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	H	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
67,200 visitor days	Social experience	X	.75	1	33,600 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High 1	Moderate .75	Low .5	Maximum Compartment Capacity
33,600 visitor days	Opportunity to disperse via trailheads, destinations, acreage			X	16,800 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

Rogers Lake

Social Capacity Mgt Zone: Frontcountry
Operating Season: 9 months
Need to Address Capacity: Low
Acres: 32,158

Site Specific Management Considerations:

Checkerboard management exists in this compartment. There is interest from the county to provide recreation events (e.g. running and biking), especially to utilize Ft. Tuthill as a staging area for large group events.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> Low to moderate contact with other visitors Moderate sights and sounds of others 	<ul style="list-style-type: none"> Encounters = 120/day Visitor days =262,800 reduced for length of season=201,600 	<ul style="list-style-type: none"> Trail system access 	<ul style="list-style-type: none"> Past rec events (running and biking) Big game hunting

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	L	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
201,600 visitor days	Social experience	.5	.75	1	201,600 visitor days

Flagstaff Ranger District

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High 1	Moderate .75	Low .5	Maximum Compartment Capacity
201,600 visitor days	Opportunity to disperse via trailheads, destinations, acreage			X	100,800 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

Red Rock Secret Mountain Wilderness

Social Capacity Mgt Zone: Wilderness (Remote)
Operating Season: 9 months
Need to Address Capacity: Moderate
Acres: 48,097

Site Specific Management Considerations:

- Visitor use is mostly day use. When authorizing OG use, consider existing encounters/impacts.
- Area has high concentration of cliff dwellings. The presence of an outfitter-guide could be helpful to assist with compliance/monitoring.
- People are funneled into canyon areas with perennial stream as a result of topography. Consider locations, timing and seasons of use if adding additional OGs.
- Stronghold of narrowheaded garter snake and AZ bugbane is present; consider impacts to each when considering authorizing OG use.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Little contact with other visitors • Few sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 16/day • Visitor days =35,040 reduced for length of season=26,880 	<ul style="list-style-type: none"> • Wilderness • Sheer wall canyons • Extensive trail system • Fall colors 	<ul style="list-style-type: none"> • Hiking • Big game hunting

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	H	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	M	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Flagstaff Ranger District

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
		.5	.75	1	
26,880 visitor days	Social experience	X			13,440 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
		1	.75	.5	
13,440 visitor days	Opportunity to disperse via trailheads, destinations, acreage			X	6,720 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

San Francisco Peak

Social Capacity Mgt Zone: Wilderness (Remote)
Operating Season: Year round
Need to Address Capacity: High
Acres: 18,707

Site Specific Management Considerations:

- Large amount of unauthorized rec events occurring here. This may not be a compartment to authorize recreation events until the illegal ones are dealt with.
- TCP and high cultural significance make OG permit administration complex. Consider managerial capacity before adding additional workload here.
- Much of the use is concentrated on Kachina and Humphrys trails. It is common to have large groups/encounters. Do not authorize additional OG use here.
- Trail cutting, braiding, compaction of soils and impact to endemic plant (SF ragwort) is occurring in some areas. Do not authorize additional OG use in this area until impacts are alleviated.
- Owl breeding season is from March 1- August 31 and there is significant owl presence in this area. Consider noise conflicts when authorizing use during this time period.
- Consider OG use for shuttle services to ski area during winter season.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Little contact with other visitors • Few sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 16/day • Visitor days =35,040 	<ul style="list-style-type: none"> • Highest point in AZ • Only alpine tundra in AZ • Wilderness • Primary winter access for ski area • Close to town 	<ul style="list-style-type: none"> • Big game hunting • Requests for photography, rec events (running), winter backcountry • Requests for shuttle services to ski area during winter season

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	H	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural	Minimal (expected from normal recreation use)

Flagstaff Ranger District

Issues	Severity (H,M,L)	Indicators	Threshold
		resources, soils, water, vegetation	increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; <1 acre of new non-native invasive plant population in core recreation area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
35,040 visitor days	Social experience	X			17,520 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
17,520 visitor days	Opportunity to disperse via trailheads, destinations, acreage	1	.75	.5	13,140 visitor days
			X		

