

## **CHAPTER 2: ALTERNATIVES**

### **INTRODUCTION**

This chapter describes the range of alternatives considered for the WSP/FEIS. A total of five alternatives, including the no-action alternative, are presented below. The environmentally preferable alternative is identified later in this chapter. Summary tables comparing the key topics between the alternatives are presented at the end of this chapter.

NEPA requires federal agencies to consider and fully evaluate a range of reasonable alternatives that address the purpose of and need for an action. Reasonable action alternatives must be economically and technically feasible and demonstrate common sense. CEQ regulations (40 CFR 1502.14) also require that federal agencies analyze a “no-action” alternative; this alternative evaluates future conditions under existing management plans or practices and allows the public to evaluate what would happen if no new action was implemented.

Alternatives to be considered may originate from the agency proposing an action, from cooperating agencies, or from members of the public. Alternatives may also be developed in response to comments from coordinating or cooperating agencies. With the exception of the no-action alternative, it is important to note that alternatives must meet, to a large degree, the stated purpose and objectives for taking action and should not conflict with federal, state, or local laws, regulations, and policies or constraints identified during public scoping of the WSP.

Alternative 1 (the no-action or status-quo alternative) describes how wilderness is currently managed in the parks. This provides a baseline for comparison with the other alternatives. Alternatives 2, 3, 4, and 5 (alternatives proposing a change in the status quo) describe a range of reasonable and feasible approaches that meet the purpose and need for action and to achieve the WSP objectives.

### **DEVELOPMENT OF ACTION ALTERNATIVES**

The alternatives described in this chapter were developed through a multi-year process that included repeated opportunities for both agency and public input. At the start of this planning process, the NPS solicited input from the public, park staff, government agencies, tribal officials, and other organizations for input on key issues and conditions desired for the parks’ wilderness.

An interdisciplinary planning team (IDT) comprised of park staff reviewed and considered the staff and public comments received during the 2011 scoping period, as well as from the 1997 scoping period. From these comments, the IDT identified the key concepts that would be included in the alternatives. From 2009 to 2014, studies were completed regarding a number of important wilderness resources. The conclusions of these studies also helped in developing the alternatives. Using this varied information and input, the IDT identified a dozen key aspects of wilderness management that needed to be addressed in the WSP, including wilderness use levels, access and trails, stock use and grazing, commercial services, and recreational and administrative infrastructure.

The IDT then drafted six alternative approaches for managing the overall character of the parks’ wilderness. Each of these draft alternatives emphasizes particular visitor experiences associated with different wilderness qualities. Each one meets applicable laws, as well as the goals, objectives, and desired conditions described in chapter 1. The high standard for natural resource preservation required by the 1964 Wilderness Act means there is little variation across the alternatives in terms of how natural

resources are addressed. The main differences between these alternatives lie in the key elements of wilderness management – use levels, access and trails, stock use and grazing, and infrastructure, both recreational and administrative. These differences are driven by the different approach to management that each alternative offers. Each alternative serves visitor and/or operational needs and commercial services in different ways.

After the IDT developed these preliminary draft alternatives the parks’ Leadership Team and the leadership of the NPS Pacific West Regional Office reviewed them. In the fall of 2012, the preliminary draft alternatives were published for public review and comment on the NPS PEPC system. Approximately 200 comment letters were received. These public comments raised significant points that were used in revising the draft alternatives for this WSP/FEIS. The number of action alternatives was reduced from five to four.

The final set of five alternatives outlined in this chapter represent a broad range of ideas designed with maximum input to best achieve the purpose of the plan – to guide the management of visitor use and associated administrative activities in order to preserve wilderness character.

### **SELECTION OF THE NPS PREFERRED ALTERNATIVE**

In summer 2013, the parks held a facilitated decision-making workshop with key staff to identify which alternative in this WSP is preferred by park management. The workshop incorporated a wide range of resource and visitor-use information to give the participants the best available knowledge for making reasoned and informed decisions. Once the preferred alternative was selected, it was presented to leadership staff at the Pacific West Regional Office for concurrence.

Alternative 2 is the NPS preferred alternative (Note: At the time of the 2012 public review period, this alternative was entitled “preliminary draft alternative 3”). It was selected by comparing the relative advantages of each alternative and examining how each alternative met the goals, objectives, and desired conditions for wilderness stewardship. Park managers believe that alternative 2 provides the most balanced, comprehensive approach to protecting wilderness character when compared with any other alternative. Overall, alternative 2 provides the best combination of management strategies, resulting in a practical, common sense approach to wilderness management. It protects the qualities of wilderness, supports a balance of resource preservation and use over the long term, and welcomes visitors to participate in stewardship and use of one of the world’s finest wilderness areas. The NPS environmentally preferable alternative is alternative 5 described later in this chapter.



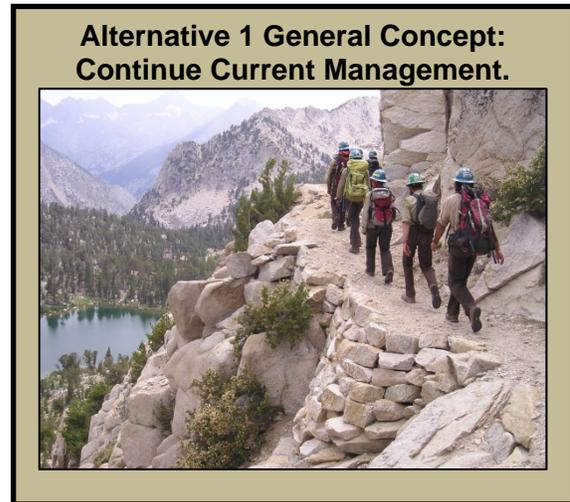
**Rae Lakes**

## ALTERNATIVE 1: NO-ACTION / STATUS QUO

### OVERVIEW

The overarching idea behind alternative 1 is that the current documents and actions used by the parks to oversee wilderness would remain the same. That does not mean that nothing could change, but changes would be driven by the same plans currently in use.

Under alternative 1, the management of all wilderness areas would continue to be guided by the *Backcountry Management Plan* (BMP) and *Stock Use and Meadow Management Plan* (SUMMP), each approved in 1986. [Note: the original BMP dealt with “backcountry.” Most of what was referred to as “backcountry” is now either designated wilderness, listed as a potential addition to designated wilderness, or proposed (and therefore managed as) wilderness. Consequently, where “backcountry” is used, it refers to wilderness.]



The BMP allows for recreational use in such a manner that the parks’ resources are preserved now and into the future. The BMP establishes trailhead quotas, a wilderness permit system, and management objectives for campfires, campsites, sanitation, food storage, special-use limits, area closures, stock use and grazing, education and interpretation, trails and travel, signs, commercial operations, ranger stations, administrative policies, and monitoring (e.g., meadows monitoring). Alternative 1 includes the continuation of management objectives established under the BMP.

These BMP’s objectives include ensuring that:

- Maximum-use levels would continue to keep resource impacts within acceptable limits.
- A variety of recreational uses and opportunities would continue to be offered to provide a range of wilderness experiences.
- Regulations would continue to be minimized to allow as much freedom of recreational use as possible.
- Recreational use would continue to accommodate a range of visitor densities, from the relatively social experience that occurs in popular areas to the solitude found in the more rugged and remote areas.
- Visitors would continue to follow procedures that keep impacts on park resources and other visitors to a minimum.
- Information, education, and interpretation would continue to be directed at achieving visitor understanding, support, and compliance.
- Scientific research would continue to be conducted in wilderness to inform management decisions and ensure that natural processes are unimpaired.
- The network of wilderness trails would continue to be maintained.

- A trail signage program would continue to be used and refined, using materials and designs appropriate to the wilderness setting.
- Stock use by visitors and park work crews would continue to be within limits that ensure resource protection and maintain the quality of visitor experience.
- Commercial guide services would continue to be allowed as appropriate. Commercially guided trips would continue to be regulated through the established permit system.
- Structures necessary for the purposes of administration and historic preservation would continue to be allowed. These include existing ranger stations, historic cabins, snow-survey cabins, radio facilities, dams for water storage and electric generation, Bearpaw Meadow High Sierra Camp, snow-course markers and telemetry devices, toilets, and research facilities.
- Administrative activities for maintenance of trails and facilities, visitor protection and information, natural resource management, research, and general management purposes would continue to be conducted.
- The BMP would continue to be updated to protect natural and cultural resources as new information becomes available through research and monitoring.

The 1986 SUMMP establishes the management system and tools for stock use and includes site-specific opening dates for grazing, grazing management, use levels, protection of Sierra Nevada bighorn sheep ewe-lamb ranges, installation of drift fences, stock and camp etiquette, implementation of temporary variances, and other closures. The SUMMP also establishes a monitoring program to inform and modify management as necessary to reduce resource impacts.

Alternative 1 includes the continuation of management objectives established under the 1986 SUMMP. These management objectives include ensuring that:

- Stock, to the extent possible, would continue to be allowed in the wilderness of the parks on the same areas and trails at the same levels and patterns unless information from the monitoring system indicates need for change.
- Management controls would remain in place to protect forage areas from change in plant species composition, cover, and/or vigor, and from adverse effects on soils and associated sod that may lead to deteriorated productivity or unnatural erosion, and to allow recovery where necessary.
- Management controls on use levels, limits on travel on- and off-trail, temporary closures and opening dates, number of stock, number of nights per area variances, education, and monitoring would continue to be used to minimize the effects of pack and saddle stock on trails, camps, drainage patterns, and water quality.
- A series of meadows (or definable parts of meadows), including representatives of all major types within the parks, would continue to be protected from stock use so that they are perpetuated as – or allowed to become – naturally functioning ecosystems. These meadows would continue to provide an opportunity for all visitors to enjoy seeing meadows in their natural state, and provide opportunities for scientific study. This includes comparison with meadows that are grazed, so that the relative effects of climate, plant-succession, and grazing may be better understood.
- A program of education and participative support for minimum-impact stock use and improved understanding and cooperation between stock users and backpackers would continue.
- Rehabilitation projects would continue to be considered in areas where past use has left an impact on park resources.

- The monitoring program established through the 1986 SUMMP would continue to provide information about the effects of pack and saddle stock on the resources of the parks so that guidelines may be modified to protect the parks’ values. The monitoring program would continue to take into account variation in annual climate, the characteristics of specific forage areas, and the inherent abilities of different species to withstand grazing and trampling pressure.

**KEY ELEMENTS OF ALTERNATIVE 1**

During the internal and public scoping, eleven key topics were identified as critical to managing wilderness. These elements are the same for each alternative; however, the management actions vary by alternative.

**Element 1: Visitor-use Levels**

**Permits and Quotas** — Under alternative 1, all overnight visitors (with the exception of administrative users) in the parks’ wilderness, whether private (i.e., self-supported) or traveling with the support of a commercial service provider, are subject to the trailhead quota system (table 4), and must obtain a wilderness permit from an approved source [e.g., NPS, United States Forest Service (USFS), or Pacific Crest Trail Association]. Daily quotas are established for most trailheads and are based on visitor frequency and distribution patterns, including those of commercially supported visitors. These limits are intended to ensure reasonable use levels, the protection of wilderness character, and thus a high quality wilderness experience for visitors.

For those trailheads managed by the parks on the west-side of the parks, visitors must remain within the established quotas with rare exceptions. The BMP states an exception: “On days that the trailhead quotas are full the commercial pack station operator may override the quota for that day since the quotas are structured with the commercial pack station use included.”

Those visitors entering the parks’ wilderness via trailheads managed by Inyo National Forest on the east side of the parks are subject to the trailhead quotas of Inyo National Forest (table 4). Most of these quotas are “combined” (i.e., one quota for both private and commercially supported visitors), and some are “split” (i.e., separate quotas for private visitors and commercially supported visitors).

Visitors also enter the parks’ wilderness from more distant Yosemite National Park and USFS managed trailheads (e.g., Sierra and Sequoia national forests), of which some have quotas and some do not. These visitors are subject to the entry policies of the agency issuing the permits at the trailhead.

**Table 4: Current Trailhead Quotas – North to South**

Trail/Area Name (Agency Issuing Permits) <sup>1</sup>	Entry Name/Park <sup>1</sup>	Daily Quota or Use Level <sup>2</sup>	Commercial Quota <sup>3</sup>
JMT/YOSE/Sierra NF	Piute Creek/KICA	VH	
Pine Creek/Inyo NF	Piute Creek/KICA	15	15
North Lake/Piute Pass/Inyo NF	Piute Creek/KICA	30	15
Florence Lake/Sierra NF	Piute Creek/KICA	72	
Sabrina/Inyo NF	Lamarck Col/KICA	10	8
Courtright Reservoir/Sierra NF	Hell-for-Sure Pass/KICA	VL	
Bishop Pass/Inyo NF	Dusy Basin/KICA	36	15
Taboose Pass/Inyo NF	Upper Middle Fork Kings/KICA	10	

**Table 4: Current Trailhead Quotas – North to South (continued)**

Trail/Area Name (Agency Issuing Permits) <sup>1</sup>	Entry Name/Park <sup>1</sup>	Daily Quota or Use Level <sup>2</sup>	Commercial Quota <sup>3</sup>
Crown Valley/Rancheria/Sierra NF	Blue Canyon/KICA	VL	
Crown Valley/Rancheria/Sierra NF	Tehipite/KICA	L	
Sawmill Pass/Inyo NF	Woods Lake Basin/KICA	10	
Baxter Pass/Inyo NF	Baxter Lake/KICA	8	
Deer Creek/Sierra NF	Monarch Divide/KICA	L	
Lewis and Hotel Creeks/SEKI	Monarch Divide/KICA	25	
Copper Creek/SEKI	Monarch Divide/KICA	20	
Woods Creek/Paradise Valley/SEKI	Rae Lakes Loop/KICA	25	
Bubbs Creek/SEKI	Rae Lakes Loop/KICA	25	
Onion Valley/Kearsarge/Inyo NF	Rae Lakes Loop/KICA	60	15
Don Cecil/KICA	Don Cecil/KICA	VL	
Summit Meadow/Sequoia NF	Don Cecil/KICA	VL	
Sugarloaf/Marvin Pass/Sequoia NF/SEKI	Sugarloaf/KICA	25 (if into SEKI)	
Rowell Meadow/Belle Canyon/Sequoia NF/SEKI	Sugarloaf/Belle Canyon/KICA	25 (if into SEKI)	
J.O. Pass/Big Meadows/Sequoia NF/SEKI	Sugarloaf/Twin Lakes/KICA/SEQU	15 (if into SEKI)	
Redwood Canyon/SEKI	Redwood Canyon/KICA	15	
Shepherd Pass/Inyo NF	Tyndall Creek/SEQU	15	
Twin Lakes/SEKI	Twin Lakes/SEQU	30	
Lakes Trail/SEKI	Emerald/Pear Lakes/SEQU	25 <sup>(4)</sup>	
Alta/Wolverton/SEKI	Panther Gap/SEQU	25	
North Fork Lone Pine Creek	Mount Whitney/SEQU	10	8
Whitney Portal/Inyo NF	Mount Whitney/SEQU	60 (+100 day-users)	
North Fork Kaweah/SEKI	Yucca Creek/SEQU	VL	
Colony Mill Road (east)/SEKI	Crystal Cave Road/SEQU	VL	
Colony Mill Road (west)/SEKI	North Fork/SEQU	VL	
HST/SEKI	Bearpaw/SEQU	30	
Middle Fork Kaweah/SEKI	Bearpaw/River Valley/SEQU	25	
Cottonwood Lakes/Inyo NF	New Army Pass/SEQU	60	15
Cottonwood Pass/Inyo NF	Rock Creek/Kern River/SEQU	40	
PCT–South/Multiple	Rock Creek/SEKI	M	
Trail Pass and Mulkey Pass/Inyo NF	JMT/Rock Creek/Kern River/Inyo NF and SEKI	L	
Paradise Ridge/SEKI	Paradise Ridge/SEQU	15	
Atwell/SEKI	Hockett/SEQU	25	
Timber Gap/SEKI	Timber Gap/Cliff Creek/SEQU	25	
Sawtooth/SEKI	Monarch Lakes/Sawtooth Pass/Kern Drainage/SEQU	20	
Tar Gap/SEKI	Hockett/SEQU	25	
Mosquito/SEKI	Mosquito Lakes/SEQU	25	

**Table 4: Current Trailhead Quotas – North to South (continued)**

Trail/Area Name (Agency Issuing Permits) <sup>1</sup>	Entry Name/Park <sup>1</sup>	Daily Quota or Use Level <sup>2</sup>	Commercial Quota <sup>3</sup>
Eagle/SEKI	Eagle Lake/SEQU	20	
White Chief/SEKI	White Chief/SEQU	25	
Franklin/SEKI	Franklin Lakes and Pass/SEQU	30	
Farewell Gap/SEKI	Farewell Gap/Sequoia NF	L	
Ladybug/SEKI	South Fork/Ladybug/SEQU	15	
Garfield/SEKI	South Fork/Garfield/Hockett/SEQU	15	
Shake Camp/Sequoia NF	Hockett/SEQU	L	
Lewis Camp (Quaking Aspen)/Sequoia NF	Hockett/Kern/SEQU	M	
Jerkey Meadow/Sequoia NF	Kern/SEQU	L	

<sup>1</sup>Agency names are abbreviated as follows: YOSE = Yosemite National Park; SEKI = Sequoia and Kings Canyon National Parks; SEQU = Sequoia National Park; KICA = Kings Canyon National Park; NF = National Forest

<sup>2</sup>In regard to quotas and estimated use into SEKI from the indicated trailhead: VL= very low estimated use (<100 users/yr); L = low estimated use (100–300 users/yr); M = medium estimated use (>300 users/yr) and VH (>3000 users/yr). Note: each user averages ~3–4 use nights/trip. A cell with a use-level letter indicates no quota.

<sup>3</sup>Separate commercial quotas only apply to specific trailheads originating in Inyo NF. Some of the entries, both private and commercial, into wilderness from those trailheads would not enter SEKI, remaining exclusively in Inyo NF.

<sup>4</sup>Lakes Trail is controlled by a destination quota – which limits the number of people in each of the two lake basins at Emerald and Pear lakes with a maximum allowable of 25/night. If hikers are traveling past Pear Lake to Tablelands, the quota is 25.

Destination quotas are applied for Emerald and Pear lakes to limit visitor density.

Access to Mount Whitney from the east side (Whitney Portal Trailhead) is controlled by a special permit system administered by the USFS. This special permit system applies to both day-users and overnight-users.

There are no day-use permits or day-use quotas other than the USFS day-use permit for Mount Whitney.

**Visitor Capacities and Encounter Standards** — Although the BMP and the SUMMP did not formally establish visitor capacities and encounter standards, current use levels of visitors are controlled through several methods. Primary among these is the use of a quota system on daily entries into the parks’ wilderness from individual trailheads. This method is in place at nearly all Sequoia and Kings Canyon National Parks managed trailheads and at most trailheads managed by the USFS (Inyo, Sierra, and Sequoia national forests). Additional methods include requiring the use of designated campsites and areas, group size limits, and night-stay limits in specific areas. Many of these controls were put in place in the 1970s and 1980s (specifically with the 1986 BMP) to control the historically highest use levels, and the subsequent impacts of use, of that time period.

The average number of overnight wilderness visitors for the past three years (2010–2012) is approximately 23,000, accounting for an average of approximately 111,000 visitor-use days (VUD) per year. These figures are compiled from permits issued by Sequoia and Kings Canyon National Parks, and Inyo, Sequoia, and Sierra national forests. This does not include Pacific Crest National Scenic Trail users coming from south of Sequoia National Forest or coming from north of Inyo and Sierra national forests, or John Muir Trail users coming from Yosemite National Park or other points north of Sierra National Forest. It is estimated that these additional 3,500 users account for an additional 28,000 visitor-use days (based on projected numbers of users and days of use – estimates of visitor-use days in these parks per trip per person for Pacific Crest National Scenic Trail and John Muir Trail users is eight). For the purposes of the WSP, only the VUDs calculated from wilderness permits are used. The estimates from

PCT/JMT long-distance use have not been included, though they have been considered in visitor-capacity decision making.

## **Element 2: Trails**

The NPS maintains a network of trails in the parks' wilderness, including the PCT, JMT, HST, and many others. Under alternative 1, these trails are maintained, reconstructed, or rerouted following the general standards established in the NPS Trail Maintenance Handbook (Hooper 1983). Routine trail maintenance includes removing rocks and downed trees, clearing brush, water-bar construction and cleaning, filling washed-out trails, and bridge repairs or reconstruction. All maintenance activities are conducted in a manner that protects park resources and minimizes visitor disturbance. Under alternative 1, new trail construction does not take place in areas that are currently without trails. Figure 6, depicting the current wilderness trail system, can be found on page 83.

The NPS maintains trail signs with directional markers and mileages. Interpretive signs are generally not placed in wilderness, unless special circumstances exist. Marking informal trails with plastic ribbons, cairns, or other markers is prohibited. The only exception is the use of temporary markings for emergency purposes such as search and rescue and fire management. In these cases, markings are removed after emergency activities end.

## **Element 3: Campfires**

Recreational campfires are allowed in the foothill and montane forest areas where adequate wood supplies exist. Recreational campfires are allowed up to:

- 10,000 feet in the San Joaquin River drainage.
- 10,000 feet in the Kings River drainage.
- 9,000 feet in the Kaweah River drainage.
- 10,400 feet in the Kern River drainage. (This elevational limit was established in 2009 to protect downed wood resources, especially foxtail pine resources, and superseded the BMP campfire limit of 11,200 feet in the Kern River drainage.)

In addition, there are site-specific prohibitions in the Kings (Granite Basin and Redwood Canyon), Kaweah (Hamilton Lakes and Mineral King Valley), Kern (above 10,000 feet in Nine Lakes Basin / Big Arroyo, and within ¼ mile of the food-storage box at Lower Crabtree Meadow), Tule River (Summit Lake Basin and Dillonwood area) drainages, and in certain sequoia groves (table 5 on the next page). The restrictions in sequoia groves would apply across all alternatives.

This alternative allows recreational campfires in 398,829 acres of the total 837,806 acres of wilderness (48% of the wilderness). Figure 7 (page 85) depicts campfire restrictions for alternative 1.

**Table 5: Camping and Campfire Restrictions in Giant Sequoia Groves in Sequoia and Kings Canyon National Parks – All Alternatives**

Grove Name	Wilderness Camping Allowed?	Campfires Allowed?
Atwell	No	No
Big Springs	Yes	No
Big Stump <sup>1</sup>	No	No
Board Camp	Yes	No
Cahoon (Creek)	Yes	Yes
Castle Creek	Yes	Yes
Cedar Flat	Yes	Yes
Clough Cave	No	No
Coffeepot	No	No
Dennison	Yes	Yes
Devils Canyon	Yes	Yes
Dillonwood <sup>1</sup>	No	No
Douglass	Yes	Yes
East Fork	Yes	Yes
Eden Creek	Yes	Yes
Forgotten	No	No
Giant Forest	No	No
Garfield	Yes	Yes
Granite Creek	Yes	Yes
Grant <sup>1</sup>	No	No
Homer's Nose	Yes	No
Horse Creek	Yes	Yes
Little Redwood Meadow	Yes	Yes
Lost <sup>1</sup>	No	No
Muir	No	No
Oriole Lake Grove	Yes	Yes
Pine Ridge	Yes	No
Putnam-Francis	Yes	No
Redwood Canyon	Yes	No
Redwood Creek	Yes	No
Redwood Meadow	Yes	Yes
Redwood Mountain	Yes	No
Sequoia Creek <sup>1</sup>	No	No
Skagway	Yes	No
South Fork	Yes	Yes
Squirrel Creek	Yes	Yes
Surprise	Yes	No
Suwanee	No	No

<sup>1</sup> Not in wilderness

**Element 4: Food Storage**

There are some 86 food-storage boxes (also called *lockers*) presently in the parks’ wilderness (see figure 3, page 67, for a map of current locations, and table 15, pages 106–110, for names of locations). Portable food-storage containers are required in three specific areas on a seasonal basis, per the following regulations implemented after the BMP.

Effective 5/01 to 10/31: Portable, NPS-allowed, food-storage containers (including panniers) with the capacity to store all garbage, food, and scented items are required for all overnight parties entering and or exiting the following areas:

- Rae Lakes Loop and vicinity — all visitors must use NPS-allowed, portable food-storage containers. Long distance through hikers on the PCT and the JMT may use either portable containers or food-storage boxes.
- Dusy and Palisades basins — all visitors must use portable containers.
- Rock Creek area — all visitors must use park-allowed, portable food-storage containers. Long distance hikers on the PCT may use portable containers or food-storage boxes.

The technique of counterbalancing or hanging food is allowed year-round within wilderness, with the exception of Dusy Basin, Rae Lakes, and Rock Creek from May 1 to the end of October. Posting a guard to watch and protect food is a prohibited food-storage technique.

Commercial service providers are required to provide NPS-approved portable containers for trips to any part of wilderness. Use of counterbalancing, food-storage boxes, or food guarding is prohibited.

**Element 5: Human-waste Management**

Restrooms and privies are located in areas where conditions warrant and where determined to be the minimum necessary for the administration of wilderness (currently there are two restrooms and an estimated 22 privies in wilderness, excluding toilets associated with ranger stations). A cat-hole (a shallow hand-dug hole for burying human waste) or carrying-out of waste is required where no privies or restrooms are provided. Pack-out waste kits are recommended in the Mount Whitney area.

**Element 6: Party Size**

Party size refers to the number of people and stock in a single group of wilderness visitors. Under alternative 1 the current maximum party size for on- and off-trail hikers is 15 people with area specific exceptions per the BMP and SUMMP. Tables 6 and 7 present party size limits under alternative 1.

**Table 6: Party-size Limits for Hikers and Boaters for Alternative 1**

Type of Hiking Trip	Maximum Party Size
On-trail (day-use)	25
On-trail (overnight use)	15
Off-trail (overnight and day-use)	15
Area-specific	Redwood Canyon – 10

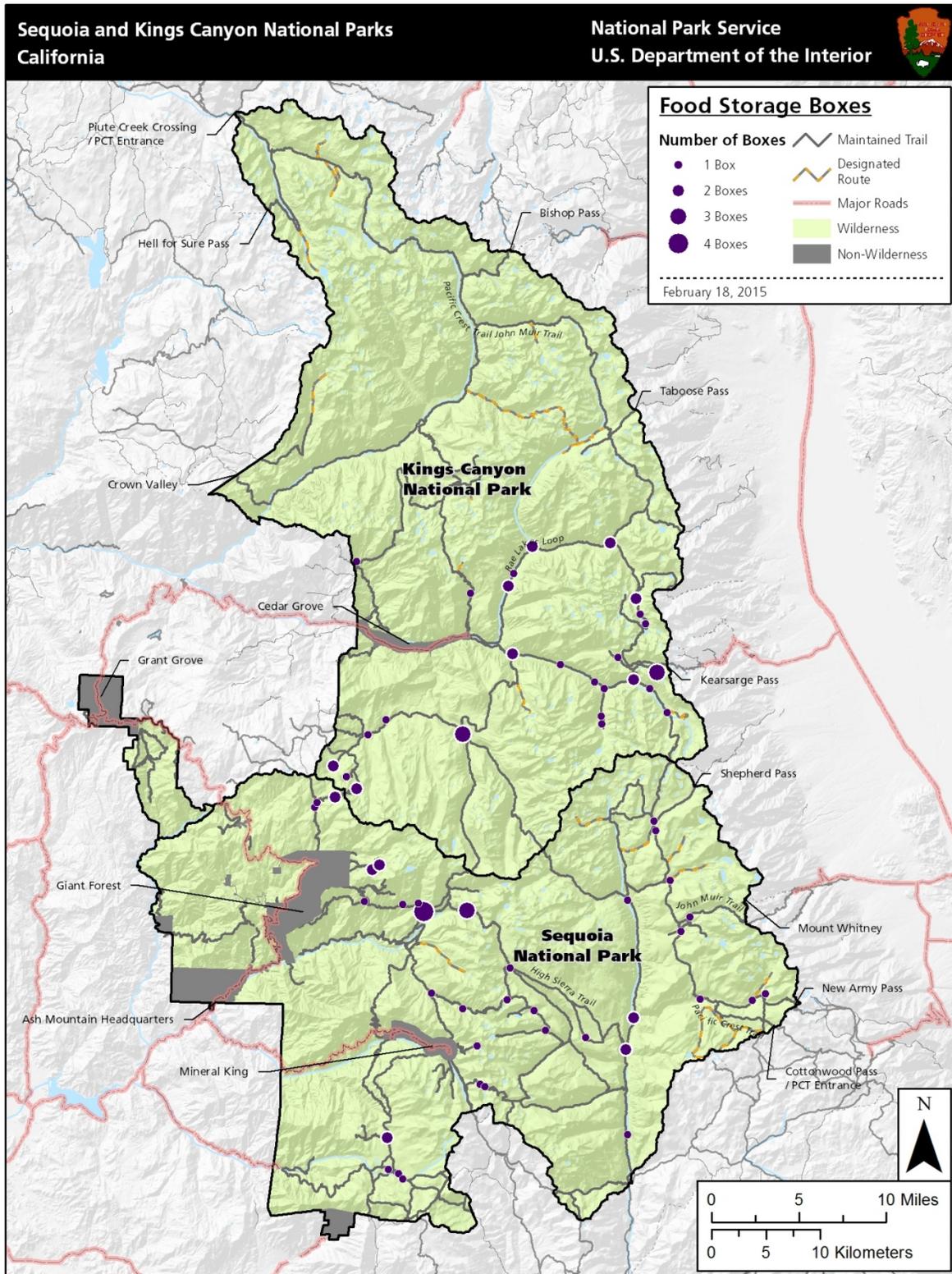


Figure 3: Current Food-storage Box Locations

**Table 7: Party-size Limits for Stock Parties for Alternative 1**

Type of Stock Trip	Maximum Party Size for People and Stock
Day-use (including spot, dunnage, and day rides)	People: 25 Stock: 20 Combined: 45 (with some lower exceptions per BMP/SUMMP)
On-trail	People: 15 Stock: 20 Combined: 35 (with some lower exceptions per BMP/SUMMP)
Off-trail (in areas specifically designated for off-trail stock use)	People: 15 Stock: 20 Combined: 35
Area-specific	Temporary limits in five specific areas where there is a maximum party size of eight people/stock or combination: Dusy Basin, Sphinx Lakes, Darwin Canyon, Mount Langley, and Sixty Lake Basin. Redwood Canyon maximum of 10 head of stock. Milestone Basin maximum of 8 head of stock.

**Element 7: Camping/Campsites and Night Limits**

To preserve the unconfined aspect of recreation in the parks’ wilderness, there are few restrictions on where overnight visitors can camp. Following Leave No Trace<sup>®</sup> practices helps to preserve the natural quality.

Camping is prohibited within one mile of any road and generally prohibited within four miles of a developed area or trailhead complex (NPS 1986a). The BMP identifies first allowable campsites for trailheads, and camping along trail corridors is prohibited prior to reaching the first-camp locations (tables 8 and 9). These first-camp limits minimize impacts in heavy day-use areas and protect solitude. In many instances, the first-camp locations are the first suitable site (with water and room to camp) from the trailhead. First-camp policies also prevent frontcountry overflow camping from extending into wilderness, to control impacts at sensitive “close-in” areas, and to protect opportunities for solitude for day-use visitors.

Additional first camps not specified in the BMP are listed in table 9 on the next page. These trails have historically received low use, and the distances reflect the general one-mile restriction or indicate the first available water source and/or the probable camp destination.

**Table 8: First Camps Established in 1986 Backcountry Management Plan (BMP)**

Trailhead Name	Distance to First Camp	Name of First Camp
Lewis Creek	4 miles	Comb Creek
Copper Creek	3.6 miles	Lower Tent Meadow
Woods Creek/Paradise Valley	7 miles	Lower Paradise Valley (designated sites only)
Bubbs Creek	4 miles	Sphinx Creek
Twin Lakes	3 miles	Cahoon Meadow
Lakes – Emerald/Pear Lakes	5 miles	Emerald Lake (designated sites only)
Alta (Wolverton)	3 miles	Panther Gap (no water)
HST/Crescent Meadow	3 miles	Panther Creek
Atwell/Hockett	6 miles	Clover Creek

**Table 8: First Camps Established in 1986 Backcountry Management Plan (continued)**

Trailhead Name	Distance to First Camp	Name of First Camp
Timber Gap	4 miles	Timber Gap (no water)
Sawtooth-Monarch/Crystal	1 mile	Groundhog Meadow
Franklin	4 miles	Farewell Junction
Farewell Gap	4 miles	Farewell Junction
White Chief	4 miles	White Chief Bowl
Eagle	3.4 miles	Eagle Lake
Mosquito	4 miles	Mosquito Lake #2 (Mosquito Lake #1 closed to camping)
Tar Gap	6 miles	Deer Creek
Ladybug (South Fork)	4 miles	Ladybug Camp
Garfield	4 miles	Garfield Grove / Snowslide Canyon

**Table 9: First Camps Established Subsequent to the 1986 Backcountry Management Plan**

Trailhead Name	Distance to First Camp	Name of First Camp
Lewis Creek and Hotel Creek	5.4 miles	Comb Creek
Sugarloaf (Marvin Pass Trailhead)	2.3 miles	Rowell Meadow (USFS)
Rowell Meadow (Belle Canyon Trailhead)	2.2 miles	Rowell Meadow (USFS)
J.O. Pass (Big Meadows)	2.2 miles	Rowell Meadow (USFS)
North Fork Kaweah	1 mile	
Colony Mill Road Trail	1 mile (each end)	
Middle Fork Kaweah	3.5 miles	Panther Creek
Paradise Creek	1 mile	
Paradise Ridge	1 mile	

Camping is prohibited along the following trails or in the following areas:

- Big Baldy Trail
- Buena Vista Trail
- Don Cecil Trail
- Giant Forest and Crystal Cave areas
- Little Baldy Trail
- Lost Grove Area Trails
- Marble Falls Trail
- Muir Grove Trail
- Oriole Lake Trail
- Tokopah Falls Trail

No camps are designated for the exclusive use of stock users with the exception of Upper and Lower Funston Meadows, which are designated for stock use only per the 1990 addendum to the SUMMP (NPS 1990). These camps were designated exclusively for stock users to ensure stock could camp in appropriate areas and not be displaced to inappropriate areas by backpackers occupying the stock sites.

The current policies of camping on durable surfaces (not on vegetation) and away from water sources apply. Camping on vegetation or in meadows is prohibited. There are camping restrictions associated with selected sequoia groves (table 5 on page 65) and these would apply across all alternatives. Camping within 25 feet of water is prohibited; 100 feet is the recommended camping distance from water.

**Length of Stay/Night Limits** — Night limits exist to protect popular areas from crowding and campsite proliferation (i.e., increase in numbers of campsites) and the resulting reduction in solitude. Night limits also prevent extended stays, which keeps popular areas available to more groups by preventing a small number of groups from occupying the area for long periods.

All campers are currently limited to stays of 14 consecutive nights at a single location, 21 total nights per trip, and 63 total nights per year. Exceptions exist for specific areas and are presented in table 10.

**Table 10: Site-specific Exceptions to the Night Limits under Alternative 1**

Location	Night Limits Exceptions (Consecutive Nights in One Location)
Charlotte Lake, Hamilton Lake, Kearsarge Lakes, Paradise Valley, Redwood Canyon	2-night limit
Rae Lakes	1-night limit per lake

**Designated Campsites** — The BMP identified 12 areas where designated campsites could be established and include the following:

- Bearpaw Meadow
- Eagle Lake
- Emerald Lake
- Evelyn Lake
- Hockett Meadow
- Kern Hot Spring
- Lower Funston
- Lower Mosquito Lake
- Paradise Valley
- Pear Lake
- Summit Lake
- Upper Funston

Designated campsites are established to control physical and social impacts at the most frequently visited areas. To date, designated campsites have been established only at Paradise Valley (accommodating approximately 100 people in three sections), Emerald and Pear lakes (25 people per night per lake), and Bearpaw Meadow Camp area (approximately 30 people). Camping is prohibited outside the designated campsites or areas in these four locations under alternative 1 (Note: in 2013, designated camp limits were changed to apply only in Lower Paradise Valley).

The parks promote the use of established camps through ranger contacts with visitors and the publication of informational materials.

**Campsite Condition Standards** — There is currently no campsite condition standard established under alternative 1. (For information on campsite conditions and standards, see appendix A, page A-15 and A-24.)

### **Element 8: Stock Use**

Figures 8a and 8b depict stock access and grazing restrictions for alternative 1. Figure 8a shows stock access and grazing restrictions in Kings Canyon National Park and can be found on pages 86/87. Figure 8b shows stock access and grazing restrictions in Sequoia National Park and can be found on pages 90/91.

#### ***Stock Access and Travel***

*On-trail* — Stock travel is generally allowed on wilderness trails. Stock parties are allowed to travel up to 0.5 mile from trails to reach campsites.

Most maintained trails are open to stock travel (637 of 653 miles), as are 77 miles of “designated unmaintained routes” (mostly informal and abandoned trails). Some trails and routes are open to stock parties for travel only (no overnight camping), some are open to camping and grazing for walking parties with burros and llamas, but limited to travel only for parties with horses or mules, and some are closed to stock travel entirely. Approximately 598 miles of maintained and unmaintained trails would be open to camping with stock. Trails are closed to stock to provide for visitor safety, to protect areas with resource concerns, and due to popular use by day hikers. Trails or routes with restricted stock access under alternative 1 are described below.

Trails and routes open for travel only (115 miles – includes mileages to first camps):

- Alta Trails
- Baxter Pass Trail
- Big Baldy Trail
- Buena Vista Trail
- Cataract Creek Route
- Center Basin Trail (to Golden Bear Lake)
- Don Cecil Trail
- JMT along Timberline Lake
- Kearsarge Lakes Trail to Kearsarge Lakes
- Kern Canyon Overlooks

- Lake 11,092 Route (shown as Lake 11,106 on older maps)
- Lakes Trail
- Little Baldy Trail
- Martha Lake Route from 1 mile above Hell-for-Sure Junction
- Miter Basin Trail above Primrose Lake outlet stream
- Muir Grove Trail
- Redwood Canyon area trails
- Upper Sixty Lake Basin Trail
- Tokopah Falls Trail
- Wallace Creek Route to Wallace Lake above 11,200 feet in elevation
- Wright Creek Route to Wright Lakes above 11,200 feet in elevation

Trails open to travel only for parties with horses or mules; camping for walking parties with burros and llamas allowed (15 miles):

- All Mineral King Basin Trails (Monarch Lakes, Crystal Lake, Franklin Pass, Farewell Gap, White Chief, Eagle Lake, Mosquito Lakes, and Mineral Lakes Trails)

Trails open to camping by special permit (2 miles):

- Milestone Basin (closed to stock travel above 10,800 feet in elevation, with free-roaming/grazing stock allowed up to 11,200 feet in elevation)

Trails closed to all stock travel (16 miles):

- Bullfrog Lake Trail west of Kearsarge Lakes Trail
- HST from Crescent Meadow to Wolverton Cutoff
- Lower Sixty Lake Basin Trail (currently a temporary restriction)
- Marble Falls Trail
- Mount Whitney Trail – base of switchbacks to the summit
- Sawtooth Pass Trail from Monarch Lake to Columbine Lake

*Off-trail* — Stock parties are allowed to travel up to 0.5 mile from trails to reach camps. Travel more than 0.5 mile from maintained trails is allowed in four areas of the parks: on the Hockett Plateau, on the Monarch Divide including Hotel Creek, in the Roaring River drainage, and along the western side of the Kern River watershed south from the Chagoopa Plateau.

Per the 1986 SUMMP, exceptions to access limits are allowed. The 1986 SUMMP states that “trips to areas not open to off-trail travel may be allowed. Such trips may be proposed to the superintendent and would be considered on a case-by-case basis.”

*Stock Grazing* — One goal of wilderness management in the parks is to allow recreational use of stock within guidelines that will protect natural resources and values, the processes that shape them, and the

quality of experience distinctive to them. Stock grazing can affect park resources by removing vegetation, trampling small animals, vegetation and underlying soils, and depositing stock urine and feces on trails, in streams, and near camps. Therefore, grazing is managed and regulated by the SUMMP, BMP, and through the Superintendent's Compendium.

Under alternative 1, grazing is managed in accordance with the 1986 SUMMP and is informed by the results of the meadow-monitoring program. Traditional methods of adjusting use levels and patterns are employed when necessary, including:

- adjusting the number of nights a given party may graze an area;
- adjusting the number of stock per party that may graze an area;
- adjusting opening dates to reflect moisture conditions, which are designed to prevent unacceptable mechanical disturbance to surface soil and vegetation; and
- temporarily closing an area to stock access or grazing.

Estimated grazing capacities for wilderness meadows have been developed using a model of biomass production and forage consumption that takes into account the elevation, soil moisture, and condition of the meadow. These capacities are used to inform grazing management, and are refined as additional information is acquired. The capacity of individual meadows and uplands to sustain grazing is informed by each meadow's vulnerability to erosion or change in hydrologic function, susceptibility to invasion by nonnative plants, habitat requirements of sensitive plants and animals, productivity and the ability to sustain herbage removal, and the requirements of unique ecological communities such as peat-accumulating wetlands.

Administrative grazing is held below the estimated capacity of park meadows and, in most areas, managed to give visitors traveling with stock priority over administrative users.

In areas that are closed to grazing but open to overnight stock use, camping is allowed. The use of certified weed-free supplemental feed is not required; however, the NPS recommends that commercial pack stations use certified weed-free feed and the NPS uses weed-free feed in its administrative operations.

The current monitoring system established by the 1986 SUMMP is employed to track use, document conditions, and provide information for preventing and mitigating impacts. The monitoring program takes into account variation in annual climate, the characteristics of specific forage areas, and the inherent abilities of different species to withstand grazing and trampling pressure. Monitoring of species composition occurs in five pairs of grazed and ungrazed meadows on a five-year rotation, and repeat-photography points are updated as time and resources allow. Monitoring of residual biomass and bare ground, initiated in 1993, occurs and the results are used to inform decisions regarding grazing management.

The following meadows are closed by the 1986 SUMMP to grazing for scientific and social value: Big Pete Meadow forested portion, Crabtree Ranger Station Meadow, Dragon Lake Meadow, Ellis Meadow, Goddard Creek Meadows, Guyot Creek Meadows west of trail, Lake South America Col Meadow, Mitchell Meadow, Rock Creek #2 Meadow, Wallace Creek Closed Meadow, Woods Lake Shoreline Meadow, and Wright Creek Closed Meadow.

The following meadows are closed by the 1986 SUMMP to grazing due to high levels of visitation and resource concerns: Charlotte Lake Upper and Lower Meadows, Dusy Basin and Rainbow Lakes, East

Lake Shoreline Meadows, Granite Lake, Hamilton Lake Basin, Kearsarge and Bullfrog Lakes Basins, Paradise Valley, Rae Lakes Basin, Seville Lake, Timberline Lake, Tom Sears Meadow, Vidette Meadow, and Woods Creek Crossing South Side Meadows.

The following meadows are closed to grazing under the superintendent’s authority to enact visitor-use restrictions: Crabtree Lakes (closed to stock access and grazing above existing camp west of lowest lake), Darwin Meadow proper, Forester Lake Meadow, Kern Hot Spring Meadow, meadows within five miles of Giant Forest Museum, Milestone Creek above 11,200 feet in elevation, Sixty Lake Basin, Summit Lake Meadow, and Upper LeConte Canyon above 10,000 feet in elevation.

The following are restrictions on grazing in areas otherwise open to grazing:

- Open to grazing by walking parties with burros or llamas, closed to grazing by parties with horses or mules: Bubbs Creek below Junction Meadow, Evolution Lake to Muir Pass, Guitar Lake, and Mineral King lakes’ basins
- Open to administrative use and grazing only: Hockett Pasture, JR Pasture (Roaring River), Kern Ranger Station pastures, Lackey Pasture (Roaring River), and Upper Redwood Meadow

Table 11 presents the site-specific night and/or head grazing limits on meadows in the parks.

**Table 11: Site-specific Night and/or Head Grazing Limits under Alternative 1**

Location	Stock Head Limit	Night Limit
Bubbs Creek	20	1
Castle Domes Meadow	15	1
Cement Table Meadow	15	2
Charlotte Creek (below drift fence)	20	2
Crabtree Meadow	15 (larger parties consult ranger)	14
Junction Meadow (Bubbs)	15	1
Junction Meadow (Kern)	15	1
Lower Funston Meadow	20	2
Milestone Basin	8*	2*
Redwood Meadow	15	2*
Scaffold Meadow	15	2
Shorty’s Meadow	20	2
Upper Evolution Valley (above Evolution Meadow)	20	1
Upper Funston Meadow	20	2
Upper Rock Creek (Nathan’s Meadow and above)	20	2
Wallace Creek Waterfall Meadow	6*	1*

\*Added or modified post SUMMP

*Stock-use Structures* — The parks’ wilderness contains structures that facilitate stock use and protect resources. There are 52 existing hitch rails and 54 existing drift fences, pasture fences, and gates (see tables 51a and 51b starting on page 272 at the end of this chapter). Several fences listed in the 1986 SUMMP, constructed after 1986, or proposed for installation, were never built or have been removed; managers determined that these fences would not be built due to changes in visitation and management

needs. These were at Aspen Meadow, Bearpaw Meadow, Cartridge Creek, Charlotte Lake, Colby Lake, Dollar Lake, East/Middle Vidette, Franklin-Montgomery, Lower Junction Meadow, Lower Rock Creek, Lower Simpson, Lower Vidette, Pinto Lake, Screwball Camp, Sphinx Creek Junction, Upper Paradise, Upper Simpson, and Williams Meadow.

### **Element 9: Administrative Structures**

Administrative facilities such as ranger stations, administrative pastures, crew camps, and research facilities are important for the administration of wilderness. Currently there are 15 ranger stations, 3 patrol cabins, 4 pastures, and approximately 25 administrative camps located in wilderness.

**Ranger Stations** — Under alternative 1, ranger stations at the following locations are maintained and staffed as funding is available (figure 4 on page 76):

- Bearpaw Meadow
- Bench Lake (platform and tent)
- Charlotte Lake
- Crabtree
- Hockett Meadow
- Kern Canyon
- LeConte Canyon
- Little Five Lakes (platform and yurt)
- McClure Meadow
- Monarch (platform and tent)
- Pear Lake
- Rae Lakes
- Roaring River
- Rock Creek
- Tyndall Creek

**Other Administrative Structures** — Three patrol cabins and a research facility are maintained at the following locations:

- Quinn (patrol cabin)
- Redwood Meadow Ranger Station (patrol cabin)
- Simpson Meadow (patrol cabin)
- Redwood Canyon Cabin (research facility)

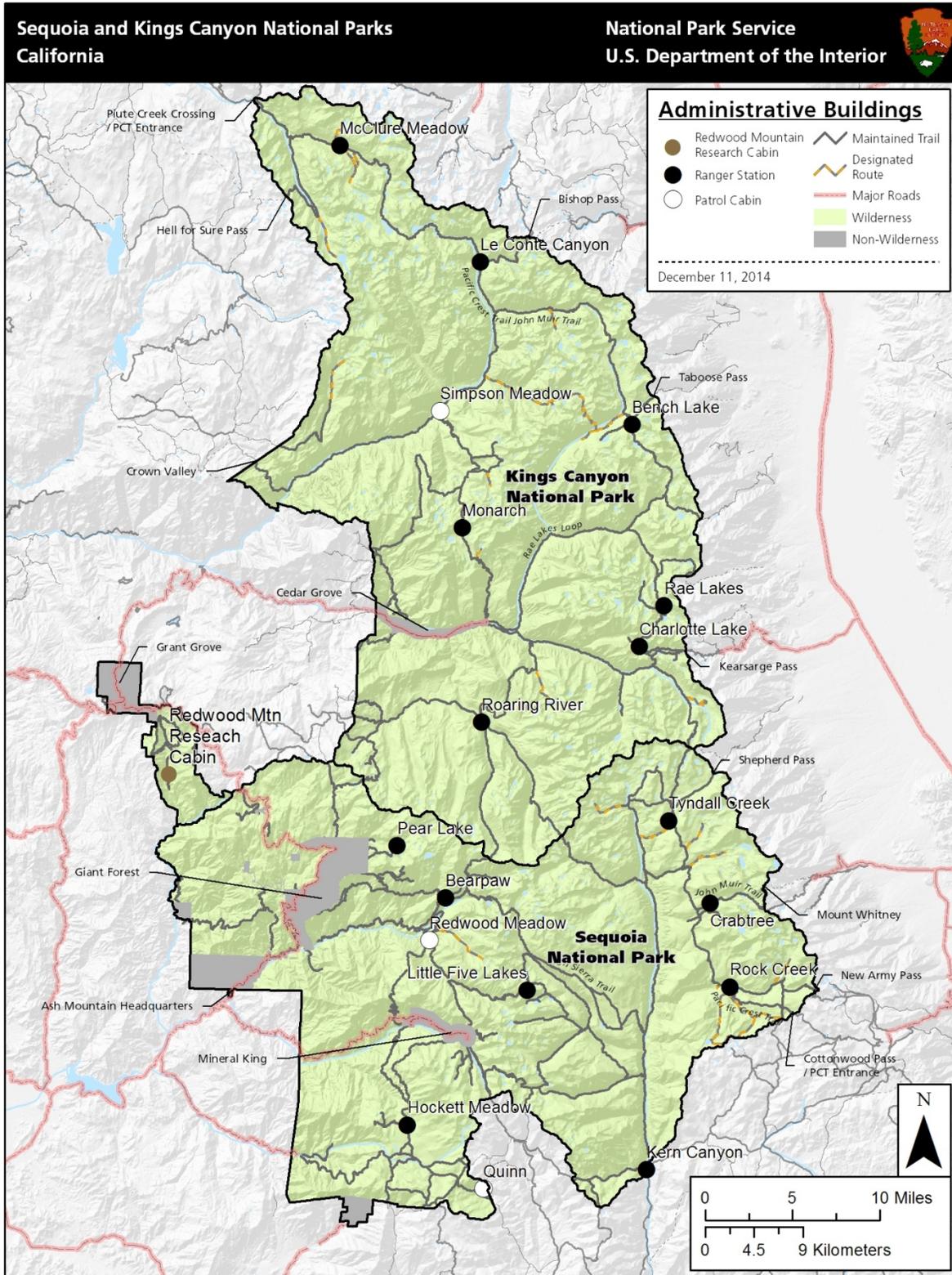


Figure 4: Administrative Buildings in Sequoia and Kings Canyon National Parks' Wilderness

**Pastures** — Some areas of the parks’ wilderness are patrolled by mounted rangers. To maintain stock close to the patrol cabins for quick emergency response, and to reserve some grazing for the parks’ stock, some of these locations have fenced pastures. Stock pastures associated with ranger stations are located at Hockett Meadow, Kern, Redwood Meadow, and Roaring River. Additional facilities include hitching rails and storage structures associated with the Hockett Meadow Ranger Station and the Quinn Patrol Cabin, and Redwood Meadow Ranger Station.

