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APPENDIX D
Needs Assessment

Background Information

This assessment is for the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses. It is intended to provide the foundation and framework from which to make decisions on allocations to commercial activities in these three wildernesses. Limitations on recreation use in the Ansel Adams (formally named the Minarets) and John Muir Wildernesses have been in place for over twenty years. With changes over time in activities, use patterns, and resource conditions, it is necessary to evaluate the use levels that were established twenty years ago, including the split between private and commercial uses. The overall goal is to achieve an acceptable balance in recreational activities and uses. Demand for access, as well as changes in types of activities, require that management decisions be fair and equitable, and based on rationale that is articulated to the public and implemented consistently by decision makers.

The Wilderness Act states, "Commercial services may be performed …to the extent necessary for activities which are proper for realizing the recreational or other purposes of the areas." Forest Service policy (FSM 2720) allows for commercial activities in a manner that protects environmental resources and insures that high quality services are available to visitors. Forest Service policy for wilderness management directs us to "Address the need for and role of outfitters and guides in the forest plan. The plan must address the type, number, and amount of recreational use that is to be allocated to outfitters and guides" (FSM 2323.13g).

In assessing the "public need" for providing commercial services, the agency ensures that services reflect agency mission, follow laws and established policy, and meet management objectives. Allocations for commercial uses within wilderness must be based on an assessment of the need for and the ability to provide high quality and sustainable recreational activities within Wilderness. This document provides the rationale for determinations of need for outfitted services in the Ansel Adams, John Muir, and Dinkey Lakes Wildernesses, and is the predecessor of new management direction, which will determine the amount and type of use to be allocated to commercial operators.

In the late 1970s methods of calculating capacity were developed and implemented over much of the Ansel Adams and John Muir Wildernesses. Methodology for these capacity calculations were suitable for the time, but more recent research has led towards approaches that do not solely rely upon the amount of use. This research recognizes that the type, timing, and pattern of use are more critical to determining acceptability than merely the amount of use (Washburne 1982, Cole 1982; McCool et al 1987).

Public Involvement

Public input to the agency was used to assess the need for outfitted services. Input on commercial use and issues surrounding commercial use first surfaced with the initial scoping for the wilderness plans, in 1992. The dominant themes were concerns over the "shares" of wilderness use between commercial and non-commercial; as well as commercial operator concerns about maintaining viable businesses into the future.

Between 1992-1994 the Public Involvement Team (PIT) discussed commercial use. Notes from the August 1994 meeting show the wide range of thoughts on the appropriate level and kinds of commercial use in wilderness. During the public comment period to the draft EIS, considerable comments were made regarding the need for commercial services. In addition, once the Needs Assessment process was outlined, the key components of determining need were brought to two public meetings (Bishop and Clovis) in June 1999 and public input was sought and recorded on this topic. Many unsolicited comments, motivated by Wilderness Plan Update Newsletters were received and considered. Many points of view from public input were reviewed and considered in this assessment process.

Process Overview

This needs assessment is a systematic analysis of the need for and role of outfitters and guides in these three wildernesses. The parts of this assessment are described below to provide an overview of the process used in this analysis.

Part I **Consideration of Types of Activities Needed**
Part II **Extent To Which Existing Outfitter Permits Are Being Utilized**
Part III **Resource Capability – Use Levels and Limiting Factors**

In Part I, "Consideration of Types of Activities Needed," activities are identified through a qualitative discussion that determines the need for certain types of activities within these threewildernesses, as well as the role of outfitters in meeting management objectives.

Part II examines the allocations and uses of current special use permittees. This displays the current activities and extent to which the allocations are being utilized.

Part III assesses the existing condition as related to use levels, resource concerns, and capability. This section of the assessment can and should be considered a breakaway section. It looks at all use, and is not used to determine specific commercial effects, but to provide a summary of conditions, potential conflicts, and areas of risk or concern.

All known records of recreational use and resource conditions were gathered and analyzed. Recreation use data from the 1980s and early 1990s was used to measure trends. A use profile was created compiling current levels of both commercial and non-commercial and types of activities currently going on by trailhead. Resource specialists identified any known conflicts or concerns with this level of use. The product was a compilation of profiled use and resource

conditions. It indicates areas of concern, conflict, or monitoring needed. It informs managers of risks.

Conflicts or concerns ("limiting factors") were identified and rated. Only when indications suggested, was there made an association of impacts or conditions with types of uses, i.e. commercial, stock/hiker. This method allowed for and facilitated integration of resource information, without any single resource dominating. This is significant in that one of the unique attributes of wilderness is that it is a whole resource, not an assemblage of parts. "Manage wilderness as one resource rather than a series of separate resources" (FSM 2320.6)

This portion of the assessment can be maintained and managed with this information management approach as needed for site-specific projects, decisions, and a tool for program management.

This analysis was used in the FEIS to determine the different outcomes for commercial use that vary by alternative. Different outcomes, actions and allocations in each alternative are based on the desired conditions, goals and objectives and management direction described in each alternative, as well as this assessment.

Part I
Consideration of Types of Activities Needed

Objectives: Determine what types of commercial services are appropriate and needed, and the role of outfitters in these wildernesses. The criteria used include: A) Skills and Equipment, B) Knowledge.

A) Skills and Equipment:

Basic Skills

These Sierra wildernesses offer a unique landscape for recreational activities. The terrain is very steep on the eastern escarpment, with a relatively gentle western slope. Cross-country travel at the higher elevations can be mildly challenging. However the openness of this granitic landscape enables a person with good basic route finding skills to travel easily. This makes many parts of the area quite accessible for a person with good basic skills in wilderness travel.

Wilderness areas are places of challenge, risk, and self-reliance. Part of the wilderness experience is to face unknowns and have the necessary skill to be self-reliant. As society becomes more urban, many of these basic skills (how to camp, hike, read a map, use a compass, understand backcountry etiquette and leave no trace techniques) are being lost. Training needed to obtain these basic wilderness skills does not necessarily need to take place within designated wilderness.