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

Sycamore Wilderness

Social Capacity Mgt Zone: Remote
Operating Season: 365 days
Need to Address Capacity: Moderate
Acres: **58,516**

Site Specific Management Considerations:

- This wilderness is managed by three forests though the majority of access occurs through the CNF. Coordination and agency need for OGs needs to be discussed before authorizing use.
- This area has a no camping/campfire ban on the south end; this could mean concentration of campers/campfire use in other areas. Consider designating campsites for outfitters to ensure compliance with and monitoring of OG related impacts as opposed to general public.
- Concern with opportunities for looting in remote cliff dwelling areas; presence of OGs may help to monitor and limit impacts
- Existing campsites are located close to water. See above recommendation for designated sites.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
High contact with other visitors Use is evident	Encounters/day=16 Visitor days-35,040	Wilderness Scenery Perennial stream Second largest canyon in AZ	Big game hunting Backpacking Hiking Request for horse packing

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	M	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or

Flagstaff Ranger District

Issues	Severity (H,M,L)	Indicators	Threshold
			observed incidents of cultural disturbance

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
		.5	.75	1	
35,040	Impacts to social experience: exceeding of group size/encounters		X		26,280

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Adjusted Capacity
		1	.75	.5	
26,280	Opportunity to disperse via trailheads, destinations, acreage			X	13,140

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

Turkey Butte

Social Capacity Mgt Zone: Backcountry
Operating Season: 9 months
Need to Address Capacity: Low
Acres: 77, 308

Site Specific Management Considerations:

- Checkerboard management exists in this compartment.
- Concern over sustainability of road system, especially when wet. Specify conditions when future OGs may operate.
- Vandalism may be occurring at historic sites from off road use. The presence of outfitter-guides could assist in compliance/monitoring.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Little contact with other visitors • Few sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days = 87,600 reduced by length of season= • 67,200 	<ul style="list-style-type: none"> • Views • Access to other areas; canyoneering in wilderness • Oak Creek rim 	<ul style="list-style-type: none"> • Big game hunting • Requests for rec events: long distance mountain biking, off road use

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	L	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance; ; <1 acre of new non-native invasive plant population in core recreation area

Flagstaff Ranger District

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
		.5	.75	1	
67,200 visitor days	None			X	67,200 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
		1	.75	.5	
67,200 visitor days	Opportunity to disperse via trailheads, destinations, acreage	X			67,200 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations		X	

Walnut

Social Capacity Mgt Zone:	Backcountry
Operating Season:	Year round
Need to Address Capacity:	Moderate
Acres:	38,817

Site Specific Management Considerations:

- Requests for rec events are often turned down because of T&E species. Consider accommodating recreation events elsewhere.
- Concern from residents “not in my backyard” mentality. Adding additional OG use would be controversial. Consider existing and potential conflicts before authorizing OG use. “Passive” activities may be better than active, recurring ones.
- Complaints have been received about OG use of trails (damage to trails) and the social trail system established by equestrian OG. Do not authorize additional equestrian use here unless it occurs on established trails and in places where trails can handle the use.
- Conflicts between horses/bikes at Fisher Point. Do not authorize additional outfitter-guide uses of these types here.
- There is concern from residents over the “character” of the area. It is an important buffer between the city and the monument. Consider the existing OG use and determine if there is a need for additional use here or if it can be accommodated elsewhere.
- Owl breeding season is from March 1- August 31 and there is significant owl presence in this area. Consider noise conflicts when authorizing use during this time period.
- High cultural site density on the north side of the monument; so far no issues due to lack of road access and user ethic. Do not authorize OGs who would impact this area through social trails or new campsites.
- Only one place to climb in this compartment. Consider existing use and impacts (bolted routes, social trails) before authorizing any additional OG use.