**Crew Camps** — Crew camps can be established for short- or long-term administrative purposes (e.g., enforcement/patrols, resource management/research, and trail maintenance/project activities). There are 15 established and long-term trail crew camps within Kings Canyon National Park, located at major junctions or hubs, and 10 established and long-term trail crew camps within Sequoia National Park. These camps have up to three food-storage boxes, a fire pit, and may have small tool caches.

**Element 10: Frontcountry Facilities to Support Wilderness Access and Use**

Although outside wilderness, facilities in the frontcountry that support visitor use of wilderness are considered in each alternative. Frontcountry facility locations are presented in figure 5 on the next page. These facilities include:

**Permitting Stations** — Permitting stations exist in the parks’ frontcountry to provide wilderness use permits required of all visitors (on foot or with stock) remaining overnight in areas managed as wilderness. Permits are issued by the NPS or by the USFS during the quota season (Friday of Memorial Day weekend to late September) and generally self-issued during the non-quota season (late September to late May). The current permitting stations would remain in place across all alternatives.

***Kings Canyon National Park***

*Cedar Grove Pack Station* — This pack station operates under concession authority based on a contractual relationship with the parks. Private stock parties can informally arrange with Cedar Grove Pack Station to use existing facilities for holding animals and parking.

***Trailheads/Stations***

*The alternatives do not consider changes to the permitting stations at Road’s End (Kings Canyon); Kings Canyon Visitor Center (Grant Grove); Lodgepole Visitor Center; Ash Mountain/Park Headquarters; and Mineral King Ranger Station. There would be no changes proposed in the WSP for the Redwood Saddle/Redwood Canyon trailhead, Dorst, and Dillonwood areas. Therefore, these facilities are not discussed further in this document.*

*Kings Canyon Visitor Center in Grant Grove* — This visitor center provides information on wilderness resources and to issue permits for the Redwood Canyon and Roaring River.

*Redwood Saddle/Redwood Canyon Trailhead* — Redwood Saddle/Canyon Trailhead includes parking and turnaround space, and a vault toilet. There is no camping at the trailhead for stock users or backpackers, and no use of the trailhead by commercial service providers.

*Road’s End Permit Station and Trailheads* — This permit station for trailheads within Kings Canyon National Park operate seasonally (Note: Vehicle access to Kings Canyon proper is allowed generally between mid-April through mid-October).

***Sequoia National Park***

*Ash Mountain/Park Headquarters Area* — The Wilderness Office and Foothills Visitor Center provide information on wilderness resources and issue permits for area trailheads (Middle, North, and South Fork Kaweah areas, and Mineral King in winter).

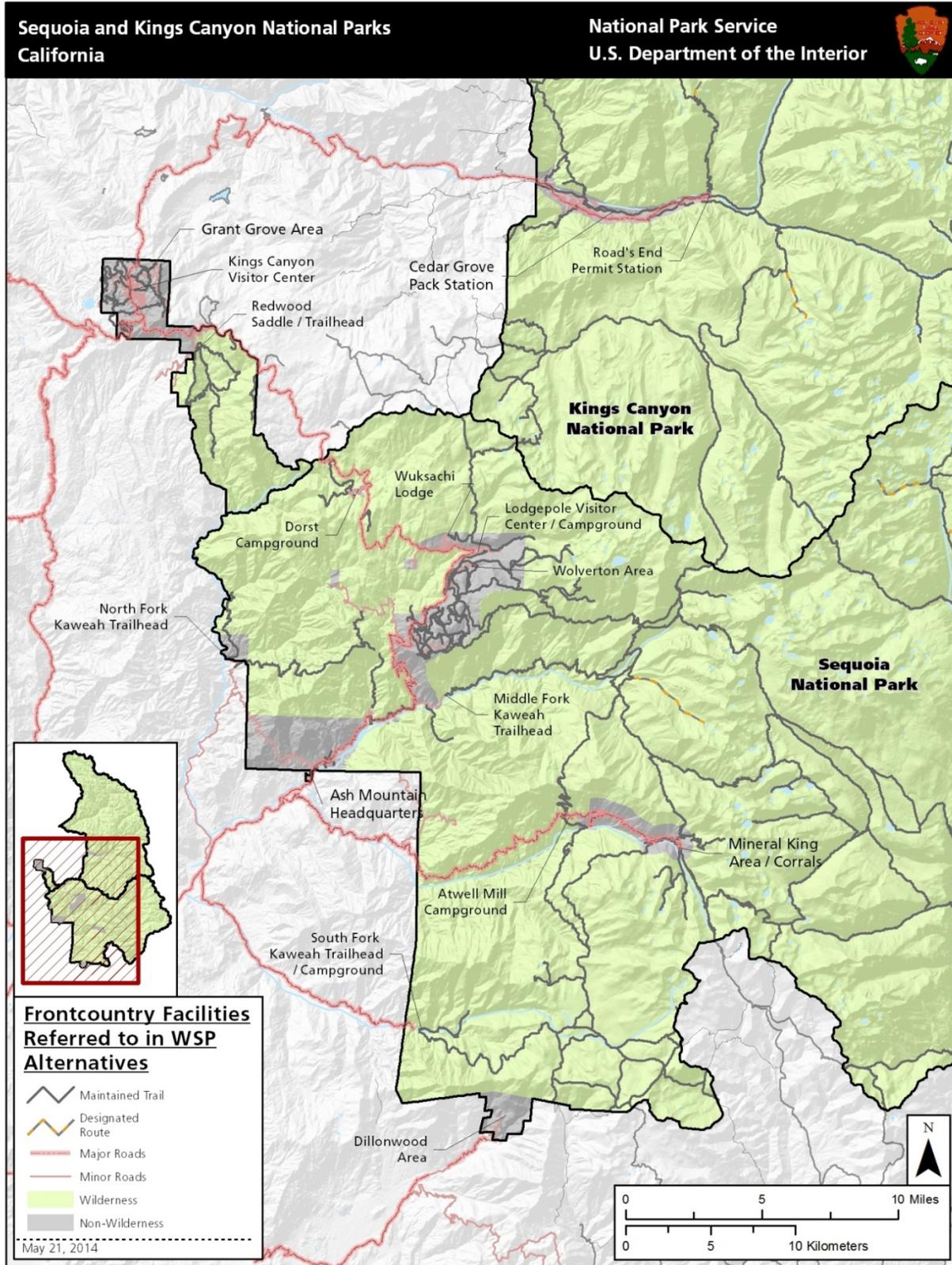


Figure 5: Map of Frontcountry Facilities Referred to in WSP Alternatives

*Dillonwood Area* — Road conditions in the Dillonwood area, which was added to the parks in 2001, limit vehicular access. Access is by foot or stock from the parks' boundary. It is anticipated that when funding is available, a management plan specific to Dillonwood would be developed.

*Dorst Area* — Dorst includes a campground and trailhead, but is not a starting point for overnight wilderness travel. Dorst, and nearby Halstead and Cabin Creek, are not considered for alternative locations for a pack station due to budget limitations and the lack of trails going into wilderness from these locations.

*Lodgepole Visitor Center (Permit Station) and Area Trailheads* — Lodgepole facilities include a large parking lot with a turnaround for stock users accessing Twin Lakes Trail and Old Lodgepole Road Trail to Wolverton. Backpacker campsites could be added to the area, per the GMP. The Lodgepole Visitor Center issues wilderness permits for Lodgepole, Wolverton, and Giant Forest Trailheads. The summer shuttle system operates in the area and provides access to some wilderness trailheads.

*Middle Fork Kaweah Trailhead* — This trailhead on the Middle Fork of the Kaweah River is near Potwisha and Buckeye Flat campgrounds, neither of which provides overnight camping for stock. There is a small dirt parking area with food-storage boxes.

*Mineral King Area (Atwell Mill and Cold Springs campgrounds, Mineral King Ranger Station, administrative corrals, and trailheads)* — Mineral King has public campgrounds at Atwell Mill and Cold Springs. There is a large dirt parking lot with signs and food-storage boxes at the Atwell-Hockett Trailhead for stock users and backpackers. There are currently no amenities for camping with stock at either campground. The GMP authorizes closing the Atwell Mill Campground and the establishment of trailhead campsites for backpackers.

The Mineral King administrative corrals, in east Mineral King Valley, include buildings, corrals, and stock-support equipment. Existing facilities are used for park administrative purposes, and occasionally by holders of commercial use authorizations (CUAs) and private users to stage trips.

*North Fork Kaweah Trailhead* — The area includes a small dirt parking lot at the North Fork Kaweah Trailhead. A primitive campground authorized by the GMP may be added.

*South Fork Kaweah Campground and Trailhead* — The South Fork Kaweah Trailhead facilities include a small parking area at the trailhead and a small rustic campground (10 sites, nonpotable water, vault toilets, and food-storage boxes).

*Wolverton Area (Trailheads and Administrative Corrals)* — The Wolverton area facilities include a parking lot, trailhead, and administrative stock facilities. Existing facilities are used by commercial service providers to stage resupply trips for the Bearpaw Meadow High Sierra Camp.

## **Element 11: Commercial Services in Wilderness**

Commercial services are a means for the NPS to provide opportunities for visitors to engage in activities that are consistent with the parks' objectives for visitor use. For the purposes of the WSP/FEIS, a commercial service is one that relates to or is connected with commerce wherein a service is performed for another person or entity, and where the primary purpose is the experience of wilderness through support and where the primary effect is that the wilderness experience is guided and shaped through the use of support services provided for a fee or charge. It may be operated by for-profit or non-profit entities. Commercial services must meet standards expressed in the Wilderness Act (1964) and the Concessions

Management Improvement Act (1998). The Wilderness Act limits commercial services to the type and amount of services that are necessary for activities that are proper for realizing the public purposes of wilderness (i.e. recreational, scenic, scientific, educational, conservation, and historic use per the Wilderness Act §4(b)). The Concessions Management Improvement Act limits commercial activity in parks to those that are necessary and appropriate for public use and enjoyment.

Commercial service levels and types are managed to provide high quality visitor experiences while protecting natural, cultural, and scenic resources. Commercial services may be authorized through concession contracts, CUAs, cooperative agreements, and special use permits.

Under the no-action alternative, CUAs are issued to the extent necessary to support hiking and backpacking services, stock services, mountaineering, ski mountaineering, snowshoe and cross-country ski tours, and photography. To date no CUAs have been issued specifically for climbing, fishing, porters, or river running. Table 12 describes the existing levels of commercial services. See also appendix B.

**Table 12: Existing Amounts of Visitor Use and Commercial Services (2010–2013)**

Activities	Current Visitor Use Levels Supported by Commercial Services	
<b>Total Visitor-use Days</b> – private and supported by commercial services (this does not take into account use by PCT and JMT visitors that are not recorded by the parks’ wilderness permit system, or day-use visitors).	Current visitor-use days from overnight use: 109,815 high 108,167 average	Visitor-use days – All Use 7,474 high 6,550 average
<b>Non-stock Activities</b> Backpacking and hiking trips Overnight camping – gear support Mountaineering (summer and winter) Oversnow travel (ski and snowshoe touring and winter camping – winter only, Nov 15–Apr 15).	Wilderness-wide: activities that are supported by non-stock based commercial services.	Visitor-use days – Non Stock 4,675 high 4,063 average
	Mount Whitney Management Area: activities that are supported by non-stock-based commercial services.	Visitor-use days – Non Stock: 1,346 high 1,062 average
<b>Stock-based Activities</b> Stock trips – riding, packing, day rides, and overnight camping with stock. Overnight Camping – gear support, including stock spot and dunnage	Wilderness-wide: activities that are supported by stock-based commercial services.	Visitor-use days – Stock-based: 3,110 high 2,487 average
	Mount Whitney Management Area: activities that are supported by stock-based commercial services.	Visitor-use days – Stock-based: 635 high 521 average

The Bearpaw Meadow High Sierra Camp was established shortly after the completion of the adjacent HST in the mid-1930s. Currently the camp consists of canvas tents on wooden platforms (six for guest lodging, one for kitchen/dining, three for restroom/showers, and five for employee quarters), a log storage building (historic former ranger station), and utility infrastructure (water and wastewater systems). It has been in almost continuous summertime operation as a rustic lodging and dining facility since its inception. This concession-operated facility is operated as a commercial enterprise by a contracted concession within a designated potential wilderness addition (DPWA) per the California Wilderness Act (1984) and its accompanying *House of Representatives Committee Report 98-40* (1983).

**Current Commercial Service Days for the Bearpaw Meadow High Sierra Camp**  
(from 7 years of data – 2006 through 2012)

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High – 1,650  
Average – 1,497

Pear Lake Ski Hut was constructed between 1939 and 1941 by the Civilian Conservation Corps as a remote base for winter recreation, e.g., cross-country skiing. The structure has been staffed as a summertime ranger station since the early 1970s, and is on the National Register of Historic Places (National Register). The Pear Lake Ski Hut is operated as a winter overnight lodging facility by a cooperating association; despite the association's status as a nonprofit organization, the service provided is considered commercial due to a fee being charged for the service. The California Wilderness Act of 1984 and its accompanying House of Representatives Committee Report 98-40 (1983) provide for the continued winter operation of the Pear Lake Ski Hut, unless this non-conforming use is deemed to have unacceptable wilderness impacts. The area is categorized as a DPWA based on the non-conforming use of a commercial enterprise (winter ski hut operation) in wilderness.

**Current Commercial Service Days for the Pear Lake Ski Hut**  
(From 5 years of data – 2008/09 through 2012/13)

---

High – 1,286  
Average – 1,220

On the following pages, figure 6 depicts the current wilderness trail system, figure 7 depicts campfire regulations for alternative 1, and figures 8a and 8b depict stock access and grazing regulations for alternative 1.

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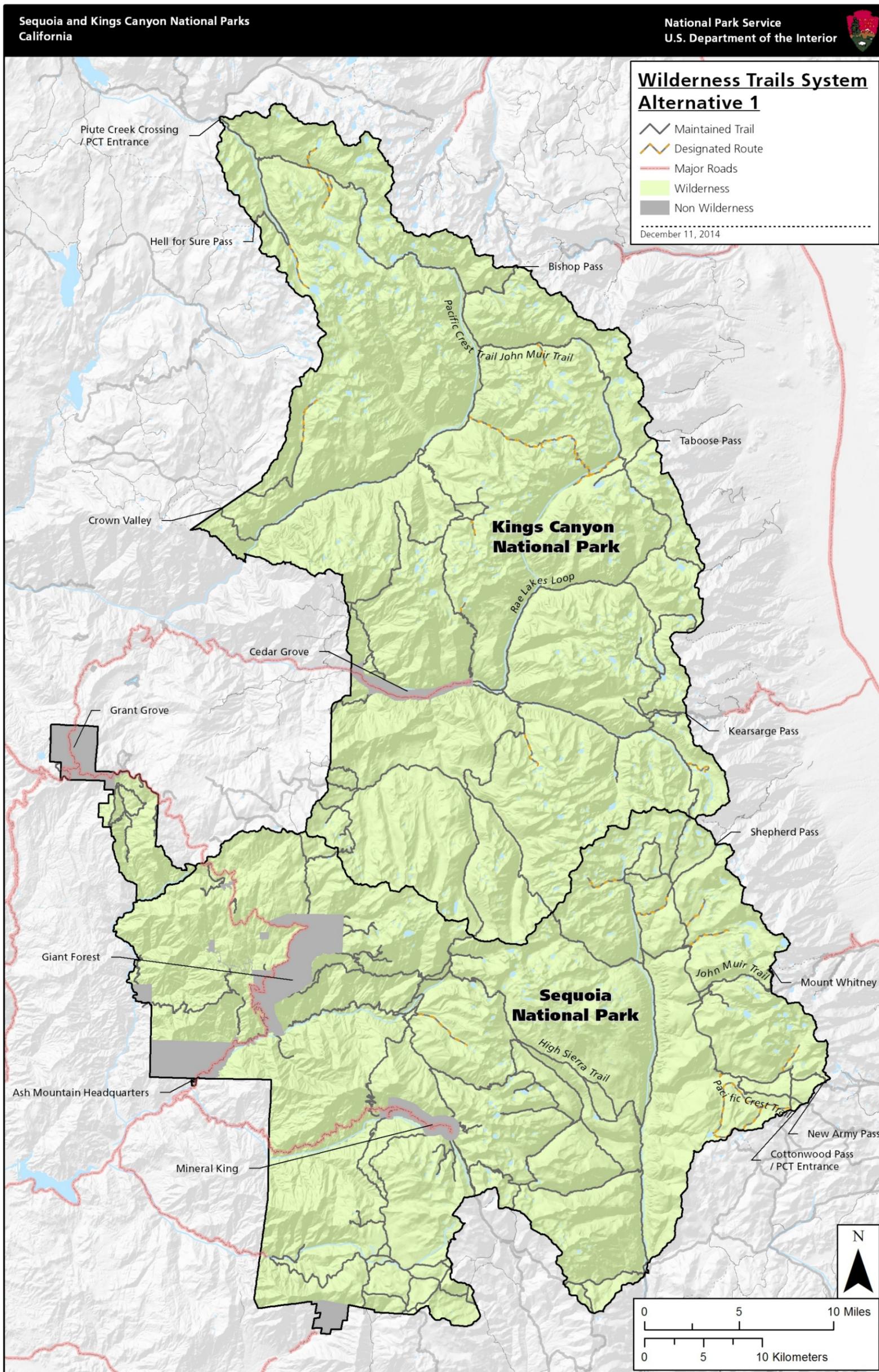
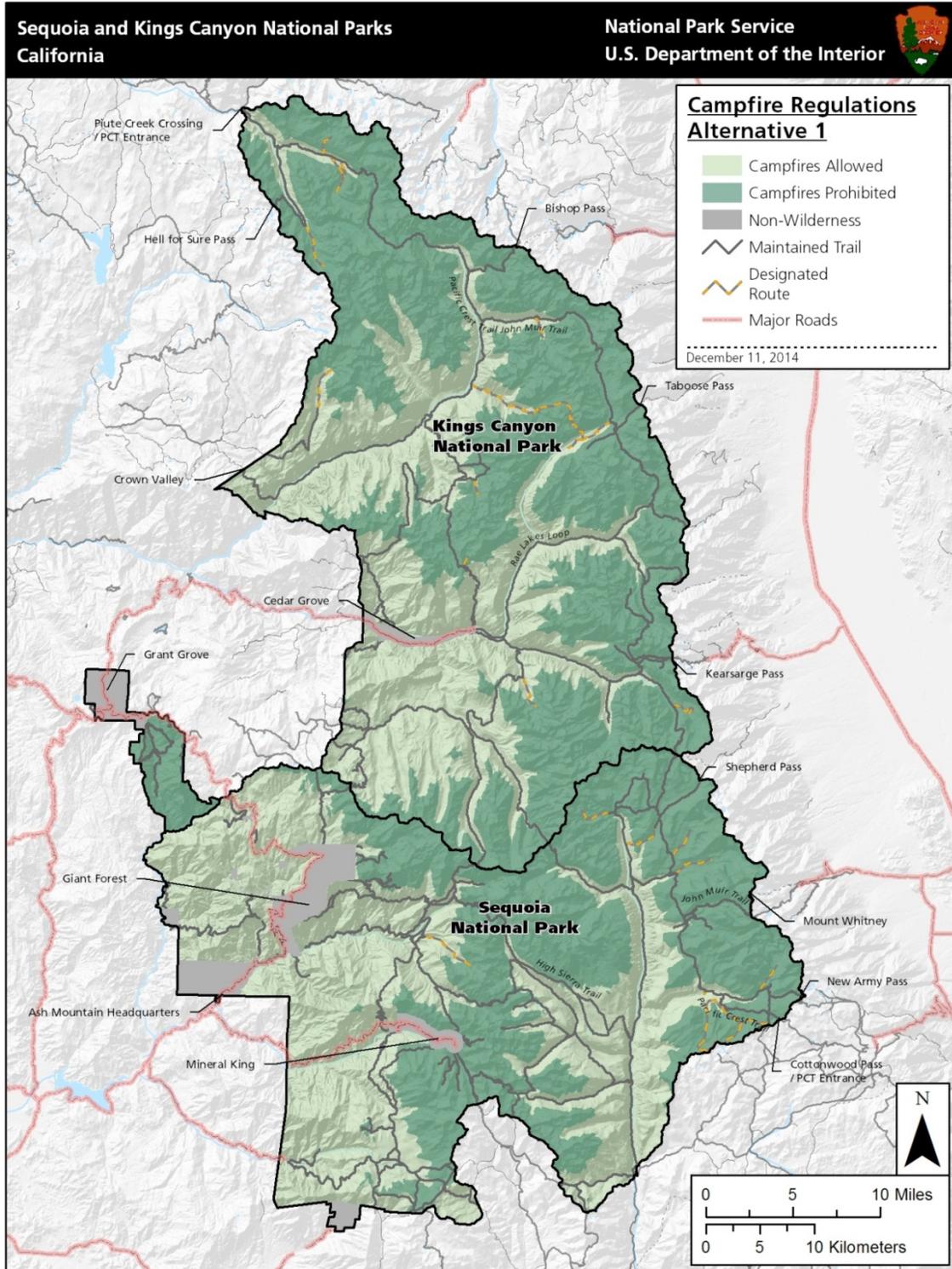


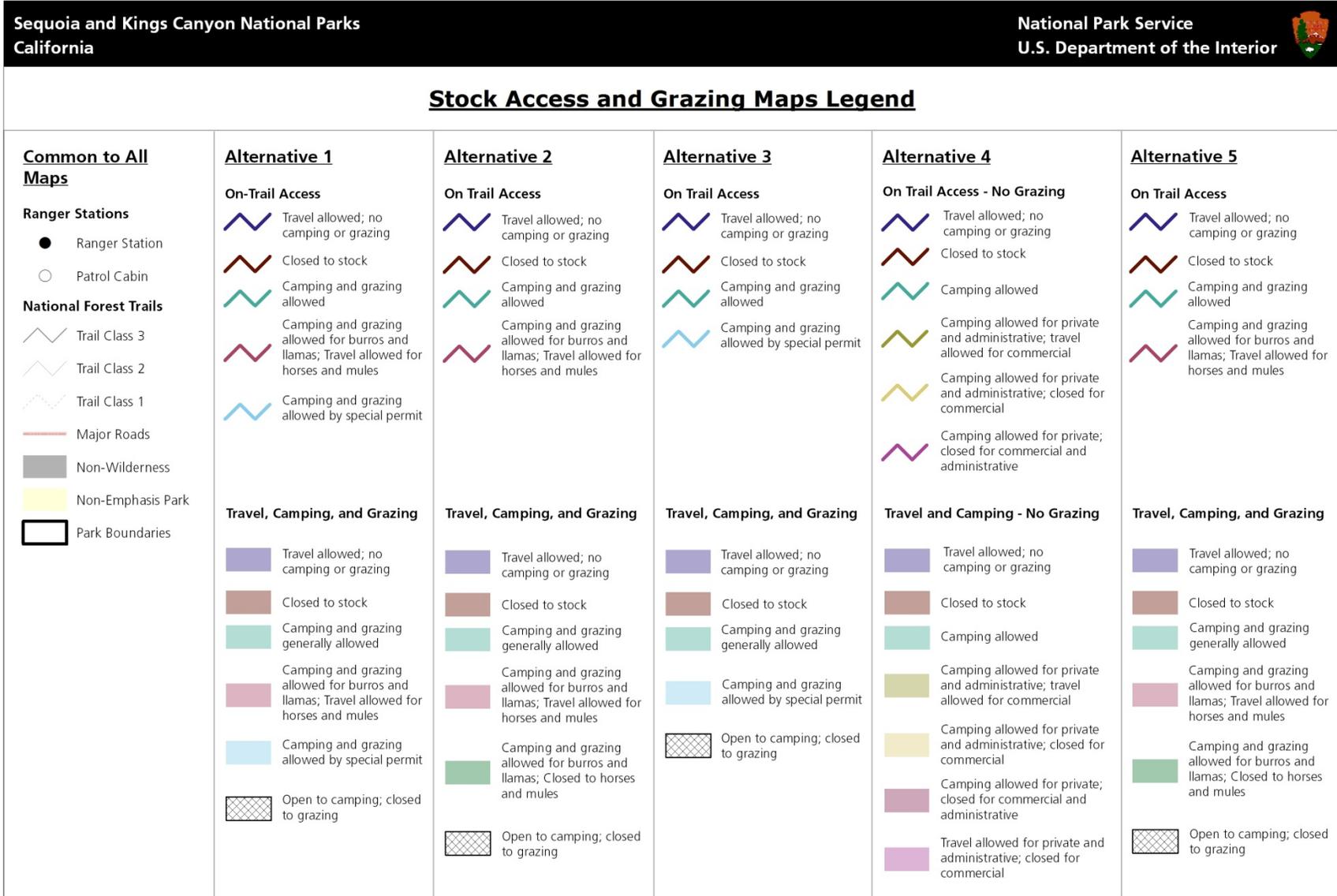
Figure 6: Wilderness Trails System – Alternative 1 (No-action / Status Quo)

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**Figure 7: Campfire Regulations – Alternative 1 (No-action / Status Quo)**

No campfires above 10,000 feet in Kings Canyon National Park, above 10,400 feet in the Kern River drainage, and 9,000 feet in the Kaweah River drainage. (see figure 23, page 297, for drainages)



**Legend to Accompany Figure 8a: Stock Access and Grazing – Alternative 1 (No-action / Status Quo), Kings Canyon National Park**

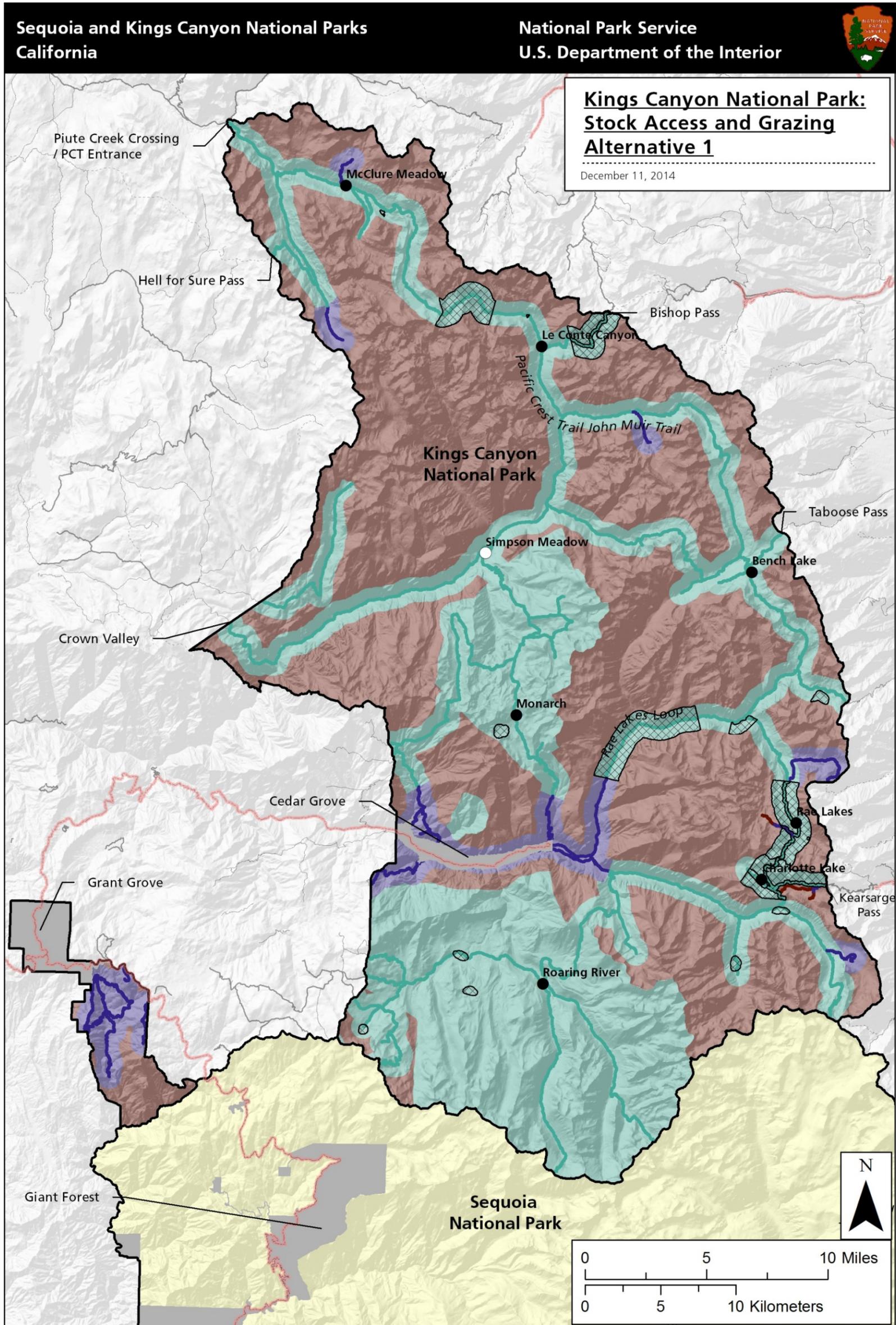


Figure 8a: Stock Access and Grazing – Alternative 1 (No-action / Status Quo), Kings Canyon National Park

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**Stock Access and Grazing Maps Legend**

Common to All Maps	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>Ranger Stations</b>					
● Ranger Station					
○ Patrol Cabin					
<b>National Forest Trails</b>					
— Trail Class 3					
— Trail Class 2					
— Trail Class 1					
— Major Roads					
■ Non-Wilderness					
■ Non-Emphasis Park					
□ Park Boundaries					
<b>On-Trail Access</b>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing allowed</p> <p> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</p> <p> Camping and grazing allowed by special permit</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing allowed</p> <p> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing allowed</p> <p> Camping and grazing allowed by special permit</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping allowed</p> <p> Camping allowed for private and administrative; travel allowed for commercial</p> <p> Camping allowed for private and administrative; closed for commercial</p> <p> Camping allowed for private; closed for commercial and administrative</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing allowed</p> <p> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</p>
<b>Travel, Camping, and Grazing</b>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing generally allowed</p> <p> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</p> <p> Camping and grazing allowed by special permit</p> <p> Open to camping; closed to grazing</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing generally allowed</p> <p> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</p> <p> Camping and grazing allowed for burros and llamas; Closed to horses and mules</p> <p> Open to camping; closed to grazing</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing generally allowed</p> <p> Camping and grazing allowed by special permit</p> <p> Open to camping; closed to grazing</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping allowed</p> <p> Camping allowed for private and administrative; travel allowed for commercial</p> <p> Camping allowed for private and administrative; closed for commercial</p> <p> Camping allowed for private; closed for commercial and administrative</p> <p> Travel allowed for private and administrative; closed for commercial</p>	<p> Travel allowed; no camping or grazing</p> <p> Closed to stock</p> <p> Camping and grazing generally allowed</p> <p> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</p> <p> Camping and grazing allowed for burros and llamas; Closed to horses and mules</p> <p> Open to camping; closed to grazing</p>

**Legend to Accompany Figure 8b: Stock Access and Grazing – Alternative 1 (No-action / Status Quo), Sequoia National Park**

# Sequoia and Kings Canyon National Parks California

# National Park Service U.S. Department of the Interior

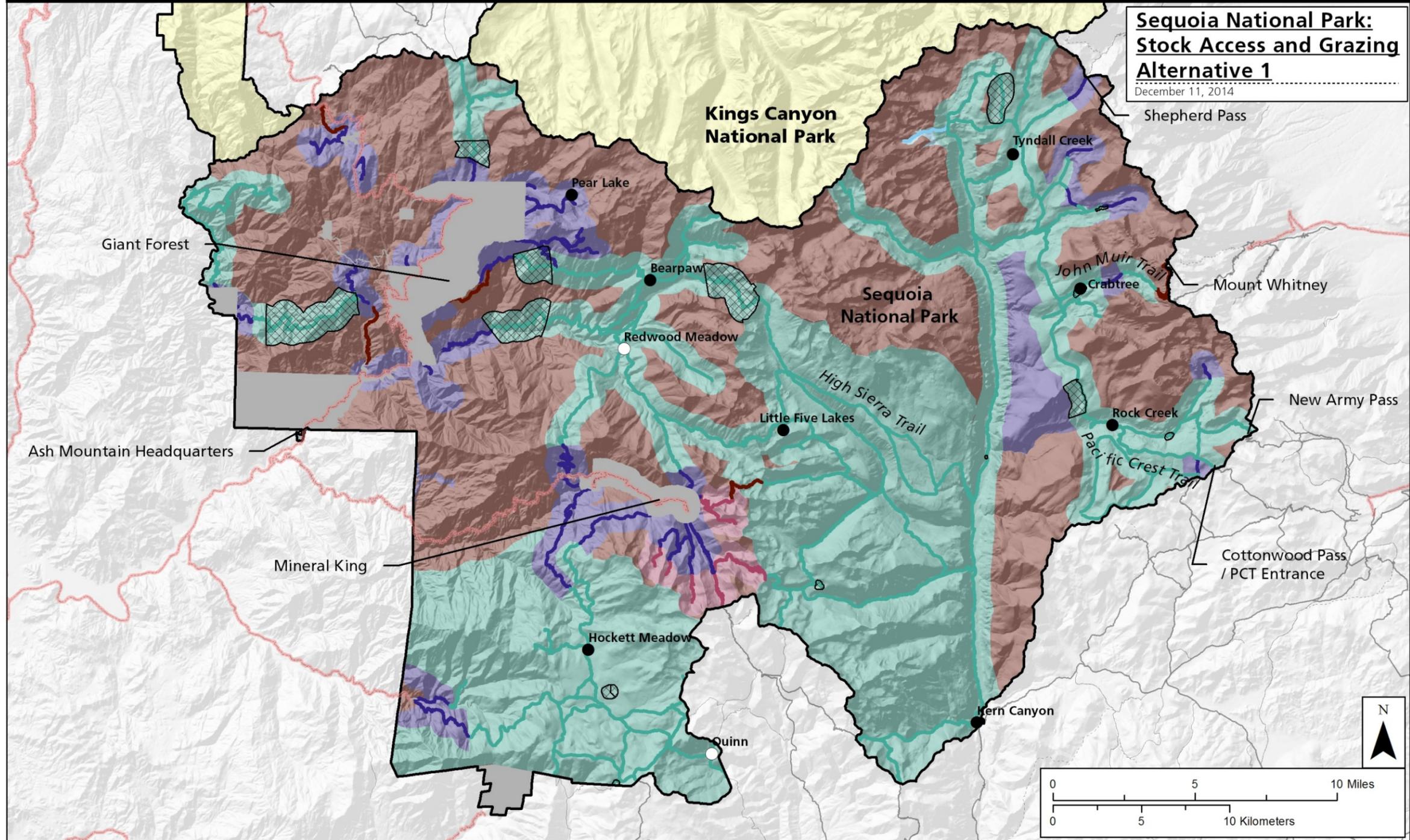


Figure 8b: Stock Access and Grazing – Alternative 1 (No-action / Status Quo), Sequoia National Park

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## **ELEMENTS COMMON TO ALL ACTION ALTERNATIVES**

This section identifies actions that would be implemented through the WSP regardless of which alternative is selected.

### **WILDERNESS EDUCATION AND INFORMATION**

The parks would implement a strategy to educate wilderness visitors, park staff, and the general public in order to:

- protect wilderness lands and characteristics;
- enhance public and employee understanding of and commitment to wilderness stewardship;
- increase understanding of the range of legally appropriate uses of wilderness;
- reduce conflicts between wilderness visitors;
- increase the visitors' ability to manage risk as an expected aspect of wilderness use; and
- encourage connection to and appreciation of wilderness.

To achieve these goals, all divisions of the parks would take the following actions:

- Identify the audiences they serve who are in need of wilderness information, including: internal staff, wilderness visitors, commercial wilderness users, researchers, neighboring agencies, partners, and the general public.
- Identify the messages their audiences need.
- Develop tools including training sessions, reference materials, and public information needed to ensure that complete, correct, welcoming information is shared with visitors.
- Build staff awareness of and commitment to the wilderness mission as part of the parks' mission.
- Develop trip-planning information for wilderness visitors to help generate realistic expectations regarding the range of uses, users, and conditions that may be encountered during a trip.
- Develop educational information about minimum impact standards for wilderness visitors, researchers, commercial users, partners, and others.
- Make information available online, in visitor centers, at park permit stations, and to neighboring agencies involved in issuing permits.
- Develop age appropriate interpretive and educational outreach materials regarding wilderness.
- Review and update all existing materials to reflect changes made by the WSP/FEIS and to explain new guidelines and systems, e.g., trail classes and wilderness signage.

### **AVIATION (COMMERCIAL, MILITARY, AND PRIVATE)**

The parks have attempted, by multiple means over time, to determine if commercial air tours are occurring over the parks, and have found no evidence of their existence. Under the National Parks Air Tour Management Act (NPATMA) of 2000, an Air Tour Management Plan needs to be established “for any national park or tribal land for which such a plan is not in effect whenever a person applies for authority to conduct commercial air tour operation over the park.” With the passage of the NPATMA, two potential operators submitted their names for future consideration. At that time, the Federal Aviation

Administration (FAA) established an Interim Operating Authority for a maximum of 18 tours per year over the parks.

The FAA Modernization and Reform Act of 2012 (Pub. L. 112-95) amended various provisions of NPATMA. One provision exempted national park units with 50 or fewer annual commercial air tour operations from the requirements of NPATMA. Since there are fewer than 50 annual commercial air tour operations being conducted over the parks, and the NPS is not withdrawing the exemption, the parks are exempt from NPATMA. As a result of these changes, and because air tours are disruptive to the national park and wilderness experience of the visiting public, the parks are seeking to be permanently removed from the FAA list of national park units where air tours are allowed. The desired condition for the parks' wilderness is to be free of commercial air tours due to the disruption of the wilderness experience of park visitors caused by aircraft. NPS Director's Order 41: *Wilderness Stewardship*, section 7.3 states "Commercial air tours are inconsistent with preservation of wilderness character." The Pacific West Region of the NPS is finalizing a guiding policy on this issue through a Wilderness Air Tour Noise Assessment Strategy. The goal of the Noise Assessment Strategy is to "develop a consistent approach for protecting wilderness areas from air tour noise impacts" in the Pacific West Region. The Noise Assessment Strategy directs parks to apply the principle of nondegradation to wilderness management, and to measure each wilderness area's condition "against its own unimpaired standard." By virtue of having no air tours, currently or in the recent past, the parks are classified in the Noise Assessment Strategy as a Tier 1 NPS unit. Subsequently, as an outcome of this WSP/FEIS, air tours over the parks are determined to be counter to the preservation of wilderness character, and the parks will continue to pursue means for their exclusion.

Approximately 95% of the airspace over the parks is in Military Operations Areas or part of the R-2508 Military Special Use Airspace Complex. This large expanse of restricted airspace is of extremely high



**Taking a core sample from a wilderness meadow for a soil survey**

value to the armed forces for testing and training purposes. Because so much of the parks are overlain with military airspace and thus subject to its restrictions, the ability of general and commercial aviation to operate in the area is constrained. The parks have successfully worked with the military to reduce wilderness impacts, and will continue to work cooperatively with regional and national military leadership to ensure that military aviation operations are minimally disruptive to the experience of wilderness visitors.

Private aircraft use would continue to be managed by the FAA, but the NPS will continue to work cooperatively with the FAA to resolve problems. No airstrips will be constructed in the parks under this plan.

## RESEARCH

Sequoia and Kings Canyon National Parks are recognized for being at the forefront of advancing scientific research and the integration of knowledge gained from scientific inquiry into the management of wilderness resources. Research in the parks includes studies, inventories, and monitoring

conducted by NPS staff as well as permitted research performed by external scientists from other federal agencies, state and local governments, universities, and non-profit organizations. Over the past three years, 73% of the parks' permitted research included activities in wilderness. This research covers a wide range of disciplines. The most frequent topics for research in wilderness in the past three years were vascular plants/plant communities, herpetology (amphibians and reptiles), geology, cave/karst, invertebrates, and fire (behavior, ecology, and effects).

NPS Management Policies 2006 includes many references to research and permitted research in particular. Some of these policies describe the need for current scientific understanding for stewardship that underlies the rationale for research in the parks, while other references describe the policy for reviewing proposals to conduct research in the parks and parks' wilderness. For a listing of the related policies, see "Appendix P: Permitted Research Program and Process."

The WSP would support the continuation of relevant scientific research in wilderness, using methods that preserve wilderness character. Scientific investigations would continue to be conducted in wilderness to enable the NPS to meet its mission requirements and the ecological, geological, scientific, conservation, and historic purposes of the Wilderness Act. Minimum requirements analyses will be conducted to determine whether each proposed project is administratively necessary and, if it is, to select the minimum tools.

## **ADMINISTRATIVE COMMUNICATIONS IN WILDERNESS**

To administer the large wilderness areas of the parks and provide for employee and public safety, radio repeaters exist in strategic and remote locations and need to be maintained. It is necessary to provide scheduled maintenance and upgrades to these facilities, and due to their remote and difficult to access locations this is often done with the assistance of a helicopter. The NPS would review the continued use and maintenance of the existing communication system (e.g., radio repeaters) in wilderness for the purposes of administering wilderness through the minimum requirements analysis (MRA) process. The parks' wilderness staff requires effective radio communication systems to provide resource protection actions, respond to emergency services, communicate updated information to the frontcountry about trail and other wilderness conditions for the purpose of educating wilderness visitors, and promote the safety of wilderness staff. As future technologies are developed, the existing structures would be considered for replacement, with replacement outside of wilderness preferred. If structures are able to be removed, the installation sites would be restored to natural conditions.

## **ADMINISTRATIVE ACTIVITIES IN WILDERNESS**

Activities necessary for the administration of wilderness (e.g., ranger patrols and operations, stock-supported activities, maintenance, and resource management activities, etc.) would continue to occur in wilderness. If actions propose a 4(c) prohibited use or have the potential to adversely affect wilderness resources, the actions would be evaluated through a MRA process (appendix I).

Administrative use of helicopters would continue to be authorized as needed for the purposes of emergency operations involving the health or safety of persons in wilderness, such as search and rescue operations.

## **TREE HAZARD MANAGEMENT**

Removing hazard trees in wilderness is not a normal or desirable activity, but may be allowed under certain circumstances after a MRA to determine that the actions are appropriate in wilderness.

## TRAILS MANAGEMENT PLAN

A network of trails would continue to be maintained in parks' wilderness. A Trail Management and Classification System (appendix K), based on adaptation of elements of the USFS Trail Management Handbook, has been developed as a component of the WSP. The main principles borrowed from the USFS Trail Management Handbook are trail class and designed use. Trail class describes the level of development and expected recreational experience for a trail segment, and designed use describes the modes of travel for which the trail is designed and maintained (see summary tables 47a through 47f starting on page 246 at the end of this chapter). The Trail Management Plan explains the guiding principles of trail management at Sequoia and Kings Canyon National Parks, describes current and desired conditions for the trail system, describes some programmatic methods used in trail management at the parks, and lists some significant actions that will need to be taken to achieve the desired conditions of the WSP. Notably, the no-action alternative includes a category of designated unmaintained routes open to stock travel. Under all action alternatives, each of these routes would be adopted into the trail system as Class 1 or Class 2 trails open to stock use, or they would be abandoned and landscape restoration would be considered for the remaining traces of abandoned trails. The Trail Management Plan includes a list of the trail class and designed use for each trail segment in wilderness for the preferred alternative.

### **Definition of Key Terms – Trail Classes**

**Class 3 – Developed.** *These trails require the least self-reliance, and provide opportunities for primitive recreation to people needing or seeking less challenging travel in wilderness.*

**Class 2 – Moderately developed.** *These trails are typically more challenging to travel and provide access to less-visited areas of the park, providing opportunities for primitive recreation to people who are seeking more challenge and/or solitude.*

**Class 1 – Minimally developed.** *These trails provide for the highest level of on-trail challenge, the greatest opportunities for solitude, and the most self-reliant type of trail-based recreation.*

Trail signs provide important information regarding navigation, allowable use, and other information to wilderness visitors. Under all action alternatives the amount and type of trail signs would be appropriate to the trail class, and the NPS would evaluate options for sign design to ensure consistency with wilderness character and sustainability. Regulatory and informational signs would be appropriate to the trail class and no new memorials or associated signs would be allowed, pursuant to 36 CFR 2.62. Existing memorials and signs would be evaluated on a case-by-case basis to determine if they should be removed.

### **WINTER USE**

Opportunities for winter travel and recreation abound in the parks. The winter use season extends from November through mid-May. A wide range of activities, from one-day snowshoe touring to technical and difficult ski-mountaineering and ice climbing can be experienced. Due to the high-elevation, demanding terrain and potentially extreme weather of the parks' wilderness, winter activities can be challenging and

hazardous for the inexperienced user. However, users of the winter environment will find the quiet, solitude, and beauty of the parks' wilderness extraordinary and inspiring.

Winter activities include hiking in snow free areas (generally below 5,000 feet), cross-country skiing, snowshoeing, snowboarding, ice climbing, mountaineering, and under certain conditions, ice-skating. Use of mechanical or motorized over-snow transport (e.g., snowmobiles and bicycles) and dog sledding are prohibited, but human-drawn sleds are permitted.

Winter weather and trail/route conditions can change rapidly in the upper elevations of the parks. Sudden storms with extended and heavy snowfall, high winds, cold temperatures, and avalanche potential are common major threats. Users should be prepared for extreme conditions at any time. Park staff will provide the best available information on known conditions and winter safety.

Travel can occur along trails or routes in snow-free areas or as less-restricted point-to-point travel in snow-covered areas. Trails are generally not maintained during the winter months, even in snow-free areas. Many routes that have been historically traversed may lead into high avalanche danger areas and should only be attempted by experienced and properly equipped winter users.

Regardless of which alternative is selected for the WSP, the following conditions will apply to winter use:

- Winter travel and camping would be allowed in wilderness and would require a self-issue wilderness permit. These are obtained at various ranger stations/public contact centers nearest the trailhead being used. Due to the low levels of winter use, no trailhead quotas would be applied in the winter.
- Party size for overnight winter use would be 15, whether traveling on-trail (snow free areas) or off-trail.
- As in summer, camping would only be permitted if parties travel more than one mile from roads or developed areas. Summer first-camp limitations would apply in snow-free areas (see tables 8 and 9 on pages 68 and 69).
- Overnight camping limits would be those of the adopted alternative. Site specific area night limits would apply year-round.
- Campfires would be permitted in winter (unless alternative 4 is adopted), with only dead and down wood to be burned. Restrictions on campfires would be the same in winter as in summer.
- Proper food storage would be required, though there would be no portable container requirements in winter.
- Pack out solid human waste. In lieu of packing it out, cover and disguise human waste deep in snow away from travel routes and at least 200 feet (70 adult steps) from water sources.
- Pack out toilet paper.
- Overall trip camping/night limits would be those of the adopted alternative. There would be no exceptions to night limits for specific areas in winter.
- Stock use would be allowed in those areas that are passable to stock. Summer restrictions on use would apply.
- Commercial services would be allowed for those activities and to the limits as defined in “Appendix B: Extent Necessary Determination: An Analysis to Determine the Proper Types and Levels of Commercial Services in the Wilderness of Sequoia and Kings Canyon National Parks” for the adopted alternative.