Because of the popularity and demand on these areas, and the opportunities to learn these skills in a non-wilderness setting, there is less of a need for guided services for teaching basic skills in designated wilderness. However, trips that serve a higher level of training, teaching the intermediate level wilderness traveler, are appropriate in a wilderness setting. These activities would be supported by a curriculum that teaches proper etiquette, ethics and appropriate wilderness behavior, instilling in visitors wilderness values. *Conclusions: For the most part, the learning of basic skills (how to camp, hike, read a map, use a compass, understand backcountry etiquette) should be conducted outside wilderness. Overnight, self-propelled backpacking, where more intermediate skills and challenging levels of wilderness travel are needed, is appropriate, if the guides are adequately trained and certified for the types of activities and risks*.

Day Hikes

The skills needed to travel in wilderness vary by activity. Many people are capable of day hikes. Some people are capable of very challenging day hikes. These activities are gaining in popularity, indicating that more people are acquiring the necessary skills and abilities. In addition, there is no special equipment necessary to conduct this activity and the cost is not prohibitive. *Conclusion: There does not appear to be a need for outfitters to provide services for day hiking, other than services provided to groups or individuals with special needs, such as people with disabilities.*

Winter Recreation

Summer months in the Sierra are characterized by a mild climate, while winter, spring, and fall can be either mild or harsh. Winter storms can be long in duration. Storm patterns in the region can deposit large amounts of snow at one time and can make travel difficult and dangerous. Winter travel requires specialized skills and equipment. Winter use requires that the user have the capability of traveling with skis or snowshoes in difficult conditions and weather and possess skills in snow camping. Avalanche dangers exist, and proper training is needed for traveling in these terrains and being aware and knowledgeable. Winter recreation exposes the user to a high degree of risk and challenge. Some recreationists possess the necessary skills and equipment for short duration and easy trips. Fewer people have the ability to take trips of higher challenge and longer duration in the winter. *Conclusions: There is a need for guided services in the winter, with appropriate certification.*

Mountaineering

Many peaks in these Sierra Nevada wildernesses require technical equipment or technical skills to ascend. Mountaineering skills, including technical rock climbing and traveling in Class 3, 4, and 5 terrain (Roper 1976), are not commonly possessed by the general public. Much of this type of terrain is only available in the areas designated as wilderness in this mountain range. Trends indicate that these types of recreational activities are increasing in popularity. *Conclusion*: *Because of the risk and challenge involved, as well as the quality and level of expertise required to safely conduct these activities, there is a need for guided services for*

activities involving technical climbing, mountaineering. These activities need the commensurate level of training and certification by guides.

Packstock

Packstock activities are a long-standing tradition in the Sierra, before and after these areas became congressionally designated as wilderness. At one time, this was the primary method of travel in the backcountry. Prior to the advent of modern backpacking equipment, most travelers used stock to access and/or support backcountry travel. Stock use for accessing the wilderness is appropriate when the party traveling is not capable of carrying their equipment. There are three categories of stock related service: spot, dunnage, and full service trips. Variations exist but are generally covered in one of these categories.

- ***Spot trips*** are defined as: Clients riding on stock to a destination with a guide supported with packstock for equipment and gear. The riding and packstock and the guide do not stay with the party.

- ***Dunnage trips*** are defined as: Packers using packstock to carry equipment and supplies for clients who are hiking to a pre-arranged destination, and/or pre-arranged re-supplies for clients on long duration trips.

- ***Full service trips*** are defined as: A guide, cook, or other paid employee of the operator accompanies the clients for the duration of the trip.

- ***Day rides*** are defined as: Clients riding stock, accompanied by a guide, for periods of a day or less. No overnight equipment is involved.

These types of stock supported services require skilled stock handling and care. The public generally does not have access to personal stock and equipment, nor to the specialized skills necessary to travel with stock in the wilderness. The skills and equipment required for pack and riding stock activities are unique and require the acquisition of skills and equipment not typically available to an average visitor. The cost of acquiring the skills and equipment is also prohibitive for the average person. *Conclusion: There is a need for packstock services in these wildernesses.*

Alternative Packstock

With the advance of lightweight backpacking equipment, there is proportionately less use of stock than fifty years ago. There have also been advances in lightweight packstock equipment. This has resulted in stock users minimizing impacts associated with shod packstock backcountry travel.

With the increase in foot travel and backpacking in the 1960s and 1970s conflicts began to emerge between hikers and stock users. This conflict has continued to pose issues and cause tension between visitors (Watson 1991). With the conflicts that exist between users and activities there is a need for outfitters and guides to conduct their activities in ways that reduce conflicts that exist between legitimate activities in National Forest Wilderness. *Conclusions: There is a need to encourage stock users to seek opportunities to use alternative packstock (ie:*

llamas), and/or lightweight equipment, fewer animals, as well as educating stock users in leave no trace camping with stock. There is also a need to explore ways to reduce impacts and conflicts related to traditional packstock. Non-traditional packstock operations might be a way to relieve this tension and still provide packstock support.

Special Populations

With the improvement of health care and a greater emphasis on living a healthy lifestyle, people are living longer and participating in vigorous recreational activities including taking trips into the Sierra Nevada. People in their 60s, 70s, and 80s spend time in the mountains still engaged and actively self propelling themselves through the landscape. More so, these populations require differing levels of assistance which can be met by packstock support. *Conclusion: The Forests wish to provide services to meet the needs of aging populations.*

This along with low income, inner-city youth, people with physical and mental disabilities, underserved emerging and elderly populations are areas that the Forests would like to promote outfitter-guided operations that serve this clientele. *Conclusion: There is a need for services that provide access for special populations.*

B) Knowledge

Credited Education

There is a need for outfitters and guides to provide services to educate the public regarding the wilderness resource. Many people choose to go with a guide in order to enrich their experience. Trends (Cordell 1999) indicate that activities like wildlife viewing and bird watching are increasing. This indicates that the public wants to add value to their experience through learning and appreciating.