Desired Social Conditions/Thresholds, Values and OG Activities

Desired Social Conditions	Desired Social Thresholds	Values	OG Activities
<ul style="list-style-type: none"> • Low to moderate contact with other visitors • Moderate sights and sounds of others 	<ul style="list-style-type: none"> • Encounters = 40/day • Visitor days =87,600 	<ul style="list-style-type: none"> • Canyon vistas • Near Walnut Canyon • Mountain biking trails • ANST • Close to town • Campground • Canyon Vista climbing area 	<ul style="list-style-type: none"> • Climbing • Big game hunting • Rec events • Equestrian day rides/sleigh rides • Requests for rec events

Flagstaff Ranger District

Compartment Issues, Indicators and Thresholds

Issues	Severity (H,M,L)	Indicators	Threshold
Impacts to visitor experience from crowding	M	Maximum perceived crowding	Encounter threshold not exceeded 80% of the time
Impacts to wildlife from visitor use	L	Maximum reduction in wildlife populations attributable to recreation use	No adverse effect from recreation use to wildlife (poaching, birth rate disturbance, deaths)
Impacts to other resources (soils and vegetation) from visitor use	L	Maximum reported and observed impacts to cultural resources, soils, water, vegetation	Minimal (expected from normal recreation use) increase in soil erosion and/or vegetative trampling; no reported or observed incidents of cultural disturbance, <one acre of new invasive plant population in recreation core area

Limiting Factor Reduction

Maximum Compartment Capacity	Limiting Factor	High	Moderate	Low	Adjusted Capacity
87,600 visitor days	Social experience	.5	.75	1	65,700 visitor days

Opportunity Factor Reduction

Adjusted Compartment Capacity	Opportunity Factor	High	Moderate	Low	Maximum Compartment Capacity
65,700 visitor days	Opportunity to disperse via trailheads, destinations, acreage	1	.75	.5	65,700 visitor days

Desired OG Interaction

Desired Interaction with OGs	Interaction Factor: Low	Interaction Factor: Moderate	Interaction Factor: High
Encounter frequency, types of activities, expectations	X		

Allocation Recommendations

Table 5: Outfitter-Guide Service Day Recommended Allocations

Compartment	Need to Address Capacity	Desired OG Interaction	Range of Allocation to Consider	Maximum OG Allocation
Anderson Mesa	Low	Moderate	No limits due to low need to address capacity; reevaluate based on monitoring/trigger points	N/A
Cosnino	Moderate	Moderate	Up to 20%, consider existing OHV use/conflicts before authorizing at top end of range	13,140 service days
Fort Valley	Moderate	Low	Up to 10%, much of this would likely be recreation events	14,782 service days
Hart Prairie	Moderate	Low	Up to 10%; consider conflicts and existing uses before allocating to the top of this range	6,570 service days
I-17E	Moderate	Low	Up to 10%; much of this would be rec events; consider management recommendations re: motorized use	20,160 service days
I-17W	Moderate	Moderate	Up to 20%; much of this would be rec events; consider starting at a much lower level and monitoring trigger points	39,420 service days
Hwy 180 W	Moderate	Low	Up to 10%; consider starting at a lower level and monitoring trigger points	6,570 service days
Lakes	Moderate	Moderate	Up to 20%, consider starting at a lower level and monitoring trigger points	13,140 service days
MEDL	Moderate	Moderate	Up to 20%; consider conflicting uses and existing uses; much of this will likely be rec. events	6,570 service days
Peaks East	Moderate	Low	Up to 10%; consider conflicting uses and existing uses	6,570 service days

Flagstaff Ranger District

Compartment	Need to Address Capacity	Desired OG Interaction	Range of Allocation to Consider	Maximum OG Allocation
Peaks North	Low	Moderate	No limits due to low need to address capacity; reevaluate based on monitoring/trigger points	N/A
Perry Pit	Moderate	Low	Up to 10%; consider conflicting uses and existing uses	1,618 service days
Rogers Lake	Low	Moderate	No limits due to low need to address capacity; reevaluate based on monitoring/trigger points	N/A
RR Secret Mountain	Moderate	Low	Up to 10%, consider wilderness values and extent necessary	672 service days
San Francisco Peak	High	Low	Up to 10%, consider wilderness values and extent necessary	1,314 service days
Sycamore Wilderness	Moderate	Low	Up to 10%, consider wilderness values and extent necessary	1,340 service days
Turkey Butte	Low	Moderate	No limits due to low need to address capacity; reevaluate based on monitoring/trigger points	N/A
Walnut	Moderate	Low	Up to 10%; consider conflicting uses and existing uses	6,570 service days

The table above shows a range of outfitter-guide service days per compartment that could be considered based on the need to address capacity, limiting factors, and desired outfitter-guide interaction. Visitor behavior rather than absolute numbers often determine impacts, so managers should be aware of trigger points and monitor levels of guided use to determine the causes of unacceptable impacts.