**An interpretive ranger and visitors  
on a snowshoe walk**

## **CLIMBING**

The NPS recognizes climbing as a legitimate and appropriate activity for realizing unconfined and self-reliant recreational opportunities in wilderness. Aspects of climbing may affect wilderness character, including the qualities of natural, undeveloped, and opportunities for solitude. Climbing management in National Park wilderness is directly guided by relevant NPS Management Policies, Director's Orders, and reference manuals. The U.S. Code of Federal Regulations and the parks' Superintendent's Compendium also provide indirect and direct management control of climbing and related activities. Director's Order #41: Wilderness Stewardship provides specific guidance on the management of climbing in wilderness. A Climbing Management Strategy has been developed as part of this WSP and is included as appendix J.

The following objectives will apply under all alternatives for climbing management in the parks' wilderness:

- Provide opportunities for the pursuit of the traditional activity of climbing in the park's wilderness.
- Ensure that climbing activities do not unacceptably impact wilderness character or resources.
- Emphasize clean climbing as the proper method to realize the benefits of climbing in wilderness.
- Promote strategies that "will address ways to control, and in some cases reduce, the number of fixed anchors to protect the parks' wilderness resources or to preserve the 'untrammelled,' 'undeveloped,' and 'outstanding opportunities for solitude' qualities of the park's wilderness character."
- Work cooperatively with climbers and the climbing community to advance the practices of responsible climbing in wilderness.
- Provide education to the public on responsible climbing practices in wilderness.

### **Summit Registers**

More than 170 summit (or peak) registers exist in these parks. They generally consist of a sealable weather-resistant container (e.g., metal, plastic, or glass) holding a small notebook in which people record dates and details of their climbs. Most registers were placed many years ago; these have served on occasion as a historical record of climbing in the Sierra Nevada, and have even aided in search and rescue efforts. The Sierra Peaks Section of the Sierra Club has inventoried and maintained these registers for many years and has worked with the Bancroft Library at University of California, Berkeley to document and preserve information from the registers.

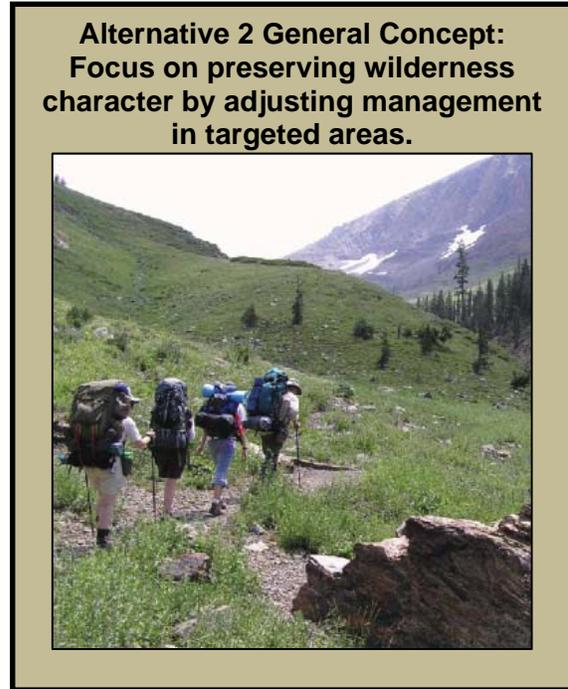
Some summit registers have historical value; the registers are also viewed as intrusions on the undeveloped quality of wilderness by some visitors. These parks recognize that a limited number of registers is compatible with wilderness character, provided they are in appropriate locations, of appropriate size and construction, and are well maintained. It is a desired condition of this WSP/FEIS to reduce developments and installations in wilderness, therefore, these parks will work toward reducing the number of registers and will not permit placement of new registers. In the near future, the parks will pursue the development of a general agreement (e.g., Memorandum of Understanding) between the NPS and the Sierra Peaks Section of the Sierra Club, which would determine locations, maintenance standards, and other conditions under which registers could remain.

## **ALTERNATIVE 2: PROTECT WILDERNESS CHARACTER BY IMPLEMENTING SITE-SPECIFIC ACTIONS (NPS PREFERRED ALTERNATIVE)**

### **OVERVIEW**

The overarching idea behind alternative 2 is that the WSP would incorporate much of the current management strategies and tools used by the parks to protect wilderness. Rather than imposing restrictions on a broad scale, this alternative would evaluate conditions in specific areas and mitigate impacts through targeted actions. The goal is to encourage wilderness use and minimize restrictions while preserving wilderness character.

This alternative recognizes that there is variation in visitor-use levels throughout the wilderness: day use (close to frontcountry), popular overnight areas (e.g., HST, PCT, and Rae Lakes Loop), and less-visited areas (e.g., the Middle Fork of the Kings, the Hockett Plateau, and off-trail areas). It further recognizes that, under current management, prevailing projected visitor-use levels pose few threats to wilderness character in the less-popular or less-visited areas.



Alternative 2 acknowledges, however, that there are some challenges in the most popular areas and in areas with sensitive resources that can be mitigated through targeted improvements in management.

As with current management, this alternative would protect wilderness character and resource values while providing for a range of visitor opportunities but would add some limits in specific popular and sensitive resource areas to improve wilderness character.

For example, overall use would be allowed up to the current trailhead quotas; however, quotas could be reduced on specific busy trails and/or destination quotas could be applied. This alternative allows for future reductions in quotas if conditions warrant.

Some popular areas would have additional restrictions (e.g., closing additional meadows along the JMT and HST to grazing), but less popular areas would have some restrictions eased (e.g., allowing campfires in specific areas, increased night limits, etc.). Education would be essential to inform visitors of where they could expect fewer encounters and how to practice Leave No Trace® travel and camping techniques in wilderness.

The most popular areas where concerns regarding visitation levels exist include Bishop Pass (Dusy Basin), Bubbs Creek (Rae Lakes Loop), Cottonwood Lakes / New Army Pass (Mount Whitney and Mount Langley), Cottonwood Pass (Mount Whitney), HST (from Crescent Meadow and Wolverton), Lakes Trail (Emerald and Pear lakes), Sawtooth Trail (Monarch Lakes), and Woods Creek (Rae Lakes Loop). Lamarck Col (Darwin Canyon), while not busy compared to the major trails, may have increasing use and is a sensitive area. Table 23 on page 130 summarizes the site-specific management actions proposed for these areas under alternative 2.

Visitors traveling with stock would continue to have access to most trails in the parks, with some trails reserved for hiking use only. The combined length of trails open to hiking or backpacking traffic only (i.e., closed to stock) would increase by approximately 25 miles over current conditions. Stock access and grazing would be constrained primarily by ecological parameters, with a limited number of new restrictions adopted to provide for visitor safety and to accommodate social values (e.g., scenic and aesthetic values). Grazing would be managed to optimize protection of natural and cultural resources while allowing visitors traveling with stock access to forage for their animals. Recognizing that the opportunity to observe and experience ungrazed meadows is of value to many park visitors, a selection of meadows along popular travel routes would be closed to grazing.

To meet the objectives of this alternative, commercial services would be retained at levels similar to alternative 1 (no-action / status quo) in most locations. Commercial services would be reduced in the most frequently visited area of the parks' wilderness, and could be reduced in some areas with particularly sensitive resources. More types of commercial services could be permitted to support a range of recreational opportunities consistent with the objectives of this alternative. Commercial services would be allowed to the extent necessary to provide opportunities for visitors of diverse abilities and interests to engage in a variety of wilderness activities that are proper for realizing the public purposes of wilderness.

## **KEY ELEMENTS OF ALTERNATIVE 2**

This alternative addresses the key elements as described below.

### **Element 1: Visitor-use Levels**

**Planning Objective:** Visitor use and enjoyment of wilderness would be promoted while ensuring the preservation of wilderness character. In this alternative, visitor use levels would be reduced in some popular areas to preserve opportunities for solitude or other wilderness-character qualities.

*Permits and Quotas* — Under this alternative, all overnight visitors in the parks' wilderness, whether self-supported or traveling with the support of a commercial service provider, would be subject to the trailhead quota system (table 4 on pages 61-63), and must obtain a wilderness permit from an approved source (e.g., NPS, USFS, or Pacific Crest Trail Association). This would also apply for alternatives 3, 4 and 5.

Daily trailhead quotas would remain as per alternative 1, with the possibility of some future quota reductions in specific targeted areas. Areas to be monitored for continued acceptable levels of use that may require a future trailhead quota change include Bishop Pass (Dusy Basin), Bubbs Creek (Rae Lakes Loop), Cottonwood Lakes / New Army Pass (Mount Whitney and Mount Langley), Cottonwood Pass (Mount Whitney), Lamarck Col (Darwin Canyon), HST (from Crescent Meadow and Wolverton), Lakes Trail (Emerald and Pear lakes), Sawtooth Trail (Monarch Lakes), and Woods Creek (Rae Lakes Loop).

Four of the five trailheads administered by these parks with no current quotas (and shown as having VL [very low] use on table 4, pages 61-63) would each adopt a daily quota of eight: Don Cecil; Summit Meadow; Colony Mill Road (east); and Colony Mill Road (west). The fifth trailhead, North Fork Kaweah, would adopt a daily quota of 15 (table 46, page 246).

Visitors entering the parks' wilderness via trailheads managed by Sequoia and Kings Canyon National Parks on the west side of the parks would be subject to established quotas regardless of whether they were traveling as private individuals or groups, or with support from commercial service providers. Quotas

could only be exceeded on rare occasions through a formal request to, and approval by, the superintendent. This would also apply for alternatives 3, 4 and 5.

Those visitors entering the parks' wilderness via trailheads managed by the USFS on the east side of the parks are subject to the trailhead quotas of Inyo National Forest (table 4 on pages 61-63). Most of these quotas are "combined" (i.e., one quota for both private and commercially supported users), and some are "split" (i.e., separate quotas for private users and commercially supported users). Visitors also enter the parks' wilderness from more distant Yosemite National Park and USFS managed trailheads (e.g., Sierra and Sequoia national forests), some of which have quotas and some of which do not. These visitors are subject to the entry policies of the agency issuing the permits at the trailhead. This would also apply for alternatives 3, 4 and 5.

**Definitions of Key Terms**

**Destination Quota** – A limit on the number of visitors, groups, or campsites in a specific wilderness location. Destination quotas help to protect wilderness quality and visitor experience in given areas. Quotas are based on resource information, desired conditions, and professional judgment by an interdisciplinary team of specialists and decision makers.

Current destination quotas at Emerald and Pear lakes would continue to apply. Additional destination quotas may be added to protect wilderness character at specific locations such as Bearpaw Meadow, Dusy Basin, Guitar Lake, Hamilton Lake, Monarch Lakes, Rae Lakes, and other areas.

No day-use permits or quotas would be implemented at this time but they may be considered in the future in popular areas to achieve desired conditions.

The NPS would continue to work with the USFS to manage and improve the quota and permitting systems (e.g., adjust the Mount Whitney exit quota), to add trailheads currently not included in the quota system (e.g., Tehipite Valley and Kern River), and on other relevant cooperative cross-boundary wilderness-management issues.

Visitor Capacities and Encounter Standards — Alternative 2 would retain existing types and levels of use that would be allowed in wilderness in an attempt to provide opportunities and access for appropriate wilderness experiences. Limited and targeted controls would be applied only in those areas where levels and types of use may be leading to some localized impacts on wilderness character. Based on the objectives for this alternative, the overnight estimated visitor capacity would be set at 134,000 VUDs. Ten-year average overnight use would be limited to 108,000–114,000 VUDs/year. While use levels would be allowed to reach the established capacities for this alternative, there are social, economic, and other factors that may lead to actual use being below capacity. Each year, total annual VUDs would be discussed and analyzed by an interdisciplinary group at an annual meeting on wilderness management. If determined to be out of standard, management actions to bring the measure back into standard would be adopted. Appendix A contains a detailed description of the methods used to develop the visitor capacity framework for this WSP.

To ensure that there are opportunities for solitude, the parks would adopt a measure of the number of people encountered per hour (EPH) on trails and would take action based on established standards. The standards would vary depending on the desired condition of solitude in a given area. For this measure, each trail would be assigned to one of four encounter-rate standards: very high use (primarily Mount Whitney and day-use areas), high use (generally Class 3 trails, with some exceptions), moderate use (generally Class 2 trails, with some exceptions), and low use (generally Class 1 trails, with some exceptions). Each has a specified EPH that serves as a standard. The standards for alternative 2 are shown in table 13. Figure 9 on the next page contains encounter standards for the four encounter classes (very high, high, moderate, and low).

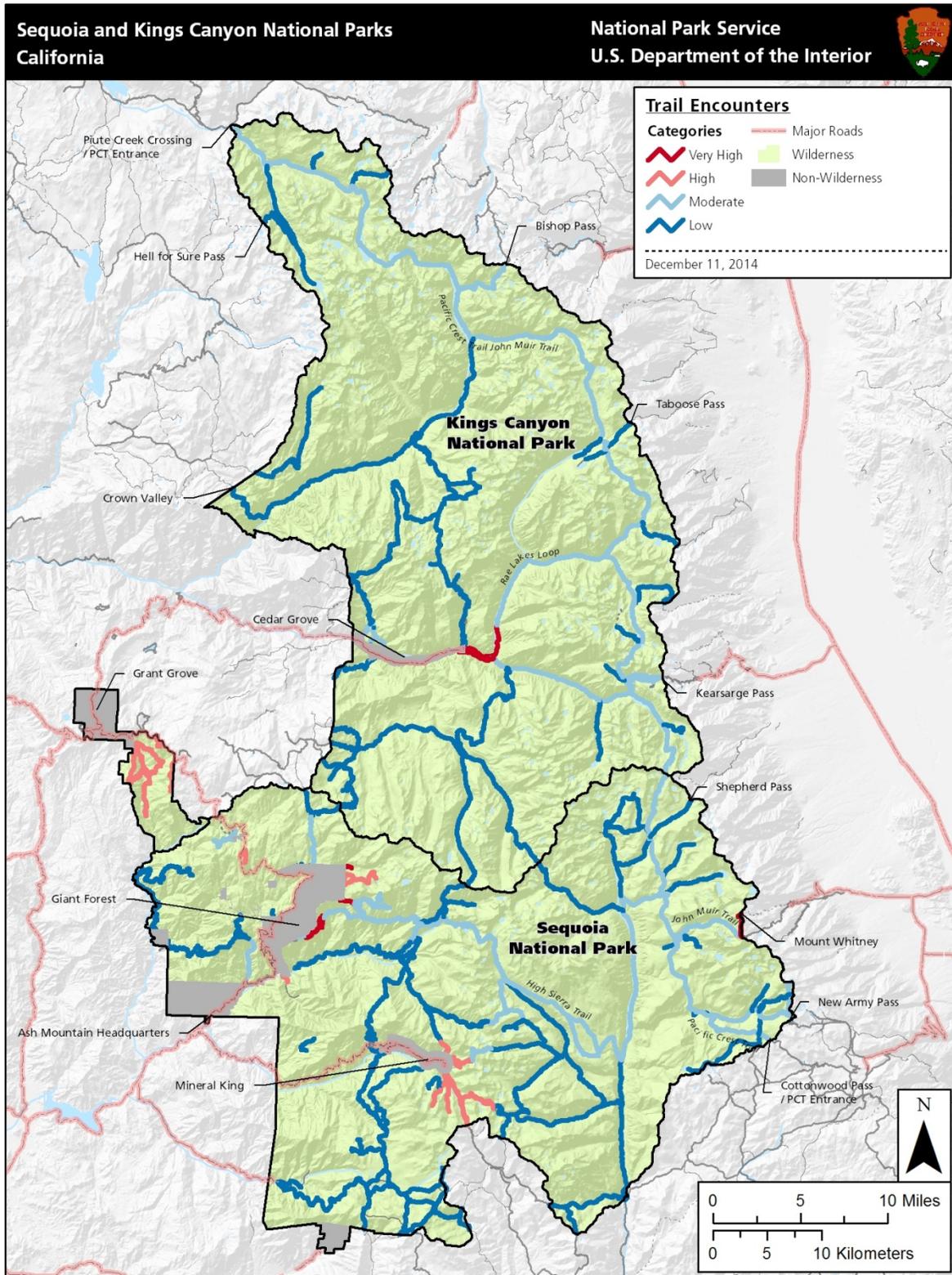


Figure 9: Map of Trail Encounter Categories (Alternatives 2 through 5)

**Table 13: Encounters per Hour Standards for Alternative 2**

Measure	Standard <sup>1</sup>			
	Very High	High	Moderate	Low
Trail Encounters – People Encountered Per Hour – by area	45	25	15	6

<sup>1</sup> Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September) for selected monitored trail segments.

Currently, visitors may experience encounter rates higher than the proposed standard in the areas detailed below. The actions described under this alternative, along with the management actions described in the “Mitigation Common to All Alternatives” section in this chapter and in appendix A, would be taken to return the areas to within standards (table 14). [Note: Trail encounter data from 2012-2014 was collected opportunistically by park staff and volunteers. As a result, a larger proportion of samples occurred on weekend days and mid-day times than would be expected from a random or structured sample. A standardized sampling protocol will be developed upon completion of the WSP, and areas that are shown as out-of-standard and near standard in table 14 would be prioritized for re-sampling.]

**Table 14: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 2**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Very High	45	Mount Whitney	Near standard	Lower limits on commercial use; reduction in area camping overnight limits; change grazing restrictions in nearby meadows; obtain better data to confirm observations; consult with USFS regarding area use levels
		Road’s End	Near standard	Obtain better data to confirm observations; reduction in area camping overnight limits; implement area-specific restrictions.
		High Sierra Trail (Crescent Meadow to Wolverton Cutoff Junction)	In standard	
High	25	Lakes Trail	Near standard	Obtain better data to confirm observations. A lower day-use party size may be implemented.
		Mineral King Valley	In standard	
		Little Baldy Trail	In standard	
		Paradise Creek Trail	In standard	
		Redwood Canyon	In standard	

**Table 14: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 2 (continued)**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Moderate	15	Evolution Basin & Valley (JMT/PCT)	Out of standard	Obtain better data to confirm observations; consult with USFS on quota reductions; establish overnight stay limit; implement area specific restrictions.
		Rae Lakes/JMT	Near standard	Obtain better data to confirm observations; reduction in area camping overnight limits; consult with USFS on quota reductions; implement area specific restrictions.
		Mount Langley approach	Near standard	Establish a Class 1 trail to the summit of Mount Langley; lower limits on commercial use; obtain better data to confirm observations; consult with USFS on quota reductions; implement area specific restrictions.
		Crabtree Ranger Station to Trail Crest	Near standard	Obtain better data to confirm observations; lower limits on commercial use; consult with USFS on quota reductions: implement area specific restrictions.
		Rae Lakes Loop — Lower Portion	In standard	
		West side of Kearsarge Pass	Near standard	Obtain better data to confirm observations; reduction in area camping overnight limits; consult with USFS on quota reductions; implement area specific restrictions.
		Dusy Basin	In standard	
		Twin Lakes Trailhead to Silliman Creek	In standard	
		High Sierra Trail (Wolverton Cutoff Junction to JMT Junction)	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduction in area camping overnight limits; implement area specific restrictions
		Rock Creek	In standard	
		Little Five	In standard	
Low	6	Sixty Lake Basin Trail (Rae Lakes 3) and Crabtree Lakes (Crabtree 1)	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduction in area camping overnight limits; implement area specific restrictions.
		All other trails not identified above	In standard <sup>2</sup>	

<sup>1</sup> Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September).

<sup>2</sup> Inferred from a very small number of samples.

## **Element 2: Trails**

**Planning Objective:** The trail system would facilitate access for visitor use and enjoyment of the wilderness. Trails would be well suited to the types and levels of visitor use (levels of visitor use would be slightly decreased from current levels in targeted areas under this alternative).

Most park trails are already designed and constructed to provide for appropriate access while preserving wilderness character. A few existing trail segments are inadequately constructed to support projected use patterns under this alternative and would be targeted for further development. Some trails are more developed than projected use patterns require, and they would be maintained to a lower development class. A few trails would be designated hiking only where there are threats to sensitive resources or visitor safety issues. Where the designated unmaintained routes listed in the 1986 SUMMP are still passable to stock, and where stock travel does not pose undue threats to natural and cultural resources, they would be designated as Class 1 trails and targeted for appropriate construction and maintenance. Other designated unmaintained routes would be abandoned and landscape restoration considered. Tables comparing each of the alternatives by trail class and use are presented at the end of this chapter. Figure 12 depicts the wilderness trail system for alternative 2 and can be found on page 135. More details on the trail management and classification system and trail management can be found in appendix K.

With additional site-specific planning and compliance, new Class 1 trails could be established to protect resources when visitor use may cause undue impacts. For example, establishing Class 1 trails on Lamarck Col and Mount Langley would provide resource protection in areas with relatively high or increasing visitation.

## **Element 3: Campfires**

**Planning Objective:** Visitors would have the opportunity to enjoy campfires where campfires are compatible with the protection of vegetation and downed wood resources. In this alternative, targeted areas would be opened or closed to campfires, depending on availability of wood and resource sensitivity.

Recreational campfires would be allowed in the foothill and montane forest areas where adequate wood supplies exist. To protect downed wood resources, campfires would be prohibited in most of the high-elevation forests and woodlands. Recreational campfires would be allowed up to the following elevations:

- 10,000 feet in the San Joaquin River drainage
- 10,000 feet in the Kings River drainage
- 10,000 feet in the Kern River drainage
- 9,000 feet in the Kaweah River drainage
- 9,000 feet in the Tule River drainage

In areas where available wood could be burned without unduly depleting ground fuels or consuming paleo resources, variances could be established for specific areas above these elevations in the future. In addition, site-specific prohibitions would be implemented where downed wood resources cannot sustain campfires, including: Hamilton Lakes, Mineral King Valley, Pinto Lake, and Redwood Canyon.

This alternative allows recreational campfires in 395,710 acres of the 837,806 acres of wilderness in the parks (47% of the wilderness). Figure 13 depicts campfire restrictions for alternative 2 and can be found on page 137.

**Element 4: Food Storage**

**Planning Objective:** Native wildlife would subsist only on naturally obtained food, uninfluenced by the presence of human food. In this alternative, food-storage boxes would be provided in areas where the risk of affecting native wildlife is high.

Portable containers would be required for overnight use at North Dome, Dusy Basin, Rae Lakes Loop, and Rock Creek areas, and may be required in other areas in the future in response to increased incidents. In areas where portable containers are not required, counterbalance hanging would be allowed.

Some 86 food-storage boxes (the exact number varies with functionality and/or placement) are currently located in the parks’ wilderness (see figure 3, page 67, for a map of current food-storage box locations). Boxes would be retained at the most popular areas and new ones would be considered for areas meeting criteria for placement (e.g., Rae Lakes Loop and HST). Criteria for retention or placement include proximity to trailheads, area visitation levels, quality of bear habitat, and frequency and severity of historic incidents. Where criteria are not met, the undeveloped quality of wilderness character would be improved by removing food-storage boxes. In the future, additional food-storage boxes may be installed in response to site-specific issues or incidents, after completion of a MRA.

Under this alternative, 48 of the existing 86 food-storage boxes would be retained, and 25 would be removed. An additional 13 food-storage boxes would be considered for removal. Prior to removal of the additional 13, the parks would test the areas by temporarily locking food-storage boxes and/or by establishing a container requirement for visitors. If the testing is successful, the food-storage boxes would be removed. Table 15 provides a list of the food-storage boxes to be retained and removed and the justification for action.

**Table 15: Food-storage Boxes to be Retained or Removed under Alternative 2**

[Note: Number of food-storage boxes is indicated in parentheses when more than one box exists in the area.]

Food-storage Box Location Listed Approximately North to South	Alternative 2 Actions			Discussion and Justification
	Remove	Retain	Retain but Test for Potential Removal	
<b>NORTH OF THE KINGS CANYON</b>				
Frypan Meadow	Remove box			Low use levels. Opportunities for counterbalancing. No recent history of bear issues.
Lower Tent Meadow			Test closure of box.	Moderate use levels. Opportunities for counterbalancing. No recent history of bear issues.
<b>RAE LAKES LOOP AREA</b>				
Paradise (5 – 2 in Lower, one in Middle, two in Upper)	Remove one box from Lower Paradise	Retain three boxes – one each in Lower, Middle and Upper Paradise Valley.	Test closure of one box in Upper Paradise for possible removal.	Use levels resulting from reduced number of campsites in Lower Paradise would be supported by one box. Moderate use levels would continue at Middle Paradise; Upper Paradise would still be very popular. History of bear issues necessitates retention of three boxes. Container-required area.

**Table 15: Food-storage Boxes to be Retained or Removed under Alternative 2 (continued)**

[Note: Number of food-storage boxes is indicated in parentheses when more than one box exists in the area.]

Food-storage Box Location Listed Approximately North to South	Alternative 2 Actions			Discussion and Justification
	Remove	Retain	Retain but Test for Potential Removal	
Woods Creek Crossing (2)		Retain both boxes.		Popular area with good bear habitat and history of bear issues. Container-required area.
Arrowhead Lake (2)		Retain one box.	Test closure of one box for possible removal.	Popular area with good bear habitat. Popular use by through hikers (JMT, PCT). Container-required area; two boxes are unnecessary. Container-required area.
Rae Lakes area (2)		Retain both boxes		Popular area with good bear habitat and history of bear issues. Container-required area.
Charlotte Lake		Retain box		Popular area with history of bear issues. Container-required area.
Vidette Meadow (2)		Retain one box.	Test closure of one box for possible removal.	This is a popular area with bear issues; however, one box may suffice since most users have portable food containers. Container-required area.
Kings Junction / Lower Junction Meadow area (2)		Retain both boxes		Popular area with history of bear issues. Container-required area.
East Lake outlet/inlet area (2)	Remove box at inlet	Retain box at outlet		Most visitors camp at the outlet. Popular area with history of bear issues. Some commercial stock users camp at inlet but have their own food-storage panniers. Container-required area.
Charlotte Creek (at junction with Bubbs)		Retain		Popular area with history of bear issues. Container-required area.
Sphinx Junction (2)	Remove one box	Retain one box		Low use of box across the river; two boxes are unnecessary. Container-required area.
<b>ROARING RIVER TO SILLIMAN AREA</b>				
Roaring River (3 – one each at Sliding Top, Stewart E. White Camp, and Hilltop Camp)		Retain two: Sliding Top box and Stewart E. White box.	Test closure of Hilltop Camp box.	Sliding Top box has both administrative and visitor use. Stewart E. White box is in a popular area. The Hilltop Camp has moderate use, mostly by stock parties using panniers. Good counterbalance hanging options. Good bear habitat and increasing bear issues.
Sugarloaf		Retain		Primarily a stock-use area, particularly by private stock users who may not have food-storage panniers. Good bear habitat.
Comanche Meadow	Remove			Use levels do not justify the need for a box at this location.
Seville Lake (2)	Remove one box		Test container requirement for possible removal of one box.	Use levels do not justify the need for 2 boxes at this location. Good bear habitat. Implement container requirements for eventual removal of all boxes in area.

**Table 15: Food-storage Boxes to be Retained or Removed under Alternative 2 (continued)**

[Note: Number of food-storage boxes is indicated in parentheses when more than one box exists in the area.]

Food-storage Box Location Listed Approximately North to South	Alternative 2 Actions			Discussion and Justification
	Remove	Retain	Retain but Test for Potential Removal	
Lost Lake			Test container requirement for possible removal.	Good bear habitat. Implement container requirements for eventual removal of all boxes in area.
Ranger Lake (2)	Remove one box		Test container requirement for possible removal of one box.	Use levels do not justify the need for two boxes at this location. Good bear habitat. Implement container requirements for eventual removal of all boxes in area.
Twin Lakes (2)	Remove one box		Test container requirement for possible removal of one box.	Use levels do not justify the need for two boxes. Good bear habitat. Implement container requirements for eventual removal of all boxes in area.
Cahoon Meadow/East Fork Clover Creek crossing (2)	Remove one box		Test container requirement for possible removal of one box.	Low-use area with good bear habitat. Close to Lodgepole which has history of bear issues. Container requirements would likely be successful in this area. Implement container requirements for eventual removal of all boxes in area.
<b>SOUTHERN JMT/PCT</b>				
Kearsarge (3)	Remove two boxes	Retain one box		All three boxes currently locked as a test. Conclusion of the two-year test is that not all three boxes are needed. Container-required area.
9,900 feet elevation/JMT/Bubbs Creek	Remove			Other opportunities for camping and food-storage nearby. Container-required area.
Center Basin/JMT junction		Retain		This is a popular area with bear issues. Container-required area.
Tyndall Frog Ponds (2)	Remove southerly box	Retain one box		Low use at southerly camp. Northerly area receives more use and is good bear habitat.
Tyndall Meadow	Remove			Low-use commercial stock camp. One nearby box for public is available. Good options for counterbalancing.
Wallace Creek/JMT/ Junction Meadow		Retain		Popular area with good bear habitat and history of bear issues.
Upper and Lower Crabtree (2)	Remove box at Lower Crabtree	Retain box at Upper Crabtree		Low use at Lower Crabtree and a box is available at the upper meadow. No recent history of bear issues.

**Table 15: Food-storage Boxes to be Retained or Removed under Alternative 2 (continued)**

[Note: Number of food-storage boxes is indicated in parentheses when more than one box exists in the area.]

Food-storage Box Location Listed Approximately North to South	Alternative 2 Actions			Discussion and Justification
	Remove	Retain	Retain but Test for Potential Removal	
Rock Creek (3 – Rock Creek Crossing, Rock Creek Lake, and Soldier Lake)		Retain all three boxes.	(consider locking one or more boxes as a test prior to closure at some time in the future)	Popular area with history of bear issues. Close to trailheads so hikers may have more food. Container-required area.
<b>KERN TO MINERAL KING AREAS</b>				
Kern – Junction Meadow/Colby Pass		Retain		Popular area with history of bear issues.
Kern Hot Spring (2)	Remove one box	Retain one box		One box would accomplish bear protection.
Upper Funston (2)	Remove one box	Retain one box		One box would accomplish bear protection.
Lower Funston (2)	Remove one box	Retain one box		One box would accomplish bear protection.
Moraine Lake		Retain		Popular area with bear issues.
Lost Canyon		Retain but relocate in general locale		Popular area with bear issues.
Big Five Lakes	Remove			Low-to-moderate visitation. Many trees for counterbalancing.
Little Five Lakes		Retain		Popular area with history of bear issues.
Big Arroyo		Retain		Popular area with history of bear issues.
<b>LAKES TRAIL TO HIGH SIERRA TRAIL TO HOCKETT AREAS</b>				
Pear Lake (2)	Remove one box		Test container requirement for possible removal of one box.	Implement container requirements for eventual removal of all boxes in area.
Emerald Lake (2)	Remove one box		Test container requirement for possible removal of one box.	Implement container requirements for eventual removal of all boxes in area.
Mehrten Creek/HST		Retain		Popular area with history of bear issues.
Seven Mile Creek/HST		Retain		Popular area with history of bear issues.
Buck Creek/HST		Retain		Popular area with history of bear issues.
Bearpaw Meadow (3)	Remove one box	Retain two boxes		Popular area with history of bear issues.

**Table 15: Food-storage Boxes to be Retained or Removed under Alternative 2 (continued)**

[Note: Number of food-storage boxes is indicated in parentheses when more than one box exists in the area.]

Food-storage Box Location Listed Approximately North to South	Alternative 2 Actions			Discussion and Justification
	Remove	Retain	Retain but Test for Potential Removal	
Hamilton Lakes (3)	Remove one box	Retain two, but replace with new boxes		Popular area with history of bear issues.
Pinto Lake		Retain		Popular area in good bear habitat. Close to trailheads so hikers may have more food.
Cliff Creek			Test closure for possible removal.	Low-moderate visitation. First camp for less-experienced visitors. Trees available for counterbalancing.
Monarch Lake		Retain		Popular area with no place to counterbalance. Good bear habitat with history of bear issues.
Franklin Lake (2)	Remove lower box	Retain upper box		Most people camp above the dam and the lower box is not needed. Popular area with history of bear issues.
Hockett Ranger Station (2)	Remove one box	Retain one box		One box is sufficient to handle use levels.
Hidden Camp, Rock Camp, and Upper Camp (3; one at each location)		Retain all three boxes		Moderate private stock use levels. History of bear issues.

This list of food-storage boxes is based on the best available information. There may be additional food-storage boxes located in wilderness that have not been documented. If any food-storage boxes are present in wilderness and not on this list, they would be removed under this alternative.

This list also does not include food-storage boxes at administrative crew camps in Sequoia and Kings Canyon National Parks that are sometimes available to the public (i.e., when crews are not working out of those camps). These food-storage boxes would either be removed and replaced with collapsible boxes on a temporary basis while crews are working or locked for exclusive administrative use.

**Element 5: Human-waste Management**

**Planning Objective:** Human waste would not contaminate water or create unsanitary or unsightly conditions. In this alternative, restrooms and privies would be provided in targeted areas where the risk of contamination is high.

Cat-holes would be required where there are no privies or toilets. Requirements to pack out used toilet paper would be retained. Pack-out waste kits would be recommended for use in popular areas or where privies or restrooms are not feasible (e.g., lack of suitable soils, archeological concerns, or other resource concerns). Pack-out waste kits may be required in specific areas to minimize the need for privies and restrooms.

Existing privies and restrooms would be evaluated and when they are beyond reasonable repair, or if they are located in unsuitable locations (low-use, close-in areas, where soils allow for cat-holes), they would

be removed. The remaining privies would be retained and maintained. New privies would be considered for a few popular day-use areas where other methods have proved unsuccessful.

Ten public-use privies would be retained, including Bearpaw Meadow (2), Crabtree, Franklin Lake, Kern Hot Spring, Monarch Lake, Paradise Valley (2), Roaring River, and Woods Creek Crossing. Seven public-use privies would be removed including privies in the Bearpaw Meadow area, Hockett, Middle Paradise, Sphinx, Roaring River (2) and Upper Funston areas. One public-use privy would be added at Rock Creek Crossing.

Three additional public-use privies could be removed at Eagle Lake, Mosquito Lake, and Twin Lakes, but only after pack-out waste kits prove successful in the test areas. The public-use restroom buildings at Emerald and Pear lakes could be removed in the future if maintenance of the facility becomes cost prohibitive or if repairs or renovations are not cost efficient. Table 16 on the next page provides a list of public privies and restrooms and the justification for retaining or removing.



**A typical privy**

**Table 16: Public-use Privies and Restrooms Retained or Removed under Alternative 2**

[Note: Number of privies/restrooms is indicated in parentheses when more than one privy/restroom exists.]

Privy/Restroom Name/Location Listed North to South	Alternative 2 Actions	Discussion and Justification
Woods Creek Crossing	Retain	Popular and concentrated use and primary stopping point for multiple trip itineraries. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Paradise Valley (3 – 1 each in Upper, Middle, and Lower)	Retain two privies (Upper and Lower). Remove privy at Middle Paradise.	Less use in Middle Paradise Valley than Upper and Lower Paradise Valley. Removal of designated campsites in Middle Paradise under this alternative makes it more appropriate to disperse use by not having a privy available. Soils are suitable for cat-holes.
Sphinx	Remove	Low use and soils are appropriate for cat-holes.
Roaring River area (3)	Remove privy at Sliding Box Camp; retain privy at Stewart E. White Camp (near ranger station). Remove privy at Knoll Camp (if it still exists).	Less use at Sliding Box Camp. Large area with suitable soils for cat-holes at Sliding Box Camp. Stewart E. White Camp location has long-established and concentrated use. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Twin Lakes	If carry-out waste requirements are successful at Emerald and Pear lakes, implement at Twin Lakes by removing privy. Provide carry-out bags for human waste for both day and overnight users.	Popular area close to busy trailhead. Taking out the privy without an alternative would result in impacts because of concentrated use.
Heather Lake	Removed recently – do not replace. Provide carry-out bags for human waste for both day and overnight users. Increase education on proper behavior.	Sensitive area with concentrated day-use (no overnight use at Heather Lake). It is near the trailhead so use of carry-out bags for human waste would be appropriate.
Pear Lake (1 restroom)	Prior to major repairs or renovations, and after successful implementation of carry-out waste kits in other locations, this area would be tested for the use of carry-out waste kits. If carry-out waste kits prove successful, remove restroom building.	Existing restroom is a large development in wilderness and requires high levels of maintenance. When the restroom is no longer usable, or is no longer functioning properly, it will be evaluated for removal. This is a popular area where rocky shallow soils do not support use of cat-holes. There are designated sites in the area so education on use of carry-out waste bags can be provided through the permitting process.
Emerald Lake (1 restroom)	Prior to major repairs or renovations, and after successful implementation of carry-out waste kits in other locations, this area would be tested for the use of carry-out waste kits. If carry-out waste kits prove successful, remove restroom building.	Existing restroom is a large development in wilderness and requires high levels of maintenance. When the restroom is no longer usable, or is no longer functioning properly, it will be evaluated for removal. This is a popular area where rocky shallow soils do not support use of cat-holes. There are designated sites in the area so education on use of carry-out waste bags can be provided through the permitting process.

**Table 16: Public-use Privies and Restrooms Retained or Removed under Alternative 2 (continued)**

[Note: Number of privies/restrooms is indicated in parentheses when more than one privy/restroom exists.]

Privy/Restroom Name/Location Listed North to South	Alternative 2 Actions	Discussion and Justification
Bearpaw Area (3)	Remove one privy. Retain two privies (one at backpacker camp area and one near Bearpaw Meadow High Sierra Camp).	This is a popular area with well-established designated camp area. A privy is necessary near the camp to protect natural quality of wilderness and protect solitude (from litter associated with human waste). A public privy is necessary near the Bearpaw Meadow High Sierra Camp to protect resources of the camp area from human waste and litter.
Hamilton Lakes	Retain	Popular area with rocky shallow soils not suitable for digging cat-holes.
Crabtree area	Retain	Popular area where a privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Rock Creek area (0)	Add one privy at Rock Creek crossing area.	This area is popular and has concentrated use. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Kern Hot Spring	Retain	This area is popular and has concentrated use. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Upper Funston	Remove	Low-moderate use. Large area with suitable soils for cat-holes.
Monarch Lakes	Retain	This area is popular and has concentrated use. Rocky shallow soils do not support use of cat-holes. This is a launching point for longer trips. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Eagle Lake and Mosquito Lakes (2 – 1 privy at each location)	If carry-out waste requirements are successful at Emerald and Pear lakes, implement in these areas by removing the two privies. Provide carry-out bags for human waste for both day and overnight users going to Eagle Lake, Mosquito Lakes, and White Chief area.	This area is popular and has concentrated use. Generally visitors are day hikers or stay for one to two nights. Not a launching point for longer trips. Close to the trailhead and suitable for testing carry-out bags.
Franklin Lakes	Retain	This area is popular and has concentrated use. Rocky shallow soils do not support use of cat-holes. This is a launching point for longer trips. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Hockett Meadow	Remove	Low use and soil type is appropriate for cat-holes.

The NPS would consider future implementation of new technologies for human-waste management as they are developed. The use of new technologies may require site-specific planning and compliance. Some technologies may require visitors to be more self-sufficient.

**Element 6: Party Size**

**Planning Objective:** Party size would be set at levels high enough to allow for a variety of experiences, but low enough to protect wilderness character from impacts associated with large groups. In this alternative, changes to party-size limits would occur for stock groups and in targeted popular and off-trail areas.

All of the action alternatives include party-size limits for people and stock. These limits are based on three numbers: the total number of people, the total number of stock, and the combined total of people and stock. The party-size limits differ for on-trail and off-trail travel. The total number of people allowed per party will be the same for hikers and stock users and is limited primarily to protect opportunities for solitude. The total number of stock allowed per party is limited primarily to protect the natural quality of wilderness in campsites, stock tie areas, and off-trail travel areas. The combined total of people and stock allowed in a party may be lower than the sum of the maximum allowed numbers of people and stock; it is limited primarily to protect opportunities for solitude and to control impacts from very large groups on the natural quality at camps.

Alternative 2 keeps the current maximum numbers of people and stock for on-trail travel, but reduces the combined party size. Lower party-size limits are set for off-trail travel to preserve opportunities for solitude and to discourage development of informal trails. The combined party size for stock plus people is reduced to prevent impacts on solitude by the largest stock parties. Party-size limits for hikers would apply to boaters under all alternatives. Tables 17 and 18 present party size limits under alternative 2.

**Table 17: Party-size Limits for Hikers and Boaters for Alternative 2**

Type of Trip	Maximum Party Size
On-trail (day use)	25, consider future more restrictive party size for day-use in specific areas (e.g., Mist Falls, Watchtower, and Monarch Lakes).
On-trail (overnight use)	15*
Off-trail (day and overnight use)	12, except in areas with specific lower limits (see below).
Area-specific	Existing off-trail temporary party-size limits of 8 would be adopted permanently at Darwin Canyon / Lamarck Col (includes Class 1 trail area), Dusy Basin, Mount Whitney Management Area / Mount Langley (includes Class 1 trail area), Sixty Lake Basin, and Sphinx Lakes. Existing party size of 10 would be retained at Redwood Canyon. A party-size limit of 8 is established for the Don Cecil Trail and the Colony Mill Road Trail.

\*Consistent with neighboring USFS areas.

**Table 18: Party-size Limits for Stock Parties for Alternative 2**

Type of Stock Trip	Maximum Party Size for People and Stock
Day Rides (not including spot and dunnage)	People: 20 Stock: 20 Combined: 40
On-trail (including spot and dunnage trips that support overnight use for those trails where stock is allowed, except where area-specific exceptions apply)	People: 15 Stock: 20 Combined: 28
Off-trail (in areas specifically designated for off-trail stock use, except where area-specific exceptions apply)	People: 12 Stock: 12 Combined: 14
Area-specific	Upper Goddard Canyon/Martha Lake would have a party-size limit consistent with the off-trail party size (12 people, 12 stock, combined maximum of 14). Combined party size of 8 (people and stock) for day rides into Sixty Lake Basin. Trail closed to stock beyond a point 1.8 miles from the junction of the JMT and the Sixty Lake Basin Trail. Combined party size of 8 (people and stock) for day rides above Pinned Up Meadow on the Class 1 trail into Miter Basin. Existing limit of 10 people and 10 stock at Redwood Canyon would be retained (combined maximum of 20).

**Element 7: Camping/Campsites and Night Limits**

**Planning Objective:** Visitors would have the opportunity to choose camping locations, except in areas where camping would result in unacceptable impacts. In this alternative, camping restrictions would be adjusted in targeted areas.

Camping would be allowed in specific areas close to the frontcountry (e.g., Colony Mill Trail, Don Cecil Trail, and North Dome) to allow a greater diversity of recreational opportunities where risks to resources are low. One or more universally accessible campsites could be constructed closer to a trailhead (e.g., near the confluence of Bubbs Creek and the South Fork Kings River), designed to meet wilderness standards.

The locations of established stock camps would be identified and the NPS would recommend their use. In specific popular areas, stock users may be required to camp in designated stock camps. These areas may include Woods Creek Crossing, Rock Creek Crossing, and Big Pete Meadow. If an area is designated as a required stock camping site/area, backpacker camping would be prohibited. Criteria used for establishing stock-only campsites would include the areas’ historic visitation by both backpackers and stock users.

*First Allowable Campsite* — The first allowable camps by trailhead under alternative 2 are presented in table 19. Camping is prohibited on these trails prior to the listed first-camp locations. These prohibitions would also apply to alternatives 3, 4, and 5.

**Table 19: First Allowable Camps by Trailhead under Alternative 2**

Trailhead Name Listed North to South Generally	Distance to First Allowable Camp	Name of First Camp or Description of Area
Lewis Creek	4 miles	Comb Creek
Hotel Creek	5.4 miles	Comb Creek
Copper Creek	4.4	Lower Tent Meadow
Woods Creek/Paradise Valley	6.5 miles	Lower Paradise Valley (designated sites only)
Bubbs Creek	4 miles	Sphinx Creek
Don Cecil Trail	2 miles	Unnamed Creek
Buena Vista	No overnight use	
Big Baldy	No overnight use	
Redwood Canyon	On-trail into canyon bottom: 1 mile	Redwood Creek
	On-trail to Hart Tree: 1.25 miles	Hart Meadow/Buena Vista Creek
Sugarloaf (Marvin Pass trailhead)	Parks' Boundary with NPS Permit	Parks' Boundary
Rowell Meadow (Belle Canyon Trailhead)	Parks' Boundary with NPS Permit	Parks' Boundary
J.O. Pass (Big Meadows)	Parks' Boundary with NPS Permit	Parks' Boundary
Lost Grove	No overnight use	
Muir Grove	No overnight use	
Little Baldy	No overnight use	
Twin Lakes	3 miles	Cahoon Meadow
Tokopah	No overnight use	
Lakes Trail (Emerald/Pear Lakes)	5.2 miles	Emerald Lake (designated sites only)
Alta	2.9 miles	Panther Gap (no water)
Giant Forest and Crystal Cave areas	No overnight use	
HST/Crescent Meadow	2.8 miles	Panther Creek
North Fork Kaweah	1 mile from trailhead	Note: First water at 4.2 miles
Colony Mill Road Trail	(West) from Crystal Cave Road Trailhead: ~2.5 miles	Colony Mill Ranger Station site (no water)
	(East) from North Fork Trailhead: ~2 miles	Maple Creek
Marble Falls	No overnight use	
Middle Fork Kaweah	3.5 miles	Panther Creek
Oriole Lake Road	1 mile	Oriole Grove, >1 mile from all roads
Paradise Creek	2 miles above Middle Fork Bridge	Poison Oak Flat
Paradise Ridge	3.3 miles	Paradise Ridge (no water)
Atwell/Hockett	6 miles	Clover Creek
Timber Gap	2.3 miles	Timber Gap (no water)

**Table 19: First Allowable Camps by Trailhead under Alternative 2 (continued)**

Trailhead Name Listed North to South Generally	Distance to First Allowable Camp	Name of First Camp or Description of Area
Sawtooth-Monarch/Crystal	4.2 miles	Lower Monarch Lake
	4.9 miles	Crystal Lake
Tar Gap	6 miles	Deer Creek
Mosquito	4.1 miles	Mosquito Lake #2 (Mosquito #1 closed to camping)
Eagle	3.4 miles	Eagle Lake
White Chief	4.1 miles	Unnamed lake (trail end), or White Chief Lake
Franklin	4 miles	Franklin/Farewell Junction
Farewell Gap	4 miles	Farewell Junction
Ladybug	1.7 miles	Ladybug Camp
Garfield	4 miles	Garfield Grove / Snowslide Canyon

*Length of Stay/Night Limits for All Campers (stock-supported and backpackers)* — Under this alternative, campers would be limited to stays of 14 consecutive nights at a single location, 25 total nights per trip, and 75 total nights per year. Exceptions would exist for specific areas and are presented in table 20.

**Table 20: Site-specific Exceptions to the Night Limits under Alternative 2**

Location	Night Limits Exceptions (Consecutive Nights in One Location)
Night limits would be implemented at Emerald and Pear lakes (combined), and Lower and Upper Soldier lakes (combined).	3-night limit
Current site-specific night limits would continue to apply at Charlotte Lake, Kearsarge Lakes Basin (basin-wide), Paradise Valley (valley-wide), and Redwood Canyon (area-wide). New night limits would be applied at Colony Mill Trail, Crabtree / Whitney Creek area, Don Cecil Trail, Dusy Basin (basin-wide), Guitar Lake, North Dome, and along the JMT from Woods Creek Crossing to Vidette Meadow (any one location).	2-night limit
Current limit at Rae Lakes (per lake) would be retained. Hamilton Lake camping limit would be reduced.	1-night limit
Continue current situation of no area specific night-limits in Evolution Valley and Evolution Basin. If encounter rate standard is exceeded after additional monitoring, establish an appropriate night limit for the area. This could apply to either or both Evolution Valley or Evolution Basin.	To be determined based on site/area conditions.