An increasing number of visitors come from urban environments, so the need for wilderness education and its unique values and resources is key. This includes instilling an understanding of ecological processes so that a person traveling in the wilderness appreciates the relationship between human activities and our effects on natural processes.

Outfitters and guides must possess training and skills in communication, understanding of wilderness values, "leave no trace" ethics, and public land management objectives. Operators on National Forest System lands must support the management objectives and act as role models for land stewardship**.** *Conclusions: There is a need for services and guides that provide educational, culturally enriching, and learning opportunities, and for programs and commercial services that provide for experiential learning and/or educational curriculum specific to these wildernesses.*
There is also a need for outfitters that support management objectives and provide services that demonstrate reduced resource impacts through a curriculum or practices that are models of lands stewardship.

Summary of Conclusions

For the most part, the learning of basic skills (how to camp, hike, read a map, use a compass, understand backcountry etiquette) should be conducted outside wilderness.

Overnight, self propelled backpacking, where more intermediate skills and challenging levels of wilderness travel are needed,and appropriate if the guides are adequately trained and certified for the types of activities and risks.

There does not appear to be a need for outfitters to provide services for day hiking, other than services provided to groups or individuals with special needs, such as people with disabilities.

There is a need for guided services in the winter, with appropriate certification.

Because of the risk and challenge involved, as well as the quality and level of expertise required to safely conduct these activities, there is a need for guided services for activities involving technical climbing, mountaineering. These activities need the commensurate level of training and certification by guides.

There is a need for packstock services in these wildernesses.

There is a need to encourage stock users to seek opportunities to use alternative packstock (ie: llamas), and/or lightweight equipment, fewer animals, as well as educating stock users in leave no trace camping with stock. There is also a need to explore ways to reduce impacts and conflicts related to traditional packstock. Non-traditional packstock operations might be a way to relieve this tension and still provide packstock support.

The Forests wish to provide services to meet the needs of aging populations.

There is a need for services that provide access for special populations.

There is a need for services and guides that provide educational, culturally enriching, and learning opportunities, and for programs and commercial services that provide for experiential learning and/or educational curriculum specific to these wildernesses. There is also a need for outfitters that support management objectives and provide services that demonstrate reduced resource impacts through a curriculum or practices that are models of lands stewardship.

Part II
Extent to which existing outfitter permits are being utilized

Types of Permits

The Inyo National Forest has three categories of outfitter and guide operations: commercial pack stations, mountain guides and all other operators. This is based on the history of the administration of these permittees.

> **Commercial pack stations** have been authorized under "resort" permits, with tenures up to 20 years and facilities on National Forest System lands, outside wilderness. Generally these facilities are cabins, corrals, sheds, etc. There are twelve pack stations operating on the Inyo NF.
>
> **Mountain guides** are defined as those permittees that provide services for mountaineering, rock climbing, ice climbing and winter mountaineering and touring. There are nine mountain guides operating on the Inyo NF that issue their own wilderness permits.
>
> **Temporary Special Use Permittees** are those that typically obtain one year, temporary permits for operations. These types of permittees can become eligible for 5-year terms under a "priority use" permit, but currently on the Inyo, they are all under one-year permits. These activities include winter mountaineering, backpacking, and stock supported backpacking activities, but primarily backpacking. Permittees obtain access through the wilderness permit trailhead quota system. There are fifteen temporary special use permittees.

Currently, all twelve commercial pack stations and nine mountain guides have the authority to write their own wilderness permits. These operations are controlled by annual allocations of service days, upper limits on the number of stock, and approved annual operating plans.

The Sierra National Forest's outfitter and guide operations consist of six commercial pack stations, Pacific Crest Outward Bound (PCOBS) and eight other operators. The pack stations are under "resort" SUPs. The PCOBS operates under a 5-year "outfitter and guide" SUP. Three of the operators are authorized under a "private summer camp" SUP. The five other operators are authorized to conduct activities through one year temporary SUPs. These activities are primarily backpacking with some rock climbing. Two of the temporary SUPs are issued to educational institutions. All pack stations on the Pineridge/King's River Ranger District are authorized to write their own wilderness permits. The Forest Service issues all of the wilderness permits on the Mariposa/Minarets Ranger District.

In the Dinkey Lakes Wilderness, there are two pack station operators and one outfitter/guide that offer trips in the area.

Activities

Winter guiding - Involves travel/access predominantly on skis or snowshoes, winter camping skills and activities in potentially hazardous avalanche terrain.

Mountaineering - Involves mountaineering skills and travel in class 3, 4, and 5 terrain requiring technical equipment. Travel/access is on foot.

Packstock supported - Involves the use of traditional, predominantly shod stock such as horses and mules for riding access and/or carrying supplies/equipment in support of persons accessing the wilderness on foot.

Day rides - Riding stock for wilderness that does not involve any overnight use.

Non-traditional packstock - Involves a type of packstock (llamas and goats are examples) that has not had a long historical presence in wilderness and is used for carrying supplies/equipment in support of persons accessing the wilderness on foot.

Credited education - Involves a curriculum that receives high school or college credit upon successful completion.

Backpacking - Involves accessing the wilderness on foot while physically carrying your own camping equipment.

Allocations

Allocations are calculated in service days (SD). A service day is the number of (or portion of) days with a client on National Forest System lands. This data is not exact, but is a reliable indication of use levels that have been authorized and utilized. Many of the original SD allocations were not specified by activity. Some pack station allocations included day rides, but the breakdown between overnight and day trips was not specified.

Little documentation exists on how these allocations were determined or originated. However all indications show that historic use levels were intended to be authorized. This is indicated in the John Muir and Minarets Wilderness Plans and the 1996 Decision Memo regarding the mountain guides on the Inyo NF.