Monitoring Plan

Guidelines for monitoring indicators and standards are listed below. Frequency of monitoring will depend on severity of the limiting factor. Managerial capacity can limit intensive monitoring. Recommendations include:

- Once-yearly inspections of outfitter permits, based on potential impacts and locations.
- Interdisciplinary review of limiting factors and capacity numbers on a five year basis.
- Analysis of utilization of service days by activity on a yearly basis; five year review and adjustments as directed by policy
- Encounters/group size monitored as practical by field employees, particularly in those compartments with limited capacity

Managerial Capacity

The following table was developed by permit administrators from two forests³ and shows the general amount of time each required task should take. Depending on local conditions, available assistance, NEPA requirements and other factors, these hours may vary significantly. This is presented as a starting point for discussion.

There are several steps in permit administration to administer a permit to standard. Often managerial capacity can become the limiting factor to allowing additional outfitter-guides on a district. While this analysis shows there is abundant capacity for more outfitter-guides, managerial capacity probably does not exist currently on the FRD. Options for managers include hiring additional staff using cost recovery funds, selecting other employees with capacity to perform certain tasks (e.g. billing or centralization of tasks) or not authorizing additional outfitters. If the third option is selected, the district must be able to articulate to prospective outfitters and the public the costs of permit administration and the reasons why the need is not going to be met.

³ Gifford-Pinchot and Carson National Forests, with input from the Humboldt-Toiyabe NF.

Tasks and Costs Associated with Permit Administration

Task	Time (Hrs)
Meet with proponent	1.00
Written Proposal Submitted/	
Review SF-299 for completeness	0.50
Check Proposal for Required Information	1.00
Follow Up Q&A	1.00
Canvas other forests of operation for performance	0.25
Proposal Triggers Pre-Application Consideration	
Enter information in SUDS application screens	0.50
Initial Screening	
Brief supervisor for initial approval	0.50
Review SUDS for unpaid bills	0.50
Consult other permits; verify no conflicts	0.50
Consult other forest where permit holder operates	0.50
Initial Screening Results Letter	1.00
Second Level Screening	
Presume most were addressed in depth in above	0.50
Site visit, photos, narrative and doc findings	12.00
Second Level Screening Letter	
Email Results and Notify Of Application Acceptance	2.00
Application Processing	
Cost Recovery Fee Estimate	
NEPA Team Meeting	2.00
Collect Specialists Task List w/ hrs Estimate	1.00
Create and Review Cost Recovery Estimate	1.00
Create Bill, Cover Letter and Mail	1.00
Create SUP & Enter into SUDS	4.00
Work with Applicant to Develop Operating Plan (OP)	4.00
Review Insurance & Acknowledgement of Risk	4.00
Review Advertising and Website	0.5
Submit SUP & OP for FS Review & Track	1.00
Mail Pkg for Permit Holder Signature w/ Cover Letter	1.00
Submit to Authorized Officer for Signature w/ Cover Letter	1.00
Mail Excuted SUP and OP to Permit Holder	
Advance Fee Calculations (Estimate) and SUDS Entry	1.00
Create Bill for Collection, Cover Letter and Mail	1.00
Verify Payment	0.50
Fee Reconciliation	
Review quarterly Actual Use & Revenue Reports	1.00

Capacity Analysis and Outfitter-Guide Allocation

Task	Time (Hrs)
Reconcile Payments Against Actual Revenue	1.00
Complete SUDS rent screens	0.50
Create BFC & Cover Letter and Mail	1.00
Verify Payment	0.50
Inspection Documentation	
Inspection Documentaion (in office)	0.50
Performance Appraisal and Document	1.00
Total Hours	50.25

- Bold Font = Steps listed on 36 CFR 251 Special Uses Checklist
- Yellow highlight = Items that are directly influenced by access, difficulty of monitoring, and other local conditions.