*Designated Campsites* — The use of designated campsites/camp areas would be mandatory in areas where past visitation has impacted resources, including Emerald and Pear lakes, Lower Paradise Valley, and Bearpaw Meadow. There would no longer be designated campsites in Middle and Upper Paradise Valley. Additional designated camp areas may be established in areas where concentrated use and limited campsites could create a risk of rapidly increasing physical or social campsite impacts. Areas to be monitored for a potential future change include Dusy Basin, Guitar Lake, Kearsarge Lakes Basin, Middle and Upper Rae Lakes, and Woods Creek Crossing. Designation of campsites or areas would require site-specific analysis to address issues such as hazard trees and archeological resources. The campsites at Upper and Lower Funston Meadows would no longer be designated for use by stock users only.

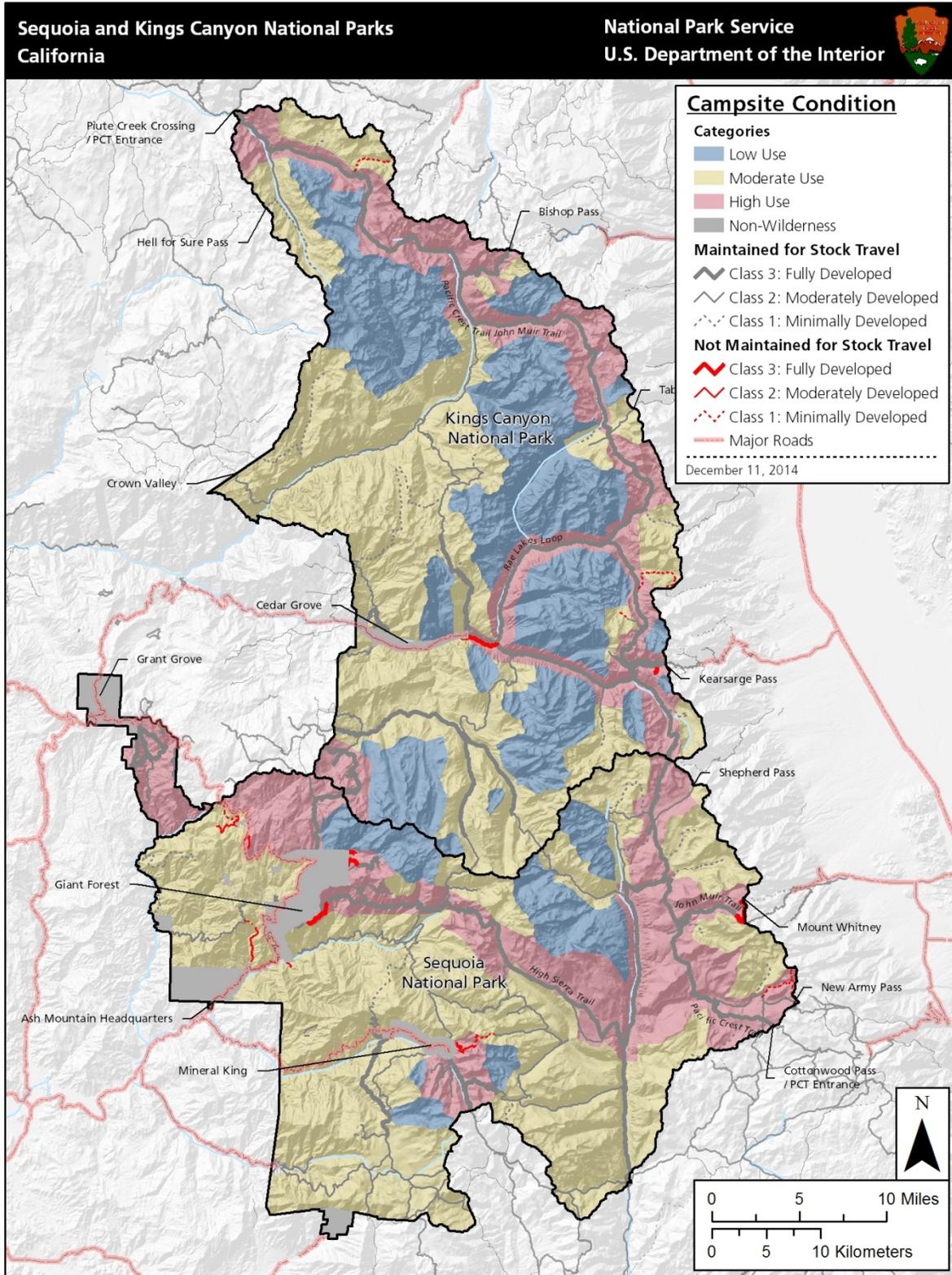
*Campsite Condition Standards* — The measure of campsite condition would be adopted under all alternatives to ensure that the number of campsites and their condition does not exceed standards. The metric of aggregate campsite impacts (Weighted Value per Campable Mile [WVCM]), derived from Parsons and Stohlgren (1987), would be used to measure campsite condition. Each area of the parks would be assigned to one of three levels of a campsite condition standard based on desired conditions: high use, moderate use, or low use. These areas, or subzones, are based on long-established wilderness travel zones, each of which is comprised of several subzones. The metric would be calculated at the subzone level. Each subzone has a specified WVCM that serves as a standard. Under alternative 2, the standard would be: 1000 for high use subzones, 500 for moderate use subzones, and 250 for low use subzones (figure 10 on the next page). A monitoring plan would be developed to establish protocols and schedule monitoring frequencies to ensure that subzones remain within their applied standard (see campsite condition figure 10 on the next page; for information on determining campsite condition and standards, see appendix A, page A-15 and A-24).

Under the standards developed for alternative 2, two subzones (83-1 Guitar Lake and 86-1 Kern Hot Spring) would be out of standard in the higher use category, and one subzone (80-3 Shepherd Pass Lake) would be out of standard in the moderate category. All other subzones would be within standard. Management actions to return the subzones to within standards are included in the “Mitigation Common to All Alternatives” section in this chapter. See appendix A for more detailed information.

#### **Definitions of Key Terms**

**Weighted Value per Campable Mile** – A metric that considers three factors within a travel subzone: length of shoreline of watercourses and lakes; the number of campsites; and the condition class of the campsites. The final weighted-value-per-campable-mile number is calculated using these three factors (Parsons and Stohlgren 1987; Cole and Parsons 2013). For a more detailed definition of WVCM, see appendix A.

**Wilderness Travel Zones** – In the early 1970s, park managers divided the parks into 52 wilderness travel zones to assist in organizing management actions. Wilderness travel zones are generally based on geographic features (watersheds) and overlay the wilderness in Sequoia and Kings Canyon National Parks. Each of the 52 travel zones are then subdivided into multiple sub-zones, 273 in total. The parks use wilderness travel zones as a way of monitoring and analyzing wilderness conditions and use, and to address a variety of wilderness stewardship issues



## Element 8: Stock Use

**Planning Objective:** Visitors would have opportunities to travel with stock, from day rides to multi-day trips, in a manner that ensures the protection of wilderness character. Access and grazing would be managed to protect resources, provide other types of primitive recreation, and reduce conflict of user groups. Under this alternative, the number of meadows available to grazing would be reduced.

Figures 14a and 14b depict stock access and grazing restrictions for alternative 2. Figure 14a shows stock access and grazing restrictions in Kings Canyon National Park and can be found on pages 138/139. Figure 14b shows stock access and grazing restrictions in Sequoia National Park and can be found on pages 142/143.

### *Stock Access and Travel*

*On-trail* — Visitors traveling with stock would continue to have access to most maintained trails in the parks (650 of 691 miles). Stock parties would be allowed to travel up to 0.5 mile from trails in areas where they are allowed to camp. In areas open to day-use only, stock parties would be allowed to travel up to 100 yards from trails.

Approximately 530 miles of maintained trails would be open to camping with stock. Some trails would be open to stock parties for travel only, some would be open to camping for walking parties with burros and llamas but limited to travel only for parties with horses or mules, and some would be closed to stock travel entirely for reasons including visitor safety, resource protection, and/or popular day-use by hikers. Trails with restricted stock access under alternative 2 would include:

Trails open for travel only (120 miles; includes mileages to first camps from trailhead):

- Alta Trails
- Big Baldy Trail
- Buena Vista Trail
- Center Basin Trail (to Golden Bear Lake)
- Charlotte Lakes Trail from JMT to Charlotte Creek drift fence
- Dusy Basin Trail (to 10,600 feet)
- JMT from Dollar Lake to Vidette Meadow
- Kearsarge Lakes, Kearsarge Pass, and Bullfrog Lake trails
- Ladybug Trail
- Lake 11,092 Trail (shown as Lake 11,106 on older maps)
- Lake Reflection Trail above the abandoned Harrison Pass trail junction
- Lakes Trail (Hump Trail only)
- Martha Lake Trail from 1 mile above Hell-for-Sure Junction
- Miter Basin Trail above Pinned-Up Meadow to 11,300 feet in elevation below Sky Blue Lake
- Oriole Lake Trail

- Redwood Canyon area trails
- Upper Blue Canyon Trail (no travel above 10,000 feet in elevation)
- Upper Sixty Lake Basin Trail
- Wallace Lake Trail above 11,200 feet in elevation
- Whiskey Log Trail
- Wright Creek Trail above 11,200 feet in elevation

Trails open to travel only for parties with horses or mules; camping for walking parties with burros and llamas allowed (4 miles):

- Eagle Lake Trail
- JMT from above the Crabtree Ranger Station to the base of the Mount Whitney switchbacks (except Timberline Lake, day-use only)
- Mosquito Lakes trails
- White Chief Trail

Trails closed to stock travel (41 miles):

- Admiration Point
- Baxter Pass Trail
- Crabtree Lakes Trail (no travel above camp at 11,000 feet in elevation)
- HST from Crescent Meadow to Wolverton Cutoff
- Lamarck Col Trail
- Little Baldy Trail
- Lower Big Arroyo Trail
- Lower Sixty Lake Basin Trail
- Marble Falls Trail
- Monarch Lake Trail
- Mount Langley Trail
- Mount Whitney Trail – base of switchbacks to Trail Crest and summit
- Muir Grove Trail
- Paradise Creek Trail
- South Side Cedar Grove Sand Flats Trail
- Upper Soldier Lakes Trail
- Tokopah Falls Trail
- Watchtower Trail

*Off-trail* — Stock parties would continue to be allowed to travel up to 0.5 mile from trails to reach camps. Travel more than 0.5 mile from maintained trails would continue to be allowed in four areas of the parks: on the Hockett Plateau, on the Monarch Divide, in the Roaring River drainage, and along the western side of the Kern River watershed south from the Chagoopa Plateau.

*Stock Grazing* — Grazing would be managed to maximize protection of resources while allowing visitors traveling with stock continued access to forage. Grazing would generally be allowed in areas open to camping with stock (within 0.5 mile of maintained trails open to overnight stock use or in off-trail travel areas). Grazing would not be allowed in those areas open to stock travel only.

Grazing would continue to be managed and informed by the results of the Stock Use and Meadow Monitoring and Management Strategy (see appendix D). Traditional methods of adjusting use levels and patterns would continue to be employed when necessary, including:

- adjusting the number of nights a given party may graze an area;
- adjusting the number of stock per party that may graze an area;
- adjusting opening dates to reflect moisture conditions, which are designed to prevent unacceptable mechanical disturbance to surface soil and vegetation; and
- temporarily closing an area to stock access or grazing.

Estimated grazing capacities for wilderness meadows have been developed using a model of biomass production and forage consumption that takes into account the elevation, soil moisture, and condition of the meadow. These capacities would continue to be used to inform grazing management, and would be refined as additional information is acquired. The capacity of individual meadows and uplands to sustain grazing would continue to be informed by each meadow's vulnerability to erosion or change in hydrologic function, susceptibility to invasion by nonnative plants, habitat requirements of sensitive plants and animals, productivity and the ability to sustain herbage removal, and the requirements of unique ecological communities such as peat-accumulating wetlands. Site-specific grazing capacities would be refined on an ongoing basis to protect resource integrity and to protect the natural quality of wilderness in the face of a changing climate.

These capacities also reflect the logistical importance of key meadows and forage areas for stock travel in popular areas. The methodology for developing grazing capacities for all park meadows open for grazing, including those identified as important for those traveling with stock, is provided in appendix D.

Areas closed to grazing would remain open to camping by visitors traveling with stock, but visitors would be required to hold and feed their animals. Administrative grazing would be managed to limit impacts on public grazing (Note: with rare exceptions, visitors are given preference for limited grazing resources).

California or Nevada certified weed-free forage (baled or loose hay, hay cubes, or straw bedding) would be required when using hay products as supplemental forage or bedding in frontcountry zones. Feed carried into wilderness would be limited to commercially processed pellets, rolled grains, or fermented hay (e.g., Chaffhaye™). These products have a high level of mechanical milling, heat treatment, and/or anaerobic fermentation that result in much lower seed viability. Baled or loose hay and compressed hay cubes, which have little to no processing, would not be allowed in wilderness. This requirement would carry across all action alternatives.

The monitoring system described in appendix D would be employed to track use, document conditions, and provide information for preventing and mitigating impacts. This monitoring program takes into

account variation in annual climate, the characteristics of specific forage areas, and the inherent abilities of different species to withstand grazing and trampling pressure. Monitoring of species composition would continue in five pairs of grazed and ungrazed meadows on a five-year rotation, and repeat photography points would be updated as time and resources allow. Monitoring of residual biomass and bare ground, initiated in 1993, would continue to be implemented and the results used to inform decisions regarding grazing management. The NPS would continue to support research to further understand the effects of grazing on Sierran ecosystems, and to modify management of grazing and monitoring protocols as new information becomes available.

The meadows closed to grazing for scientific and social value by the SUMMP would remain closed to grazing. The meadows closed to grazing due to high levels of visitation and resource concerns by the SUMMP would remain closed with the following exception: Tom Sears Meadow would be reopened to grazing.

The following additional locations which are otherwise open to overnight use would be closed to grazing due to high levels of visitation and resource concerns: Crabtree Lakes (closed to stock access and grazing above existing camp west of lowest lake), Darwin Meadow proper, Forester Lake Meadow, Guyot Creek Meadows (expanding the existing closure to the meadows east of the trail), Kern Hot Spring Meadow, Kettle Dome (Randle Corral) Meadows, Mineral King basin, Summit Lake Meadow, Upper LeConte Canyon above 10,000 feet in elevation, and Whitney Creek drainage above the Crabtree Ranger Station.

Meadows associated with areas or trails closed to stock under this alternative would also be closed to grazing.

Recognizing that the opportunity to observe and experience ungrazed meadows is of value to many park visitors, the following meadows along popular travel routes which are otherwise open to camping by stock would be closed to grazing: Bighorn Plateau and the meadow 0.6 mile south of Bighorn Plateau; Chagoopa Plateau #3 Meadow; Darwin Meadow; Grouse Meadow; Lower Crabtree Meadow; and Taboose Pass Meadow. These meadow closures would make it possible for visitors traveling along the JMT and HST to experience at least one ungrazed meadow in each drainage through which the trails pass.

The following restrictions in areas otherwise open to grazing would be adopted:

- Closed to grazing until Evolution and Colby meadows reach capacity: McClure Meadow
- Open to grazing by walking parties with burros or llamas, closed to grazing by parties with horses or mules: Bubbs Creek below Junction Meadow, Evolution Lake to Muir Pass, Kern Headwaters, Evolution Lake to Muir Pass, and Woods Lake Basin
- Open to grazing by private parties only: Lower Soldier Lake Meadow, Lower Whitney Creek (Strawberry) Meadow, and Upper Vidette Meadow
- Open to administrative use and grazing only: Hockett Pasture, JR Pasture, Kern Ranger Station Pastures, Lackey Pasture, and Upper Redwood Meadow

Table 21 on the next page presents the site-specific night and/or head grazing limits on meadows in the parks.

*Stock Use Structures* — Under this alternative, 29 hitch rails would be retained, and 23 hitch rails would be removed. Also, 42 fences/gates would be retained; 12 would be removed (see tables 51a and 51b starting on page 272 at the end this chapter).

**Table 21: Site-specific Night and/or Head Limits on Grazing under Alternative 2**

Location	Stock Head Limit	Night Limit
Bubbs Creek (below Junction Meadow)	20	1
Castle Domes Meadow	15	1
Charlotte Creek (below drift fence)	20	2
East Lake	12	2
Junction Meadow (Bubbs)	15	1
Redwood Meadow	15	14
Scaffold Meadow	15	2
Shorty's Meadow	20	2
Upper Crabtree and Sandy Meadows	10	14
Upper Evolution Valley (above Evolution Meadow)	20	1
Upper Rock Creek (Rock Creek Lake and above)	20	2
Wallace Creek Waterfall Meadow	6	1

**Element 9: Administrative Structures**

**Planning Objective:** Administrative structures and developments would be the minimum necessary for the administration of wilderness, similar to current conditions.

Ranger Stations — Ranger stations that would be retained in their current locations:

- Charlotte Lake
- Crabtree
- Hockett Meadow
- Kern Canyon
- LeConte Canyon
- Little Five Lakes (yurt)
- McClure Meadow
- Pear Lake
- Rae Lakes
- Roaring River
- Rock Creek
- Tyndall Creek

The patrol cabins at Quinn, Redwood Meadow, and Simpson Meadow would be retained.

Three ranger stations could be relocated, modified, considered for conversion, or replaced:

- Bench Lake tent platform could be moved to a more suitable location for patrol functions.
- Bearpaw Meadow Ranger Station would be removed and reconstructed to better meet the area's historic character.
- The Monarch tent platform would be converted to an administrative camp and the footprint would be reduced.

Each of the above actions would be subject to separate site-specific planning, design and compliance.

*Other Administrative Structures* — Use of the Redwood Canyon Cabin would be authorized by permit for activities appropriate for the administration of wilderness. The footprint of the facility would be reduced and the external installations (e.g., privy, equipment storage boxes, woodshed, water system) would be removed. If future use of the structure is determined by the parks to not sufficiently support wilderness purposes, the cabin would be removed, and the area restored. The action of removal would be subject to additional planning and compliance tiered to the WSP/EIS.

*Administrative Pastures* — Existing administrative pastures and associated structures would be retained (Hockett Meadow, Kern, Redwood Meadow, and Roaring River) in their current locale and within their current footprint.

*Crew Camps* — Existing trail crew camps would be retained, but the number of long-term (v. portable) food-storage boxes in each camp would be reduced to one. Other project crew camps (for administration of wilderness) would be established as needed on a case-by-case basis with no equipment left on-site after project completion.

## **Element 10: Frontcountry Facilities to Support Wilderness Access and Use**

**Planning Objective:** Frontcountry facilities that support activities in wilderness would encourage and/or facilitate visitor use and enjoyment of wilderness.

The types and levels of commercial services that may be performed in wilderness are discussed in detail in the END (appendix B).

### ***Kings Canyon National Park***

*Cedar Grove Pack Station* — The Cedar Grove Pack Station would continue to be operated under concession authority based on a contractual relationship with NPS with approved use types and levels. Stock camping sites would be developed at the Cedar Grove Pack Station primarily for private users. Holding pen/corral space, hitch rail(s), adequate parking and turnaround space for stock trailers, campfire pit, picnic tables, restrooms, food-storage boxes, and water supply would be installed.

### ***Sequoia National Park***

*Middle Fork Kaweah Trailhead* — At the Middle Fork Kaweah Trailhead the NPS would provide improved parking and turnaround space for stock trailers and a hitch rail; no other stock amenities would be provided. Commercial service providers would be allowed to use this trailhead. No camping for stock or backpackers would be allowed.

*Mineral King Area* — Selected sites within the Atwell Mill Campground would be adapted to accommodate stock camping in two or three sites. Site specific planning and design would occur prior to developing stock sites, and considerations would include distance from non-stock sites, drainage, and natural and cultural resource concerns. Facilities may include a holding pen, hitch rail(s), table, campfire pit, picnic table, and stock trailer parking. The sites would be maintained through an agreement between the NPS and a cooperating partner. Commercial service providers would be allowed to use the Atwell/Hockett trailhead.

There would be no concessions operations at the Mineral King Pack Station. Existing facilities at Mineral King administrative corrals in east Mineral King Valley would continue to be used for park administrative purposes at the existing location or at a new location to reduce and minimize environmental impacts on wetlands and water quality. Existing stock facilities could be modified to allow for short-term public camping or staging and/or short-term camping by CUA holders. Modifications to the site to provide for use by private individuals and/or CUA holders would include adequate parking and turnaround space for stock trailers, a small corral, water, a picnic table, and a vault toilet or restroom. These facilities would provide for stock camping for private parties (1 to 2 sites, one- or two-night limit). The site would be maintained through an agreement between the NPS and a cooperating partner.

*North Fork Kaweah Trailhead* — At the North Fork Kaweah Trailhead improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial service providers would be allowed to use this trailhead and controlled through conditions of a permit. The area would be maintained through an agreement between the NPS and a cooperating partner. No camping for stock or backpackers would be allowed.

*South Fork Kaweah Campground and Trailhead* — Stock use would continue to be allowed at the South Fork Kaweah Trailhead. The South Fork Kaweah Trailhead would be slightly modified to improve the existing parking and turnaround space for stock trailers at the trailhead, and a hitching post would be provided. Site specific planning and design would occur prior to any modifications, with the intent to minimize impacts on the natural resources in the area. Use would be primarily for private users, with limited commercial use by CUA holders (managed via permit conditions) and administrative users. The site would be maintained through an agreement between the NPS and a cooperating partner.

*Wolverton Area (trailheads and administrative corrals)* — The facilities in the Wolverton area would continue to be used for park administrative purposes. The Wolverton facilities could be modified to provide for short-term use for private parties and commercial service providers. There would be no permanent occupancy of the Wolverton corrals by a commercial service provider to operate wilderness stock trips. The site could be maintained through an agreement between the NPS and a cooperating partner.

The above modifications to frontcountry facilities and trailheads would require site-specific planning, design, and compliance.

## **Element 11: Commercial Services in Wilderness**

**Planning Objective:** Commercial services would be performed to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas. Commercial services would support visitor use and enjoyment of wilderness in a variety of appropriate ways. Visitors with diverse backgrounds and skill levels would be encouraged to experience wilderness and to explore primitive recreation activities such as hiking, backpacking, stock trips, fishing, over-snow travel, or mountaineering, or to build skills in these activities. In order to protect wilderness

character, commercial services would be reduced in the very popular Mount Whitney Management Area.

Specific wilderness activities that have been determined to necessitate support from commercial services consist of backpacking and hiking, stock trips (riding, packing, day rides, and overnight camping with stock), overnight camping with gear hauling support (stock spot, and stock and porter dunnage), oversnow travel (ski and snowshoe touring and winter overnight camping), climbing and mountaineering (summer and winter), fishing, river running, and photography (appendix B).



**Mount Whitney, approaching from the west**

Under this alternative, based on the commercial services evaluation and determination for wilderness (appendix B), and consistent with the overall desired conditions of this alternative, the levels and types of commercial services to be performed would be similar to current conditions. However, the levels and types of commercial services allowed would be specifically limited in the Mount Whitney Management Area (figure 11 on the next page), an approximately 37,200 acre area around Mount Whitney within Sequoia National Park, roughly defined as bordered on the north by the Wallace Creek watershed, on the east by the Sierra Crest, and on the west by the lip of the Kern Canyon, and on the south by the PCT. Table 22 on page 129 presents the levels and types of commercial services.

Also, under this alternative, all overnight visitors in the parks' wilderness, whether self-supported or traveling with the support of a commercial service provider, would be subject to the trailhead quota system (table 4 on page 61-63), and must obtain a wilderness permit from an approved source (e.g., NPS, USFS, Pacific Crest Trail Association). This would also apply for alternatives 3, 4 and 5.

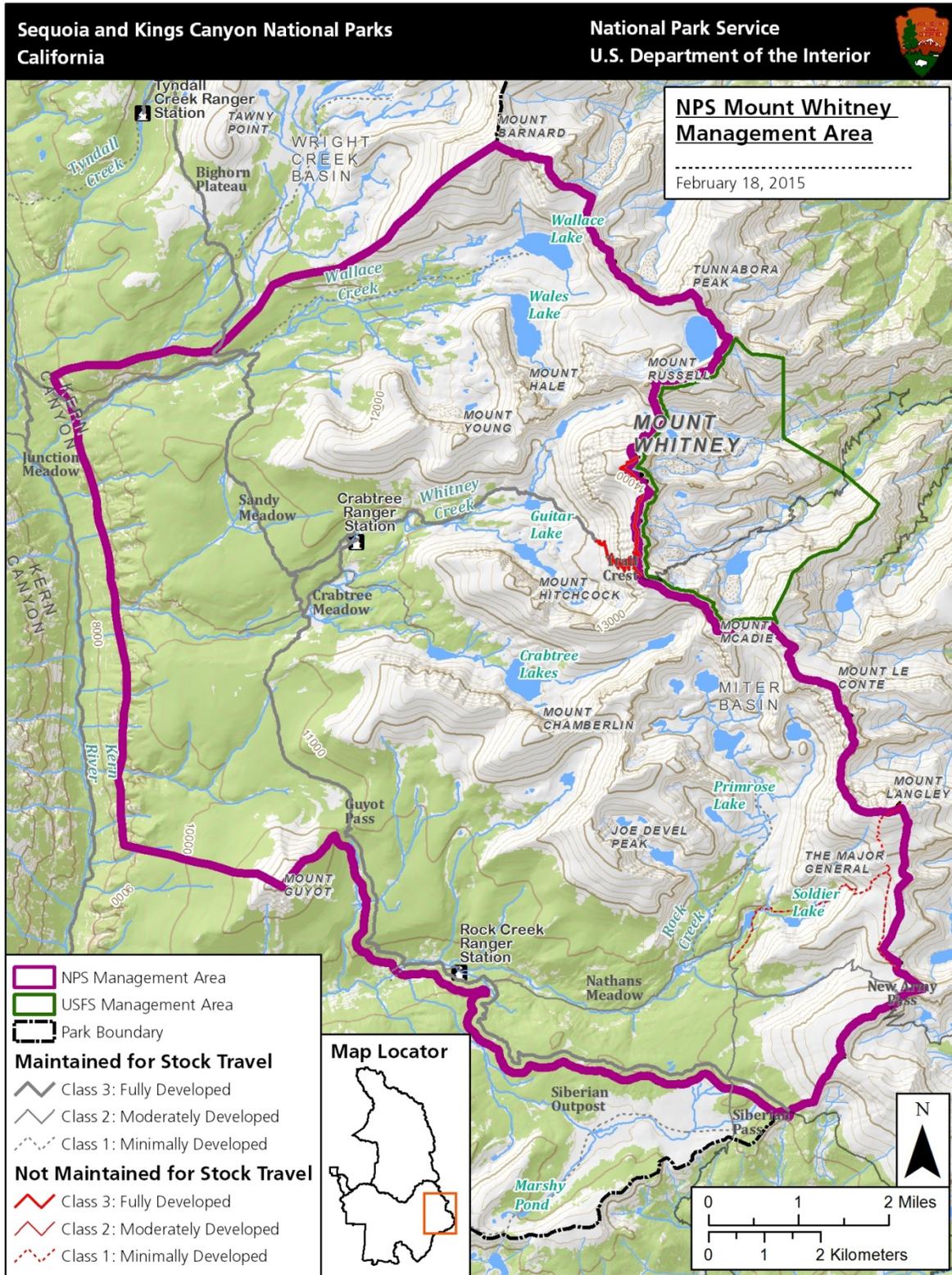


Figure 11: NPS Mount Whitney Management Area

**Table 22: Levels and Types of Commercial Services under Alternative 2**

Activity		Proposed Allocation of Commercial Service Days
<b>Total Visitor-use Days</b> – private and supported by commercial services (this does not take into account use by PCT and JMT visitors that are not recorded by the parks’ wilderness permit system).	<b>Proposed Visitor Capacity under Alternative 2</b> 111,000 average 134,000 maximum	For all, day and overnight, non-stock and stock-based: 8,400
<b>Non-stock Activities</b> Backpacking and Hiking Trips. Overnight Camping – gear support by human porters Climbing and Mountaineering (summer and winter). Oversnow Travel (ski and snowshoe touring and winter camping – winter only [Nov. 15 to Apr 15]).	Wilderness-wide: activities that are supported by non-stock based commercial services.  Mount Whitney Management Area: activities that are supported by non-stock based commercial services.	For all, day and overnight, non-stock based services: 5,040 (60% of all commercial services)  Of the above total allocation, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 930
<b>Stock-based Activities</b> Stock trips – riding, packing, day rides and overnight camping with stock. Overnight Camping – gear support, including stock spot and dunnage	Wilderness-wide: activities that are supported by stock-based commercial services.  Mount Whitney Management Area: activities that are supported by stock-based commercial services.	For all, day and overnight stock-based: 3,360 (40% of all commercial services)  Of the above total allocation, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 500

The Bearpaw Meadow High Sierra Camp and the Pear Lake Ski Hut are allowable non-conforming commercial enterprises that may continue operation within potential wilderness as authorized by Congress. The Bearpaw Meadow High Sierra Camp would continue to be operated at near its current level of 1,700 use days by a park concessioner.

The Pear Lake Ski Hut would continue to be operated at near its current level of 1,500 use days during the winter months as a ski hut (lodging facility) by a cooperating association under a cooperative agreement.

**SUMMARY OF SITE-SPECIFIC ACTIONS**

Under alternative 2, management would be modified in specific areas to protect wilderness character. The locations, concerns and issues, and potential management actions that may be necessary to reach or maintain desired conditions are listed in table 23 on the following pages.

**Table 23: Area-specific Management Actions under Alternative 2**

Location	Issue	Potential Management Actions
<p>Pacific Crest Trail / John Muir Trail</p>	<p>These popular trails receive consistent use throughout the snow free months, with the JMT getting its heaviest use from mid-July into early September.</p> <p>The goal of summiting Mount Whitney is the primary driver with many people hiking the full 212 miles of the JMT (starting in Yosemite National Park), or taking the shorter route over Cottonwood Pass and north on the PCT to the JMT.</p> <p>Indications are that use is increasing on the JMT, decreasing opportunities for solitude.</p>	<p>The NPS would coordinate with Yosemite National Park and the USFS to improve the quota system for the JMT and PCT. Quotas may be reduced at certain trailheads.</p> <p>In specific, popular locations, stock users may be required to camp in designated stock camps. These areas may include Woods Creek Crossing, Rock Creek Crossing, and Big Pete Meadow. If designated as required stock camping site/area, hiker camping would be prohibited.</p> <p>A camping night-limit may be established in the Evolution Valley and/or Evolution Basin areas along the JMT if conditions warrant.</p> <p>A 2-night limit would apply along the JMT from Woods Creek Crossing to Vidette Meadow (at any one location), at Charlotte Lake, and Guitar Lake. There would be a 1-night limit at Rae Lakes (per lake).</p> <p>Selected meadows would be closed to grazing because of sensitive resource conditions and/or to provide opportunities to view ungrazed meadows along the JMT: Bighorn Plateau and Meadow 0.6 mile south of Bighorn Plateau, Darwin Meadow, Grouse Meadow, Guitar Lake Meadow, Guyot Creek Meadow, Lower Crabtree Meadow, Taboose Pass Meadow, and Upper LeConte Canyon.</p>
<p>Lamarck Col/Darwin Canyon</p>	<p>This relatively difficult off-trail route is popular to reach the Sierra Crest and spectacular alpine scenery in a short period of time. Inyo National Forest allows up to 15 people per day up this route from the trailhead, and many other backpackers hike the loop between South Lake and North Lake, entering the parks via Bishop Pass and exiting via Lamarck Col (or vice versa). This level of use is increasing and has the potential to create impacts on solitude and the sensitive alpine environment.</p>	<p>A Class 1 trail would be established to manage impacts from foot traffic in this area (stock would continue to be prohibited).</p> <p>A maximum hiker party size of eight people for day and overnight users would be adopted for the entire area (this includes the Class 1 trail area). Destination quotas may be applied for this area.</p>
<p>Bishop Pass into Dusy Basin</p>	<p>Bishop Pass is a popular access route into the high Sierra, and to a scenic alpine basin. Inyo National Forest allows up to 36 people per day up this trail from the trailhead, with up to 15 additional people affiliated with commercial service providers. Potential exists for more than 100 people at a time camping in the basin during high season. High visitor use reduces opportunities for solitude and camping proliferation of campsites may be impacting the sensitive alpine environment.</p>	<p>The NPS would work with Inyo National Forest to manage the quota from the east side over Bishop Pass.</p> <p>Pack-out waste kits would be recommended in this area. A maximum off-trail party size of eight would be adopted for this area.</p> <p>Designated sites or designated camp areas may be established in Dusy Basin.</p> <p>A 2-night limit would apply in Dusy Basin (basin-wide).</p> <p>Stock would be allowed for day-use/pass through travel only (no grazing or camping with stock).</p>

**Table 23: Area-specific Management Actions under Alternative 2 (continued)**

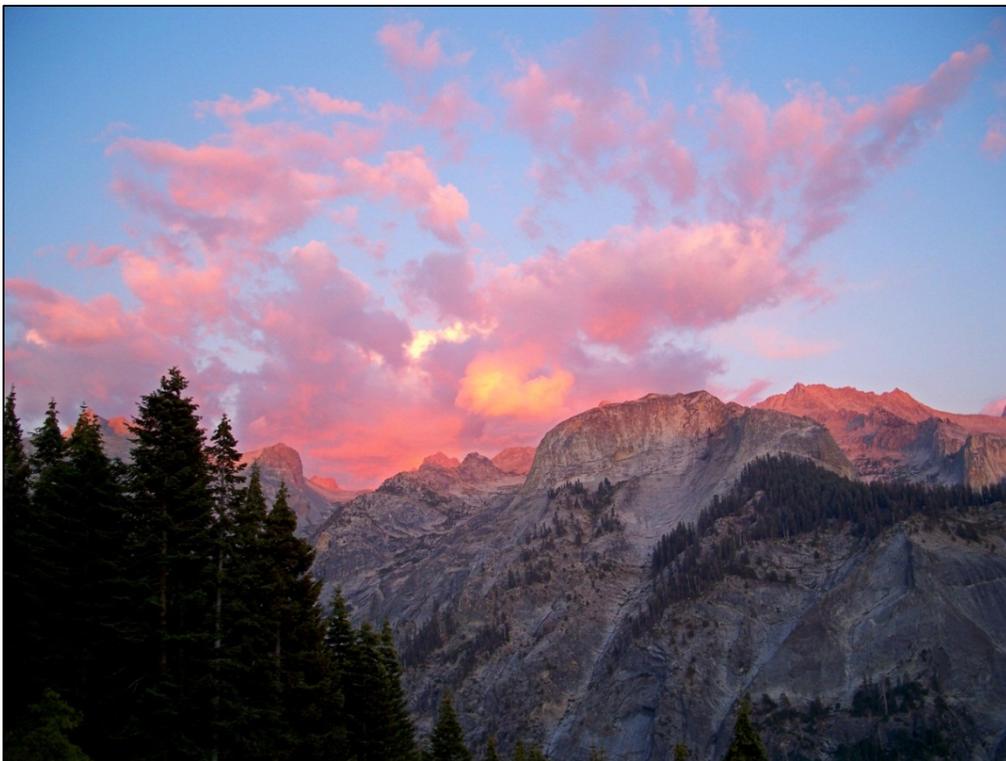
Location	Issue	Potential Management Actions
Rae Lakes Loop	<p>The Rae Lakes Loop is one of the most popular loop hikes in Kings Canyon National Park. It is accessed from two west-side trailheads, Paradise Valley and Bubbs Creek – each with a quota of 25 people per day. The quotas fill regularly on weekends and in late August. This 42-mile loop (of which the east leg is also the PCT/JMT) is also accessed by Kearsarge Pass to the east (from Inyo National Forest with a trailhead quota of 60 people and up to an additional 15 people with commercial service providers). Potential exists for more than 200 people to be camping in a 12-mile long stretch from Woods Creek Crossing to Lower Vidette Meadow (the east leg of loop).</p> <p>High visitor use reduces opportunities for solitude and leads to camping impacts along this loop trail.</p>	<p>Trailhead quotas may be reduced. Additional destination quotas may be added for select locations along the Rae Lakes Loop. The NPS would work with Inyo National Forest to manage the quota from the east side over Kearsarge Pass.</p> <p>Existing designated campsites at Lower Paradise Valley would be retained. Additional designated campsites or camp areas may be established at Middle and Upper Rae Lakes, and Woods Creek Crossing.</p> <p>A 2-night limit would continue to be applied at Charlotte Lake, Paradise Valley (valley wide), and along the JMT from Woods Creek Crossing to Vidette Meadow (at any one location).</p> <p>A 1-night limit would continue to be applied at Rae Lakes (per lake).</p> <p>The Rae Lakes Basin would be open to stock for travel only (no camping or grazing). Sixty Lake Basin would be open to stock travel to a point approximately 1.8 miles from the JMT. Stock parties in Sixty Lake Basin would be limited to a combined party size (stock and people) of 8.</p>
Mount Whitney Management Area	<p>Mount Whitney is the highest point in the lower 49 states. There is trail access all the way to the summit. In addition to those hiking to it from the west via the PCT and JMT (see above) and the HST (see below), there is also access from the east side regulated by Inyo National Forest.</p> <p>Inyo National Forest allows up to 100 day-hikers and 60 overnight campers to leave from the Whitney Portal Trailhead to attempt the 11 miles and 5,900' elevation gain to reach the summit. In addition, 10 private individuals and 8 people supported by commercial service providers are allowed up the North Fork Lone Pine Creek per day (this leads to the summit of Mount Whitney via the technical Mountaineers' Route). It is not uncommon for there to be 50 to 75 people on the summit at any one time in early-to-late afternoon and to encounter well more than 100 people on the trail while headed up or down the mountain in a day. Inyo National Forest fills its quota capacities from Whitney Portal 95% of the time during the early June to mid-October period. Inyo National Forest also has an exit quota on the Trail Crest / Whitney Portal Trail that allows only 25 people, in addition to those coming up the trail, to exit at Whitney Portal. This has the effect of distributing use to points west of Mount Whitney in Sequoia National Park.</p> <p>Opportunities for solitude and campsite conditions are being impacted in the Mount Whitney area.</p>	<p>The NPS would work with the USFS (Inyo National Forest) to assess and potentially reduce both day-use and overnight trailhead and exit quotas for Mount Whitney and to more effectively coordinate the quota system. Destination quotas may be implemented at Guitar Lake.</p> <p>Pack-out waste kits may be required in the Mount Whitney area to minimize the need for privies and/or restrooms.</p> <p>A maximum off-trail party size of eight would be adopted for this area.</p> <p>Designated sites or designated camp areas may be established at Guitar Lake.</p> <p>A 2-night limit would be applied at Crabtree (area-wide) and at Guitar Lake.</p> <p>The portion of the JMT from the Crabtree Ranger Station to the base of Mount Whitney switchbacks would be open to overnight use by walking parties with burros or llamas, or day-use only for parties with horses or mules. No stock use would be allowed above the base of the switchbacks.</p> <p>Lower Crabtree Meadow and all areas above the Crabtree Ranger station would be closed to grazing. A 10-head limit for administrative and commercial parties would be applied at Upper Crabtree and Sandy Meadows. Lower Whitney Creek (Strawberry) Meadow would be open to grazing by private parties only.</p> <p>The levels of commercial services allowed in the Mount Whitney management area would be reduced.</p>

**Table 23: Area-specific Management Actions under Alternative 2 (continued)**

Location	Issue	Potential Management Actions
High Sierra Trail	<p>This 60-mile west-to-east route is accessed from the Giant Forest of Sequoia National Park and eventually reaches the summit of Mount Whitney. Its daily quota of 30 fills regularly and is supplemented by others leaving to do a very similar route from nearby Wolverton (over Panther Gap). It is one of the primary “feeders” of the Mount Whitney area. Opportunities for solitude and campsite conditions on this trail are being impacted by high levels of visitor use.</p>	<p>Trailhead quotas from Crescent Meadow and Wolverton (Alta) as they relate to Mount Whitney access may be reduced.</p> <p>Pack-out waste kits may be required at certain areas. The existing designated camp area at Bearpaw Meadow would be retained.</p> <p>A 1-night camp limit would apply at Hamilton Lake.</p> <p>Selected meadows would be closed to grazing because of sensitive resource conditions and/or to provide opportunities to view ungrazed meadows along the HST: Chagoopa Plateau #3 Meadow, Guitar Lake Meadow, Kern Hot Spring Meadow, and Lower Crabtree Meadow.</p>
Lakes Trail (from Wolverton) Emerald and Pear lakes	<p>The Lakes Trail provides a relatively easy access to the subalpine Emerald and Pear lakes, and to the Tablelands. Current limits allow 25 people per night per lake basin to ensure some level of solitude in these areas. This area also has a large number of day-hikers accessing the Watchtower (rock cliff formation), and Heather Lake, as well as Emerald and Pear lakes. There are also significant day-hikers heading out the same trailhead and then branching off onto the Alta Peak Trail.</p>	<p>Existing destination quotas and designated campsites would be retained. In the future, if conditions warrant, day-use quotas could be implemented to ensure an acceptable level of solitude.</p> <p>The existing privies would be evaluated and those beyond reasonable repair or in unsuitable locations would be removed. The existing restrooms may be removed in the future if maintenance and repairs are not cost effective. Pack-out waste kits would be tested and may be required in the future.</p> <p>A lower day-use party size may be implemented.</p> <p>A 3-night stay limit would apply (combined stay limit at both lakes).</p> <p>The Watchtower Trail would be closed to stock travel.</p>
Mineral King Area	<p>This area has multiple trailheads for day-hiking and to reach overnight destinations. The most used trails are Sawtooth/Monarch (Trailhead quota of 20), Franklin Lakes/Pass (Trailhead quota of 30), and Eagle Lake (Trailhead quota of 25), with quotas filling occasionally.</p> <p>Most “first” camps are 3 to 5 miles in and are very popular to camp at and to hike to as a day-hike opportunity. Encounters on close-in trails such as Sawtooth, Franklin and Eagle Lake, will exceed 100/day on an occasional basis during the summer. Opportunities for solitude on these trails can be limited during summer weekends.</p>	<p>Trailhead quotas may be reduced on the highest use trails. In the future, if conditions warrant, day-use quotas may be implemented.</p> <p>Existing privies would be evaluated and those beyond reasonable repair would be removed. Pack-out waste kit requirements would be considered for implementation in areas where other methods are infeasible.</p> <p>A lower day-use party size may be implemented for this area.</p> <p>The first allowable camps on the Sawtooth/Monarch Trail would be located at Lower Monarch Lake (4.2 miles) and Crystal Lake (4.9 miles).</p> <p>Stock access and grazing would be restricted on some of the highest use trails. The Monarch Lake Trail would be closed to stock travel. The White Chief, Eagle, and Mosquito Lakes Trails would be open to camping by walking parties with burros or llamas, or travel only for parties with horses or mules. Areas open to stock use in the Mineral King basin would be closed to grazing.</p>

**Table 23: Area-specific Management Actions under Alternative 2 (continued)**

Location	Issue	Potential Management Actions
<p>Mount Langley/ Rock Creek Area</p>	<p>Use of this area is increasing due to hikers seeking a 14,000-foot peak who could not get permits for Mount Whitney. Much of the pressure, and notable resultant impacts, on Mount Langley is from wilderness campers who day-hike to its summit from the John Muir and Golden Trout wildernesses of Inyo National Forest (out of Cottonwood Lakes Basin). Inyo National Forest has trailhead quotas of 60 for the Cottonwood Lakes Trail, with an additional 15 people allowed with commercial service providers (John Muir Wilderness and New Army Pass), and 40 total for the Cottonwood Pass Trail (Golden Trout Wilderness).</p> <p>The Mount Langley area is being impacted from social trailing and opportunities for solitude in this area are decreasing.</p>	<p>The NPS would work with Inyo National Forest to manage the quota from USFS access points. Trailhead quotas may be reduced for trailheads providing access to this area.</p> <p>A destination quota may be added for Mount Langley.</p> <p>To address the social trailing and resulting resource damage, Class 1 trails would be constructed to the summit of Mount Langley from Army Pass, and from Soldier Lakes to the Mount Langley Trail. Informal trails would be rehabilitated.</p> <p>A two-night stay limit would be applied at Upper and Lower Soldier lakes (combined).</p> <p>A maximum party size of eight would be adopted for this area (this also applies to the Class 1 trail area – for day and overnight use).</p> <p>Grazing at Lower Soldier Lake would be limited to private parties only.</p>



**The Sierra Nevada – John Muir called it the “range of light”**

On the following pages, figure 12 depicts the wilderness trail system for alternative 2, figure 13 depicts campfire restrictions for alternative 2, and figures 14a and 14b depict stock access and grazing restrictions for alternative 2.