Actual use is the amount of use the operator used. Annual variations in actual use occur due to the conditions of the snow pack. By using the average of the highest two years out of the last five (as provided for in the Forest Service Handbook (FSH 2709.11 41.53h)), the low use years do not bring down the average. For those operations where 1999 was used for the allocation, the snow pack was average and 1999 is considered a good benchmark year. Table 1 indicates that by activity, even when the highest two years of the past five are considered, not all allocated use is being utilized. Table 2 indicates that by operator some operators are using their allocations and others are not.

Table D.1A. Allocation and Actual Use by Commercial Activity (*East side entry)*

Activity	Current SD Allocation	Actual SD Use
Packstock supported	18,432	13,214
Backpacking	2,104	2,075
Mountain Guiding / Winter guiding	2,218	1,883
Day hiking	50	49
Day rides	7,291*	5,396
Total	**30,095**	**22,617**

Only 6 of the 12 pack stations have specific day ride service day allocations. There is also a resort that offers 2000 service days inside **and outside of the wilderness.*

Table D.1B. Allocation and Actual Use by Commercial Activity (*West side entry)*

Activity	Current SD Allocation	Actual SD Use
Packstock supported	2,900**	2,793*
Backpacking	6,300**	11,987
Credited educational	0**	1,082
Nontraditional Packstock	200	162
Day Rides	1,000	419
Total	**10,400**	**16,443**

Note: Actual SD allocation is determined by using the high two out of the last five years' use, when the data is available. If only one year of data was available, then it was used to determine actual use.

** Day rides and non-traditional stock originally all in this category. It is now displayed separately.*
*** Displays allocations for those operators that have service day allocations identified on their special use permits or in their operating plans.*

Table D.2A. Allocation and Actual Service Days by Operator *(Inyo National Forest)*

Operator	Allocation	High Two
Packstock Supported Overnight Use		
Bishop Pack Outfitters	1200*	1082
Cottonwood Pack Station	250*	261
Frontier Pack Trains	2685	1881
Glacier Pack Train	770*	640
McGee Creek Pack Station	2000*	636
Mammoth Lakes Pack Outfit	2087	1731
Mt. Whitney Pack Trains	200*	156
Pine Creek Pack Station	900*	666
Rainbow Pack Station	465	466
Reds Meadow Pack Station	3100	3005
Rock Creek Pack Station	3800	2308
Sequoia/Kings Pack Station	775	263
3 Corner Round	200*	119
Pack Supported Day Use		
Bishop Pack Outfitters	*	259
Cottonwood Pack Station	*	23
Frontier Pack Station	850	0
Glacier Pack Train	*	90
McGee Creek Pack Station	*	641
Mammoth Lakes Pack Outfit	600	630
Mt. Whitney Pack Trains	*	Not avail.
Pine Creek Pack Station	*	113
Rainbow Pack Station	116	114
Reds Meadow Pack Station	3100	3005
Rock Creek Pack Station	600	398
Sequoia/Kings Pack Trains	25	27
Sierra Meadows**	2000	96
Mtn. Guiding/Winter Guiding		
Sierra Mountain Center	365	346
Alpine Skills International	395	302
American Alpine Institute	180	193
Yosemite Guides	190	76
Jackson Hole Mtn. Guide	180	64
Sierra Mtn. Guides	115	186
Sierra Wilderness Seminars	170	162
Sky's the Limit	15	13
Yosemite Mountaineering School	100	20
Sierra Mountaineering Int'l	311	322
Pacific Crest Outward Bound	199	199

Operator	Allocation	High Two
Backpacking		
Adventure 16	243	242
Arnot Expeditions	118	111
Call of the Wild	89	132
SNP Natuureizen	65	65
Mtn. Adventures	20	15
Rainbow Expeditions	38	38
Sea and Summit	141	128
Sierra Club	1200	1200
UCSD	190	144
Day Hiking		
REI	50	49

**Allocation is not differentiated between day and overnight use. Not all operators have day ride allocations or actual use records.*

***Sierra Meadows Resort currently has 2,000 service days allocated for use inside and outside of the wilderness. They have small amount of actual use service days as they primarily served areas outside of wilderness. It is now undergoing a change in ownership. In the environmental analysis to issue a new permit, an alternative is proposed which does not authorize any use in the wilderness and a no action alternative that proposes no change in existing allocations.*

Note: The last fifteen operators on this list were given allocations for the 1999-operating season, based on the high two or the high one.

Table D.2B. Allocation and Actual Service Days by Operator (*Sierra National Forest*)

Operator	Allocation	High Two
Packstock Supported Overnight Use		
High Sierra Pack Station	1300	893*
D & F Pack Station	500	407*
Clyde Pack Outfit	600	587
Minarets Pack Station	**	868
Lost Valley Pack Station	500	38
Yosemite Trails Pack Trains	**	**
Nontraditional Packstock		
Ruby Ranch Llama Treks	**	5
High Sierra Pack Station	200	157
Pack Supported Day Use		
Muir Trail Ranch	500	319
High Sierra Pack Station	500	100

Operator	Allocation	High Two
Backpacking		
Pacific Crest Outward Bound	6300	6036
California Outfitters	**	73
Emerald Cove Camp	**	1000
Sierra Club	**	2146
Skylake Yosemite Camp	**	337
Southern Yosemite Mountain Guides	**	1177
Summit Adventures	**	1218
Credited Educational		
UC Santa Cruz	**	217
Azusa Pacific	**	865

**High one year – 1999 was the first year service days were reported.*

***Yosemite Trails Pack Station – insufficient data to make determination for high two (no data reported in 1998 or 1999). No allocations identified for all other operators.*

Documentation does not exist on how these allocations were determined or originated. However, all indications show that historic use levels were intended to be authorized as indicated in the John Muir and Minarets Wilderness Plans and the 1996 Decision Memo regarding the mountain guides on the Inyo NF.