With approximately 261 days per each FTE (2088 hours) additional permit administrators could help meet the need demonstrated here. For example, just one new permit administrator would allow for administration of up to 41 permits (depending on complexity). This would greatly assist in managing the workload and meeting public and agency need.

Conclusions

The FRD Needs Assessment showed that there is a moderate need for commercial services for some activities in both wilderness and non-wilderness settings. In non-wilderness, day horseback riding showed the highest need. In wilderness, no higher needs were identified, though there were several showing a moderate need. Although a need might be present, visitor capacity in those compartments where the services would be offered are sometimes limited.

However, from the requests received and granted, it appears that the main activities the public desires are not traditional outfitted ones but recreation events, often in excess of 100 people. Groups and events of this size impact unguided visitor experience, can impact resources, and require considerable amount of time to monitor and manage. While these events have only a minor impact on capacity (often lasting only a few hours each), subsequent events in the same general area can have a cumulative effect on visitor experience and on resources. The district has already designated some areas where these events can take place; it could be a benefit to identify within each compartment whether, and where events such as these could occur. Since these types of events are rarely denied due to policy, in particular the non-commercial events, it is important to recognize that the capacity of permit administrators to take on new traditional outfitter-guide permits is very limited when they have this large workload occurring, and increasing yearly.

This analysis shows that the visitor social experience is occasionally a limiting factor, though rarely at all times and in all seasons. There are potential, but not reported occurrences of impacts to cultural, wildlife, vegetation and water resources. Often, opportunities to disperse are limited. More information is needed on types of activities and use levels that cause direct, long-term impacts to wildlife. Should specific information become available, capacity may increase if effective visitor management can be accomplished to avoid these impacts.

Capacity is rarely static; the numbers listed above are estimates which could fluctuate depending on visitor behavior, outside influences that change distribution of wildlife, and many other factors. Limiting factors may change in severity and others can emerge.

Using this Outfitter-Guide Program Analysis

The Needs Assessment provides a framework in which to evaluate current services and future requests. When considering authorizing additional service days to existing operators or to authorize a new commercial service, the ranking lists generated by the Needs Assessment by activity should be consulted. If an activity was rated as having a lower need, there may not be a compelling reason to authorize it.

If an activity has been shown to meet a demonstrated need, consideration should be made of the area in which the activity is proposed. If that compartment has a high limiting factor and few opportunities for dispersal available, and existing visitor use is close to the capacity, care should be taken before authorizing additional services. Managers may wish to allocate outfitter-guide use at the low end of the capacity available in any compartment in order to evaluate the sustainability of that enterprise and its effect on the compartment's values and resources.

Managerial capacity must be considered when evaluating need and capacity for additional commercial services. Some activities due to their location and type may be more difficult to monitor and administer to standard than others. In other cases, the presence of outfitter-guides may assist managers in monitoring visitor use and impacts.

New outfitter-guide permits and renewals of existing permits will need to authorize outfitter-guides by compartment, or multiple compartments, instead of blanket forest or district-wide authorizations. Outfitter-guides can still be authorized to use multiple compartments, but service days per compartment will need to be tracked in order to avoid exceeding recommended numbers. The exception is hunting, which due to state-defined units may range over several compartments. Hunting actual use records should be evaluated at the end of each season to determine how this use is affecting capacity.

Capacity numbers are meant to be adaptive. This does not mean that unacceptable impacts to resources can occur, but as new information becomes available or new regulations are proposed, capacities may change. This document should be updated if this occurs. Capacity may need to be revised if conditions change.

When new permits are issued, the NEPA to authorize them should reference the Needs Assessment and Capacity Analysis. For commercial services in wilderness, the NEPA document must include a discussion of any impacts to wilderness character and how this activity meets the public purposes of wilderness as defined by the Wilderness Act of 1964. The Needs Assessment addresses to what extent potential activities meet criteria such as wilderness dependency, impacts to wilderness character and how offering these could meet the identified category of need.

References

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