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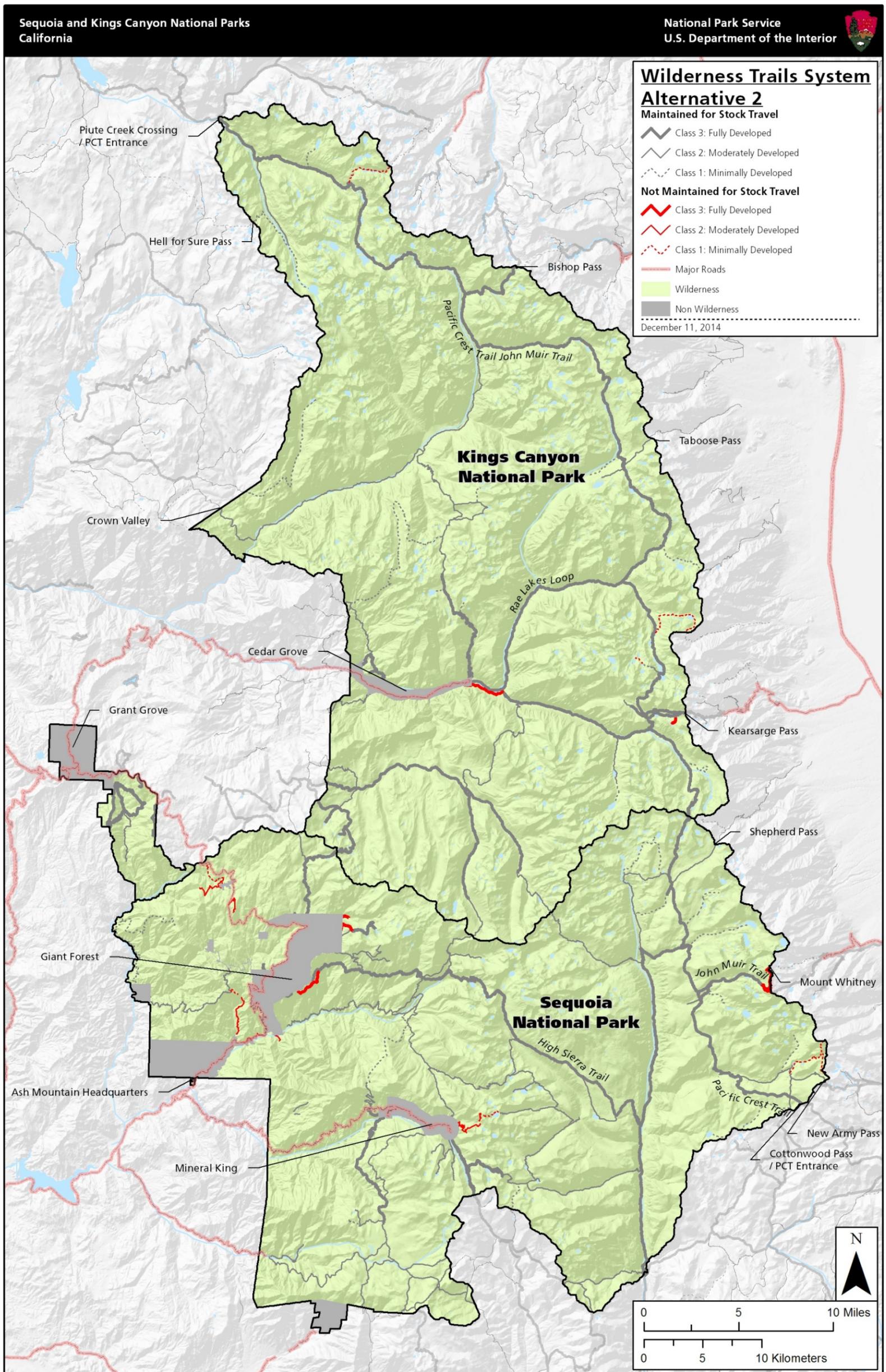
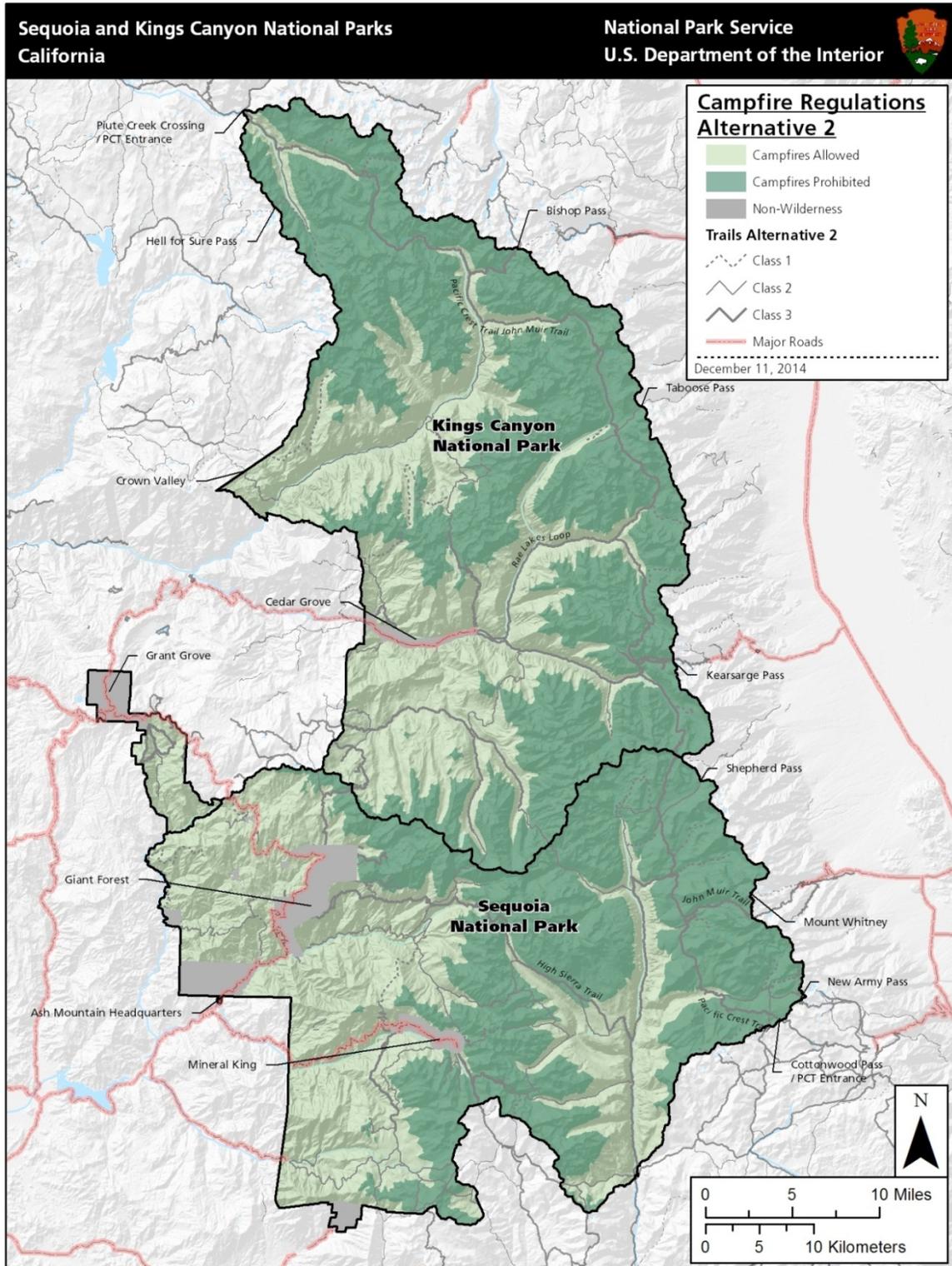


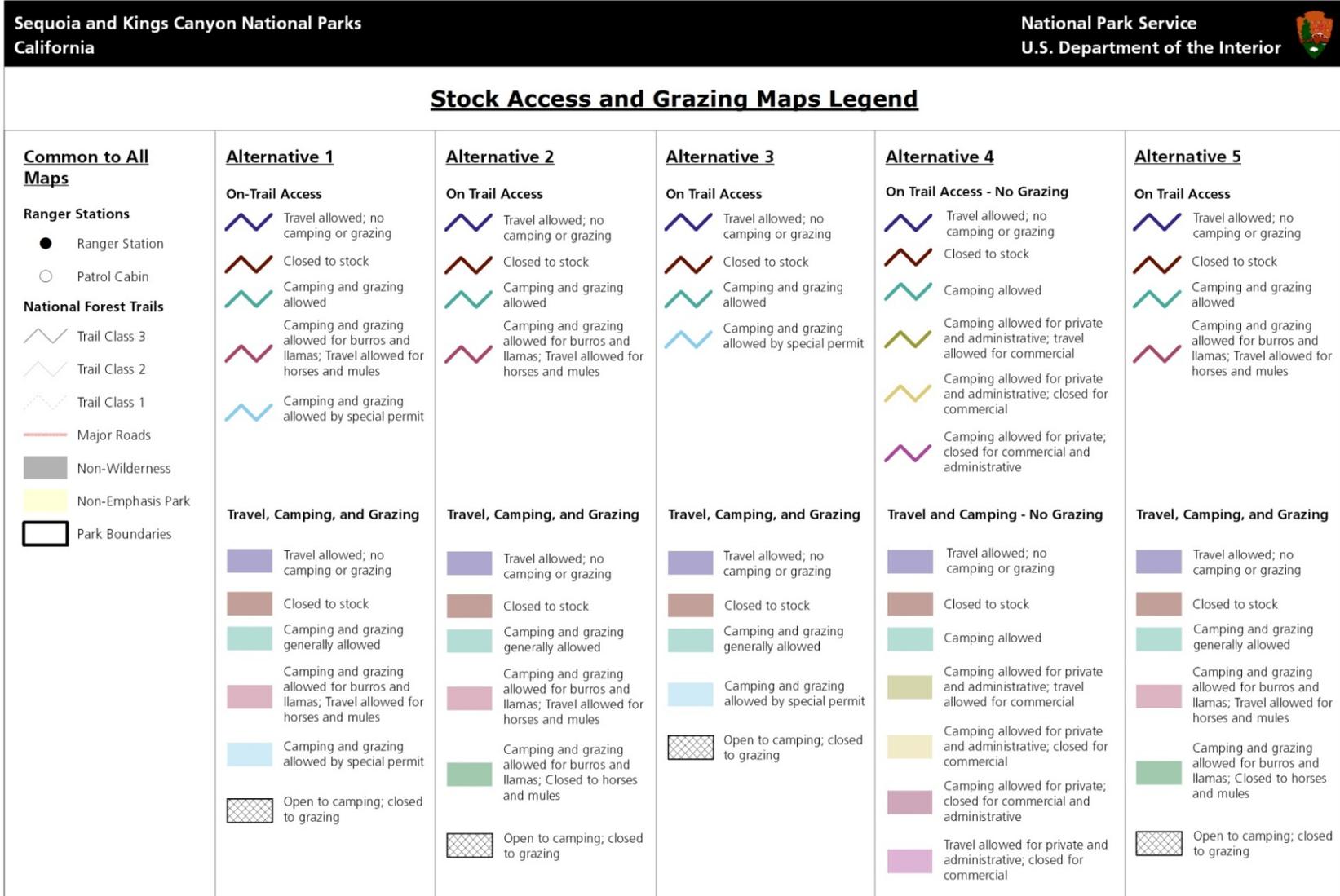
Figure 12: Wilderness Trails System – Alternative 2 (NPS Preferred Alternative)

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**Figure 13: Campfire Regulations – Alternative 2 (NPS Preferred Alternative)**

No campfires above 10,000 feet in Kings Canyon National Park and Kern River drainage;  
 no fires above 9,000 feet in Kaweah and Tule river drainages.  
 (see figure 23, page 297, for drainages)



Legend to Accompany Figure 14a: Stock Access and Grazing – Alternative 2 (NPS Preferred Alternative), Kings Canyon National Park

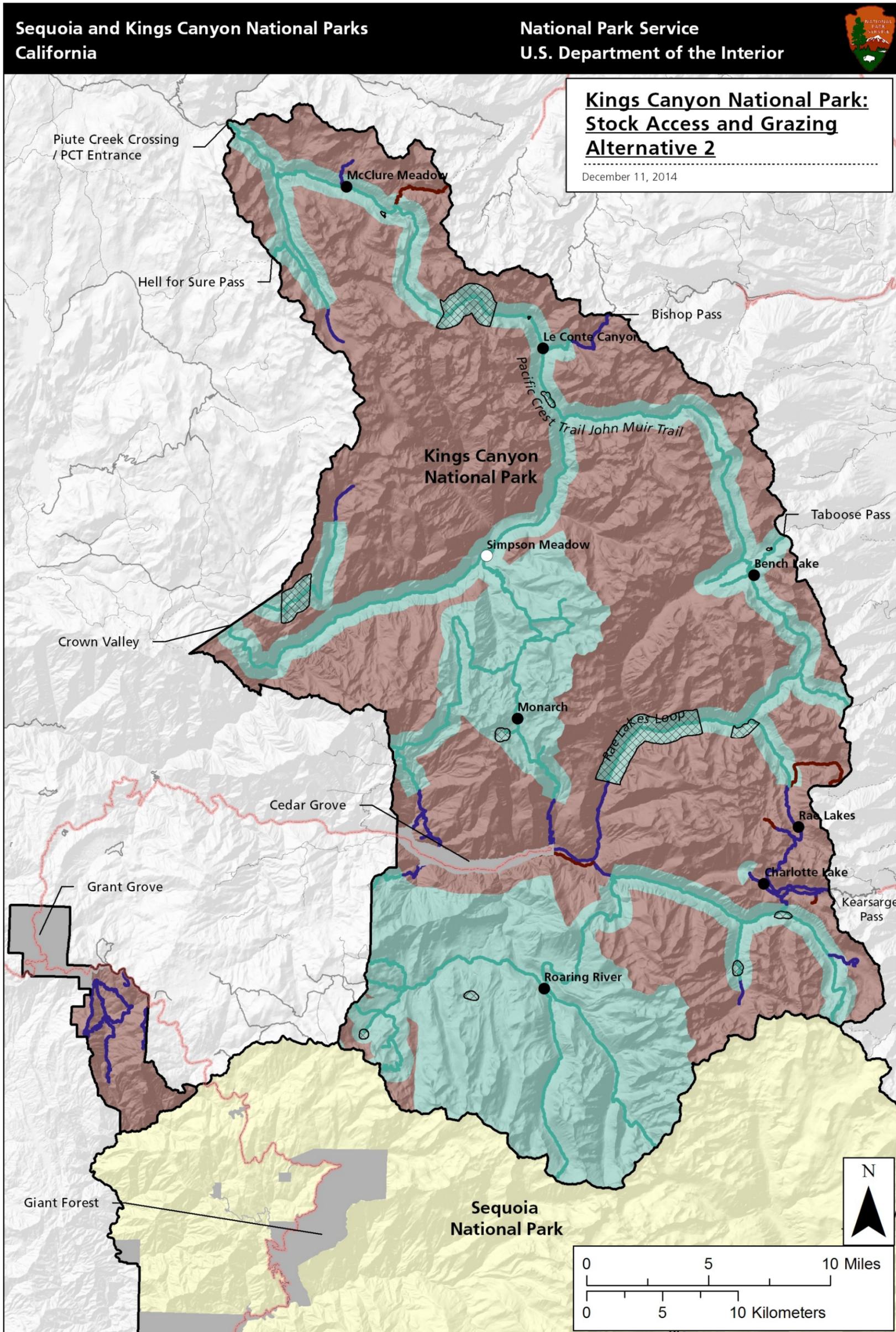


Figure 14a: Stock Access and Grazing – Alternative 2 (NPS Preferred Alternative), Kings Canyon National Park

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Sequoia and Kings Canyon National Parks California		National Park Service U.S. Department of the Interior			
<b>Stock Access and Grazing Maps Legend</b>					
<b>Common to All Maps</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5</b>
<p><b>Ranger Stations</b></p> <ul style="list-style-type: none"> <li>● Ranger Station</li> <li>○ Patrol Cabin</li> </ul> <p><b>National Forest Trails</b></p> <ul style="list-style-type: none"> <li>Trail Class 3</li> <li>Trail Class 2</li> <li>Trail Class 1</li> <li>Major Roads</li> <li>Non-Wilderness</li> <li>Non-Emphasis Park</li> <li>Park Boundaries</li> </ul>	<p><b>On-Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> </ul> <p><b>Travel and Camping - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> <li>Travel allowed for private and administrative; closed for commercial</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>

**Legend to Accompany Figure 14b: Stock Access and Grazing – Alternative 2 (NPS Preferred Alternative), Sequoia National Park**

**Sequoia and Kings Canyon National Parks  
California**

**National Park Service  
U.S. Department of the Interior**

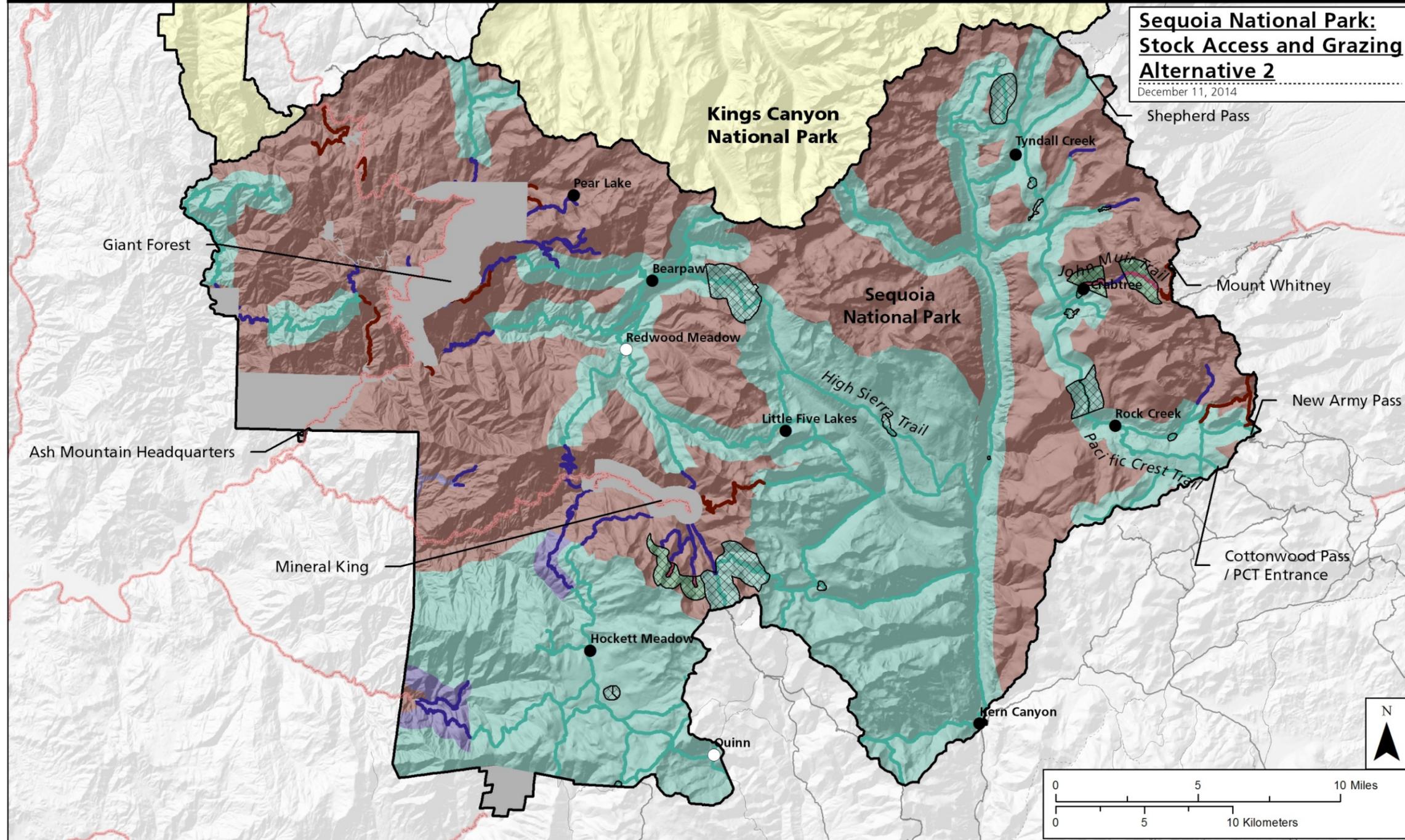


Figure 14b: Stock Access and Grazing – Alternative 2 (NPS Preferred Alternative), Sequoia National Park

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## ALTERNATIVE 3: PROVIDE MORE OPPORTUNITIES FOR PRIMITIVE RECREATION

### OVERVIEW

The overarching idea behind alternative 3 is that the WSP would focus on increasing opportunities for primitive recreation by allowing additional use, which would be expected to occur mostly in popular areas.

Allowing use to increase under this alternative would result in more visitors in the parks' wilderness. This would result in decreased opportunities for solitude and more visitors could have an increased impact on the resources. Therefore, to preserve the natural quality of wilderness, the popular use areas in wilderness would require additional development and restrictions on visitor behavior.

Quotas would generally remain at current levels in low-use areas, as there is no demand above current levels, but quotas would be increased for some of the most popular areas.

Most wilderness trails in the parks would remain open to stock under this alternative. Stock would continue to be allowed to travel up to 0.5 mile off maintained trails to reach campsites. Off-trail stock travel would continue to be allowed in four areas of the parks: on the Monarch Divide, in the Roaring River area, on the Hockett Plateau, and along the western side of the Kern River watershed south from the Chagoopa Plateau.

To increase access for visitors traveling with stock along the most popular trail corridors (JMT, PCT, and HST), additional controls would be placed on grazing, night limits, and party-size limits. In areas subject to high visitation or vulnerable to resource impacts, designated camping areas may be established.

There would be increased opportunities for commercial services commensurate with increased use (types of services and amount of use). Increased commercial services would be necessary to support a wider range of visitor skill levels and recreational opportunities.

### KEY ELEMENTS OF ALTERNATIVE 3

This alternative addresses the key elements as described below.

#### Element 1: Visitor-use Levels

**Planning Objective:** Visitor use and enjoyment of wilderness would be promoted while ensuring the preservation of wilderness character. In this alternative, opportunities for visitor use and enjoyment of wilderness would be increased by permitting more visitor use.

*Permits and Quotas* — Daily trailhead quotas would be increased for some trailheads by up to 10%, including those that have the highest use. At trailheads where quotas do not currently fill, the quotas would remain the same, effectively allowing for increased use in those areas. Existing destination quotas



would continue to be applied. No additional destination quotas would be added and no day-use permits/quotas would be implemented.

The NPS would continue to work with the USFS to manage and improve the quota and permitting systems, to add trailheads currently missing from the quota system (e.g., Tehipite Valley and Kern River), and on other relevant cooperative cross-boundary wilderness-management issues.

*Visitor Capacities and Encounter Standards* — Alternative 3 presents the highest use levels that would be accommodated across the range of action alternatives. Use levels would be allowed to increase by increasing the numbers of permits issued in some areas (through increased trailhead quotas). The various types of use proposed under alternative 3 would remain the same as in alternative 2. To meet the planning objectives for this alternative, the overnight estimated visitor capacity wilderness-wide for these parks would be 175,000 VUDs per year. Ten-year average overnight use would be limited to 141,000–147,000 VUDs/year. This increased amount is more than 50% below peak historic use levels. While use levels would be allowed to reach the established capacities under this alternative, there are social, economic, and other factors that may lead to actual use being below capacity. Each year, total annual VUDs would be discussed and analyzed by an interdisciplinary group at an annual meeting on wilderness management. If determined to be out of standard, management actions to bring the measure back into standard would be adopted. Appendix A contains a detailed description of the methods used to develop the visitor capacity framework for this WSP.

As explained in alternative 2 and appendix A, the parks would adopt a measure of the number of people encountered per hour (EPH) on trails and would take action based on established standards. For this measure, each trail would be assigned to one of four encounter-rate standards: very high use (primarily Mount Whitney and day-use areas); high use (generally Class 3 trails, with some exceptions); moderate use (generally Class 2 trails, with some exceptions); and low use (generally Class 1 trails with some exceptions). Each has a specified EPH that serves as a standard. The standards for alternative 3 are shown in table 24.

**Table 24: Encounters per Hour Standards for Alternative 3**

Measure	Standard <sup>1</sup>			
	Very High	High	Moderate	Low
Trail Encounters – People Encountered Per Hour – by area	59	33	20	8

<sup>1</sup>Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September) for selected monitored trail segments.

Currently, visitors may experience encounter rates higher than the proposed standard in the areas detailed below. The actions described under this alternative, along with the management actions described in the “Mitigation Common to All Alternatives” section in this chapter and in appendix A, would be taken to return the areas to within standards (table 25 on pages 147-148). [Note: Trail encounter data from 2012 to 2014 was collected opportunistically by park staff and volunteers. As a result, a larger proportion of samples occurred on weekend days and mid-day times than would be expected from a random or structured sample. A standardized sampling protocol will be developed upon completion of the WSP, and areas that are shown as out-of-standard and near standard in table 25 would be prioritized for re-sampling.]

**Table 25: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 3**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Very High	59	Mount Whitney	In standard	
		Road's End	Near standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions.
		High Sierra Trail (Crescent Meadow to Wolverton Cutoff Junction)	In standard	
High	33	Lakes Trail	In standard	
		Mineral King Valley	In standard	
		Little Baldy Trail	In standard	
		Paradise Creek Trail	In standard	
		Redwood Canyon	In standard	
Moderate	20	Evolution Basin & Valley (JMT/PCT)	Near standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions.
		Rae Lakes/JMT	Near standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions.
		Mount Langley approach	Near standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions; consult with USFS regarding area use levels.
		Crabtree Ranger Station to Trail Crest	Near standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions.
		Rae Lakes Loop — Lower Portion	In standard	
		West side of Kearsarge Pass	Near standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions.
		Dusy Basin	In standard	
		Twin Lakes Trailhead to Silliman Creek	In standard	
		High Sierra Trail (Wolverton Cutoff Junction to JMT Junction)	In standard	
		Rock Creek	In standard	
		Little Five	In standard	

**Table 25: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 3 (continued)**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Low	8	Sixty Lake Basin Trail (Rae Lakes 3)	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduction in area camping overnight limits; implement area specific restrictions.
		Crabtree Lakes (Crabtree 1)	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduction in area camping overnight limits; implement area specific restrictions.
		All other trails not identified above	In standard <sup>2</sup>	

<sup>1</sup> Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September).

<sup>2</sup> Inferred from a small number of samples.

**Element 2: Trails**

**Planning Objective:** The trail system would facilitate access for visitor use and enjoyment of the wilderness. Trails would be well suited to the types and levels of visitor use (levels of visitor use would be increased over current levels under this alternative).

Most park trails are already designed and constructed to provide for appropriate access while preserving wilderness character. Many existing trail segments are inadequately constructed to support the projected use patterns of this alternative, and would be targeted for further development. A few trails would be designated hiking-only trails where there are known threats to sensitive resources, unacceptable visitor safety issues, or existing user conflicts between stock and hiker/backpacker parties. Where the designated unmaintained routes listed in the 1986 SUMMP are still passable to stock, and where stock travel does not pose undue threats to resources, they would be designated Class 1 or Class 2 trails and targeted for appropriate construction and maintenance. Other designated unmaintained routes would be abandoned and landscape restoration considered. Summary tables at the end of this chapter give a comparison of trail classes by mileage and use under each alternative. Figure 15 depicts the wilderness trail system for alternative 3 and can be found on page 163. More details on the trail management and classification system can be found in appendix K.

With additional site-specific planning and compliance, new Class 1 trails could be established to protect resources when visitor use may cause undue impacts. For example, establishing Class 1 trails on Lamarck Col and Mount Langley would provide resource protection in areas with increasing visitation.

**Element 3: Campfires**

**Planning Objective:** Visitors would have the opportunity to enjoy campfires where campfires are compatible with the protection of vegetation and downed wood resources. In this alternative, increased visitor use would be accommodated by limiting campfire use to areas with higher wood productivity.

Recreational campfires would be allowed in the foothill and montane forests and up to 9,000 feet wilderness-wide. With increased use expected wilderness-wide at high elevations, a parkwide fire restriction of 9,000 feet would be implemented to protect the ecologically and scientifically important wood resources.

In addition, site-specific restrictions would be implemented in the most popular areas, including:

- PCT/JMT
- Rae Lakes Loop
- HST
- Mineral King Valley (East Fork Kaweah River drainage)
- Rock Creek drainage
- Redwood Canyon area

This alternative allows recreational campfires in 293,840 acres of 837,806 acres of wilderness (35%). Figure 16 depicts campfire restrictions for alternative 3 and can be found on page 165.

#### **Element 4: Food Storage**

**Planning Objective:** Native wildlife would subsist only on naturally obtained food, uninfluenced by the presence of human food. In this alternative, increased visitor use in areas of known human/bear activity would drive the need for additional food-storage boxes.

All existing 86 food-storage boxes would be retained. To address higher levels of use, there would be up to 35 additional food-storage boxes added at key locations along the JMT and near highest-use camp areas. The locations of some existing food-storage boxes may shift to more appropriate, less sensitive locations to protect resources (e.g., moved away from streams and lakeshores).

Existing food-storage requirements would be modified based on the locations of additional food-storage boxes. A food-storage box at North Dome would be added (this location is outside of wilderness but serves wilderness visitors).

Additional portable container requirements may be implemented in specific areas if the need arises.

Locations for additional food-storage boxes under alternative 3 (all locations are in Kings Canyon National Park; locations could have more than one food-storage box added):

- Bench Lake junction
- Big Pete Meadow
- Cement Table Meadow
- Deer Meadow
- Dusy Basin
- Dusy Bench
- Evolution Lake
- Evolution Meadow
- Golden Staircase (base)
- Grand Palace Hotel Meadow
- Grave Meadow

- Grouse Meadow
- JMT/Bishop Pass trail junction
- Little Pete Meadow
- Lower Ranger Meadow
- Marjorie Lake
- McClure Meadow
- Palisade Lakes outlet
- JMT/Middle Fork Kings trail junction
- Redwood Canyon
- Sapphire Lake
- Shorty's Meadow outlet
- Simpson Meadow
- South Fork crossing
- State Lakes outlet
- Twin Lakes (Woods Creek)



**The restroom near Emerald Lake**

#### **Element 5: Human-waste Management**

**Planning Objective:** Human waste would not contaminate water or create unsanitary or unsightly conditions. Reflecting increased visitor use under this alternative, additional privies would be provided in targeted areas where the risk of contamination is high.

Cat-holes would continue to be required in areas with no privies/toilets. Pack-out waste kits would be required in the Mount Whitney area.

At highest use areas where soil development is inadequate for cat-holes, privies, and restrooms would be retained. New privies would be considered for highest use areas (e.g., Heather Lake) and in locations where designated campsites are established.

The NPS would consider implementation of new technologies for human-waste management as they are developed in the future. The use of new technologies may require on-site planning and compliance. Some technologies may require visitors to be more self-sufficient. Table 26 provides a list of public privies and restrooms and the justification for retaining or removing them under alternative 3.

**Table 26: Public-use Privies and Restrooms Retained, Removed, or Added under Alternative 3**

[Note: Number of privies/restroom is indicated in parentheses when more than one privy/restroom exists.]

Privy/Restroom Name/Location Listed North to South	Alternative 3 Actions	Discussion and Justification
Woods Creek Crossing	Retain	Popular and concentrated use and primary stopping point for multiple trip itineraries. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Paradise Valley (3 – 1 each in Upper, Middle, and Lower)	Retain two privies (Upper and Lower) and remove privy at Middle Paradise	Less use in Middle Paradise Valley than Upper and Lower Paradise Valley. Removal of designated campsites in Middle Paradise under this alternative makes it more appropriate to disperse use by not having a privy available. Soils are suitable for cat-holes.
Sphinx	Retain	Use may increase under this alternative.
Roaring River area (3)	Remove privy at Sliding Box Camp; retain privy at Stewart E. White Camp (near RS). Remove privy at Knoll camp.	Less use at Sliding Box Camp and it is a large area with suitable soils for cat-holes. Stewart E. White Camp location has long-established and concentrated use. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste). Very low use at Knoll camp.
Twin Lakes (Clover Creek)	Retain	Popular area close to busy trailhead. Taking out the privy without a waste management alternative would result in impacts because of concentrated use. Use may increase under this alternative.
Heather Lake	Add one privy	Sensitive area with concentrated day-use (no overnight use at Heather Lake). Use may increase under this alternative.
Pear Lake (1 restroom)	Retain	Existing restrooms are a large development in wilderness, require high levels of maintenance, and are not functioning properly. Popular area where rocky shallow soils do not support use of cat-holes.
Emerald Lake (1 restroom)	Retain	Existing restrooms are a large development in wilderness, require high levels of maintenance, and are not functioning properly. This is a popular area where rocky shallow soils do not support use of cat-holes.
Bearpaw Area (3)	Retain all privies	Popular area and a well-established designated camp area. A privy is necessary near the designated backpacker camp to protect natural quality of wilderness and protect solitude (from litter associated with human waste). A privy is necessary near the Bearpaw Meadow High Sierra Camp to protect natural quality of wilderness and protect solitude (from litter associated with human waste). Use may increase under this alternative.
Hamilton Lakes	Retain	Popular area with rocky shallow soils not suitable for digging cat-holes.
Crabtree Area	Retain	Popular area where privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).

**Table 26: Public-use Privies and Restrooms Retained, Removed, or Added under Alternative 3 (continued)**

[Note: Number of privies/restroom is indicated in parentheses when more than one privy/restroom exists.]

Privy/Restroom Name/Location Listed North to South	Alternative 3 Actions	Discussion and Justification
Rock Creek Area	Add one privy at Rock Creek crossing area	Popular and concentrated use. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Kern Hot Spring	Retain	Popular and concentrated use. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Upper Funston	Remove	Low-to-moderate use. Large area with suitable soils for cat-holes.
Monarch Lakes	Retain	Popular and concentrated use in this area. Rocky shallow soils do not support use of cat-holes. This is a launching point for longer trips. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Eagle Lake and Mosquito Lakes (2 – 1 privy at each location)	Retain	Popular concentrated-use area. Generally visitors are day hikers or stay for one to two nights. Not a launching point for longer trips. Use may increase under this alternative.
Franklin Lakes	Retain	Popular and concentrated use in this area. Rocky shallow soils do not support use of cat-holes. This is a launching point for longer trips. A privy is necessary to protect the natural quality of wilderness and protect solitude (from litter associated with human waste).
Hockett Meadow	Remove	Low use and soil type is appropriate for cat-holes.
Dusy Basin, Evolution Valley, Guitar Lake, Kearsarge Lakes Basin, Mineral King Lake Basins, Middle and Upper Rae lakes, Redwood Canyon, Woods Creek Crossing, and other points along the PCT/JMT	Potential new privies	Affiliated with designated campsites.

**Element 6: Party Size**

**Planning Objective:** Party size would be set at levels high enough to allow for a variety of experiences, but low enough to protect wilderness character from impacts associated with large groups. In this alternative, an emphasis on increasing opportunities for primitive recreation would allow for an increase in party size in many areas.

To allow a greater diversity of recreational opportunities in the parks’ wilderness, party-size limits would be increased to generally match those of the surrounding USFS wilderness lands. Limits would be lower in some areas. Tables 27 and 28 on the next page present party size limits under alternative 2.

**Table 27: Party-size Limits for Hikers and Boaters for Alternative 3**

Type of Trip	Maximum Party Size
On-trail (day use)	25
On-trail (overnight use)	15*
Off-trail (day and overnight use)	15*
Area-specific	Existing temporary party-size limits would be removed (party size of 8). A party-size limit of four would be implemented for camping at North Dome. A party-size limit of 10 would be retained for Redwood Canyon.

\*Consistent with neighboring USFS areas.

**Table 28: Party-size Limits for Stock Parties for Alternative 3**

Type of Stock Trip	Maximum Party Size for People and Stock
Day rides (not including spot and dunnage)	People: 25 Stock: 25 Combined: 50
On-trail (including spot and dunnage trips that support overnight use)	People: 15 Stock: 25* Combined: 40
Off-trail (in areas specifically designated for day and overnight stock use)	People: 15 Stock: 25* Combined: 40
Area-specific	8 head stock maximum in Milestone Basin and by special permit only would be retained. Redwood Canyon would have a party-size limit of 10 stock for day-use.

\*Consistent with neighboring USFS areas.

### Element 7: Camping/Campsites and Night Limits

**Planning Objective:** Visitors would have the opportunity to choose camping locations, except in areas where camping would result in unacceptable impacts. In this alternative, increased visitor use would require an increase in camping restrictions.

To allow a greater diversity of recreational opportunities where risks of resource impacts are low, some areas close to the frontcountry would be opened to camping (e.g., North Dome). In addition, and with site-specific compliance, one or more universally accessible campsites could be constructed near a trailhead (e.g., near the confluence of Bubbs Creek and the South Fork Kings River).

Existing and additional areas that are appropriate for stock camps would be identified, and the parks would recommend that visitors traveling with stock use those camps. In specific, popular locations, stock users may be required to camp in designated stock camps. If an area is designated as a required stock camping site/area, backpacker camping would be prohibited.

*First Allowable Campsite* — The first allowable campsites would be the same as described in alternative 2 (see the “First Allowable Campsites” section in alternative 2, table 19 on page 116).

*Length of Stay/Night Limits for All Campers (stock-supported and backpackers)* — All overnight camping would be limited to seven consecutive nights at a single location, 20 consecutive nights per trip, and 60 nights per year for individual visitors. Table 29 presents additional overnight limits.

**Table 29: Site-specific Exceptions to the Night Limits under Alternative 3**

Location	Night Limits Exceptions (Consecutive Nights in one Location)
Charlotte Lake, Colony Mill Trail, Crabtree area, Don Cecil Trail, Dusy Basin, Emerald and Pear lakes (combined), Guitar Lake, Hamilton Lake, Kearsarge Basin, Milestone Basin, North Dome, Paradise Valley, Redwood Canyon, and Lower and Upper Soldier lakes (combined)	2-night limit
Current 1-night limit at Rae Lakes (per lake) would continue to apply. There would be a 1-night limit at any one location on the JMT between Woods Creek Crossing and Vidette Meadow.	1-night limit

*Designated Campsites* — To preserve the unconfined aspect of recreation in the parks’ wilderness, most areas would have no restrictions on where overnight visitors can camp, except to follow the Leave No Trace<sup>®</sup> practices to preserve the natural quality. However, the use of designated campsites/camp areas would be mandatory at Emerald and Pear lakes, Lower Paradise Valley, and Bearpaw Meadow. Additional sites may be designated in areas where factors such as concentrated use and limited suitable campsites create a risk of physical or social campsite impacts. Areas considered for new campsite designation under this alternative include Dusy Basin, Evolution Valley, Guitar Lake, Kearsarge Lakes Basin, Mineral King lake basins, Middle and Upper Rae Lakes, Redwood Canyon, Woods Creek Crossing, and other points along the PCT/JMT. Designation of campsites or areas would require site-specific analysis.

*Campsite Condition Standards* — As explained in alternative 2, a metric of aggregate campsite impacts (Weighted Value per Campable Mile, WVCM) would be adopted under all alternatives to ensure that the number of campsites and their condition does not exceed standards. The metric of WVCM would be used to measure campsite condition. Under alternative 3, the standard for WVCM would be: 1300 for high use subzones, 650 for moderate use subzones, and 325 for low use subzones. A monitoring plan would be developed to establish protocols and schedule monitoring frequencies to ensure that subzones remain within their applied standard.

Under alternative 3, one subzone (83-1 Guitar Lake) would be considered out of standard in the high use category, and one subzone (80-3 Shepherd Pass Lake) would be considered out of standard in the moderate category. All other subzones would be considered within standard. Management actions to return the subzones to within standards are included in the “Mitigation Common to All Alternatives” section in this chapter, for a map of campsite condition standards see figure 10, page 119; for information on determining campsite condition and standards, see appendix A, page A-15 and A-24.

**Element 8: Stock Use**

**Planning Objective:** Visitors would have opportunities to travel with stock, from day rides to multi-day trips, in a manner that ensures the protection of wilderness character. Access and grazing would be managed to protect resources, provide other types of primitive recreation, and reduce conflict of user groups. Under this alternative, increased visitor use would result in a need for more stock structures and closure of selected off-trail grazing areas in order to protect resources.

Figures 17a and 17b depict stock access and grazing restrictions for alternative 3. Figure 17a shows stock access and grazing restrictions in Kings Canyon National Park and can be found on pages 166/167. Figure 17b shows stock access and grazing restrictions in Sequoia National Park and can be found on pages 170/171.

### ***Stock Access and Travel***

*On-trail* — Visitors traveling with stock would be allowed on most maintained trails (671 of 714 miles). Stock parties would be allowed to travel up to 0.5 mile from trails in areas where they are allowed to camp. In areas open to travel only, stock parties would be allowed to travel up to 100 yards from trails.



**A horse and mule atop Elizabeth Pass**

Approximately 565 miles of maintained trails would be open to camping with stock. Some trails would be open to stock parties for travel only, some would be open to use by special permit, and some would be closed to stock travel entirely for reasons including visitor safety, resource protection, and/or popular day-use by hikers. Trails with restricted stock access under alternative 3 are discussed below.

Trails open for travel only (106 miles; includes mileages to first camps):

- Admiration Point Trail
- Alta Trails
- Big Baldy Trail
- Buena Vista Trail

- Center Basin Trail (to Golden Bear Lake)
- JMT along Timberline Lake
- Kearsarge Lakes Trail
- Lake 11,092 Trail (shown as Lake 11,106 on older maps)
- Lake Reflection above the abandoned Harrison Pass Trail junction
- Lakes Trail (Hump Trail only)
- Little Baldy Trail
- Martha Lake Trail from 1 mile above Hell-for-Sure Junction
- Miter Basin Trail above Penned-up Meadow to a tie-up area at 11,300 feet in elevation below Sky Blue Lake.
- Muir Grove Trail
- Oriole Lake Trail
- Paradise Creek Trail
- Redwood Canyon area trails
- Upper Blue Canyon Trail
- Upper Sixty Lake Basin Trail
- Wallace Lake Trail above 11,200 feet in elevation
- White Chief, Eagle, and Mosquito Lakes trails
- Wright Creek Trail 11,200 feet in elevation

Trails open to camping by special permit (3 miles):

- Milestone Basin Trail

Trails closed to stock travel (43 miles):

- Baxter Pass Trail
- Bullfrog Lake Trail west of Kearsarge Lakes Trail
- Crabtree Lakes Trail (no travel above camp at 11,000 feet in elevation)
- HST from Crescent Meadow to Wolverton Cutoff
- Lamarck Col Trail
- Lower Sixty Lake Basin Trail
- Marble Falls Trail
- Monarch Lake Trail
- Mosquito Lakes Trail – upper lakes
- Mount Langley Trail

- Mount Whitney Trail – base of switchbacks to Trail Crest and summit
- Seville Lake Boy Scout Trail
- South Side Cedar Grove Sandflats Trail from Zumwalt Meadow Bridge to Bubbs Creek
- Sphinx Lakes Trail
- Tokopah Falls Trail
- Upper Soldier Lakes Trail
- Watchtower Trail

*Off-trail* — Stock parties would continue to be allowed to travel up to 0.5 mile from trails to reach camps. Travel more than 0.5 mile from maintained trails would continue to be allowed in four areas of the parks: on the Hockett Plateau, on the Monarch Divide, in the Roaring River drainage, and along the western side of the Kern River watershed south from the Chagoopa Plateau.

*Stock Grazing* — Grazing would be managed to maximize protection of resources while allowing visitors traveling with stock continued access to forage. Grazing would generally be allowed within 0.5 mile of maintained trails open to stock camping. Grazing would not be allowed in areas designated as open to stock travel only. Grazing would be generally prohibited in the off-trail travel areas with a few exceptions. Increased controls (such as head limits and night limits) could be implemented to prevent overuse in popular destinations.

Grazing would continue to be managed and informed by the results of the Stock Use and Meadow Monitoring Program, including the continued application of estimated grazing capacities, as described under alternative 2.

Areas closed to grazing would remain open to camping by visitors traveling with stock, but visitors would be required to hold and feed their animals. Administrative grazing would be managed to limit impacts on public grazing (Note: With rare exceptions, visitors are given preference for limited grazing resources).

The use of certified-weed-free forage in frontcountry areas, and of processed pellets, rolled grains, or fermented hay in wilderness, would be required as described under alternative 2.

The monitoring system described under alternative 2 and in appendix D would be employed to track use, document conditions, and provide information for preventing and mitigating impacts.

The meadows closed to grazing for scientific and social value by the SUMMP would remain closed. The meadows closed to grazing due to high visitation and resource concerns by the SUMMP would remain closed.

The following meadows located in cross-country travel areas which are otherwise closed to grazing would be open to grazing: Ansel Lake, Chagoopa Treehouse Meadow, Crytes Lakes, Laurel Creek Basin, Long Meadow (East Fork Ferguson Creek), Sugarloaf Creek Confluence, and West Fork Ferguson Creek (Log Meadows to Sheep Pen Meadows).

The following additional meadows which are otherwise open to camping with stock would be closed to grazing due to high levels of visitation and resource concerns: Crabtree Lakes (closed to stock access and grazing above the existing camp west of the lowest lake), Darwin Meadow proper, Forester Lake Meadow, Guyot Creek Meadows (expanding the existing closure to the meadows east of trail), Guitar

Lake, Kern Hot Spring Meadow, Kettle Dome (Randle Corral) Meadows, Milestone Basin, Mineral King basin, Summit Lake Meadow, and Upper LeConte Canyon above 10,000 feet in elevation.

Meadows associated with areas or trails closed to stock under this alternative would also be closed to grazing.

Recognizing that the opportunity to observe and experience ungrazed meadows is of value to many park visitors, the following meadows along popular travel routes which are otherwise open to camping with stock would be closed to grazing: Bighorn Plateau and the meadow 0.6 mi south of Bighorn Plateau; Chagoopa Plateau #3 Meadow; Darwin Meadow; Grouse Meadow; Lower Crabtree Meadow; and Taboose Pass Meadow. These closures would make it possible for visitors traveling along the JMT and HST to experience at least one ungrazed meadow in each drainage through which the trails pass.

The following restrictions in areas otherwise open to grazing would be adopted:

- Open to grazing by walking parties with burros or llamas, closed to grazing by parties with horses or mules: Bubbs Creek below Junction Meadow, and Evolution Lake to Muir Pass
- Open to administrative use and grazing only: Hockett Pasture, JR Pasture, Kern Ranger Station Pastures, Lackey Pasture, and Upper Redwood Meadow

Table 30 presents the site-specific night and/or head grazing limits on meadows in the parks under alternative 3.

**Table 30: Site-specific Night and/or Head Limits on Grazing under Alternative 3**

Location	Stock Head Limit	Night Limit
Bubbs Creek (below Junction Meadow)	25	1
Castle Domes Meadow	15	1
Cement Table Meadow	15	3
Charlotte Creek (below drift fence)	25	2
Upper Crabtree Meadow	15	7
East Lake and Ouzel Meadows	12	2
Grave Meadow	15	3
Junction Meadow (Bubbs)	15	1
Junction Meadow (Kern)	15	1
Lower Funston Meadow	25	2
Redwood Meadow	15	2
Scaffold Meadow	15	2
Shorty's Meadow	25	2
Upper Crabtree and Sandy Meadows	10	7
Upper Evolution Valley (above Evolution Meadow)	25	1
Upper Funston Meadow	25	2
Upper Rock Creek (Nathan's Meadow and above)	25	2
Wallace Creek Waterfall Meadow	6	1

*Stock Use Structures* — Under this alternative, 14 hitch rails would be removed and 38 hitch rails would be retained. Five fences/gates would be removed, 49 would be retained, and one new fence with a gate would be constructed gates (see tables 51a and 51b starting on page 272 at the end of this chapter).

### **Element 9: Administrative Structures**

**Planning Objective:** Administrative structures and developments would be the minimum necessary for the administration of wilderness, similar to current conditions.

*Ranger Stations* — Ranger stations that would be retained in their current locations:

- Crabtree
- Hockett Meadow
- LeConte Canyon
- Kern Canyon
- McClure Meadow
- Pear Lake
- Rae Lakes
- Rock Creek
- Tyndall Creek

The following ranger stations could be relocated or modified:

- Bearpaw Meadow Ranger Station would be removed and a new station could be constructed outside the historic district.
- Bench Lake tent platform would be relocated to a more suitable location for patrol functions and/or converted to a hard-sided station.
- Charlotte Lake Ranger Station would be relocated to a more suitable location for patrol functions and/or a new station would be constructed.
- Little Five Lakes tent platform would be relocated to a more suitable location for patrol functions and/or converted to a hard-sided station.
- Monarch tent platform would be relocated to a more suitable location for patrol functions and/or converted to a hard-sided station.
- Roaring River Ranger Station would remain in its current location but would be rehabilitated or reconstructed.

Each of the above actions would be subject to separate site-specific planning, design and compliance. The patrol cabins at Quinn, Redwood Meadow, and Simpson Meadow would be retained.

*Other Administrative Structures* — The Redwood Canyon Cabin would be retained as research support with reduced affiliated infrastructure. Use would include park staff, cooperators, research organizations, and universities (non-NPS staff would be required to obtain a permit). The supporting infrastructure (e.g., water system tables) would be removed, and the area rehabilitated.

The above modifications would require site-specific planning, design, and compliance.

*Administrative Pastures* — Existing administrative pastures and associated structures would be retained (Hockett Meadow, Kern, Roaring River, and Redwood Meadow).

*Crew Camps* — The number of trail crew camps in Kings Canyon National Park would be increased to 20, each with tool caches and 1 to 3 food-storage boxes. The number of trail crew camps in Sequoia National Park would be increased to 15, each with tool caches and 1 to 3 food-storage boxes. Other project crew camps (for administration of wilderness) would be established as needed on a case-by-case basis.

## **Element 10: Frontcountry Facilities to Support Wilderness Access and Use**

**Planning Objective:** Frontcountry facilities that support activities in wilderness would encourage and/or facilitate visitor use and enjoyment of wilderness.

The types and levels of commercial services that may be performed in wilderness are discussed in detail in the END (appendix B). Commercial service providers would be permitted to use some frontcountry facilities, but other facilities would only be used by non-commercial or administrative entities.

### ***Kings Canyon National Park***

*Cedar Grove Pack Station* — The Cedar Grove Pack Station would continue to be operated under concession authority based on a contractual relationship with NPS. Stock camping sites would be developed at the Cedar Grove Pack Station primarily for private users. A holding pen/corral space, hitch rail(s), adequate parking and turnaround space for stock trailers, a campfire pit, picnic tables, restrooms, food-storage boxes, and water supply would be installed.

### ***Sequoia National Park***

*Middle Fork Kaweah Trailhead* — At the Middle Fork Kaweah Trailhead improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided; no other stock amenities would be provided. CUA holders could be allowed to use this trailhead. No camping would be allowed for hikers or stock users.

*Mineral King Area* — The Atwell Mill Campground at Mineral King would be adapted to accommodate stock camping in two to three sites. Facilities may include a holding pen, hitch rail(s), table, campfire pit, picnic table, and stock trailer parking. The site would be maintained through an agreement between the NPS and a cooperating partner. Commercial service providers would be allowed to use the Atwell / Hockett trailhead.

The Mineral King Pack Station and administrative corrals would continue to be used for park administrative purposes at the existing location or at a new location in the Mineral King area. Consistent with the outcome of the END process, if a market and financial viability study/analysis determines that a concessions contract is feasible, per the Concessions Management Act and NPS policies, the Mineral King Pack Station could be operated as a contracted concessions service in its current location or at a new location at Mineral King. The types and levels of service provided by a concessioner at Mineral King would depend on the financial viability analysis and could include public stock campsite(s) and other guided services on approved trails. However, due to the lack of suitable trails and safety concerns, no concessioner-led frontcountry day rides would be authorized. The concessioner would receive exclusive

use of commercial stock access to local trailheads open to stock use (i.e., CUA holders would not have access, but private users could still access wilderness on these trailheads).

*North Fork Kaweah Trailhead* — At the North Fork Kaweah Trailhead improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial service providers would be allowed to use this trailhead, controlled through the conditions of the permit. A small (two-site) primitive trailhead campground (i.e., no water) for stock users and backpackers would be constructed. The area would be maintained through an agreement between the NPS and a cooperating partner.

*South Fork Kaweah Campground and Trailhead* — The South Fork Kaweah Trailhead would include improved campsite(s) for stock users in the campground and improved parking and turnaround space for stock trailers at the trailhead. This trailhead would be primarily for private users, with limited commercial (managed via CUA permit conditions) and administrative users. At the campsite, a holding pen, adequate parking and turnaround space for stock trailers, hitching rail(s), a campfire pit, and a picnic table would be provided. The site would be maintained through an agreement between the NPS and a cooperating partner.