Data shows that some operators' use has been on a downward trend since the 1980s. Others use has remained stable over the years. Very few operators' use is increasing or growing, and by activity there are no significant trends indicating change. This may indicate that demand for the services is not as great, or that changes in operations especially in packstock trips where spot and dunnage trips to maximize service day allocations possibly replaced full service trips, or that original allocations were inflated. It is also likely that patterns of use and demand have changed over the years.

This table reflects the number of people at the highest year of overnight use (with the exception of Mt. Whitney which has a separate listing for day use) by trailhead in the past five years. Commercial levels include all pack stations, mountain guides and all other outfitter guides use. Current total is the total of both the commercial and non-commercial use. Commercial use data was compiled from annual reports provided by commercial operators.

Table D.3A. Current Number of People - Commercial and Non-Commercial by Trailhead (*East side entries)*

Wilderness	NF Admin	Trailhead	Current Total (All Use)	Commercial Operators Current Level
JM	*INF*	Baker/Green	169	0
JM	*INF*	Baxter Pass	213	2
AA	*INF*	Beck Lake	281	146
JM	*INF*	Big Pine – NF	3,340	402
JM	*INF*	Big Pine – SF	654	15
JM	*INF*	Birch Lake	50	3
JM	*INF*	Bishop Pass	4,007	306
AA	*INF*	Bloody Canyon	121	0
JM	*INF*	Convict Lake	417	8
JM	*INF*	Cottonwood Lakes	5,449	237
AA	*INF*	Deer Lake	137	20
JM	*INF*	Duck Lake	2,012	306
AA	*INF*	Fern Lake	391	71
AA	*INF*	Fern/Yost	47	14
AA	*INF*	Fish Creek	743	275
JM	*INF*	Gable Lakes	46	0
JM	*INF*	George Creek/Mt Williamson	38	0
AA	*INF*	Gibbs	51	114
AA	*INF*	Glacier Canyon	73	10
JM	*INF*	Golden Trout Lakes	161	3
AA	*INF*	High Trail (PCT)	1,989	446
JM	*INF*	Hilton Lakes/Creek	1,239	555
JM	*INF*	Horton Lakes	292	39
AA	*INF*	John Muir Trail, North	562	114
JM	*INF*	Kearsarge Pass	4,272	151
JM	*INF*	Lamarck Lakes	836	22
JM	*INF*	Laurel Lakes	150	39
JM	*INF*	Little Lakes Valley	2,254	55
JM	*INF*	McGee Creek	917	190
JM	*INF*	Meysan Lake	367	6
AA	*INF*	Minaret Lake	643	53
JM	*INF*	Mono Pass	1,945	425
JM	*INF*	Mt Whitney Day Hike	14,086	0
JM	*INF*	Mt Whitney Overnight	9,753	91
JM	*INF*	North Fork Lone Pine Creek	2,334	93

Wilderness	NF Admin	Trailhead	Current Total (All Use)	Commercial Operators Current Level
AA	*INF*	Parker Creek	215	75
JM	*INF*	Pine Creek	1,597	433
JM	*INF*	Piute Pass	2,957	487
AA	*INF*	Red Cones	396	40
JM	*INF*	Red Lake	171	0
AA	*INF*	River Trail	1,975	107
AA	*INF*	Rush Creek	2,122	566
JM	*INF*	Sabrina Lake	2,098	260
JM	*INF*	Sawmill Pass	158	26
AA	*INF*	Shadow Lake	2,283	180
JM	*INF*	Shepherd Pass	833	95
JM	*INF*	Taboose Pass	419	33
JM	*INF*	Tamarack Lake	267	105
JM	*INF*	Treasure Lakes	550	30
JM	*INF*	Tuttle Creek	38	0
JM	*INF*	Tyee/George Lake	436	15
JM	*INF*	Valentine Lake	209	0
		Total (east side)	**76,763**	**6,663**

Table D.3B. Current Number of People - Commercial and Non-Commercial by Trailhead (*West side entries*)

Wilderness	NF Admin	Trailhead	Current Total (All Use)	Commercial Operators Current Level
AA	*SNF*	Chiquito/Quartz	597	203
AA	*SNF*	Fernandez	1,563	554
AA	*SNF*	Isberg	1,056	325
AA	*SNF*	Jackass/Norris	708	391
AA	*SNF*	Mammoth	140	86
AA	*SNF*	Miller/Cassidy	104	30
AA	*SNF*	Squaw Dome/South Fork/Hell's ½ Acre/Logan Mdw.	100	84
AA	*SNF*	Walton	230	103
DL	*SNF*	Cliff Lake	519	111
DL	*SNF*	Willow Mdw/Badger Flat	2,023	50
JM	*SNF*	Bear Creek/Bear Ridge	1,166	200
JM	*SNF*	Crown/Rancheria	480	46
JM	*SNF*	Devils/Graveyard	1,049	202
JM	*SNF*	Florence	2,031	149
JM	*SNF*	Maxon	1,236	377
JM	*SNF*	Mono	1,331	99
JM	*SNF*	Onion Springs	333	81
JM	*SNF*	Woodchuck	417	57
		Total (west side)	**15,083**	**3,148**

Part III
Resource Capability

Management Objectives

Outfitters and guides need to conduct their activities so that they meet Agency and Forest objectives. These objectives are specifically outlined in agency handbooks and the Forest Land and Resource Management Plans. In wilderness, there are multiple resources to manage. These include water, air, wildlife, soils, vegetation, historic and cultural, as well as the recreational wilderness experiences. The recreation wilderness experience should be uniquely primitive and unconfined with high opportunities for solitude.

These wilderness areas are also contiguous with two National Park wilderness areas. This results in a unique multi-agency complex of wilderness management, where the methods in which these resource needs are met must be adaptable, in order to support each other's goals and objectives. There is a need to provide services that are compatible with adjacent agencies' land and resource management objectives.