*Wolverton Area* — At Wolverton, stock facilities would remain in place at the current location, but they would be modified to allow for use by the public and potentially commercial services through a concessions contract. The facilities would continue to be used for the parks administrative purposes. If a market and financial viability study/analysis determines that a concessions contract would be feasible per the Concessions Management Act and NPS policies a portion of the Wolverton Pack Station could be operated as a contracted concessions service. The types and levels of service provided by a concessioner at Wolverton would depend on the financial viability analysis and the END and could include public stock campsite(s), wilderness user services, and frontcountry day rides.

Modifications to frontcountry facilities would require site-specific planning, design, and compliance.

## **Element 11: Commercial Services in Wilderness**

**Planning Objective:** Commercial services would be allowed to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas. Commercial services would support visitor use and enjoyment of wilderness in a variety of appropriate ways. Visitors with diverse backgrounds and skill levels would be encouraged to experience wilderness and to explore primitive recreation activities such as hiking, backpacking, stock trips, fishing, over-snow travel, or mountaineering, or to build skills in these activities. The availability of commercial support would be allowed to expand commensurate with potentially higher levels of visitor use.

To meet the objectives of this alternative, commercial services would need to be provided at levels higher than those in the no-action alternative. As part of allowing increased use, the levels of commercial services would need to increase to accommodate less experienced visitors to help educate visitors and to control the impacts of inexperienced or inadequately equipped visitors. Commercial services would be allowed to the extent necessary to support those visitors who want to experience wilderness but may need additional support. See also appendix B. Table 31 presents the levels and types of commercial services.

**Table 31: Levels and Types of Commercial Services under Alternative 3**

Activity		Proposed Allocation of Commercial Service Days
<b>Total Visitor Use Days</b> – private and supported by commercial services (this does not take into account use by PCT and JMT visitors that are not recorded by the parks’ wilderness permit system).	<b>Proposed Visitor Capacity under Alternative 3</b> 144,000 average 175,000 maximum	For all, day and overnight, non-stock and stock-based services: 10,920
<b>Non-stock Activities</b> Backpacking and Hiking Trips. Overnight Camping – gear support by human porters Climbing and Mountaineering (summer and winter). Oversnow Travel (ski and snowshoe touring and winter camping – winter only [Nov. 15 to Apr 15]).	Wilderness-wide: activities that are supported by non-stock-based commercial services.  Mount Whitney Management Area: activities that are supported by non-stock-based commercial services.	For all, day and overnight, non-stock-based services: 6,550 (60% of total commercial services)  Of the above total allocation for non-stock services, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 1,210
<b>Stock-based Activities</b> Stock trips – riding, packing, day rides and overnight camping with stock. Overnight Camping – gear support, including stock spot and dunnage	Wilderness-wide: activities that are supported by stock-based commercial services.  Mount Whitney Management Area: activities that are supported by stock-based commercial services.	For all, day and overnight stock-based: 4,370 (40% of all commercial services)  Of the above total allocation, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 650

The Bearpaw Meadow High Sierra Camp and the Pear Lake Ski Hut are allowable non-conforming commercial enterprises that may continue operation within potential wilderness as authorized by Congress. The Bearpaw Meadow High Sierra Camp would continue to be operated by a concessioner of the parks at near or slightly above its current level of 1,700 use days, provided it can be accomplished within the camp’s existing footprint and would not cause additional impacts on resources.

The Pear Lake Ski Hut would continue to be operated by a cooperating association under a cooperative agreement or by a park-contracted concession at near or slightly above its current level of 1,500 use days during the winter months as a ski hut (lodging facility), provided impacts remain acceptable.

On the following pages, figure 15 depicts the wilderness trail system for alternative 3, figure 16 depicts campfire restrictions for alternative 3, and figures 17a and 17b depict stock access and grazing restrictions for alternative 3.

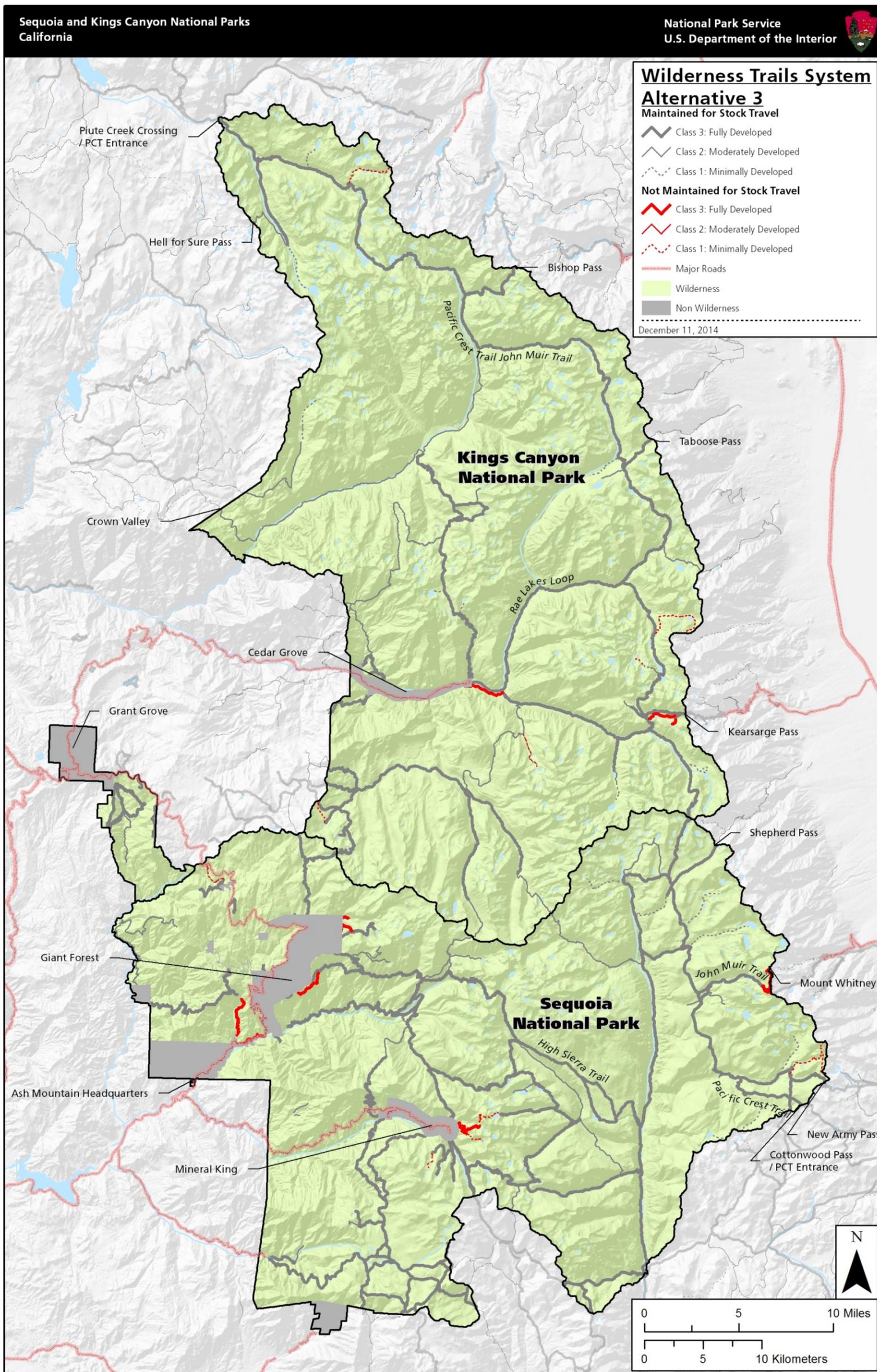
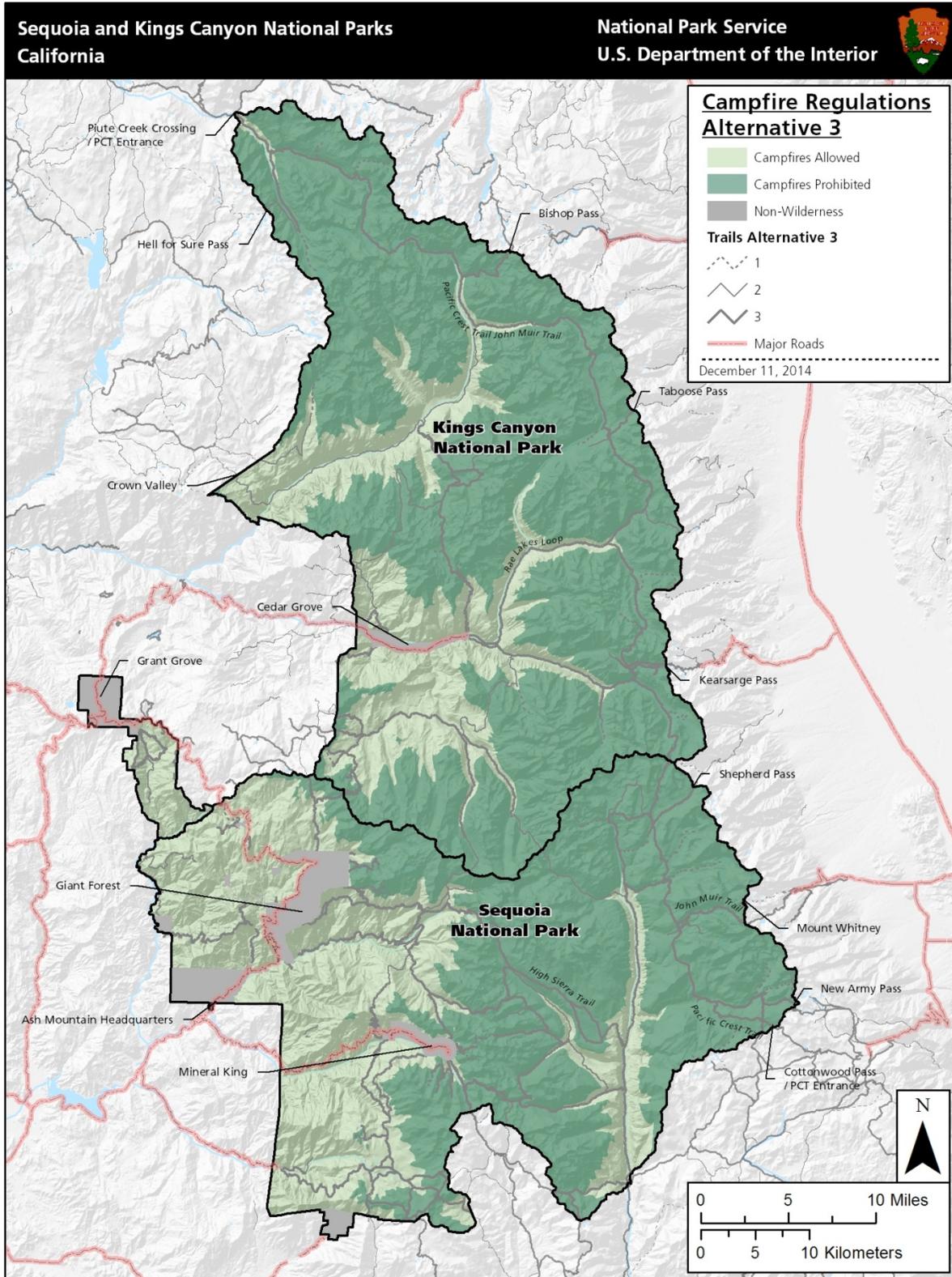


Figure 15: Wilderness Trails System – Alternative 3

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**Stock Access and Grazing Maps Legend**

<b>Common to All Maps</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5</b>
<p><b>Ranger Stations</b></p> <ul style="list-style-type: none"> <li>● Ranger Station</li> <li>○ Patrol Cabin</li> </ul> <p><b>National Forest Trails</b></p> <ul style="list-style-type: none"> <li>Trail Class 3</li> <li>Trail Class 2</li> <li>Trail Class 1</li> <li>Major Roads</li> <li>Non-Wilderness</li> <li>Non-Emphasis Park</li> <li>Park Boundaries</li> </ul>	<p><b>On-Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed by special permit</li> </ul>	<p><b>On Trail Access - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul>
	<p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>Travel and Camping - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> <li>Travel allowed for private and administrative; closed for commercial</li> </ul>	<p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>

**Legend to Accompany Figure 17a: Stock Access and Grazing – Alternative 3, Kings Canyon National Park**

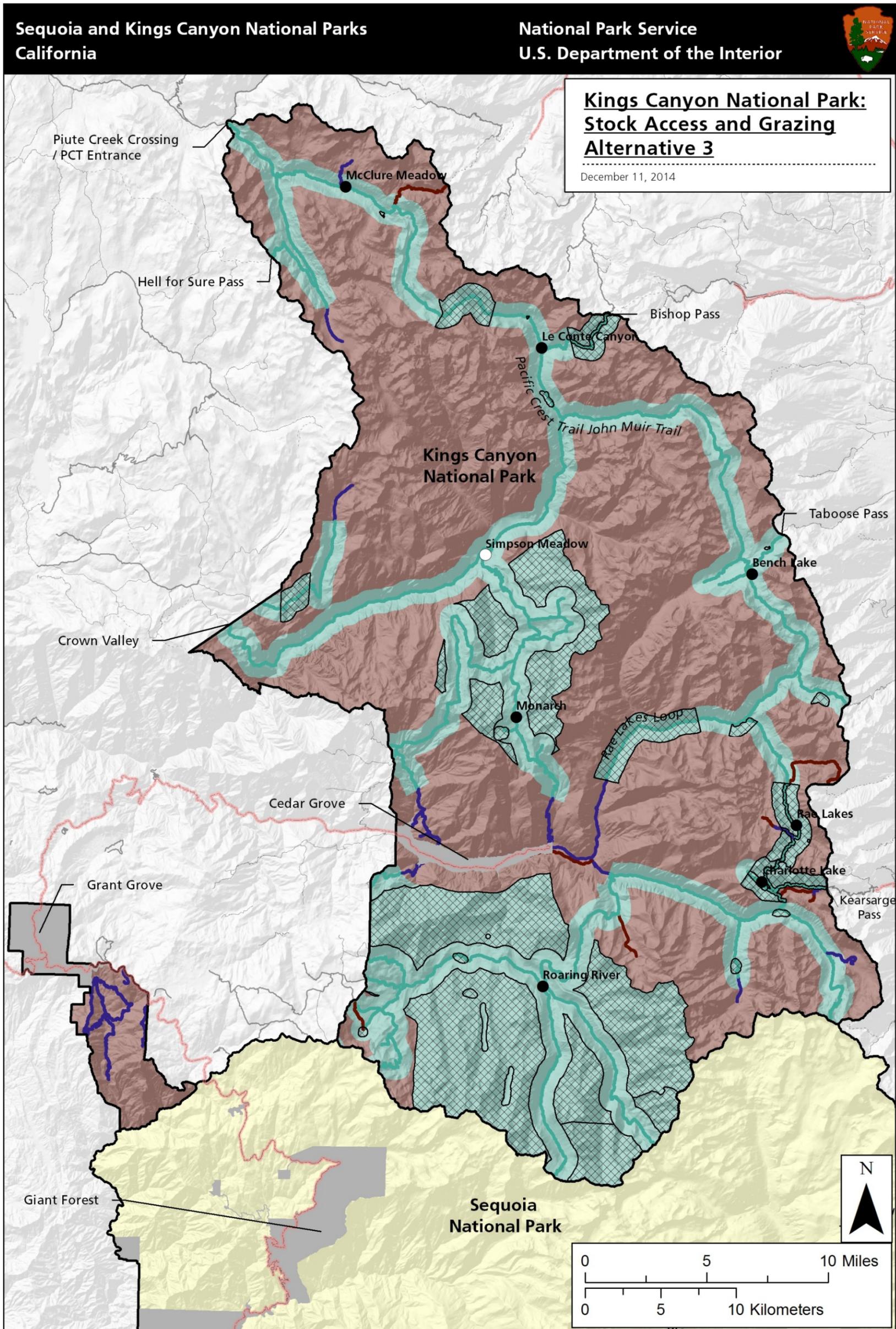
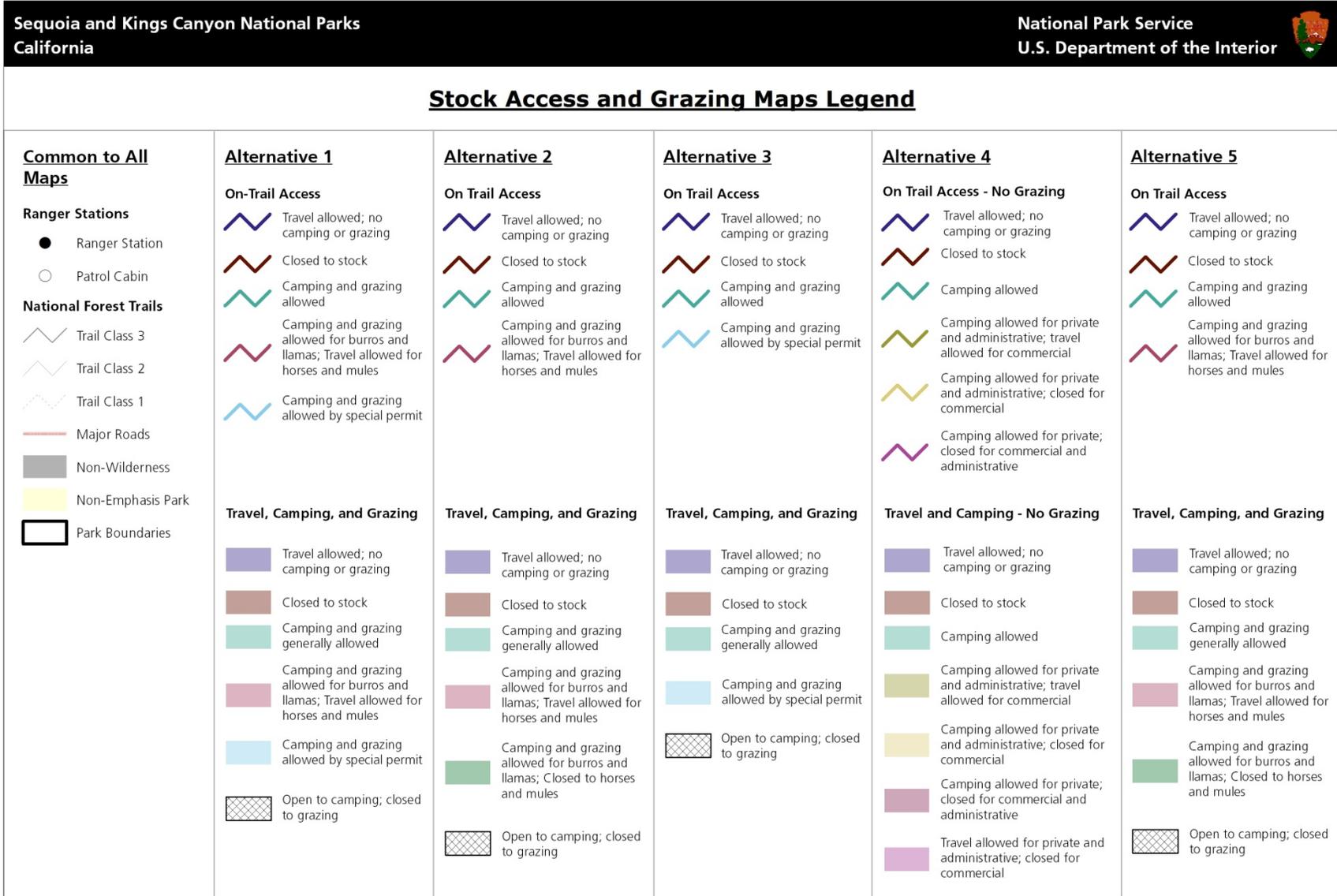


Figure 17a: Stock Access and Grazing – Alternative 3, Kings Canyon National Park

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Legend to Accompany Figure 17b: Stock Access and Grazing – Alternative 3, Sequoia National Park

# Sequoia and Kings Canyon National Parks California

# National Park Service U.S. Department of the Interior

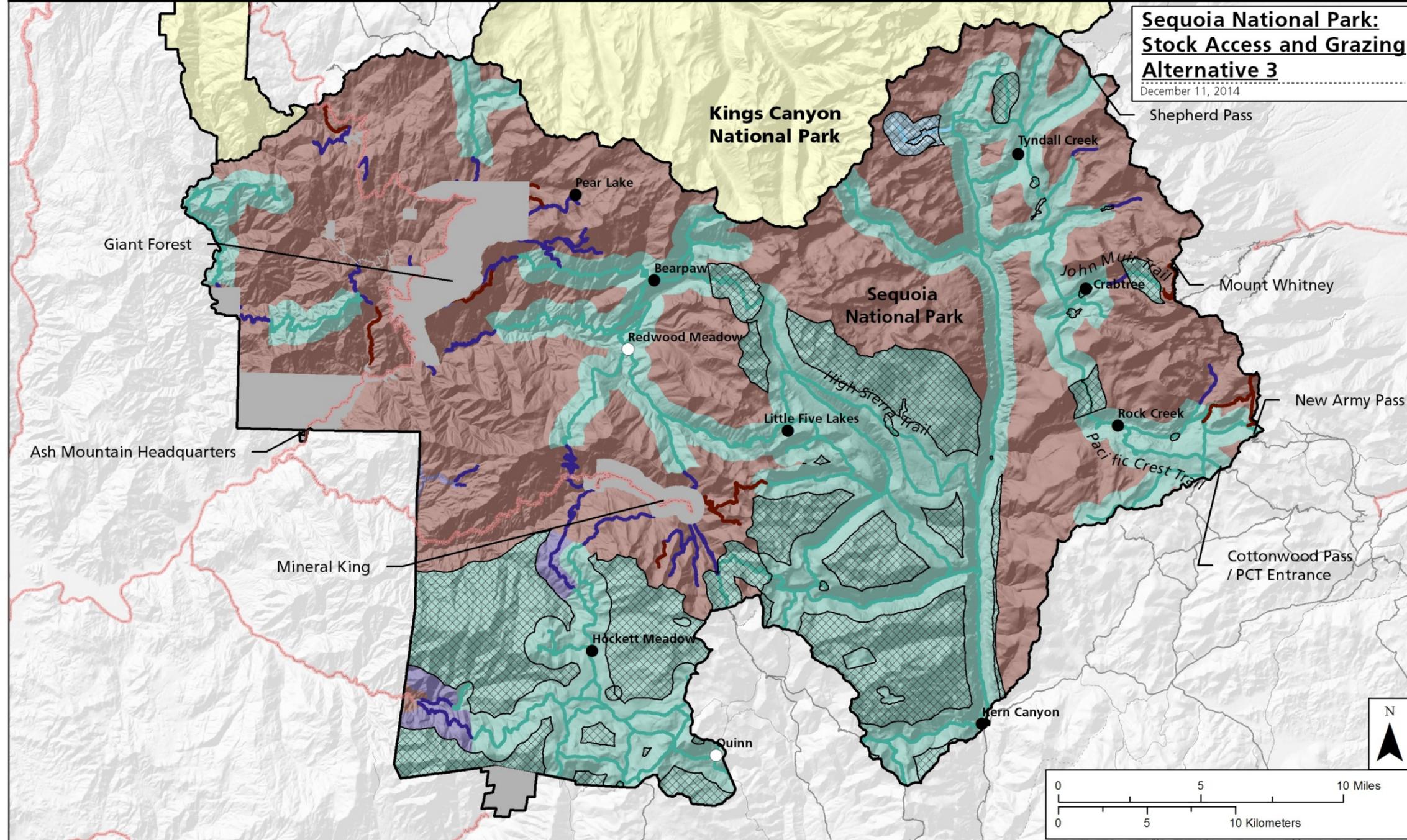


Figure 17b: Stock Access and Grazing – Alternative 3, Sequoia National Park

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## ALTERNATIVE 4: EMPHASIZE UNDEVELOPED QUALITY AND NON-COMMERCIAL RECREATION

### OVERVIEW

The overarching idea behind alternative 4 is that the WSP would focus on emphasizing the undeveloped and non-commercial qualities of the parks' wilderness. Removal of development and reduction of commercial services would increase opportunities for solitude and encourage self-reliance in wilderness recreation.

This alternative would eliminate some of the development currently in wilderness to emphasize the undeveloped quality of wilderness. There would be fewer signs, bridges, stock-related facilities, and ranger stations. Restrooms/privies and food-storage boxes would be removed and there would be no designated campsites.

Because fewer resource-protecting developments would remain in place, the amount of use would need to be reduced to protect the natural quality of wilderness.

Trailhead quotas would remain at current levels or be slightly reduced in the most popular areas. In low-use areas, current trailhead quotas would be reduced to maintain current low use levels by preventing displacement of visitors who cannot get a permit when quotas for the most popular trailheads fill.

Commercial services would be notably reduced in both quantity and areas where they would be available. Types of commercial services would be similar to current conditions. The majority of wilderness would be managed for self-directed exploration and self-reliant travel, increasing the primitive and unconfined qualities of recreation.

Private parties traveling with stock would continue to have access to most trails in the parks, and stock would continue to be allowed to travel off-trail in the four designated areas. However, commercial stock use would be limited to certain destinations and trails. No private, commercial, or administrative stock grazing would be allowed under this alternative.

Campfires would not be allowed in wilderness under this alternative.

### KEY ELEMENTS OF ALTERNATIVE 4

This alternative addresses the key elements as described below.

#### Element 1: Visitor-use Levels

**Planning Objective:** Visitor use and enjoyment of wilderness would be promoted while ensuring the preservation of wilderness character. In this alternative, increased emphasis on self-reliance and reduced development would be accompanied by a slight decrease in visitor numbers.

#### Alternative 4 General Concept: Emphasize undeveloped quality and non-commercial recreation.



*Permits and Quotas* — Much of the development in wilderness serves the purpose of “hardening” specific areas to prevent unacceptable resource impacts. With reduction in development, recreational use levels would need to be reduced as well to protect resources. This would require slight reductions in quotas for trailheads accessing the most popular areas of wilderness. To prevent use from increasing beyond levels that the areas can sustain, trailhead quotas feeding low-use areas would also need to be reduced.

Existing destination quotas would continue to be applied, and additional destination quotas may be added in the future for specific areas, including Bearpaw Meadow, Dusy Basin, Guitar Lake, Hamilton Lake, Monarch Lake, Rae Lakes, and potentially others. No day-use permits/quotas would be implemented at this time but they may be considered in the future in the most popular areas to meet desired conditions.

The NPS would continue to work with the USFS to manage and improve the quota and permitting systems, to add trailheads currently missing from the quota system (e.g., Tehipite Valley and Kern River), and on other relevant cooperative cross-boundary wilderness management issues.

*Visitor Capacities and Encounter Standards* — Under alternative 4, the majority of the current types of use in wilderness would be retained. However, some proposed changes could affect the types and levels of use in specific areas. For example, commercial lodging and meal service at Bearpaw Meadow High Sierra Camp would be eliminated and multiple wilderness developments would be removed. Similarly, commercially provided day rides and other commercially provided day trips for any purpose (e.g., photography, fishing, hiking or climbing) would be eliminated. The overnight capacities would be lowered slightly under alternative 4, by reducing daily entry quotas at specific trailheads.

To meet the planning objectives for this alternative, the estimated overnight visitor capacity would be 127,000 VUDs per year. Ten-year average overnight use would be limited to 102,500–108,500 VUDs/year. Each year, total annual VUDs would be discussed and analyzed by an interdisciplinary group at an annual meeting on wilderness management. If determined to be out of standard, management actions to bring the measure back into standard would be adopted. Appendix A contains a detailed description of the methods used to develop the visitor capacity framework for this WSP.

As explained in alternative 2 and appendix A, the parks would adopt a measure of number of people encountered per hour (EPH) on trails and would take action based on established standards. The standards would vary depending on the desired conditions of solitude in a given area. For this measure, each trail would be assigned to one of four encounter-rate standards: very high use (primarily Mount Whitney and day-use areas); high use (generally Class 3 trails, with some exceptions); moderate use (generally Class 2 trails, with some exceptions); and low use (generally Class 1 trails, with some exceptions). Each has a specified EPH that serves as a standard. The standards for alternative 4 are shown in table 32.

**Table 32: Encounters per Hour Standards for Alternative 4**

Measure	Standard <sup>1</sup>			
	Very High	High	Moderate	Low
Trail Encounters – People Encountered Per Hour– by area	43	24	14	5

<sup>1</sup>Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September) for selected monitored trail segments.

Currently, visitors may experience encounter rates higher than the proposed standard in the areas detailed below. The actions described under this alternative, along with the management actions described in the “Mitigation Common to All Alternatives” section in this chapter and in appendix A, would be taken to return the areas to within standards (table 33 below). [Note: Trail encounter data from 2012-2014 was collected opportunistically by park staff and volunteers. As a result, a larger proportion of samples occurred on weekend days and mid-day times than would be expected from a random or structured sample. A standardized sampling protocol will be developed upon completion of the WSP, and areas that are shown as out-of-standard and near standard in table 33 would be prioritized for re-sampling.]

**Table 33: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 4**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Very High	43	Mount Whitney	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduction in area camping overnight limits; reduce grazing limits in nearby meadows; consult with USFS regarding area use levels.
		Road’s End	Near standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions.
		High Sierra Trail (Crescent Meadow to Wolverton Cutoff Junction)	In standard	
High	24	Lakes Trail	In standard	Obtain better data to confirm observations; adjust overnight stay limit; implement area specific restrictions.
		Mineral King Valley	In standard	
		Little Baldy Trail	In standard	
		Paradise Creek Trail	In standard	
		Redwood Canyon	In standard	
Moderate	14	Evolution Basin & Valley (JMT/PCT)	Out of standard	Obtain better data to confirm observations; lower limits on commercial services; adjust trailhead quota; reduce night limits.
		Rae Lakes/JMT	Near standard	Obtain better data to confirm observations; lower limits on commercial services; adjust trailhead quota; reduce night limits; implement area specific restrictions.
		Mount Langley approach	Near standard	Obtain better data to confirm observations; lower limits on commercial services; adjust trailhead quota; reduce night limits; consult with USFS regarding use levels.

**Table 33: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 4 (continued)**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Moderate (continued)	14	Crabtree Ranger Station to Trail Crest	Near standard	Obtain better data to confirm observations; lower limits on commercial services; adjust overnight quota; overnight stay limit.
		Rae Lakes Loop — Lower Portion	Near standard	Obtain better data to confirm observations; adjust overnight quota; overnight stay limit.
		West side of Kearsarge Pass	Near standard	Obtain better data to confirm observations; lower limits on commercial services; adjust trailhead quota; reduce night limits; consult with USFS regarding use levels.
		Dusy Basin	In standard	
		Twin Lakes Trailhead to Silliman Creek	In standard	
		High Sierra Trail (Wolverton Cutoff Junction to JMT Junction)	Near standard	Obtain better data to confirm observations; adjust overnight quota; overnight stay limit.
		Rock Creek	In standard	
		Little Five	In standard	
Low	5	Sixty Lake Basin Trail (Rae Lakes 3) and Crabtree Lakes (Crabtree 1)	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduction in area camping overnight limits; implement area specific restrictions.
		All other trails not identified above	In standard <sup>2</sup>	

<sup>1</sup> Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September).

<sup>2</sup> Inferred from a small number of samples.

**Element 2: Trails**

**Planning Objective:** The trail system would facilitate access for visitor use and enjoyment of the wilderness. Trails would be well suited to the types and levels of visitor use (levels of visitor use would be slightly decreased from current levels under this alternative).

The level of trail development would be lower under alternative 4. Only the day-use and very popular trails would continue to be maintained to Class 3 levels. This would be primarily the PCT, JMT, HST, Rae Lakes Loop, some primary stock travel corridors, and some feeder trails. The undeveloped quality of wilderness would be improved by maintaining many of the other trails to a lower development class than in the no-action alternative, or by abandoning them. A few designated unmaintained routes that are still passable to stock and where stock travel does not pose undue threats to resources would be designated Class 1 trails and targeted for appropriate construction and maintenance. Many of the designated unmaintained routes listed in the 1986 SUMMP would be abandoned, as would some existing Class 1 or Class 2 trails. A few trails would be designated hiking-only trails where there are known threats to

sensitive resources, unacceptable visitor safety issues, or existing user conflicts between stock and hiker/backpacker parties. Where trails or routes are abandoned, landscape restoration actions would be considered. Summary tables at the end of this chapter give a comparison of trail classes by mileage and use under each alternative. Figure 18 depicts the wilderness trail system for alternative 4 and can be found on page 187. More details on the trail management and classification system can be found in appendix K.

Bridges on Class 2 trails would be evaluated for removal (e.g., Cartridge Creek Bridge, East Creek Bridge, Granite Creek / Upper Middle Fork Kaweah Bridge, and Big Arroyo Bridge on the Lower Kern Trail). Additional site-specific planning and compliance would be needed for the removals and potential trail reroutes to access crossings.

With additional site-specific planning and compliance, new Class 1 trails could be established to protect resources when visitor use may cause undue impacts. For example, establishing Class 1 trails on Lamarck Col and Mount Langley would provide resource protection in areas with increasing visitation.

### **Element 3: Campfires**

**Planning Objective:** In order to eliminate campfire impacts and emphasize self-reliant wilderness experiences, campfires would not be allowed.

No campfires would be allowed in wilderness under this alternative.

### **Element 4: Food Storage**

**Planning Objective:** Native wildlife would subsist only on naturally obtained food, uninfluenced by the presence of human food. In this alternative, visitors would use self-reliant food-storage techniques; food-storage boxes would not be provided.

All 86 food-storage boxes would be removed under this alternative. Park-allowed portable containers would be required for all overnight visitors wilderness-wide.

### **Element 5: Human-waste Management**

**Planning objective:** Human waste would not contaminate water or create unsanitary or unsightly conditions. Reflecting the emphasis on self-reliance and reduced development in this alternative, restrooms and privies would be removed.

Cat-holes would be required. Pack-out waste kits would be highly recommended or required in popular areas.

All public-use privies, vault toilets, and restrooms would be removed under this alternative (including Emerald and Pear lakes restrooms). No new privies, vault toilets, or restrooms would be constructed.

The NPS would consider implementing new technologies for human-waste management as they are developed in the future. The use of new technologies would require on-site planning and compliance. Some technologies may require visitors to be more self-sufficient.

**Element 6: Party Size**

**Planning Objective:** Party size would be set at levels high enough to allow for a variety of experiences, but low enough to protect wilderness character from impacts associated with large groups. In this alternative, an emphasis on self-reliance would result in a decrease in party size in many areas.

Party sizes would need to be reduced relative to alternative 1; party-size limits for alternative 4 are presented in tables 34 and 35.

**Table 34: Party-size Limits for Hikers and Boaters for Alternative 4**

Type of Trip	Maximum Party Size
On-trail (day use)	25; consider more restrictive party size for day-use in specific areas.
On-trail (overnight use)	12
Off-trail (day and overnight use)	8
Area-specific	Existing temporary party-size limits would be removed (maximum party size of 8 in specific locations), and replaced with a wilderness-wide off-trail party size of 8. Party-size limits of 8 people maximum for Redwood Canyon.

**Table 35: Party-size Limits for Stock Parties for Alternative 4**

Type of Stock Trip	Maximum Party Size for People and Stock
Day rides (not including spot and dunnage)	People: 15 Stock: 15 Combined: 30
On-trail (including spot and dunnage trips that support overnight use for those trails where stock is allowed)	People: 12 Stock: 15 Combined: 20
Off-trail (private stock parties only in areas specifically designated for day and overnight stock use)	People: 8 Stock: 7 Combined: 11
Area-specific	Redwood Canyon party-size limits: People: 8 Stock: 8 Combined: 16

**Element 7: Camping/Campsites and Night Limits**

**Planning Objective:** Visitors would have the opportunity to choose camping locations, except in areas where camping would result in unacceptable impacts. In this alternative, an emphasis on visitor self-reliance would allow fewer camping restrictions.

Camping would be prohibited in all areas close to the frontcountry. There would be no universally accessible campsite(s) developed under this alternative.



**A one-person camp near Nine Mile Creek with a portable food-storage container**

The locations of established stock camps would be identified and the NPS would recommend the use of these stock camps.

*First Allowable Campsite* — Camping would be prohibited within specified distances from each trailhead (see the “First Allowable Campsite” section under alternative 2, table 19 on page 116).

*Length of Stay/Night Limits for All Campers (stock-supported and backpackers)* — Visitors would be limited to stays of 10 consecutive nights in a single location, 21 total nights per trip, and 63 total nights per year. Table 36 presents exceptions to these night limits.

**Table 36: Site-specific Exceptions to the Night Limits under Alternative 4**

Location	Night Limits Exceptions (Consecutive Nights in One Location)
Crabtree Meadow area and Lower and Upper Soldier lakes (combined)	4-night limit
Colony Mill Trail, Charlotte Lake, Emerald and Pear lakes (combined), Guitar Lake, the JMT from Woods Creek crossing to Vidette Meadow (at any one location), North Dome, and Redwood Canyon	3-night limit
Dusy Basin, Hamilton Lake, Kearsarge Lakes Basin, Rae Lakes (per lake), and Paradise Valley	2-night limit

*Designated Campsites* — To preserve the unconfined aspect of recreation in the parks’ wilderness there would be no designated campsites. All designated camping requirements at Emerald and Pear lakes, Lower Paradise Valley, and at Bearpaw Meadow would be discontinued. No other designated sites would be established at this time. Following Leave No Trace<sup>®</sup> practices will help to preserve the natural quality.

There would be no designated stock camps.

*Campsite Condition Standards* — As explained in alternative 2, a metric of aggregate campsite impacts (Weighted Value per Campable Mile, WVCM) would be adopted under all alternatives. Under alternative 4, the WVCM standard would be: 950 for high use subzones, 475 for moderate use subzones, and 235 for low use subzones. A monitoring plan would be developed to establish protocols and schedule monitoring frequencies to ensure that subzones remain within their applied standard.

Under alternative 4, two subzones (83-1 Guitar Lake and 86-1 Kern Hot Spring) would be out of standard in the high use category, and two subzones (80-3 Shepherd Pass Lake and 90-6 Hockett Meadow) would be out of standard in the moderate category. One low-use subzone, 47-1 Amphitheater Lake, would be at standard. All other subzones would be within standard. Management actions to return the subzones to within standards are included in the “Mitigation Common to All Alternatives” section in this chapter. For a map of campsite condition standards see figure 10 on page 119; for information on determining campsite condition and standards, see appendix A, page A-15 and A-24.

## **Element 8: Stock Use**

**Planning Objective:** Visitors would have opportunities to travel with stock, from day rides to multi-day trips, in a manner that ensures the protection of wilderness character. To support the self-reliant aspect of this alternative: off-trail access would be limited to private stock, drift fences and hitch rails would be removed, and no grazing would be permitted (carry all feed).

Figures 19a and 19b depict stock access and grazing restrictions for alternative 4. Figure 19a shows stock access and grazing restrictions in Kings Canyon National Park and can be found on pages 190/191. Figure 19b shows stock access and grazing restrictions in Sequoia National Park and can be found on pages 194/195.

### ***Stock Access and Travel***

*On-trail* — Parties traveling with stock would be allowed on many maintained trails (527 of 643 miles), although some of these trails would be limited to private and administrative groups only. Stock parties would be allowed to travel up to 0.5 mile from trails in areas where they are allowed to camp. In areas open to travel only, stock parties would be allowed to travel up to 100 yards from trails.

Some trails would be open to stock parties for travel only, some would be open to use by private and administrative packers only, some would be open to camping for walking parties with burros and llamas but limited to travel only for parties with horses or mules, and some would be closed to stock travel entirely. These restrictions would be put in place for reasons including visitor safety, resource protection, and areas popular for day-use by hikers, to provide trails with no commercial stock travel, and to provide trails with no stock travel. Approximately 377 miles of maintained trails would be open to travel and camping by stock by all user groups (private, commercial, and administrative) with an additional 72 miles of maintained trails open to travel and camping by private stock or administrative stock parties only (closed or travel only for commercial stock). Trails with restricted stock access under alternative 4 are discussed below.

Trails open for travel only (61 miles – includes mileages to first camps):

- Don Cecil Trail
- Kearsarge Lakes Trail

- Oriole Lake
- Redwood Canyon, Hart Tree, and Sugarbowl Loop trails

Trails closed to commercial stock parties; stock travel only allowed for private and administrative stock parties (17 miles):

- Admiration Point Trail
- Alta Trails
- Center Basin Trail (to Golden Bear Lake)
- Lake 11,092 (shown as Lake 11,106 on older maps)
- Lakes Trail (Hump Trail only)
- Upper Sixty Lake Basin Trail
- Wallace Lake Trail above 11,200 feet in elevation

Trails open for travel only for commercial stock parties (no camping); travel and camping allowed for private and administrative stock parties (17 miles):

- Charlotte Lake Trail from JMT to Charlotte Creek drift fence
- Dusy Basin Trail (above 10,600 feet in elevation)
- JMT from Dollar Lake south to Vidette Meadow
- Kearsarge Pass Trail

Trails closed to commercial stock parties, camping allowed for private and administrative stock parties (56 miles):

- Avalanche Pass Trail – Sphinx Junction to Scaffold drift fence
- Cahoon Rock Trail
- Funston Lake Trail (Siberian Outpost to Funston Lake)
- Goddard Canyon Trail–JMT to Franklin-Montgomery Meadow
- Granite Lake Trail
- Grouse Lake Trail
- JMT from above Crabtree Ranger Station to base of Mount Whitney switchbacks (except Timberline Lake, day-use only)
- Lower Middle Fork Kings Trail
- Miter Basin Trail to Penned-up Meadow
- Muro Blanco Trail
- New Army Pass Trail
- Soda Creek Trail to Lower Big Arroyo
- Tehipite Switchbacks Trail

- Twin Lakes and Silliman Pass South Trails
- Volcanic Lakes Trail and Kennedy Canyon Trail east of Dead Pine Ridge
- Wallace Lake Trail below 11,200 feet in elevation

Trails closed to stock travel of any kind (116 miles):

- Baxter Pass Trail
- Big Baldy Trail
- Buena Vista Trail
- Bullfrog Lake Trail west of Kearsarge Lakes Trail
- South Side Cedar Grove Sand Flats Trail from Zumwalt Meadow Bridge to Bubbs Creek
- Colby Pass Trail from Grand Palace to Kern River
- Eagle Lake Trail
- Elizabeth Pass Trail from Upper Ranger Meadow to HST
- Goddard Canyon and Martha Lake Trails above Franklin-Montgomery Meadow
- Hell-for-Sure Pass Trail
- HST from Crescent Meadow to Wolverton Cutoff
- J.O. Pass Trail
- Kennedy Pass Trail from Frypan Meadow to the top of Dead Pine Ridge
- Ladybug Trail
- Lamarck Col Trail
- Little Baldy Trail
- Lost Canyon Trail
- Marble Falls Trail
- Monarch Lake Trail
- Mosquito Lakes Trail
- Mount Langley Trail
- Mount Whitney Trail – base of switchbacks to Trail Crest and summit
- Muir Grove Trail
- Over-the-Hill Trail
- Paradise Creek Trail
- Redwood Canyon Big Springs Trail
- Sawmill Pass Trail
- Shepherd Pass Trail
- Tamarack Lake Trail

- Tar Gap Trail
- Tokopah Falls Trail
- Watchtower Trail
- Whiskey Log Trail
- White Chief Trail

*Off-trail* — Stock parties would continue to be allowed to travel up to 0.5 mile from trails to reach camps. Travel more than 0.5 mile from maintained trails would continue to be allowed for private parties in four areas of the parks: on the Monarch Divide (except Kennedy Canyon), in the Roaring River area (except the upper end of Cloud and Deadman Canyons), on the Hockett Plateau (except the Tar Gap Trail), and along the western side of the Kern River watershed south from the Chagoopa Plateau (except the lower Big Arroyo). Off-trail travel more than 0.5 mile from maintained trails in these areas would be prohibited for administrative and commercial stock.

*Stock Grazing* — To reduce impacts on the natural and scenic aspects of wilderness character, grazing would not be allowed in wilderness under this alternative. Overnight stock use would continue to be allowed but stock users would be required to hold and feed their animals.

The use of certified-weed-free forage in frontcountry areas, and of processed pellets, rolled grains, or fermented hay in wilderness, would be required as described under alternative 2.

The monitoring system described in appendix D would be employed to track use, document conditions, and provide information for preventing and mitigating impacts associated with stock use but not related to grazing. Stock use would continue to be adaptively managed and informed by the results of the Stock Use and Meadow Monitoring Program, with increased emphasis on the prevention and mitigation of impacts associated with holding and feeding animals.

*Stock Use Structures* — All stock support facilities including drift fences, gates, and hitch rails not associated with ranger stations would be removed. Groups traveling with stock would be required to hold their stock while camping (e.g., set up high lines) on durable, non-vegetated surfaces.

## **Element 9: Administrative Structures**

**Planning Objective:** Administrative structures and developments would be the minimum necessary for the administration of wilderness, but due to the emphasis on the undeveloped and self-reliant qualities of wilderness, the number of administrative developments would be reduced more than in any other alternative.

To minimize development, several administrative structures would be removed.

*Ranger Stations* — With reduced private and commercial use, some ranger stations in areas that are currently very popular could be removed. Some historic buildings that do not serve current wilderness administrative needs would be considered for removal.

Ranger stations that would be retained in their current locations:

- Crabtree
- Hockett Meadow

- Kern Canyon
- LeConte Canyon
- McClure Meadow
- Pear Lake
- Rae Lakes
- Rock Creek

Some ranger stations would be removed and no replacement stations would be built.

Ranger stations to be removed could be:

- Bearpaw Meadow
- Bench Lake
- Charlotte Lake
- Little Five Lakes
- Monarch
- Roaring River
- Tyndall Creek

The Quinn Patrol Cabin would be retained. The Redwood Meadow and Simpson Meadow Patrol Cabins would be removed and no new cabins would be built. Each of the above actions would be subject to separate site-specific planning, design and compliance.

*Other Administrative Structures* — The use of the Redwood Canyon Cabin by researchers would be terminated within one year of WSP approval. The cabin would be removed over a two-year period after WSP approval. Future cave research activities in Redwood Canyon could continue, but without the use of the cabin or associated permanent infrastructure. Project-specific compliance would be required for the removal.

*Administrative Pastures* — Existing administrative pastures and associated fences would be removed (Hockett Meadow, Kern, Roaring River, and Redwood Meadow).

*Crew Camps* — Short-term project crew camps (for administration of wilderness) would be established as needed on a case-by-case basis. All installations solely for crew use would be removed. Trail crews would conduct trail maintenance through use of mobile operations, moving with stock or backpacks and using minimum impact camping practices; there would be no facilities placed at these camps.

## **Element 10: Frontcountry Facilities to Support Wilderness Access and Use**

**Planning Objective:** Frontcountry facilities that support activities in wilderness would encourage and/or facilitate visitor use and enjoyment of wilderness.

The types and levels of commercial services that may be performed in wilderness are discussed in detail in the END (appendix B). Commercial service providers would be permitted to use some frontcountry facilities, but other facilities would only be used by non-commercial or administrative entities.

### ***Kings Canyon National Park***

*Cedar Grove Pack Station* — The concessioners' wilderness operations originating from the Cedar Grove Pack Station would be reduced. Future use of the Cedar Grove Pack Station as a concessions operation would be subject to the Concessions Management Act and NPS policies. Stock camping sites would be developed at the Cedar Grove Pack Station for private users. A holding pen/corral space, hitch rail(s), adequate parking and turnaround space for stock trailers, a campfire pit, picnic tables, restrooms, food-storage boxes, and water supply would be installed for use by private stock only.

### ***Sequoia National Park***

*Middle Fork Kaweah Trailhead* — At the Middle Fork Kaweah Trailhead improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial services in this area would not be authorized.

*Mineral King Area* — No facilities would be developed to support stock use in the Atwell Mill Campground in Mineral King. Commercial service providers would not be allowed to use the Atwell / Hockett trailhead.

Existing facilities at the Mineral King administrative corrals in east Mineral King Valley would continue to be used in their existing location or in a new location for park administrative purposes. Stock facilities would be modified or constructed to allow for short-term public use (e.g., staging and/or short-term camping). If kept in the same location, the footprint of the corrals would be reduced by removing the remnants of the former pack station (i.e., removing buildings and corrals to reduce the level of development). The site could be modified with adequate parking and turnaround space for stock trailers, a small corral, water, a picnic table, and a vault toilet or restroom to provide stock camping opportunities for private parties (1 or 2 sites, 1 or 2 night limits). No commercial service providers would be authorized to use this facility. The site would be maintained through an agreement between the NPS and a cooperating partner.

*North Fork Kaweah Trailhead* — At the North Fork Kaweah Trailhead improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial service providers would not be authorized to use this trailhead. The area would be maintained through an agreement between the NPS and a cooperating partner. No camping for stock or backpackers would be provided and camping would not be allowed.

*South Fork Kaweah Campground and Trailhead* — The South Fork Kaweah Trailhead would be modified to improve parking and turnaround space for stock trailers at the trailhead. Only private and administrative users would have access to this trailhead; commercial service providers would not be authorized to use this area. The site would be maintained through an agreement between the NPS and a cooperating partner.

*Wolverton Area* — Stock facilities at Wolverton would remain in place at the current location, but they would be modified to allow for public use by private parties. There would be no commercial services provided at the facility through a concessions contract, but the facilities would continue to be used by private parties and for administrative purposes. The addition of adequate parking and turnaround space for stock trailers, a corral, hitch rail(s), picnic table(s), and a campfire pit would be considered. Restrooms and water access exist currently at the site. The site would be maintained through an agreement between the NPS and a cooperating partner.

The above modifications to frontcountry facilities and trailheads would require site-specific planning, design, and compliance.

**Element 11: Commercial Services in Wilderness**

**Planning Objective:** Commercial services would be allowed to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas. Commercial services would support visitors in limited ways and circumstances in order to emphasize the self-reliant aspect of wilderness character.

This alternative emphasizes self-reliant recreation. To meet the objectives of this alternative, commercial services would be reduced to levels significantly lower than those in the no-action alternative and commercial services would be limited in high-use areas (table 37). See also appendix B.

**Table 37: Levels and Types of Commercial Services under Alternative 4**

Activities		Proposed Allocation of Commercial Service Days
<b>Total Visitor-use Days</b> – private and supported by commercial services (this does not take into account use by PCT and JMT visitors that are not recorded by the parks’ wilderness permit system).	<b>Proposed Visitor Capacity Alternative 4</b> 103,500 average 127,000 maximum	For all, day and overnight, non-stock and stock-based services: 4,390
<b>Non-stock Activities</b> Backpacking and Hiking Trips. Overnight Camping – gear support by human porters Climbing and Mountaineering (summer and winter). Oversnow Travel (ski and snowshoe touring and winter camping – winter only [Nov. 15 to Apr 15]).	Wilderness-wide: activities that are supported by non-stock based commercial services.  Mount Whitney Management Area: activities that are supported by non-stock based commercial services.	For all, day and overnight, non-stock based services: 2,630 (60% of total commercial services)  Of the above total allocation for non-stock services, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 490
<b>Stock-based Activities</b> Stock trips – riding, packing, day rides and overnight camping with stock. Overnight Camping – gear support, including stock spot and dunnage	Wilderness-wide: activities that are supported by stock-based commercial services.  Mount Whitney Management Area: activities that are supported by stock-based commercial services.	For all, day and overnight stock-based: 1,760 (40% of all commercial services)  Of the above total allocation, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 260

The Bearpaw Meadow High Sierra Camp, including any historic elements, would be removed and the area would be restored to natural conditions. No commercial services would be provided at the Bearpaw Meadow High Sierra Camp.

The commercial use of Pear Lake Ranger Station as a winter ski hut would be discontinued.

On the following pages, figure 18 depicts the wilderness trail system for alternative 4 and figures 19a and 19b depict stock access and grazing restrictions for alternative 4.

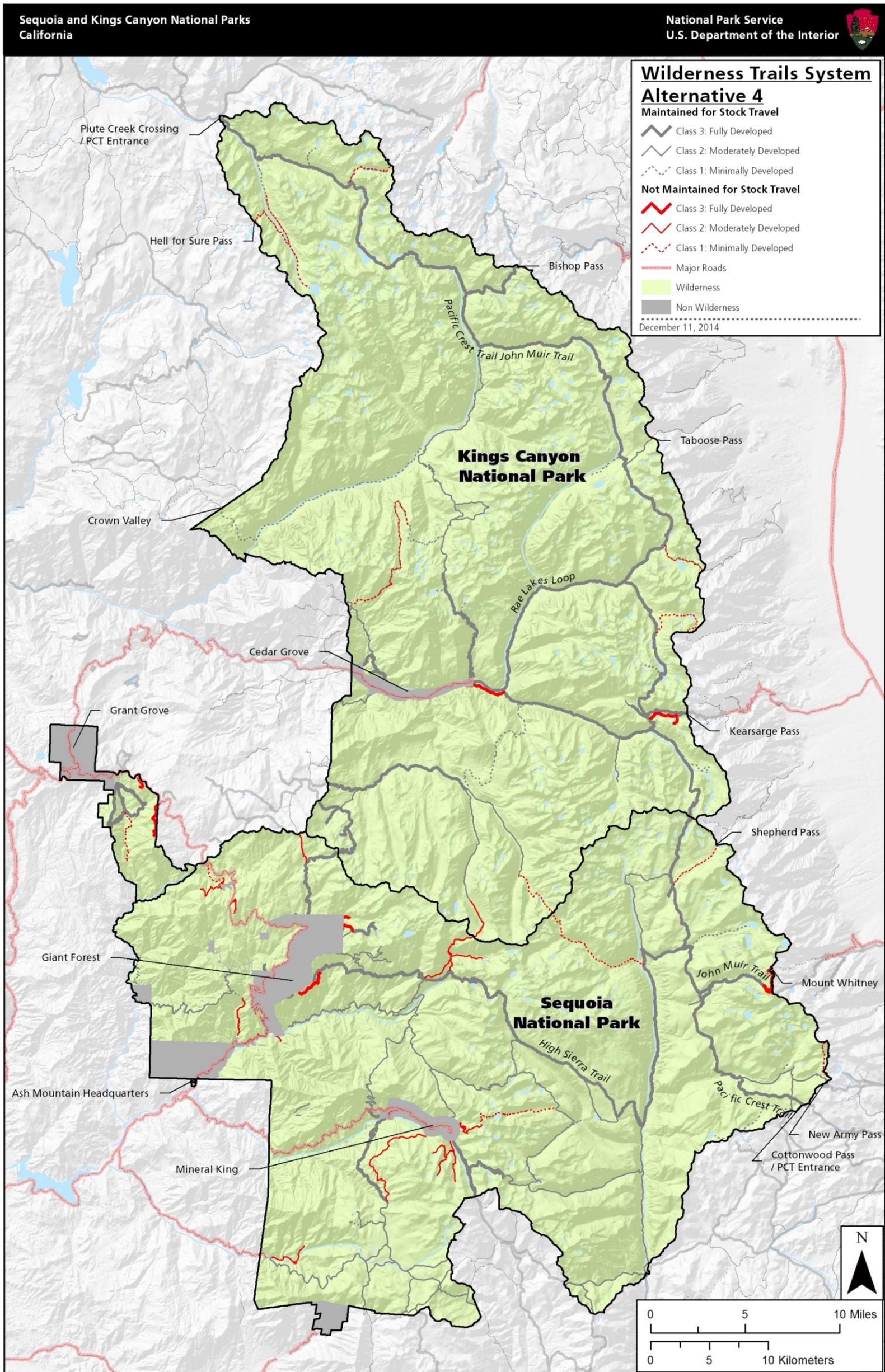


Figure 18: Wilderness Trails System – Alternative 4

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**Stock Access and Grazing Maps Legend**

Common to All Maps	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<p><b>Ranger Stations</b></p> <ul style="list-style-type: none"> <li>Ranger Station</li> <li>Patrol Cabin</li> </ul> <p><b>National Forest Trails</b></p> <ul style="list-style-type: none"> <li>Trail Class 3</li> <li>Trail Class 2</li> <li>Trail Class 1</li> <li>Major Roads</li> <li>Non-Wilderness</li> <li>Non-Emphasis Park</li> <li>Park Boundaries</li> </ul>	<p><b>On-Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> </ul> <p><b>Travel and Camping - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> <li>Travel allowed for private and administrative; closed for commercial</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>

**Legend to Accompany Figure 19a: Stock Access and Grazing – Alternative 4, Kings Canyon National Park**

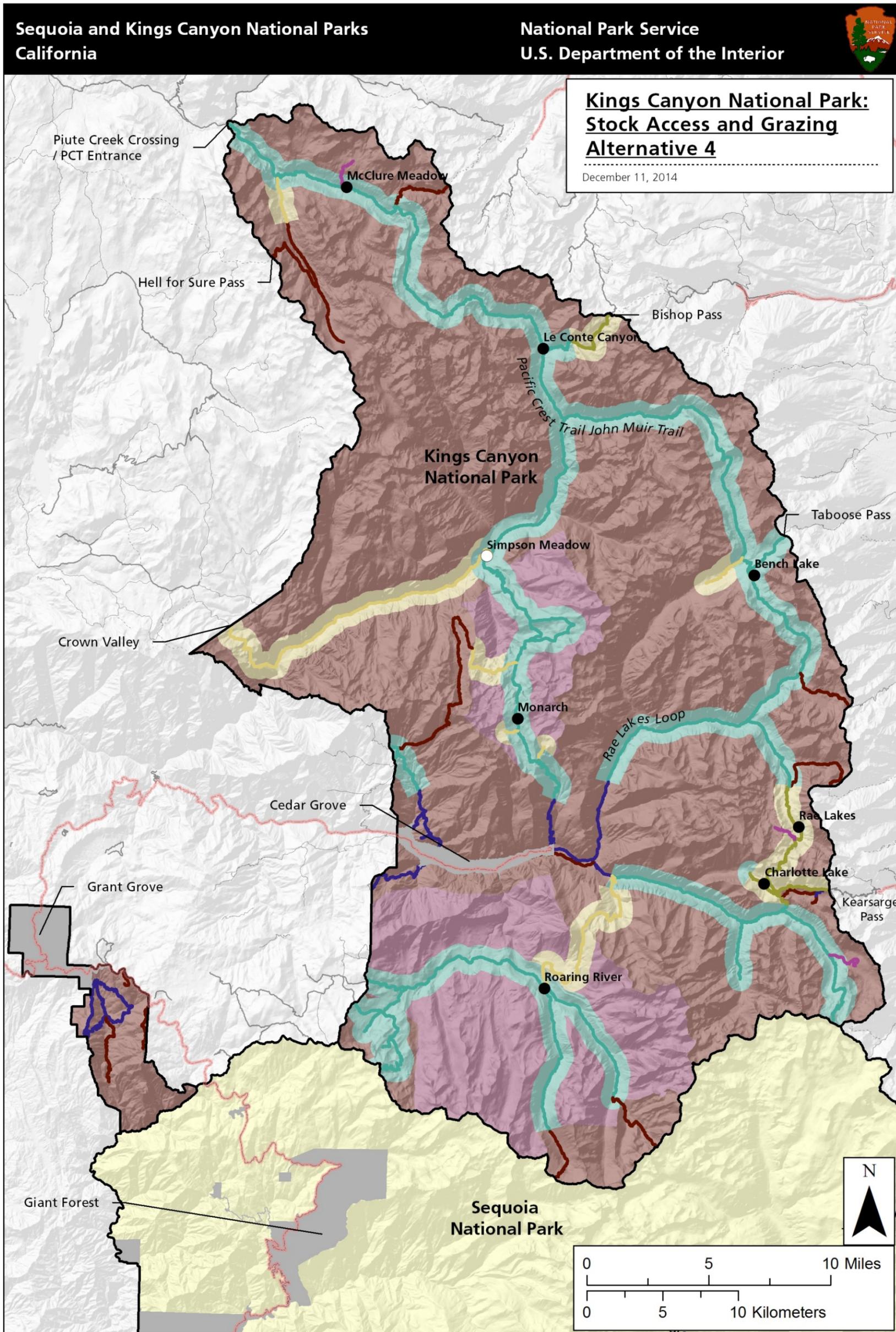
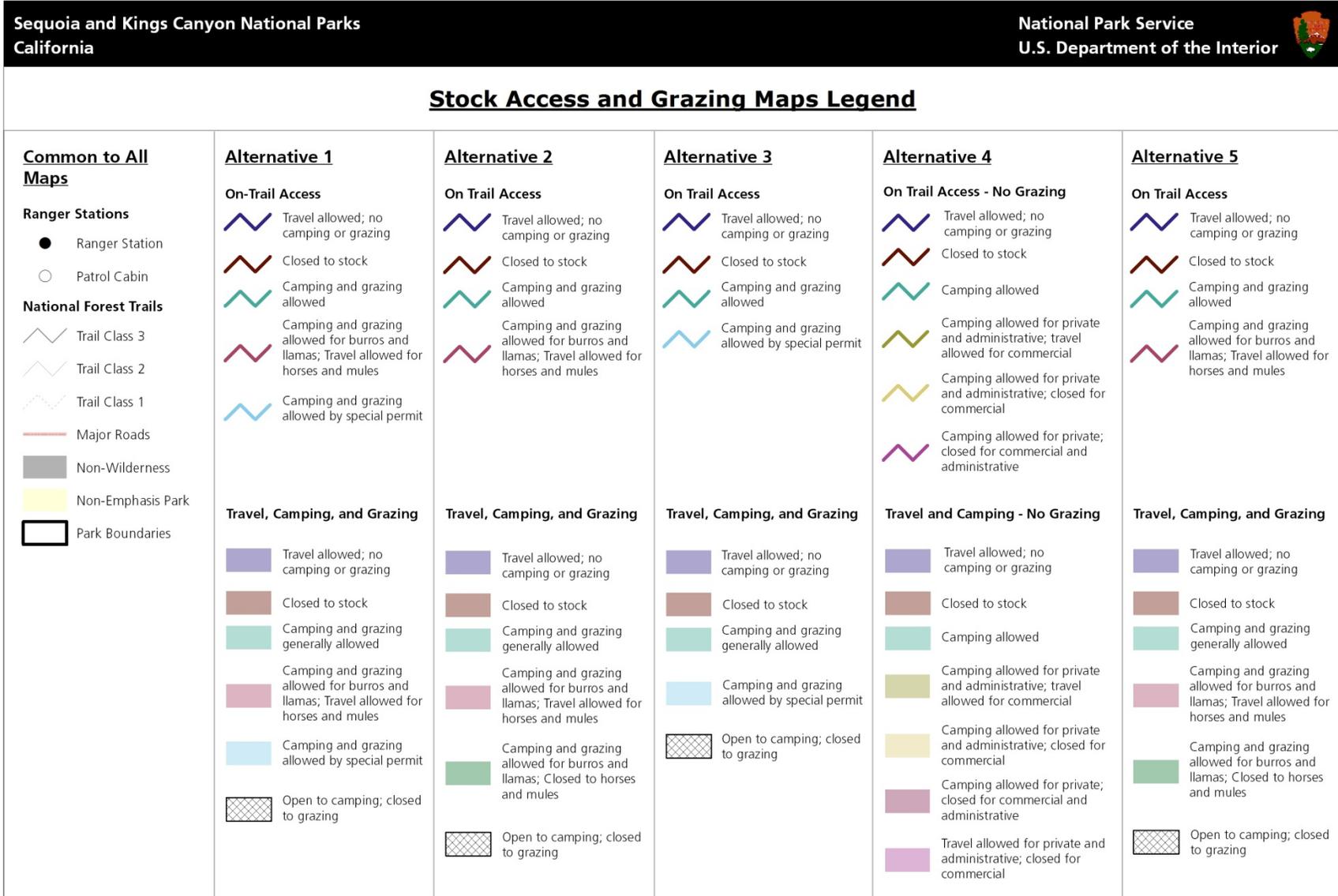


Figure 19a: Stock Access and Grazing – Alternative 4, Kings Canyon National Park

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Legend to Accompany Figure 19b: Stock Access and Grazing – Alternative 4, Sequoia National Park

# Sequoia and Kings Canyon National Parks California

# National Park Service U.S. Department of the Interior

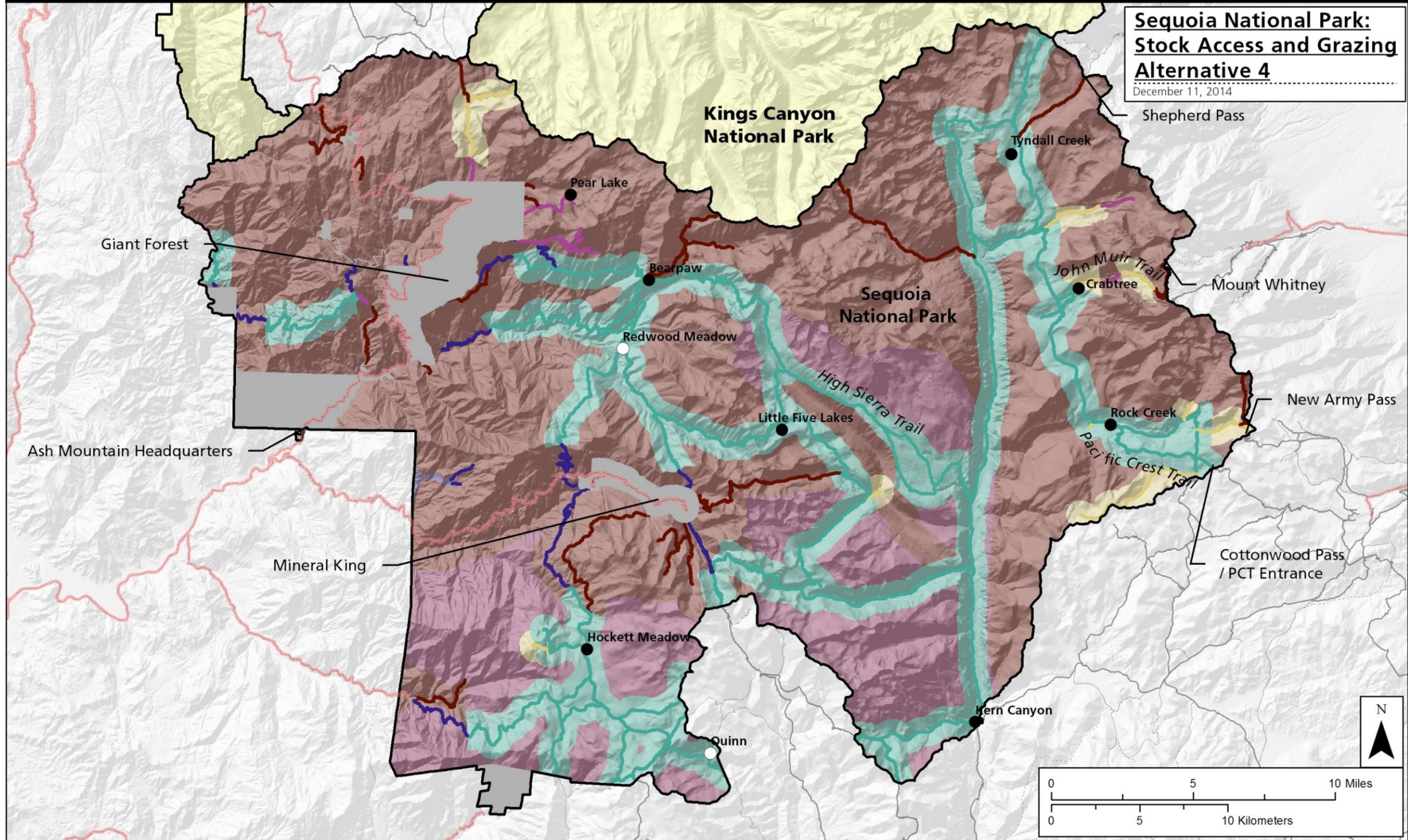


Figure 19b: Stock Access and Grazing – Alternative 4, Sequoia National Park

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## ALTERNATIVE 5: EMPHASIZE OPPORTUNITIES FOR SOLITUDE

### OVERVIEW

The overarching idea behind alternative 5 is that the WSP would focus on enhancing the quality of solitude available in wilderness. To achieve this, the total number of wilderness visitors allowed in wilderness would be reduced, as would party size.

The presence of fewer visitors in wilderness would in turn allow for reduced levels of development, along with reduced restrictions on visitor behavior (fewer people need fewer facilities). Reducing the numbers of visitors would also result in reduced impacts on resources.

Trailhead quotas would be reduced to protect against future increases in use wilderness-wide, even at trailheads that currently do not have their quotas filled.

Visitation by stock users would be lower; therefore, fewer controls on stock travel and grazing would be needed in those areas open to stock use. Commercial services would be allowed, but less use would be expected overall with reduced trailhead quotas for all visitors (including commercial service providers) and reduced party sizes.

### KEY ELEMENTS OF ALTERNATIVE 5

This alternative addresses the key elements as described below.

#### Element 1: Visitor-use Levels

**Planning Objective:** Visitor use and enjoyment of wilderness would be promoted while ensuring the preservation of wilderness character. In this alternative, increased opportunities for solitude would be achieved with a decrease in visitor numbers.

*Permits and Quotas* — Daily trailhead quotas for the most popular trailheads would be reduced by 30% wilderness-wide (e.g., a quota of 25 would be reduced to 18). Trailhead quotas for low-use trailheads (table 4 on pages 61-63) would be capped at a 10-year daily use average, calculated for the years 2003–2012, and with no quotas being established at less than 10 people per day (Note: low-use trailheads receive no more than 10 visitors per day on average during the peak season).

Existing destination quotas at Emerald and Pear lakes would be discontinued. New destination quotas may be implemented in the future for specific popular areas.

A day-use permit system with quotas would be implemented to control levels of use at popular destinations including Lakes Trail, Mist Falls, and Monarch Lakes, and potentially other areas.

The NPS would continue to work with the USFS to manage and improve the quota and permitting systems, to add trailheads currently missing from the quota system (e.g., Tehipite Valley and Kern River), and on other relevant cooperative cross-boundary wilderness management issues.

**Alternative 5 General Concept:  
Emphasize opportunities for solitude  
by reducing overall visitor use.**



*Visitor Capacities and Encounter Standards* — This alternative proposes the lowest use levels across the range of alternatives and as such strongly emphasizes the solitude quality of wilderness character. This would lead to reductions in opportunities for primitive recreation by limiting use levels and access. The majority of the current types of use in wilderness would generally be retained with alternative 5. However, some proposed changes would affect the types and levels of use in specific areas. Levels of use would be notably reduced and levels of development would be somewhat reduced from that of alternative 1. The lower levels of use would also provide for the reduction of some controls, or restrictions on visitor behavior, e.g., fewer night limits. Commercial services would be reduced proportionally with overall visitor-use levels. The overnight capacities would be lowered considerably with alternative 5, by reducing daily entry quotas at the majority of trailheads.

To meet the planning objectives for this alternative, the estimated overnight visitor capacity would be approximately 93,300 VUDs/year. Ten-year average overnight use would be limited to 74,700–84,700 VUD/year. Each year, total annual VUDs would be discussed and analyzed by an interdisciplinary group at an annual meeting on wilderness management. If determined to be out of standard, management actions to bring the measure back into standard would be considered and adopted. Appendix A contains a detailed description of the methods used to develop the visitor capacity framework for this WSP.

As explained in alternative 2, and appendix A, to ensure that there are opportunities for solitude, the parks would adopt a measure of the number of people encountered per hour (EPH) on trails and would take action based on established standards. The standards would vary depending on the desired condition of solitude in a given area. For this measure, each trail would be assigned to one of four encounter-rate standards: very high use (primarily Mount Whitney and day-use areas); high use (generally Class 3 trails, with some exceptions); moderate use (generally Class 2 trails, with some exceptions); and low use (generally Class 1, with some exceptions). Each has a specified EPH that serves as a standard. The standards for alternative 4 are shown in table 38.

**Table 38: Encounters per Hour Standards for Alternative 5**

Measure	Standard <sup>1</sup>			
	Very High	High	Moderate	Low
Trail Encounters – People Encountered Per Hour– by area	25	18	11	4

<sup>1</sup>Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September) for selected monitored trail segments.

Currently, visitors may experience encounter rates higher than the proposed standard in the areas detailed below. The actions described under this alternative, along with the management actions described in the “Mitigation Common to All Alternatives” section in this chapter and in appendix A, would be taken to return the areas to within standards (table 39 on page 199). [Note: Trail encounter data from 2012-2014 was collected opportunistically by park staff and volunteers. As a result, a larger proportion of samples occurred on weekend days and mid-day times than would be expected from a random or structured sample. A standardized sampling protocol will be developed upon completion of the WSP, and areas that are shown as out-of-standard and near standard in table 39 would be prioritized for re-sampling.]

**Table 39: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 5**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Very High	25	Mount Whitney	Out of standard	Obtain better data to confirm observations; lower limits on commercial use; reduce trailhead quotas; reduce night limits; reduce grazing limits in nearby meadows; consult with USFS regarding area use levels.
		Road's End	Out of standard	Obtain better data to confirm observations; reduce trailhead quota; explore day-use permitting.
		High Sierra Trail (Crescent Meadow to Wolverton Cutoff)	In standard	
High	18	Lakes Trail	Near standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits; explore day-use permitting.
		Mineral King Valley	Near standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits; explore day-use permitting.
		Little Baldy Trail	In standard	
		Paradise Creek Trail	In standard	
		Redwood Canyon	In standard	
Moderate	11	Evolution Basin & Valley (JMT/PCT)	Out of standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits.
		Rae Lakes/JMT	Out of standard	Obtain better data to confirm observations; lower limits on commercial use; reduce trailhead quota; reduce night limits.
		Mount Langley approach	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduce trailhead quota; reduce night limits; consult with USFS regarding area use levels.
		Crabtree Ranger Station to Trail Crest	Out of standard	Obtain better data to confirm observations; lower limits on commercial use; reduce trailhead quota; reduce night limits; implement area specific restrictions.
		Rae Lakes Loop — Lower Portion	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduce trailhead quota; reduce night limits.
		West side of Kearsarge Pass	Near standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits; implement area specific restrictions.

**Table 39: Trail Encounter Categories, Standards, and Proposed Management Actions for Alternative 5 (continued)**

Encounter Category	Encounter Standard <sup>1</sup>	Analysis Area	Status	Proposed Management Action
Moderate (continued)	11	Dusy Basin	Near standard	Obtain better data to confirm observations; lower limits on commercial use; reduce in area camping overnight limits; implement area specific restrictions.
		Twin Lakes Trailhead to Silliman Creek	Near standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits; implement area specific restrictions.
		High Sierra Trail (Wolverton Cutoff Junction to JMT Junction)	Near standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits; implement area specific restrictions.
		Rock Creek	Near standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits; implement area specific restrictions.
		Little Five	Near standard	Obtain better data to confirm observations; reduce trailhead quota; reduce night limits; implement area specific restrictions.
Low	4	Sixty Lake Basin Trail (Rae Lakes 3) and Crabtree Lakes (Crabtree 1)	Out of standard	Obtain better data to confirm observations; lower limits on commercial use; reduce in area camping overnight limits; implement area specific restrictions.
		All other trails not identified above	In standard <sup>2</sup>	

<sup>1</sup> Interpreted as the maximum number of people encountered per hour on 90% of days within the quota season (generally from the Friday before Memorial Day through the last Saturday in September).

<sup>2</sup> Inferred from a small number of samples.

**Element 2: Trails**

**Planning Objective:** The trail system would facilitate access for visitor use and enjoyment of the wilderness. Trails would be well suited to the types and levels of visitor use (levels of visitor use would be decreased from current levels under this alternative).

This alternative calls for most trails to be maintained at their current class so that a variety of users can use them to seek solitude. A few trails would be designated hiking-only trails where there are known threats to sensitive resources, unacceptable visitor safety issues, or existing user conflicts between stock and hiker/backpacker parties. Some of the designated unmaintained routes listed in the 1986 SUMMP where stock travel does not pose undue threats to resources would be designated Class 1 stock use trails and targeted for appropriate construction and maintenance. Where trails or routes are abandoned, landscape restoration actions would be considered. See summary tables at the end of this chapter for a comparison of trail classes by mileage and use. Figure 20 depicts the wilderness trail system for alternative 5 and can be found on page 213. More details on the trail-classification system and trail management can be found in “Appendix K: Trail Management and Classification System for Sequoia and Kings Canyon National Parks.”

With additional site-specific planning and compliance, new Class 1 trails could be established to protect resources when visitor use may cause undue impacts.

### **Element 3: Campfires**

**Planning Objective:** Visitors would have the opportunity to enjoy campfires where campfires are compatible with the protection of vegetation and downed wood resources. In this alternative, decreased visitor use would allow campfires at higher elevations in some areas.

Recreational campfires would be allowed in the foothill and montane forest areas where adequate wood supplies exist. There would be no campfires allowed above 10,000 feet wilderness-wide. This alternative allows recreational campfires in 425,276 acres of 837,806 acres of wilderness (51%) and would increase the total area with no campfire restrictions when compared with the no-action alternative. Figure 21 depicts campfire restrictions for alternative 5 and can be found on page 215.

### **Element 4: Food Storage**

**Planning Objective:** Native wildlife would subsist only on naturally obtained food, uninfluenced by the presence of human food. In this alternative, visitors would use self-reliant food-storage techniques, reflecting the lower levels of visitor use and increased opportunities for solitude; food-storage boxes would not be provided.

All food-storage boxes would be removed from wilderness. Self-determined food-storage methods would be required (i.e., visitors would be required to keep food from animals), although posting an alert guard would still be prohibited. The NPS would retain the ability to require portable containers in specific areas in the future in response to increased incidents

### **Element 5: Human-waste Management**

**Planning Objective:** Human waste would not contaminate water or create unsanitary or unsightly conditions. Reflecting decreased levels of visitor use in this alternative, restrooms and privies would be removed.

Cat-holes would be required in all areas, unless visitors elected to use pack-out waste kits. Pack-out waste kits would be recommended in certain areas.

All existing public-use privies and restrooms would be removed under this alternative (including Emerald and Pear Lake restrooms). No new privies, vault toilets, or restrooms would be constructed.

The NPS would consider implementing new technologies for human-waste management as they are developed in the future. The use of new technologies would require on-site planning and compliance. Some technologies may require visitors to be more self-sufficient.

### **Element 6: Party Size**

**Planning Objective:** Party size would be set at levels high enough to allow for a variety of experiences, but low enough to protect wilderness character from impacts associated with large groups. In this alternative, an emphasis on opportunities for solitude would result in a decrease in party size wilderness-wide.

Party size would be reduced wilderness-wide (tables 40 and 41).

**Table 40: Party-size Limits for Hikers and Boaters for Alternative 5**

Type of Trip	Maximum Party Size
On-trail (day use)	20; consider more restrictive party size for day-use in specific highly visited areas (Lakes Trail, Mist Falls, Monarch Lake, and potentially other areas).
On-trail (overnight use)	10
Off-trail (day and overnight use)	8
Area-specific	A wilderness-wide off-trail party size limit of 8 would be established. There would be a 6-person maximum party size for Redwood Canyon.

**Table 41: Party-size Limits for Stock Parties for Alternative 5**

Type of Stock Trip	Maximum Party Size for People and Stock
Day Rides (not including spot and dunnage)	People: 13 Stock: 13 Combined: 26
On-trail (including spot and dunnage trips that support overnight use, for those trails where stock is allowed)	People: 10 Stock: 13 Combined: 18
Off-trail	No off-trail stock use allowed
Area-specific	All existing temporary party-size limits would be removed (maximum party size of 8 in specific locations), and stock would not be allowed off-trail. Redwood Canyon party-size limits: People: 6 Stock: 6 Combined: 12

### Element 7: Camping/Campsites and Night Limits

**Planning Objective:** Visitors would have the opportunity to choose camping locations, except in areas where camping would result in unacceptable impacts. In this alternative, decreased visitor use would allow fewer camping restrictions.

Camping would be allowed in specific areas close to the frontcountry (e.g., Colony Mill Trail, Don Cecil Trail, and North Dome) to allow for a greater diversity of recreational opportunities where risks to resources are low.

The locations of established stock camps would be identified and the NPS would recommend their use.

*First Allowable Campsite* — As described under alternative 2, camping would not be allowed within specified distances from each trailhead (see the “First Allowable Campsites” section under alternative 2, table 19 on page 116).

*Length of Stay/Night Limits for All Campers (stock-supported and backpackers)* — Under this alternative, campers would be limited to staying 10 consecutive nights in a single location, 21 total nights per trip, and 63 total nights per year. Table 42 presents exceptions to these night limits.

**Table 42: Site-specific Exceptions to the Night Limits under Alternative 5**

Location	Night Limits Exceptions (Consecutive Nights Stay per Location)
Colony Mill Trail, Crabtree Meadow area, Guitar Lake, and the JMT from Woods Creek Crossing to Vidette Meadow	4 night limit (at any one location)
Don Cecil Trail, Dusy Basin, Emerald and Pear lakes (combined), Kearsarge Lakes Basin (combined), Paradise Valley (whole valley), Rae Lakes (per lake), and Redwood Canyon	3-night limit
Hamilton Lake	2 night limit

Additional site-specific night limits could be applied in the future to reduce adverse impacts (both social and physical).

*Designated Campsites* — To preserve the unconfined aspect of recreation in the parks’ wilderness there would be no designated campsites. Existing designated camping requirements at Emerald and Pear lakes, Paradise Valley, and Bearpaw Meadow would be discontinued. No new designated sites would be established.

There would be no designated stock camps.

*Campsite Condition Standards* — As explained in alternative 2, a metric of aggregate campsite impacts (Weighted Value per Campable Mile, WVCM) would be adopted under all alternatives to ensure that the number of campsites and their condition does not exceed standard. Under alternative 5, the WVCM standard would be: 700 for high use subzones; 350 for moderate use subzones; and 175 for low-use subzones. A monitoring plan would be developed to establish protocols and schedule monitoring frequencies to ensure that subzones remain within their applied standard.



**In lower Paradise Valley**

Under alternative 5, six subzones (39-4 LeConte Ranger Station, 42-2 Middle Dusy Basin, 42-5 Lower Dusy Lakes, 80-7 Lakes above Tyndall, 83-1 Guitar Lake, and 86-1 Kern Hot Spring) would be out of standard in the high-use category, and six subzones (39-7 JMT-Simpson Junction, 42-3 11,393 Lakes, 42-4 South Dusy Lakes, 80-3 Shepherd Pass Lake, 90-1 Atwell-Hockett Trail, and 90-6 Hockett Meadow) would be out of standard in the moderate category. One subzone, 47-1 Amphitheater Lake, would be out of standard in the low use subzone. All other subzones would be within standard. Management actions to return the subzones to within standards are included in the “Mitigation Common to All Alternatives” section in this chapter, for a map of campsite condition standards see figure 10, page 119; for information on determining campsite condition and standards, see appendix A, page A-15 and A-24.

## **Element 8: Stock Use**

**Planning Objective:** Visitors would have opportunities to travel with stock, from day rides to multi-day trips, in a manner that ensures the protection of wilderness character. Access and grazing would be managed to protect resources, provide other types of primitive recreation, and reduce conflict of user groups. In areas where stock would be permitted, fewer restrictions would be needed to protect wilderness character given the lower levels of visitor use in this alternative. Off-trail areas would not be open to stock.

Figures 22a and 22b depict stock access and grazing restrictions for alternative 5. Figure 22a shows stock access and grazing restrictions in Kings Canyon National Park and can be found on pages 216/217. Figure 22b shows stock access and grazing restrictions in Sequoia National Park and can be found on pages 220/221.

### ***Stock Access and Travel***

*On-trail* — Visitors traveling with stock would continue to have access to most trails (665 of 702 miles). Stock parties would be allowed to travel up to 0.5 mile from trails in areas where they are allowed to camp. In areas open to travel only, stock parties would be allowed to travel up to 100 yards from trails.

Approximately 555 miles of maintained trails would be open to camping with stock. Some trails would be open to stock parties for travel only, some would be open to camping by walking parties with burros and llamas but limited to travel only for parties with horses or mules, and some would be closed to stock travel entirely for reasons including visitor safety, resource protection, and/or popular day-use by hikers. Trails with restricted stock access under alternative 5 are discussed below.

Trails open to stock for travel only (110 miles – includes mileages to first camps):

- Admiration Point Trail
- Alta Trails
- Big Baldy Trail
- Buena Vista Trail
- Center Basin Trail (to Golden Bear Lake)
- Dusy Basin Trail (above 10,600 feet in elevation)
- JMT along Timberline Lake

- JMT from Dollar Lake to Glen Pass
- Kearsarge Lakes, and Bullfrog Lake Trails
- Lake 11,092 Trail (shown as Lake 11,106 on older maps)
- Lakes Trail (Hump Trail only)
- Martha Lake Trail from 1 mile above Hell-for-sure Junction
- Miter Basin Trail above Penned-up Meadow to a tie-up area at 11,300 feet in elevation below Sky Blue Lake.
- Oriole Lake Trail
- Redwood Canyon area Trails
- Upper Blue Canyon Trail below 10,000 feet in elevation
- Upper Sixty Lake Basin Trail
- Wallace Lake Trail above 11,200 feet in elevation
- Wright Creek Trail above 11,200 feet in elevation

Trails open to parties with horses or mules for travel only; camping use for walking parties with burros and llamas allowed (1 mile, not including mileage to first camps):

- Eagle Lake Trail
- Mosquito Lakes Trails
- White Chief Trail

Closed to stock travel (37 miles):

- Baxter Pass Trail
- Crabtree Lakes Trail (no travel above camp at 11,000 feet in elevation)
- HST from Crescent Meadow to Wolverton Cutoff
- Lamarck Col Trail
- Little Baldy Trail
- Lower Sixty Lake Basin Trail
- Marble Falls Trail
- Monarch Lake Trail
- Mount Langley Trail
- Mount Whitney Trail – base of switchbacks to Trail Crest and summit
- Muir Grove Trail
- Paradise Creek Trail
- South Side Cedar Grove Sand Flats Trail from Zumwalt Meadow Bridge to Bubbs Creek
- Tokopah Falls Trail

- Watchtower Trail

*Off-trail* — Stock travel would be allowed up to 0.5 mile from maintained trails open to stock use to reach campsites. Stock travel would be prohibited more than 0.5 mile from maintained trails open to stock use.

*Stock Grazing* — Grazing would be managed to maximize protection of resources while allowing visitors traveling with stock continued access to forage. Grazing would generally be allowed within 0.5 mile of maintained trails open to overnight stock. Grazing would not be allowed in areas designated as open to day-use only or pass-through only.

Grazing would continue to be managed and informed by the results of the Stock Use and Meadow Monitoring Program, including the continued application of estimated grazing capacities, as described under alternative 2.

Areas closed to grazing would remain open to camping by visitors traveling with stock, but they would be required to hold and feed their animals. Administrative grazing would be managed to limit impacts on public grazing (Note: with rare exceptions, visitors are given preference for limited grazing resources).

The use of certified-weed-free forage in frontcountry areas, and of processed pellets, rolled grains, or fermented hay in wilderness, would be required as described under alternative 2.

The monitoring system described under alternative 2 and in appendix D would be employed to track use, document conditions, and provide information for preventing and mitigating impacts.

The meadows closed to grazing for scientific and social value by the SUMMP would remain closed to grazing. The meadows closed to grazing due to high levels of visitation and resource concerns by the SUMMP would remain closed with the following exception: Tom Sears Meadow would be reopened to grazing.

The following additional meadows which are otherwise open to camping with stock would be closed to grazing due to high levels of visitation and resource concerns: Crabtree Lakes (closed to stock access and grazing above the existing camp west of the lowest lake), Darwin Meadow proper, Forester Lake Meadow, Guitar Lake, Guyot Creek Meadows (expanding the existing closure to the meadows east of the trail), Kern Hot Spring Meadow, Kettle Dome (Randle Corral) meadows, Mineral King basin, Summit Lake Meadow, Upper LeConte Canyon above 10,000 feet in elevation, and Woods Lake basin (expanding the existing closure to the entire basin).

Meadows associated with areas or trails closed to stock under this alternative would also be closed to grazing.

The following restrictions in areas otherwise open to grazing would be adopted:

- Open to grazing by walking parties with burros or llamas, closed to grazing by parties with horses or mules: Bubbs Creek below Junction Meadow and Evolution Lake to Muir Pass
- Open to administrative use and grazing only: Hockett Pasture, JR Pasture, Kern Ranger Station Pastures Lackey Pasture, and Upper Redwood Meadow

Table 43 on the next page presents site-specific night and/or head limits for grazing on meadows in the parks under alternative 5.

**Table 43: Site-specific Night and/or Head Limits for Grazing under Alternative 5**

Location	Stock Head Limit	Night Limit
Bubbs Creek (below Junction Meadow)	13	1
Castle Domes Meadow	13	1
Charlotte Creek (below drift fence)	13	2
East Lake and Ouzel Meadows	12	2
Junction Meadow (Bubbs)	13	1
Scaffold Meadow	13	2
Shorty's Meadow	13	2
Upper Crabtree and Sandy Meadows	10	10
Upper Evolution Valley (above Evolution Meadow)	13	1
Upper Rock Creek (Rock Creek Lake and above)	13	2

*Stock Use Structures* — Under this alternative, 24 hitch rails would be retained and 28 hitch rails would be removed. A total of 36 fences or gates would be retained, 18 fences and gates would be removed, and one gate would be added (see tables 51a and 51b starting on page 272 at the end of this chapter).



**A gate across the trail to prevent stock from drifting**

## Element 9: Administrative Structures

**Planning Objective:** Administrative structures and developments would be the minimum necessary for the administration of wilderness, but due to lower levels of visitor use, the number of administrative developments would be reduced.

*Ranger Stations* — With reduced use, some ranger stations could be removed. Historic buildings would be preserved for their historic value.

Ranger stations that would be retained in their current location:

- Charlotte Lake
- Crabtree
- Hockett Meadow
- Kern Canyon
- LeConte Canyon
- McClure Meadow
- Pear Lake
- Rae Lakes
- Roaring River
- Rock Creek
- Tyndall Creek

Four ranger stations would be removed and no replacement stations would be built:

- Bearpaw Meadow
- Bench Lake
- Little Five Lakes
- Monarch

The patrol cabins at Quinn, Redwood Meadow, and Simpson Meadow would be retained.

Site-specific compliance would be required for the removal of ranger stations.

*Other Administrative Structures* — Use of the Redwood Canyon Cabin by researchers would be terminated within two years of WSP approval. The cabin would be removed within three years of WSP approval. Future cave and other research activities in Redwood Canyon could continue but without the use of a permanent structure. Project-specific compliance would be required for the removal.

*Administrative Pastures* — Historically, some areas of the parks have been patrolled by mounted rangers. To maintain stock close to the patrol cabins for quick emergency response, and to reserve some grazing for park stock, some of these locations have fenced pastures. Under this alternative, the Redwood Meadow pasture fence would be removed. The Kern and Hockett Meadow pastures would be reduced in size. The Roaring River pastures would be retained.

*Crew Camps* — All installations solely for crew use would be removed. Trail crews would conduct trail maintenance through use of mobile operations, moving with stock or backpacks and using minimum impact camping practices. There would be no semi-permanent established camps. Project crew camps (for administration of wilderness) would be established as needed on a case-by-case basis.

### **Element 10: Frontcountry Facilities to Support Wilderness Access and Use**

**Planning Objective:** Frontcountry facilities that support activities in wilderness would encourage and/or facilitate visitor use and enjoyment of wilderness.

The types and levels of commercial services that may be performed in wilderness are discussed in detail in the END (appendix B). Commercial service providers would be permitted to use some frontcountry facilities, but other facilities would only be used by non-commercial or administrative entities.

#### ***Kings Canyon National Park***

*Cedar Grove Pack Station* — The Cedar Grove Pack Station would continue to be operated under concession authority based on a contractual relationship with the NPS. Stock camping sites would be developed at the Cedar Grove Pack Station primarily for private users. A holding pen/corral space, hitch rail(s), adequate parking and turnaround space for stock trailers, a campfire pit, picnic tables, restrooms, food-storage boxes, and water would be installed.

#### ***Sequoia National Park***

*Middle Fork Kaweah Trailhead* — At the Middle Fork Kaweah Trailhead improved parking and turnaround space for stock trailers and hitch rail(s) would be provided; no other stock amenities would be provided (same as alternative 2). Commercial service providers would be allowed to use this trailhead.

*Mineral King Area* — No changes would be made at the Atwell Mill Campground in Mineral King. Stock would not be allowed to be held overnight in the campground. Commercial service providers would not be allowed to use the Atwell / Hockett trailhead.

All facilities at Mineral King administrative corrals and pack station in east Mineral King Valley would be removed and the area would be restored to natural conditions. A limited area for trailhead parking and stock turnaround below the corral site would be retained. Commercial service providers would be allowed to use the Mineral King Valley trailheads (managed by CUA permit conditions).

*North Fork Kaweah Trailhead* — At the North Fork Kaweah Trailhead improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial service providers would be allowed to use this trailhead (managed by CUA permit conditions). The trailhead area would be maintained through an agreement between the NPS and a cooperating partner. No camping for stock or backpackers would be allowed.

*South Fork Kaweah Campground and Trailhead* — The South Fork Kaweah Trailhead would be modified to improve parking and turnaround space for stock trailers at the trailhead. In addition, a hitching post would be provided at this site. The trailhead would be primarily for private users with limited commercial (managed by CUA permit conditions) and administrative use. The site would be maintained through an agreement between the NPS and a cooperating partner.

*Wolverton Area* — Stock facilities at Wolverton would remain in place at their current location, but they would be modified to allow for public use by private parties and for short-term use by commercial service

providers. There would be no long-term commercial use of the facility by a resident pack station concession. The facilities would continue to be used for the parks administrative purposes. The addition of adequate parking and turnaround space for stock trailers, a corral, hitch rail(s), picnic table(s), and a campfire pit would be considered. Restrooms and water access exist at this site. The site would be maintained through an agreement between the NPS and a cooperating partner.

The above modifications to frontcountry facilities and trailheads would require site-specific planning, design, and compliance.

**Element 11: Commercial Services in Wilderness**

**Planning Objective:** Commercial services would be allowed to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas. Commercial services would support visitor use and enjoyment of wilderness in a variety of appropriate ways. Visitors with diverse backgrounds and skill levels would be encouraged to experience wilderness and to explore primitive recreation activities such as hiking, backpacking, stock trips, fishing, over-snow travel, or mountaineering, or to build skills in these activities. The types of commercial support would be similar to current conditions, but the lower overall levels of visitor use would result in lower overall levels of commercial support.

To meet the objectives of this alternative, commercial services would be needed at levels lower than those in the no-action alternative in most locations (appendix B). The percentage of total visitor use supported by commercial services would be similar to the no-action alternative to ensure that reduced access does not disproportionately affect any particular user group. The types of commercial services allowed may be expanded from the no-action alternative to support a range of recreational experiences, and to support more solitary recreation choices. Commercial services would be allowed to the extent necessary to support those visitors who want to experience wilderness but may need additional support. Table 44 presents the levels and types of commercial services.

**Table 44: Levels and Types of Commercial Services under Alternative 5**

Activities		Proposed Allocation of Commercial Service Days
<b>Total Visitor-use Days</b> – private and supported by commercial services (this does not take into account use by PCT and JMT visitors that are not recorded by the parks’ wilderness permit system).	<b>Proposed Visitor Capacity Alternative 5</b> 77,700 average 93,300 maximum	For all, day and overnight, non-stock and stock-based services: 5,880
<b>Non-stock Activities</b> Backpacking and Hiking Trips. Overnight Camping – gear support by human porters Climbing and Mountaineering (summer and winter). Oversnow Travel (ski and snowshoe touring and winter camping – winter only [Nov. 15 to Apr 15]).	Wilderness-wide: activities that are supported by non-stock-based commercial services.	For all, day and overnight, non-stock-based services: 3,530 (60% of total commercial services)
	Mount Whitney Management Area: activities that are supported by non-stock-based commercial services.	Of the above total allocation for non-stock services, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 650

**Table 44: Levels and Types of Commercial Services under Alternative 5 (continued)**

Activities		Proposed Allocation of Commercial Service Days
<b>Stock-based Activities</b> Stock trips – riding, packing, day rides and overnight camping with stock. Overnight Camping – gear support, including stock spot and dunnage	Wilderness-wide: activities that are supported by stock-based commercial services.	For all, day and overnight stock-based: 2,350 (40% of all commercial services)
	Mount Whitney Management Area: activities that are supported by stock-based commercial services.	Of the above total allocation, the level which can occur in the Mount Whitney Management Area between late-May and late-September: 350

The Bearpaw Meadow High Sierra Camp is an allowable non-conforming commercial enterprise that may continue operation within potential wilderness as authorized by Congress. The Bearpaw Meadow High Sierra Camp would continue to be operated at reduced levels of use-days by a concessioner. The size of the facility would be reduced and the season of operation would be shortened.

The Pear Lake Ski Hut would be used as a warming hut (with no overnight lodging) and would be operated by NPS. Operation by the cooperating association would be discontinued. There would be no commercial services provided.



**Pear Lake Ski Hut (Ranger Station) in Sequoia National Park**

On the following pages, figure 20 depicts the wilderness trail system for alternative 5, figure 21 depicts campfire restrictions for alternative 5, and figures 22a and 22b depict stock access and grazing restrictions for alternative 5.