In two of these wildernesses, management actions have been in place for over twenty years to protect the quality of the experience and the resources. There is a limited-use access system, defined as daily trailhead quotas. These limits were determined to be necessary in the late 1970s. There is a need for consistency in how controls are placed on all visitors.

The issue of consistency deals with methods of gaining access. Not all trails have quotas. The Ansel Adams Wilderness has 30 (16 east side, 14 west side) trailheads of which 16 (10 east side, 6 west side) have limited entry quotas. The John Muir Wilderness has 50 (39 east side, 11 west side) trailheads, of which 33 (28 east side, 5 west side) have limited entry quotas. The Dinkey Lakes Wilderness has 3 trailheads, none of which have quotas. All but one of the pack station operators and eastside mountain guides write their own wilderness permits under an annual allocation of service days. They have not been subject to the daily trailhead quotas applicable to hikers and other outfitters. Increased demand and the issue of equity have resulted in the need to develop a fair and equitable system of access applicable to both non-commercial and commercial visitors.

The use rationing system that was implemented in these wildernesses by the 1980s intentionally limited use externally, specifically to maximize visitor freedom once inside the wilderness. The quotas are intended to reduce the probability of impacts occurring to both resource and social conditions. When large numbers of visitors travel on weekends it creates "spikes" in use. These spikes contribute to a loss of solitude, increased crowding, and increased probability of resource impacts, specifically at popular destinations. One of the primary objectives of implementing the trailhead quota was to reduce these spikes in use.

Use patterns indicate that certain destinations continue to receive repeated use (Gimblett 1999). When large crowds use these areas all at once, the areas receive widespread impacts at meadow

and other grazing areas as well as campsite locations. Conflicts occur when more than one commercial operator drops customers at the same location, or when hikers and stock users end up in the same campsite, or when visitors are unable to locate a vacant site due to crowding. These problems would be diminished if use spikes could be reduced. The need to reduce these spikes is equally important for commercial activities as well as non-commercial activities.

The wilderness resource, as stated above, is a combination of resources. Its over-riding value is not one resource or single species, single use, or single purpose. It is an assemblage of resources and management of the wilderness implies a need to view data on a range of elements and to integrate the data to understand the health and condition of the system.

Limiting Factors

In this section resource concerns were identified as it related to recreation use. Recreation use data from the 1980s and early 1990s was used to measure trends. By compiling current levels of both commercial and non-commercial use, and types of activities conducted at certain trailheads, a use profile was created.

On the east side, the geography is such that trailheads were used as the unit for analysis; these usually correlate to an entire drainage. On the west side, trailheads typically access larger areas of the wilderness, so an ecological unit was used as the unit for analysis. These analysis units were profiled describing the following: 1) levels of current use; 2) amount of commercial and non-commercial use; 3) types of commercial activities; 4) percent of commercial use; and 5) number of days the quota is filled. The years 1996-1999 were used to provide the baseline data.

Resource specialists reviewed the baseline use data, both commercial and non-commercial, and assessed the resource capability of this level and the type of use. They used data from State and Federal files, research papers, resource management reports, documented observations, and communication with resource managers. Resource specialists identified any known conflicts or concerns with this level of use.

A campsite condition survey utilizing standard protocol for measuring impacts at campsites was used for understanding recreation and resource conditions. Approximately 15 areas representing high use, moderate use and low use, were inventoried in 1999. In addition, data was gathered and analyzed by the University of Arizona to assist in better understanding use patterns and to help identify areas of crowding or potential concern.

Conflicts, concerns or risks were identified as “limiting factors.” The resource specialist individually rated these as green (no known concerns), yellow (some concerns but should be monitored), and red (strong concerns; management action may be needed). Only when there were clear indications was there mention of an association of impacts or conditions with types of uses, i.e. commercial, stock/hiker.

This method allowed for and facilitated integration of resource information. This allowed for an emphasis of wilderness as a whole-resource, not just a collection of single resources. In merging the individual ratings into one overall rating, the classification took on the dimension of assessing

how many yellow and red concerns there were. This influenced whether the overall rating was green, yellow, or red.

The following resources were examined in conducting the assessment:

- Wildlife and fisheries
- Campsite conditions
- Recreational stock suitability
- Water quality
- TEPS* - terrestrial
- TEPS* - botanic
- Public safety considerations
- Use trends
- Heritage resources
- Trail conditions
- Soil conditions
- Riparian health
- TEPS* - aquatic
- User conflicts
- Use patterns

**TEPS – threatened, endangered, proposed, or sensitive species.*

Each unit of analysis was assessed and concerns were ranked as follows:

Green	No known concerns.
Yellow	Some concerns but none where reducing use would affect the concern.
Red	Very strong concern; current use is affecting resource quality.

For example, if there were potential habitat, but no known habitat of a TEPS species, it would most appropriately fit into the yellow. If there is a known population and recreational use is occurring in the same area, it might be classified as red. The resource specialists made these determinations using the best available science, knowledge, and data.

The final product in this exercise was a catalogue of risks or threats. It provides an index to be used by managers and decision makers in assessing and evaluating potential actions and consequences of management actions.

Table D.4A. Summary of Limiting Factors *(East side entries)*

WILD	Trailhead	Rating	Factors Affecting Rating
JM	Baker/Green	Green	Generally green, but some known Rana muscosa, Mountain Yellow Legged Frog (MYLF) populations.
JM	Baxter Pass	Green/Yellow	Very poor trail conditions; rockslides, floods, and creek crossings causing constant erosion. Sierra Nevada (SN) bighorn sheep.
AA	Beck Lake	Green/Yellow	Site-specific concerns at Holcomb.
JM	Big Pine – NF	Yellow	Riparian impacts, some water quality impacts associated w/campsites; goshawk and marten habitat, MYLF populations, TEPS botanic habitat, and populations near trails.
JM	Big Pine – SF	Green/Yellow	Impacts to riparian, poor trail locations, erosion, user-created trails erosion, TEPS plants near trail and habitat for 4 species.
JM	Birch Lake	Green	No known concerns
JM	Bishop Pass	Yellow	Fragile wetland habitats, stream crossing w/riparian impacts and erosion. Large camp area impacted, possible water quality with campsites and heavy stock and hiker use.
AA	Bloody Canyon	Red	Key SN bighorn habitat, TEPS plants (4 species). Some MYLF populations at crest on National Park Service (NPS) lands
JM	Convict Lake	Yellow/Red	Goshawk nesting habitat, Yosemite toad habitats, and MYLF restoration potential.
JM	Cottonwood Lakes	Yellow/Red	Human disturbance of wetland habitats are a concern, with effects on riparian species; high density of campsites and non-compliance with fire closures; potential for water quality degradation, user-created trails density is high, Key SN bighorn sheep habitat from sixth lake to Mt. Langley, increase in peak climbing up Langley poses potential conflict. TEPS plants along trails and lakes.
JM	Deer Lake	Yellow	Yosemite toad populations. MYLF potential restoration habitat moderate. Goshawk and marten habitat in forested areas.
AA	Duck Lake	Yellow/Red	Severe erosion problems at and around Purple Lake and north side of Duck Lake; Water quality issues with camps around Purple, riparian resource damage around Purple.
AA	Fern Lake	Green	No known concerns
AA	Fern/Yost	Green	Riparian issues with sheep grazing forested habitats highly suitable for goshawk and marten; suitable Yosemite Toad habitat in upper meadows of Yost and Fern.
AA	Fish Creek	Yellow	Heavily impacted campsites at fish creek, potential water quality degradation associated with camps, some riparian health issues, stream bank erosion. Potential habitat for goshawk, marten
JM	Gable Lakes	Green/Yellow	MYLF surveys complete, several known populations, high restoration potential
JM	George Creek/Mt Williamson	Green/Yellow	Sierra Nevada Bighorn Sheep Zoological Area.

WILD	Trailhead	Rating	Factors Affecting Rating
AA	Gibbs	Green/Yellow	SN bighorn sheep habitat. Forest suitable for marten and goshawk
AA	Glacier Canyon	Green/Yellow	Yosemite Toad populations in vernal pools at tree line. Suitable goshawk and marten habitat. SN bighorn sheep.
JM	Golden Trout Lakes	Green	No known concerns
AA	High trail (PCT)	Yellow/Red	Localized areas of soil erosion, riparian damage from heavy use and user-created trails, stream crossings, potential water quality impacts from campsites. Potential habitat for TEPS species. Spotted Owls near trailhead. Restoration potential for MYLF at Badger Lake
JM	Hilton Lakes/Creek	Red	Multiple heavy use stock camps, trail widening especially at stream crossings, high density of user-created trails and campsites with large area with bare mineral soil. Potential water quality issues with human waste, severe erosion, stream crossings. Known goshawk-nesting sites. Restoration potential for MYLF at upper Hilton Lakes.
JM	Horton Lakes	Green/Yellow	Willow flycatcher habitat in lower meadow, one known MYLF population. Potential habitat for TEPS plant species.
AA	John Muir Trail north	Yellow	Localized impacts associated with campsites around lakes, potential water quality issues, and riparian vegetation impacts from stock grazing at Johnston meadow, Minaret Creek. MYLF surveys incomplete, high restoration potential.
JM	Kearsarge Pass	Yellow	Accesses Sierra Nevada Bighorn Sheep Zoological Area. Known populations of TEPS plants near trail. MYLF populations near Matlock Lake
JM	Lamarck Lakes	Green/Yellow	Many campsites within 100 and 25' of water. Few user-created trails causing erosion. Known MYLF populations.
AA	Laurel Lakes	Green	Key Yosemite toad habitat at Convict, which Laurel lakes trailhead accesses.
JM	Little Lakes Valley	Yellow	Trail erosion and riparian impacts associated with high use and high density of user trails.
JM	McGee Creek	Yellow/Red	Potential conflict with Yosemite toad breeding habitat in upper meadows and Grass Lake. Localized soil and erosion concerns around trails and campsites. User-created trails increasing. Deteriorating conditions of steep trails.
JM	Meysan Lake	Green/Yellow	Campsite density high relative to amount of use. Trail difficult to maintain
AA	Minaret Lake	Yellow	Localized impacts to soils, riparian vegetations, and erosion of stream banks. Several MYLF populations exist; restoration potential is high.
JM	Mono Pass	Yellow/Red	Multiple trailing, highly erosive soils. Several MYLF populations, high potential for restoration of MYLF habitat. High use funneling to west side into Mono Creek and Pioneer Basin, and recesses causing west side concerns for heritage resources. See Mono Creek.

WILD	Trailhead	Rating	Factors Affecting Rating
JM	Mt Whitney Day hike	Red	Possible water quality degradation due to high concentration of visitor use. Some riparian impacts adjacent to trails and campsite areas. TEPS plant species along trail. Crowding at the extreme end of the wilderness spectrum.
JM	Mt Whitney overnight	Red	All of the above (day hike) plus localized impacts associated with campsites, high density of campsites, camping impacts spreading.
JM	North Fork Lone Pine creek	Yellow/Red	Trail conditions, soils, vegetation, and riparian concerns with user-created trails and trail impacts associated with route character of trail, possible water quality issues, increased density of campsites, new trails forming.
AA	Parker creek	Green	Suitable habitat for goshawk. Some TEPS plants. Important aspen and meadow riparian wildlife habitats.
JM	Pine creek	Yellow	Erosion and riparian damage occurring. Potential water quality problems at concentrated camp areas; Yosemite toad in areas of camping and travel.
JM	Piute Pass	Yellow/Red	High density of high impact campsites, non-compliance with fire closure; multiple trailing erosion; riparian vegetation impacted from multiple trails. Yosemite toad populations in alpine/subalpine meadows and vernal pools. See Florence concerns.
AA	Red Cones	Yellow/Red	Yosemite Toad populations in Crater Meadow. Suitable habitat for goshawks and marten in forested areas.
JM	Red Lake	Green	No known concerns
AA	River Trail	Yellow	Localized concerns for riparian vegetation, and damage from user trails Garnet/1,000 island. CA Spotted Owl habitat in red fir, suitable goshawk and marten habitat
AA	Rush Creek	Yellow	Impacts to riparian areas and stream banks, concerns of water quality with heavy stock and hiker use
JM	Sabrina Lake	Yellow	Many campsites within 100' at Blue Lake, trails in wet meadow, possible erosion problems, localized erosion associated with trails and campsites. Potential water quality impacts from human waste at heavily used campsites. TEPS plant species.
JM	Sawmill Pass	Yellow	Trail costly to maintain, can support low levels of use, Sierra Nevada Bighorn Sheep Zoological Area. TEPS plant species on trail.
AA	Shadow Lake	Yellow	Localized concerns for riparian vegetation, and damage from user trails above Ediza to Iceberg.
JM	Shepherd Pass	Yellow	Sierra Nevada Bighorn Sheep Zoological Area; localized areas of soil erosion, multiple trails and unstable trail costly to maintain, suitable for low levels of use. TEPS plant species along trail. Some trail sections not suitable for stock.
JM	Taboose Pass	Green/Yellow	TEPS plant species; heritage resource site on west side of pass; rough, steep trail suitable for low levels of use.
JM	Tamarack Lakes?	Yellow	SN bighorn sheep herd; suitable habitat for goshawk, marten.
JM	Treasure Lakes	Green/Yellow	Many campsite close to water; localized compaction

WILD	Trailhead	Rating	Factors Affecting Rating
JM	Tuttle Creek	Green	SN bighorn sheep herd
JM	Tyee/George Lake	Green	Campsites within 100' from water; localized compaction associated with sites, and fuelwood gathering affecting soil conditions. Some increase in use
JM	Valentine Lake	Green	Suitable habitat for goshawk and marten

Table D.4B. Summary of Limiting Factors *(West side entries)*

WILD	Trailhead	Rating	Factors Affecting Rating
JM	Mono Creek	Yellow/Red	Campsites too close to water. Hiker/Stock conflicts. Possible water quality degradation due to shoreline camps. Traditional Native American trade route.
JM	Florence	Yellow/Red	Campsites at Blayney Hot Springs heavily impacted. Health & safety concerns at Blayney Hot Springs pool due to high use. Conflicts with users and private ranch. MYLF population in Humphrey's Basin. Many mutilations at campsites above 10,400'
JM	Bear Creek/ Bear Ridge	Yellow	PCT not being maintained to standard. Yosemite Toad at Marie Lake. Use higher than daily quota due to PCT factor.
JM	Devils/ Graveyard	Yellow	Graveyard Lakes campsites are impacted. Many known user-created trails.
JM	Onion Springs	Yellow	Campsites too close to water. Yosemite toad near Cockscomb, Paiute cutthroat trout in Sharkstooth Creek.
JM	Woodchuck	Green/Yellow	Big stock camp at Woodchuck Lake. Loop trail at Woodchuck Lake in poor condition. Meadow analysis needed at Woodchuck Lake.
JM	Crown/ Rancheria	Green/Yellow	Goshawk, furbearer, wolverine sightings around Crown Valley Station. Big stock camps at Crown Lake. Need meadow analysis at Crown Lake.
JM	Maxon	Yellow/Red	Primary access trail to Bench Valley in poor location & condition. Historic cabin at Big Maxon meadow, to close to NF Kings River. Historic marten sighting near Blackcap Mtn. Multiple large camps at Rae lake. Hell for Sure Pass not suitable for stock.
AA	Fernandez/ Walton	Yellow	Significant use concentrating in the Lillian Lake loop area. Yosemite Toads near Fernandez Trailhead.
AA	Mammoth	Red	Special concern about Heritage Sites at Sheep's Crossing, and 77 Corral. Paiute cutthroat trout in Stairway Creek.
AA	Isberg	Yellow	Unknown impact to heritage resource – Chetwood Cabin. Concentration of use at Hemlock Crossing.
AA	Jackass/Norris	Yellow/Red	Yosemite toad near Jackass Lakes. Heritage resource concerns.
AA	Chiquito/ Quartz	Yellow	Lahontan cutthroat trout in upper Portuguese, Gateway to Yosemite NP & Chain Lakes. Wolverine sighting at Chain Lakes
AA	Squaw Dome & South Fork/ Hell's ½ Acre/Logan Meadow	Green/Yellow	Peregrine Falcon at Fuller Butte – concern with climbers.
AA	Cassidy	Green/Yellow	Poor trail conditions, especially Miller Trail. Concentrated use at Cassidy and Miller Crossings.
DL	Willow Meadow	Yellow/Red	High use area, no quota in place. Many user-created trails around lakes and through meadows. Trail in poor location & condition between Mystery & Swede Lakes. Cluster of marten sightings & Yosemite toad in main lakes basin. Area heavily impacted by day use.
DL	Cliff Lake	Yellow	Need recreational stock grazing analysis at Nelson Lake. Vehicle intrusion from Dusy/Ershim OHV trails. Fisher, marten, Goshawk sightings; yellow-legged frog habitat.

Relation to the Final Environmental Impact Statement (FEIS)

Determinations and proposed actions in the RDEIS regarding commercial uses, including allocations, are based on this assessment. Commercial allocations, quota derivations, and other actions proposed in the action alternatives link to this assessment, as it provides a catalogue of current information. Each alternative, with their stated desired conditions, goals and themes; utilize this assessment to fulfill Forest Service requirements for determining the need for and role of outfitters and guides and the types and amounts of use to allocate to commercial uses.

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