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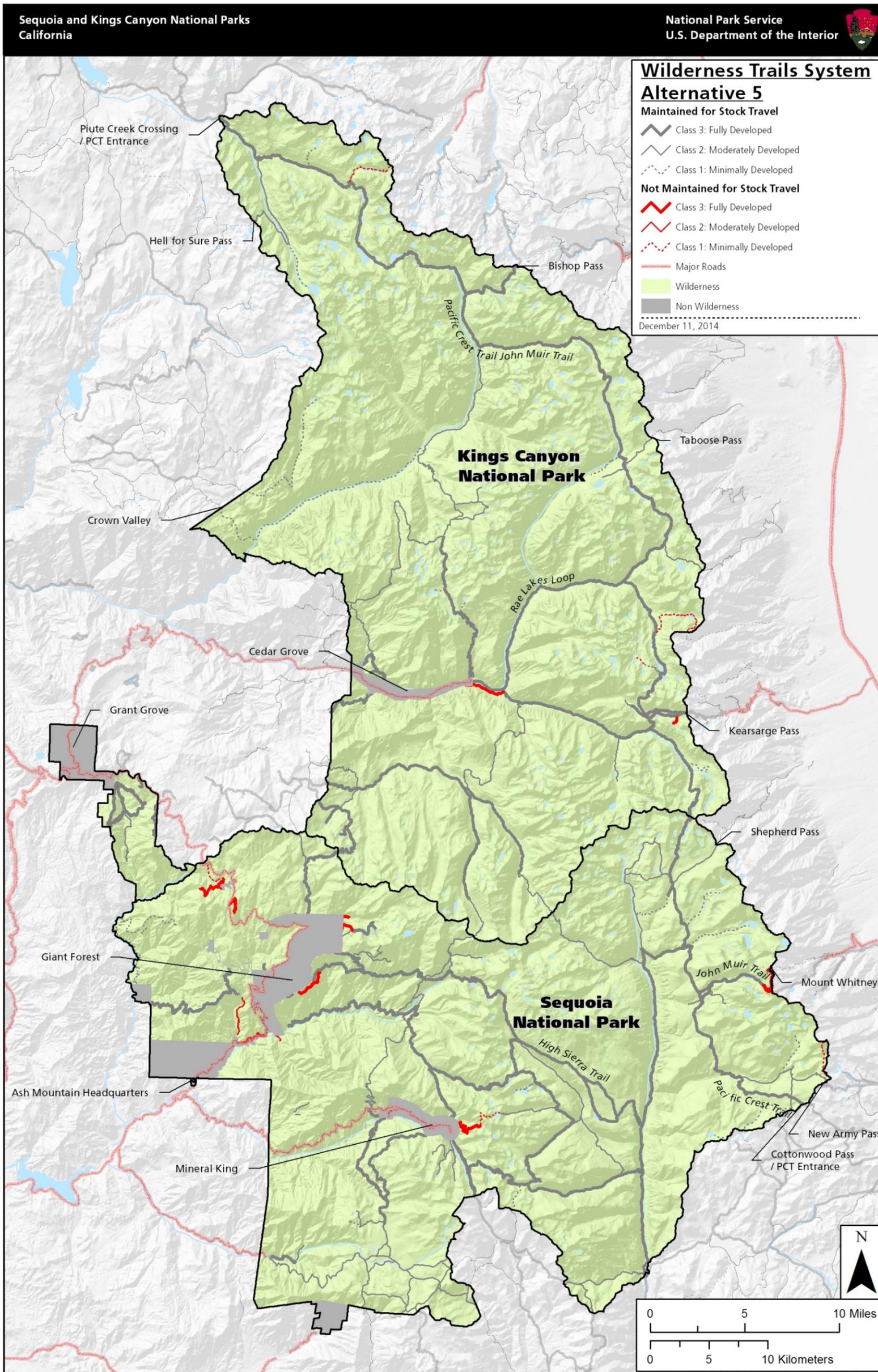
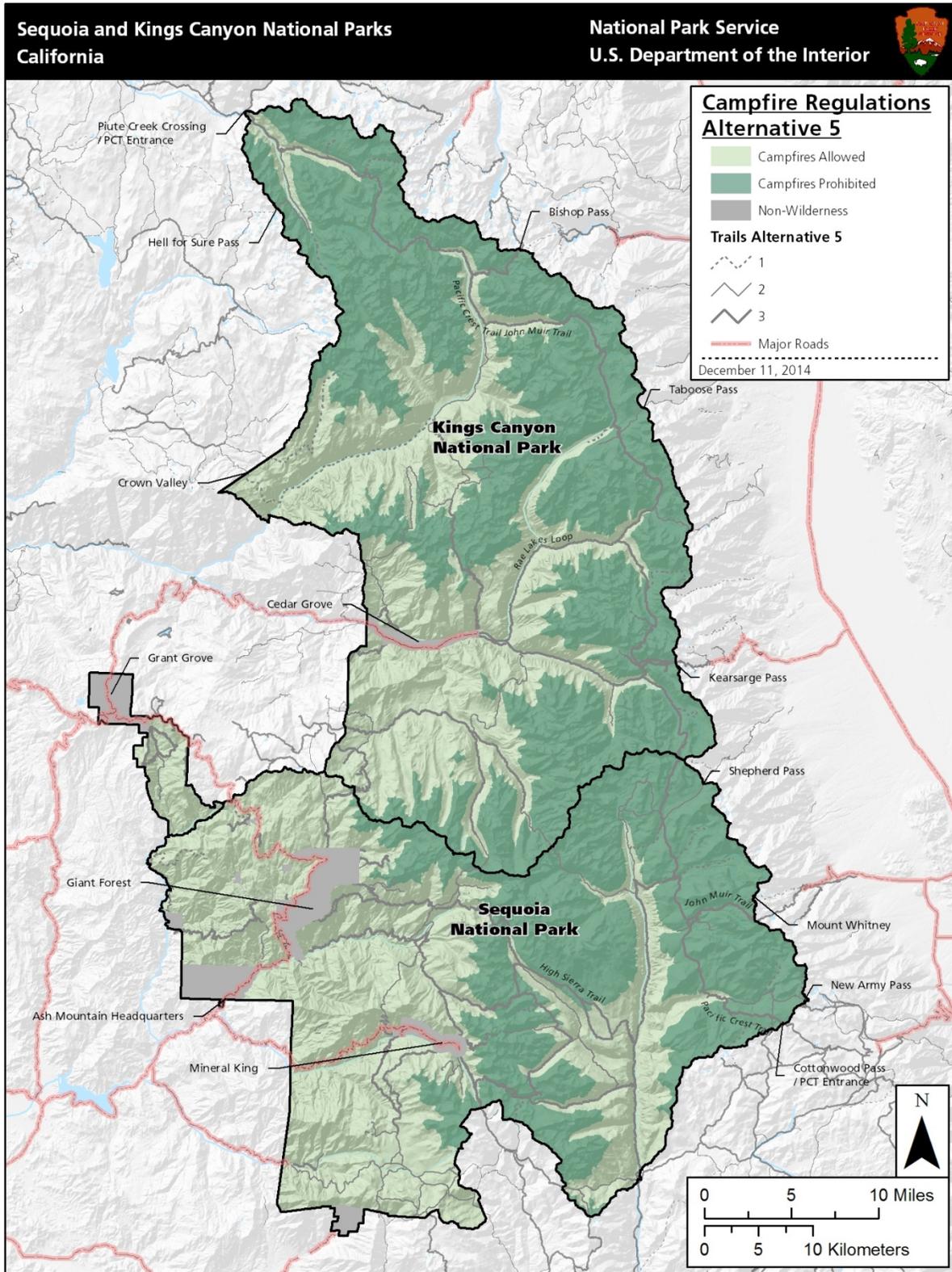


Figure 20: Wilderness Trails System – Alternative 5

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**Figure 21: Campfire Regulations – Alternative 5**

No campfires above 10,000 feet.

Sequoia and Kings Canyon National Parks California		National Park Service U.S. Department of the Interior			
<b>Stock Access and Grazing Maps Legend</b>					
<p><b>Common to All Maps</b></p> <p><b>Ranger Stations</b></p> <ul style="list-style-type: none"> <li>● Ranger Station</li> <li>○ Patrol Cabin</li> </ul> <p><b>National Forest Trails</b></p> <ul style="list-style-type: none"> <li>Trail Class 3</li> <li>Trail Class 2</li> <li>Trail Class 1</li> <li>Major Roads</li> <li>Non-Wilderness</li> <li>Non-Emphasis Park</li> <li>Park Boundaries</li> </ul>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5</b>
	<p><b>On-Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed by special permit</li> <li>Open to camping; closed to grazing</li> </ul>	<p><b>On Trail Access - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> </ul> <p><b>Travel and Camping - No Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping allowed</li> <li>Camping allowed for private and administrative; travel allowed for commercial</li> <li>Camping allowed for private and administrative; closed for commercial</li> <li>Camping allowed for private; closed for commercial and administrative</li> <li>Travel allowed for private and administrative; closed for commercial</li> </ul>	<p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li>Travel allowed; no camping or grazing</li> <li>Closed to stock</li> <li>Camping and grazing generally allowed</li> <li>Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li>Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li>Open to camping; closed to grazing</li> </ul>

**Legend to Accompany Figure 22a: Stock Access and Grazing – Alternative 5, Kings Canyon National Park**

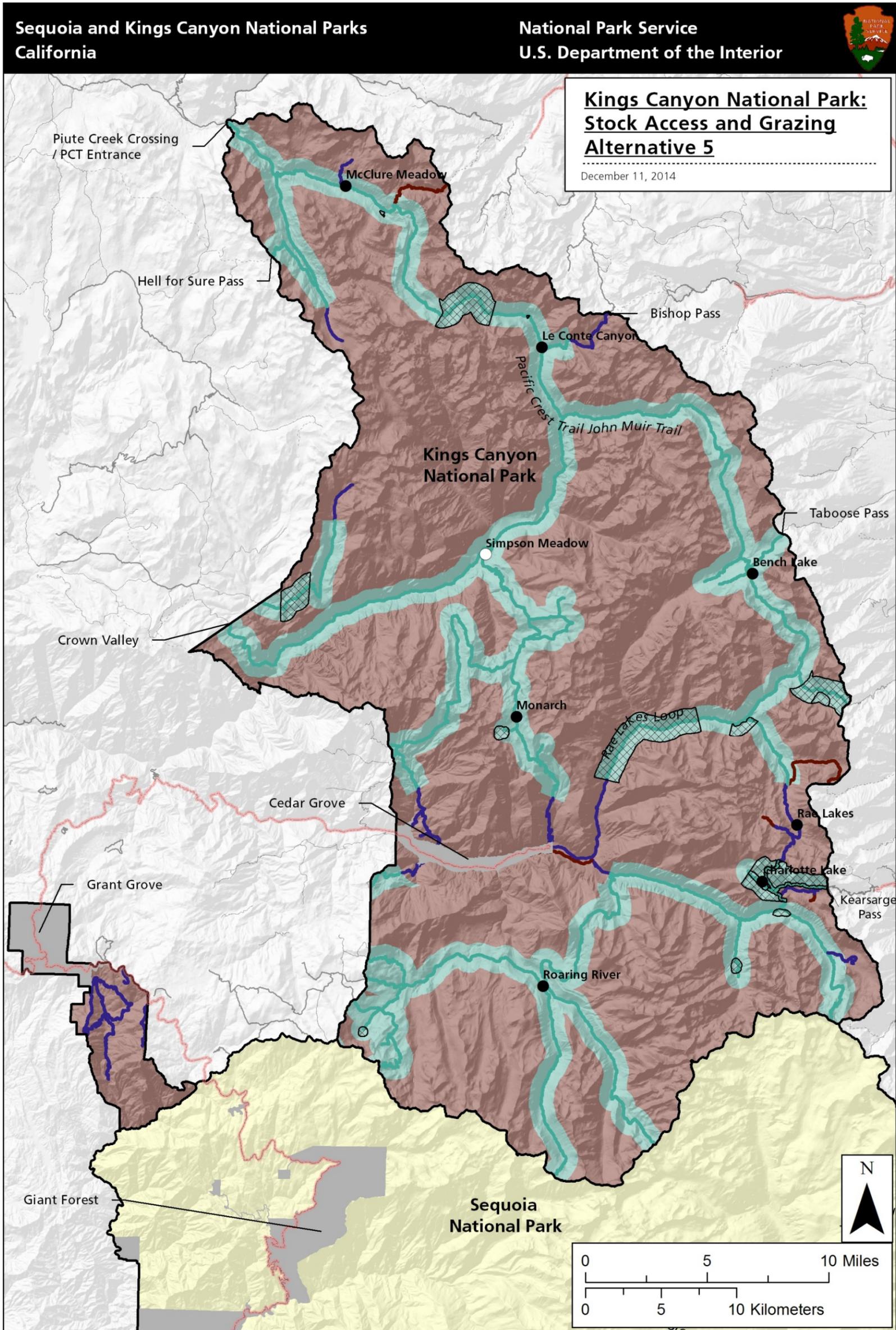


Figure 22a: Stock Access and Grazing – Alternative 5, Kings Canyon National Park

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Sequoia and Kings Canyon National Parks California		National Park Service U.S. Department of the Interior			
<b>Stock Access and Grazing Maps Legend</b>					
<p><b>Common to All Maps</b></p> <p><b>Ranger Stations</b></p> <ul style="list-style-type: none"> <li>● Ranger Station</li> <li>○ Patrol Cabin</li> </ul> <p><b>National Forest Trails</b></p> <ul style="list-style-type: none"> <li>— Trail Class 3</li> <li>— Trail Class 2</li> <li>— Trail Class 1</li> <li>— Major Roads</li> <li>■ Non-Wilderness</li> <li>■ Non-Emphasis Park</li> <li>□ Park Boundaries</li> </ul>	<p><b>Alternative 1</b></p> <p><b>On-Trail Access</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing allowed</li> <li> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li> Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing generally allowed</li> <li> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li> Camping and grazing allowed by special permit</li> <li> Open to camping; closed to grazing</li> </ul>	<p><b>Alternative 2</b></p> <p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing allowed</li> <li> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing generally allowed</li> <li> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li> Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li> Open to camping; closed to grazing</li> </ul>	<p><b>Alternative 3</b></p> <p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing allowed</li> <li> Camping and grazing allowed by special permit</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing generally allowed</li> <li> Camping and grazing allowed by special permit</li> <li> Open to camping; closed to grazing</li> </ul>	<p><b>Alternative 4</b></p> <p><b>On Trail Access - No Grazing</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping allowed</li> <li> Camping allowed for private and administrative; travel allowed for commercial</li> <li> Camping allowed for private and administrative; closed for commercial</li> <li> Camping allowed for private; closed for commercial and administrative</li> </ul> <p><b>Travel and Camping - No Grazing</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping allowed</li> <li> Camping allowed for private and administrative; travel allowed for commercial</li> <li> Camping allowed for private and administrative; closed for commercial</li> <li> Camping allowed for private; closed for commercial and administrative</li> <li> Travel allowed for private and administrative; closed for commercial</li> </ul>	<p><b>Alternative 5</b></p> <p><b>On Trail Access</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing allowed</li> <li> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> </ul> <p><b>Travel, Camping, and Grazing</b></p> <ul style="list-style-type: none"> <li> Travel allowed; no camping or grazing</li> <li> Closed to stock</li> <li> Camping and grazing generally allowed</li> <li> Camping and grazing allowed for burros and llamas; Travel allowed for horses and mules</li> <li> Camping and grazing allowed for burros and llamas; Closed to horses and mules</li> <li> Open to camping; closed to grazing</li> </ul>

Legend to Accompany Figure 22b: Stock Access and Grazing – Alternative 5, Sequoia National Park

# Sequoia and Kings Canyon National Parks California

# National Park Service U.S. Department of the Interior

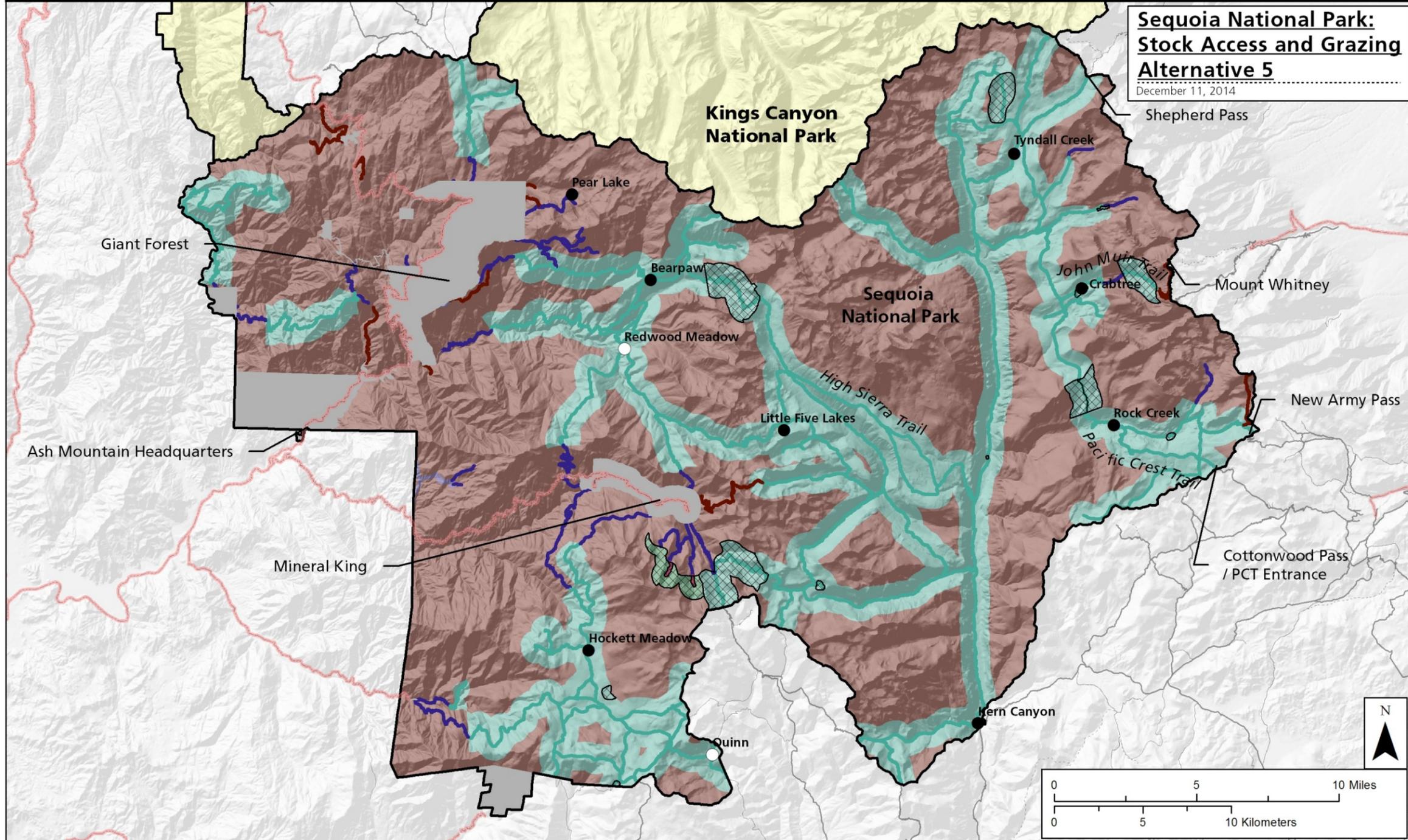


Figure 22b: Stock Access and Grazing – Alternative 5, Sequoia National Park

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## PROGRAMMATIC MINIMUM REQUIREMENTS ANALYSIS

The concept of minimum requirements comes from section 4(c) of the Wilderness Act of 1964:

... except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

Section 6.3.5 of NPS *Management Policies 2006* states that the minimum requirement concept will be a two-step process to [1] determine if the management action is necessary “for administration of the area as wilderness and does not cause a significant impact on wilderness resources and character; and [2] the techniques and types of equipment needed to ensure that impacts on wilderness resources and character are minimized.” Also: “When determining minimum requirements, the potential disruption of wilderness character and resources will be considered before, and given significantly more weight than, economic efficiency and convenience.”

A programmatic MRA has been prepared as part of this planning effort. This MRA process was used to help screen alternatives in anticipation of the need to authorize actions in the future while ensuring the preservation of wilderness resources and character. The programmatic MRA (appendix M) evaluates the program-level activities or actions to determine if they are appropriate or necessary for the administration of the area as wilderness, and analyzes how the selected alternative would achieve the desired conditions, focusing on the overall goal of preserving wilderness character. The programmatic MRA also provides a summary linked to the analysis in the WSP of the effects of each element on wilderness character.



**The appropriately named sky pilot, which blooms at high elevations**

## **MITIGATION COMMON TO ALL ALTERNATIVES**

This plan incorporates mitigations to protect wilderness character and visitor experience under each alternative. The basis of this plan is to mitigate impacts on wilderness character. In addition, there are wilderness-specific visitor-use limits and regulations (per CFR and the Superintendent's Compendium; appendix F) that preserve wilderness character.

A summary of the mitigation measures is provided below. More detailed mitigation and monitoring strategies are found in the referenced appendices. Additional mitigation measures may be added in the future as knowledge about stressors increases.

### **MEASURES TO MANAGE VISITOR CAPACITY**

*(See appendix A)*

**Campsite Conditions** — Management actions that could be taken to return out-of-standard areas to within standards include:

- Increase education – to the visiting public at large and to specific area visitors.
- Increase patrols to achieve compliance.
- Rehabilitate impacted areas.
- Take site-specific actions, such as modifying sites to render them uninviting to camping, or implement site-specific closures (short- or long-term) to camping.
- Close areas to camping (short- or long-term).
- Change group size, night limit and or campfire restrictions.
- Reduce commercial visitor services in out-of-standard areas.
- Change trailhead quotas.

**Trail Encounters** — Management actions that could be taken to return out-of-standard areas to within standards include:

- Increase education – to the visiting public at large and to specific area visitors.
- Change group size, night limits, and / or campfire restrictions.
- Reduce commercial visitor service days in out-of-standard areas.
- Change trailhead quotas.
- Require day-use or special-management-area permits.
- Implement cross-boundary actions with the USFS.

## MEASURES TO PROTECT WILDERNESS CHARACTER AND VISITOR EXPERIENCE

(See appendices A, C, D, F, and K)

- Appropriate actions would be taken to protect wilderness character and its formative qualities. Any proposed mechanized equipment use, motorized transport, installation, or other 4(c) prohibited actions, would be analyzed as mandated by the Wilderness Act through the MRA process.
- Standard noise abatement measures (e.g., using the quietest available equipment/tools) and educational actions (e.g., informing the public about project work) would be implemented, as appropriate, during park operations and construction activities to reduce impacts on visitor opportunities for solitude and primitive and unconfined types of recreation.
- The NPS will coordinate with the USFS to provide best available information to the public.
- If a trail is to be closed, efforts would be taken to inform the public about the closure and possible alternative routes. The wilderness office, public affairs office, visitor centers, and park partners would also be notified.

**Stock Manure Handling Best Practices** — The following best management practices can reduce the impacts of stock manure and urine on the natural environment and protect aesthetic aspects of wilderness character. Scattering (kicking) manure piles increases decomposition rates, reduces odors and fly concentrations, and reduces the potential for manure to enter water bodies.

*Required:*

- Remove manure from within 100 feet of core camping and tie-up areas and scatter manure on dry terrain. The core camp is defined as that area within 100 feet of the fire ring or cooking area.

*Recommended:*

- Carry a shovel and rake, and keep them readily accessible, for use in cleaning up and naturalizing areas.
- Scatter manure whenever encountered, paying particular attention to manure piles in or near water. Remove manure piles from water whenever possible. Scatter manure that accumulates at riding break areas.
- After stock have grazed or have been held in an area, inspect the area and scatter manure piles.
- Take measures that give stock an opportunity to urinate and defecate away from water (e.g., stop to let them urinate before leading them to water to drink).
- At parking areas and trailheads, pick up and remove all manure from the parks.

## MEASURES TO PROTECT WILD AND SCENIC RIVERS

- Potential impacts on outstandingly remarkable values or free-flowing character would be assessed prior to project work in accordance with the river protection measures established by parks' GMP (NPS 2007a).

## MEASURES TO PROTECT EMPLOYEES

- Tree and other environmental hazards would be considered in selection/maintenance of administrative camps. Choosing camps free of hazards is preferable to altering the environment to remove hazards; altering the environment to mitigate hazards would only be done pursuant to a site-specific MRA.

- Park staff would follow wilderness safety directives.
- The safety of wilderness staff requires effective communication. Existing radio repeaters would be maintained until they can be replaced with effective new technologies that better protect wilderness character. If structures are able to be removed, the installation sites would be restored to natural conditions.
- Park staff working in wilderness would be provided training and education on how to work, live, and travel safely in wilderness settings.
- To mitigate the inherent risks involved in wilderness travel and work, park staff will be trained to perform active risk management in the course of their duties.

## **MEASURES TO PROTECT CULTURAL RESOURCES**

- Cultural resources, including archeological sites, historic structures, and ethnographic resources, would be managed in accordance with the NHPA, and other applicable laws.
- In accordance with section 106 of the NHPA, archeological surveys and investigations would precede new construction- or project-related ground disturbance in previously undisturbed areas (e.g., the development of new trails in wilderness, the relocation of ranger stations, and for paleontological or other research excavations) to ensure that significant archeological resources are avoided to the greatest extent possible.
- The locations of administrative camps, trail reroutes, ground disturbance, and similar areas of potential impact would be assessed on a case-by-case basis.
- Work in areas where known cultural resources exist would be avoided to the extent possible.
- Archeological resources would be left undisturbed and preserved in a stable condition to prevent degradation and loss of research values unless intervention could be justified based on compelling research or site protection needs. Recovered archeological materials and associated records would be treated in accordance with NPS *Management Policies 2006*, NPS Museum Handbook, and 36 CFR Part 79.
- Should previously unknown historic or prehistoric resources be unearthed during any project implementation, work will be halted in the discovery area, the site secured, and parks' cultural resource specialist notified. A qualified cultural resource management specialist will examine the area as soon as possible and will follow the procedures of 36 CFR Part 800.13[c].
- The parks would continue to provide federally recognized tribes with appropriate access to sacred sites and ethnographic resources in wilderness. Information received during tribal consultations will assist cultural resources management.
- Mitigation measures for structures and landscapes include documentation according to standards of the Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscape Survey. The level of this documentation, which includes photography, archeological-data recovery, and/or a narrative history, would depend on significance (national, state, or local) and individual attributes (an individually significant structure, individual elements of a cultural landscape, etc.) of the resources. It would be determined in consultation with the CA SHPO, tribal historic preservation officer(s), local community (-ies), and/or other interested parties. When demolition of a historic structure is proposed, and following thorough documentation, its architectural elements and objects may be salvaged for reuse in rehabilitating similar structures or they may be added to the parks' collection. In addition, the historical alteration of the human environment and reasons for that alteration would be interpreted to national park visitors.

- Designs that are sensitive to and compatible with historic resources and cultural landscapes would be used for new construction. If adverse impacts could not be avoided, these impacts would be mitigated by strategies determined through a consultation process with all interested parties.

## **MEASURES TO PROTECT NATURAL RESOURCES**

The following practices would be followed when importing stock and feed into the parks:

- California or Nevada certified weed-free forage (baled or loose hay, hay cubes, or straw bedding) would be required when hay products are used as supplemental forage or bedding in the frontcountry. This requirement would be included in pack station concession contracts and commercial use authorizations.
- Feed carried into wilderness would be commercially processed pellets, rolled grains, or fermented hay. These products have a high level of mechanical milling, heat treatment, and/or anaerobic fermentation that destroys seeds. Baled or loose hay and compressed hay cubes, which have little to no processing, would not be allowed in wilderness. This applies to all users: administrative, commercial, and private.
- Stock users would be encouraged to purge their animals for three days on pellets, rolled grains, fermented hay, or certified weed-free forage prior to entering the parks.
- As a desired practice, stock would be inspected and cleaned by handlers prior to entering the parks, or prior to moving from frontcountry to wilderness within the parks, to remove any plant parts, seeds, or soil that may have adhered to animals, tack, or equipment. Packers would handle loads and tack in such a way as to avoid picking up plant parts, soil, or mud. This desired practice would be included in pack station concession contracts and commercial use authorizations. Private stock users would be informed of this practice through outreach and education.
- Manure that accumulates in corrals would be removed from the parks and not stockpiled or burned within the parks. This requirement would be included in pack station concession contracts.
- As a desired practice, NPS administrative corrals and concessioner pack stations would be kept free of invasive plants within a 50-foot buffer of the facility. This will be the responsibility of the NPS corrals and concessioner pack station staff. Invasive plant staff will monitor sites for invasive plants and consult on appropriate management strategies. Because there is limited time and funding to accomplish this practice, invasive plant staff will continue to work with corrals and concessioner staff to control invasive plants in the highest-risk facilities.

The following practices will be followed to protect wilderness vegetation:

- As a desired practice, the Ash Mountain helibase and frontcountry helispots will be kept free of invasive plants within a 50-foot buffer of the facility to reduce the risk of contaminating clothing, shoes, gear, and external loads. Cargo nets will be inspected and cleaned after use, particularly after use outside the parks or in low elevations. This will be the responsibility of heliport staff. Invasive plant staff are available to consult.
- Helicopter users would be responsible for inspecting and cleaning their gear, clothing, boots, and external load items for plant seeds, plant parts, and caked dirt and mud before loading. Helitack staff would inspect and clean helicopter skids.

- Heliport staff will track helicopter landing sites and cargo net drops and provide locations to a designated contact annually. Invasive plant, heliport, and wilderness ranger staff will work together to survey for new introductions and control invasive plants in wilderness helispots.
- Trailheads would be inspected for invasive plants and kept weed-free. Invasive plant staff would work with trailhead rangers and trail crews to inspect for and remove invasive plants.
- When travelling from frontcountry to wilderness; from lower to higher elevations; from areas of known weed infestations (communicated in training); or to or from meadows, riparian areas, or other wetlands; wilderness users should inspect, remove, and properly dispose of plant seeds, plant parts, and caked dirt and mud found on clothing, boots, tools, and camping equipment. Disposal consists of removing the seed, plant parts, and dirt from clothing and equipment at the origin of the material, or bagging the seeds, plant parts, and dirt and disposing in bagged garbage. Public users would be informed of this practice through outreach efforts.
- Invasive plant staff will strive to train all parks personnel in invasive plant identification, early detection, and reporting
- Where possible, crews would use established stock camps, trail crew camps, and backpacker camps. When a project requires that a new site be established for crew camping, appropriate Resource Management and Visitor Protection subject matter experts would be consulted regarding camp selection. Paramount in selecting a new site would be the ability to restore the site once the work project is completed and the camp is no longer needed.
- Park staff would use scrim, a coarsely woven fabric, or other protective coverings to protect vegetation where concentrated activities (such as administrative camps) would otherwise be likely to have long-term adverse impacts on ground cover.

The following practices will be implemented to protect natural resources and federally listed species (see the “Measures to Minimize Impacts on Federally Listed Species” section below for specific practices to protect federally listed species).

*(See appendices D, F, K, and N)*

- Park staff will comply with food storage, garbage disposal requirements, and the proper treatment of human waste at all times.
- Proposed trail realignments in designated critical habitats will require review by NPS biologists or ecologists.
- Projects will avoid in-stream work when possible. If in-stream work is required, activities will be coordinated with NPS hydrologists and compliance specialists.
- When new raised causeways are required to prevent increasing trail associated resource impacts or to provide adequate trail footing, these causeways will be constructed so as to minimize the effects on natural hydrologic processes, in consultation with a NPS hydrologist.
- Management actions that will be taken to return campsites in out-of-standard areas to within standard include: increased education to the public in specific areas; increased ranger patrols to achieve compliance; rehabilitation of impacted areas, site-specific actions such as modifying sites to render them uninviting to camping or implementation of site specific short- or long-term closures to camping; changing group size, night limit, or campfire restrictions; reduction of commercial visitor services in out-of-standard areas; and changing trailhead quotas.
- Management actions that will be taken to return out-of-standard trail encounters to within standard include: increased education to the public in specific areas; changing group size, night

limit, or campfire restrictions; reduction of commercial visitor services in out-of-standard areas; changing trailhead quotas; require day-use or special-management-area permits; and implementation of cross-boundary actions with the USFS.

- A monitoring system is employed to track use, document conditions, and provide information for preventing and mitigating impacts from stock grazing. The monitoring program takes into account variation in annual climate, the characteristics of specific forage areas, and the inherent abilities of different species to withstand grazing and trampling pressure. The strategy for managing stock use is designed to prevent significant impacts to meadows through implementation of multiple complementary monitoring protocols and a suite of adaptive management tools. Taken together, the complementary elements of the management program at the parks—monitoring, which includes residual biomass and bare ground, stock use, species composition, repeat photography, and regularly scheduled site visits; an opening date system based on moisture, soil, and vegetation conditions; management tools including the ability to rest meadows when needed, as well as adjust use levels through controls on party size and length of stay; and ongoing research into meadow function and the effects of grazing on meadow ecology—is designed to protect meadows by preventing, minimizing and/or mitigating impacts.
- The NPS would adjust the number of nights a given party may graze an area; adjust the number of stock per party that may graze an area; adjust opening dates to reflect moisture conditions to prevent unacceptable mechanical disturbance to surface soil and vegetation; and temporarily close an area to stock access or grazing in order to protect meadow resources.

## **MEASURES TO MINIMIZE IMPACTS ON FEDERALLY LISTED SPECIES**

The following measures will be implemented as required by the USFWS biological opinion for the WSP/FEIS (2015) to minimize adverse effects to the Northern Distinct Population Segment of the mountain yellow-legged frog, Sierra Nevada yellow-legged frog, and the Yosemite toad. These measures are non-discretionary.

- Camping by humans, and grazing and pasturing by stock will be carefully managed, and in some areas prohibited, in meadows and other aquatic areas where the Northern Distinct Population Segment of the mountain yellow-legged frog, Sierra Nevada yellow-legged frog, and the Yosemite toad are breeding or using the area in large numbers.
- Park staff and visitors will be educated about how to avoid impacting the mountain yellow-legged frog, and encouraged to exercise caution when they encounter the animal.
- The parks will provide the USFWS with a copy of the annual Stock Use and Meadow Monitoring field reports within ten (10) working days of completion.
- The parks will provide the USFWS with a copy of any scientific or management report completed on the three listed amphibians and activities included in the WSP within ten (10) working days of issuance.

To further limit the potential for adverse effects to federally listed species from the presence of hikers and stock, the following conservation measures would be implemented under all action alternatives:

- Existing trails that go through or near meadows used by the Yosemite toad may be rerouted away from those meadows.
- Park staff and visitors will be educated about how to avoid impacting the Yosemite toad and encouraged to exercise caution when they encounter these animals.

- Monitoring will be used to determine if effects of visitor use on the Yosemite toad or its habitat are approaching unacceptable levels; visitor use will be adjusted in Yosemite toad habitat to prevent or mitigate degradation.
- Existing trails that run immediately adjacent to waters used by the mountain yellow-legged frog may be rerouted away from these areas.
- New Class 1 trails may be designed to avoid running immediately adjacent to waters used by the mountain yellow-legged frog.
- Park staff will educate hikers and stock users about the status and importance of the mountain yellow-legged frog, the NPS' efforts to restore and conserve them, and encourage exercising caution when they encounter the animal.
- If monitoring detects habitats used by the mountain yellow-legged frog as being degraded due to overuse from stock grazing and/or hiker and stock traffic, visitor use restrictions could be changed to prevent or mitigate degradation.
- Off-trail travel may be limited near certain mountain yellow-legged frog populations to reduce the potential of trampling.
- New Class 1 trails will be constructed in a manner that minimizes opportunities for people to approach bighorn sheep from above or constructed completely outside of bighorn sheep habitat. Limiting human approaches from above would be beneficial because bighorn sheep generally run uphill when alarmed (Hicks and Elder 1979).
- Educational efforts cautioning park staff and visitors not to directly approach bighorn sheep will be increased.
- Helicopter use in bighorn sheep habitat will be scheduled to avoid sensitive periods (e.g., lambing season) and would avoid flying low or landing within one mile of bighorn sheep.

## **STRATEGIES TO ADDRESS CLIMATE CHANGE COMMON TO ALL ACTION ALTERNATIVES**

- Under anticipated climate change scenarios, the NPS may need to increasingly emphasize strong prevention and early detection measures to keep nonnative plants from invading newly suitable sites at higher elevations.
- Recognizing that changes in climate are likely to lead to changes in meadow conditions, "Appendix D: Stock Use and Meadow Monitoring and Management Strategy" includes specific provisions for re-evaluating and modifying grazing levels in order to prevent unacceptable changes in plant productivity, species composition, and soil condition. Results from the Sierra Nevada Inventory and Monitoring network Wetland Ecological Integrity protocol will document changes occurring in ungrazed meadows, providing information on reference conditions that can be applied to wilderness management. In addition, ongoing research assessing the vulnerability of wilderness meadows to hydrologic changes anticipated under a changing climate would inform grazing management.

## **ALTERNATIVE ELEMENTS CONSIDERED BUT DISMISSED FROM DETAILED ANALYSIS**

During the scoping and planning process, other management approaches were considered. Six management actions were considered and dismissed for the following reasons:

- **Bear Poles or Wires** — The NPS would not consider installation of bear poles or bear wires under any alternative, and would remove any remnant poles or wires. Bear poles and bear wires are developments in wilderness that have been tested by past management at the parks and have been found ineffective. These installations would also create an increased workload for maintenance staff.
- **Hockett Plateau High Sierra Camp** — The GMP called for the consideration of a new commercial high sierra camp on the Hockett Plateau. However, this option has been rejected from consideration due to the 2009 Omnibus Act requiring the area to be managed as wilderness (PL 111-11, March 30, 2009, 123 STAT. 991). Constructing a new camp would be inconsistent with the Wilderness Act and would create additional developments in an area managed as wilderness.
- **Flotation Devices** — The GMP includes the comprehensive plan for Wild and Scenic Rivers and established measures to preserve the outstandingly remarkable values for designated river segments within the parks. One of the protective measures was the prohibition of flotation devices, boats, and rafts on the South Fork of the Kings River (from the Bubbs Creek confluence with the South Fork Kings downstream to the park boundary). All other Wild and Scenic Rivers in the parks are open to flotation devices. This decision will not be revisited during the development of this WSP.
- **Elevational Limits for Grazing** — Elevation is known to be a driver of biophysical processes — including plant productivity and decomposition — and thus influences the ability of meadows and uplands to sustain grazing. However, other factors such as moisture availability are equally important and do not always correlate with elevation. Therefore, after careful consideration, a single elevation limit above which grazing would be prohibited was dismissed from detailed analysis. To allow continued access to areas able to sustain grazing while providing for resource protection, estimated grazing capacities for wilderness meadows have been developed using a model of biomass production and forage consumption that takes into account not only elevation, but also soil moisture and condition of the meadow. The capacities are also informed by vulnerability to erosion or change in hydrologic function, susceptibility to invasion by nonnative plants, habitat requirements of sensitive plants and animals, productivity and the ability to sustain herbage removal, and the requirements of unique ecological communities such as peat-accumulating wetlands. Should grazing be allowed, these site-specific grazing capacities would be refined on an ongoing basis to protect resource integrity and wilderness character in the face of a changing climate.
- **Manure Bags** — The requirement for all stock users to utilize “manure bags” on their animals was considered but dismissed. While these may be effective in urban environments or for day trips during which stock only wear them for several hours, these were not designed for wilderness use. They are not suitable for typical trips in the parks’ wilderness because animals would be required to wear them for many hours or days, and it would concentrate large amounts of waste, resulting in waste disposal issues in wilderness.

Manure bags are known to chafe the skin of stock, and the parks do not consider them a feasible alternative for use on stock traveling long distances and for long time periods on the trails in

wilderness. Manure handling mitigations to guide stock users in properly treating stock manure will be provided to wilderness stock users.

- **Equipment and Materials Transported Into Wilderness** — Members of the public, including commenters on the WSP/DEIS, have expressed divergent views about what equipment and materials are appropriate to bring into wilderness, and have proposed that NPS restrict certain types of equipment and materials that other wilderness visitors are permitted to bring, especially when using support by a commercial service provider. These parks have concluded that restricting items that are not already addressed by current law and policy is unnecessary and impracticable, and that current restrictions are sufficient to protect wilderness character. For example, wilderness visitors, regardless of their use of commercial support, are restricted from using items identified as prohibited in Section 4(c) of the Wilderness Act. Wilderness visitors are also required to comply with a number of wilderness and NPS regulations (see “Appendix F: Wilderness Regulations, Restrictions, and Permit Conditions”) that are designed to minimize visitors’ impacts on wilderness character and other visitors. These parks have considered but dismissed additional restrictions on equipment and material that are not prohibited by existing law and policy. Equipment and materials that have been proposed for additional restrictions include:
  - Electronics such as GPS units, portable music devices, satellite phones, and cell phones - Some wilderness visitors may find that the use of hand-held and other electronic devices (such as personal locator beacons and satellite phones) reduces their ability to experience solitude and self-reliance. The Wilderness Act does not prohibit the uses of these personal electronic devices. The NPS, while not prohibiting these devices, encourages visitors to minimize the support of modern technology to take full advantage of the wilderness experience. While the NPS does not restrict electronics in wilderness, it does regulate noise (see “Appendix F: Wilderness Regulations, Restrictions, and Permit Conditions”). Despite the prevalence of technology in modern society, 29% of wilderness visitors who responded to a 2011 survey (Martin and Blackwell 2013) reported traveling without any hand-held technology. This number increased to 34% for cross-country wilderness travelers. The devices most commonly used by wilderness visitors were cameras (39.4%), smartphones (29%), GPS units (25.5%), tablets/media devices (19.5%), and other cell or satellite phones (21%) (Martin and Blackwell 2013).
  - Camp support equipment, such as chairs, tables and ice chests - These items provide for some level of comfort for wilderness travelers and are not inconsistent with wilderness character preservation, or appropriate wilderness experiences. It is worthwhile to note that the issue of what some visitors deem to be “unnecessary items” was presented and ruled on in *HSNA vs. U.S. Department of Interior*, May 29, 2012. The court in denying the validity of the claim of “unnecessary items,” stated “It is not appropriate for one group of the parks’ users to impose its vision of wilderness etiquette over others.” (*High Sierra Hikers Association v. U.S. Department of the Interior*, 2012 U.S. Dist. LEXIS, 74124 (N.D. Cal.))
  - Food packaging, such as plastic and foil - Plastic and foil are a commonly used lightweight method of storing and carrying food into wilderness, and if properly used pose no threat to wilderness character. There are restrictions on improper use of these materials (e.g., littering and abandoning property).

## **ENVIRONMENTALLY PREFERABLE ALTERNATIVE**

The CEQ defines the environmentally preferable alternative as — the alternative that would promote the national environmental policy as expressed in NEPA § 101. Section 101 states that it is the continuing responsibility of the federal government to:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
5. Achieve a balance between population and resource use which would permit high standards of living and a wide sharing of life's amenities; and
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The identification of the environmentally preferable alternative was based on analyses that balance factors such as physical impacts on the environment, mitigation measures to minimize impacts, and achievement of short- and long-term goals for protecting and improving wilderness character.

For a comparison of the alternatives and the potential environmental effects under each alternative, see “Table 45: Summary of Alternatives by Element” on page 237 and “Table 53: Summary of Impacts” on page 285. A full discussion of impacts is presented in “Chapter 4: Environmental Consequences.”

All of the alternatives would fulfill all of the above CEQ requirements to some degree. The action alternatives would fulfill these requirements somewhat equally, through continuation of existing wilderness and resource management policies, ecological restoration of fragile meadow and riparian areas, protection of water quality, and protection of archeological resources. The alternatives would vary primarily in protection of historic resources, sensitive meadows and riparian areas, protection of downed wood and sensitive species, and the diversity of recreational (primitive and unconfined) opportunities and opportunities for solitude provided to the public. All alternatives provide for as safe an environment as possible, given that wilderness recreation involves inherent risks.

The NPS has determined that alternative 5 is the environmentally preferable alternative. Alternative 5 best promotes the requirements of the national environmental policy expressed in section 101(b) of NEPA. It is the alternative that causes the least amount of impacts on the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources, and best achieves the short- and long-term goals for protecting and improving wilderness character. Alternative 5 best meets these requirements. A brief summary of how the environmentally preferable alternative was selected follows below.

Alternative 1 (no-action / status quo) preserves important historic, cultural, and natural aspects of our national heritage. It also provides for diversity and variety of primitive and unconfined recreational choice; however, it would not best fulfill any of the other requirements, particularly at popular areas, including Mount Whitney, where high levels of visitor use during busy periods would continue to

adversely affect visitor solitude, and potentially affect sensitive natural resources. Natural resources such as wetlands and meadows would continue to be affected by trampling and grazing from stock use in meadows open to grazing. As this alternative does not address the existing management concerns in a proactive manner, and would not specifically ensure the protection of wilderness character, this alternative is not the environmentally preferable alternative.

Alternative 2 is similar to alternative 1 in that it provides for diversity and a variety of primitive and unconfined recreation, but it would implement additional restrictions in selected areas to preserve or better protect natural resources and the visitor experience in those areas. Management strategies implemented under this alternative would improve conditions at the most popular areas in the wilderness, protecting ecologically sensitive areas, improving the natural quality of wilderness, and enhancing opportunities for solitude. The implementation of grazing capacities and the closure of selected meadows would result in an improvement of the natural quality of wilderness, while preserving opportunities for primitive and unconfined recreation. Removing some developments also improves the natural and undeveloped qualities under this alternative. However the removal of a significant historic resource at Bearpaw Meadow results in an adverse effect on a cultural landscape. Overall, impacts on natural resources would be similar to current conditions but with some increased beneficial effects due to the implementation of management strategies in popular areas. This alternative fulfills most of the CEQ requirements, but based on the environmental analysis in chapter 4, would result in fewer environmentally beneficial effects overall than alternative 5. Therefore this alternative was not selected as the environmentally preferable alternative.

Alternative 3 would allow for increased visitor use resulting in more recreational opportunities and individual choice. It would also impose the most restrictions on visitor use wilderness-wide. Alternative 3 would result in the most new facilities and increased encounter rates, resulting in the greatest adverse impact on the wilderness qualities of undeveloped and solitude when compared with the other alternatives. Although use would be allowed to increase with increases in the quota numbers, it is likely that only the quotas to busy areas would continue to be met; therefore these effects would be limited to the most popular areas. Similar to alternative 2, this alternative removes a significant historic resource at Bearpaw Meadow resulting in an adverse effect on a cultural landscape. Alternative 3 results in adverse impacts on some natural resources including soils and alpine vegetation due to an increase in visitors, stock, and development wilderness-wide, but it also results in beneficial effects on other resources such as high-elevation long-lived trees due to reduced impacts from firewood collection. Because of the potential for increased use resulting in increased adverse effects, this alternative is not the environmentally preferable alternative.

Alternative 4 would be similar to alternative 5 in preserving and protecting natural resources. Beneficial effects on soils, water quality, vegetation (wetlands and meadows), invertebrates, and special-status species would occur due to decreases in the number of stock that would likely result because there would be no grazing wilderness wide. There would be further restrictions on commercial access. Therefore, there would be reduced opportunities for primitive and unconfined recreation, and reduced recreational diversity and variety of individual choice. This alternative is the most protective of high-elevation forests because there would be no campfires allowed wilderness-wide, enforces the greatest restrictions on Yosemite toad habitat, and has substantial beneficial effects on native plant communities. However this alternative would result in the most adverse effects on cultural and historic resources. In addition to removing a significant historic resource at Bearpaw Meadow as does alternatives 2 and 3, this alternative also removes three ranger stations that are listed or eligible for listing on the National Register resulting in an adverse effect on these cultural resources. Alternative 4 would create the most improvement in the undeveloped quality, but may result in a reduced level of wilderness management overall. When weighing the overall effects of alternative 4, it would rank as the second-most environmentally preferable alternative.

Alternative 5 supports diversity and variety of individual choice, protects solitude without degradation or other undesirable consequences, and protects wilderness character and qualities. However, alternative 5 would reduce overall opportunities for primitive recreation. By reducing overall use levels, alternative 5 does not attain the widest range of beneficial uses of the environment nor achieve a balance between population and resource use. In addition, this alternative along with the other action alternatives removes a historic resource at Bearpaw Meadow resulting in an adverse effect on a cultural landscape. Alternative 5 is similar to alternatives 3 and 4 in preserving and protecting natural resources. Beneficial effects on soils, water quality, vegetation (wetlands, meadows, and alpine), invertebrates, and special-status species would occur due to decreases in administrative and commercial stock use, reduced stock-party size, reduced trailhead quotas, and closure of some meadows to grazing. However, this alternative is not as protective of high-elevation long-lived trees as alternative 4, as campfires would continue to be allowed, and would not be as protective of meadows as alternative 4, since grazing would continue to be allowed. Alternative 5 would best fulfill the responsibilities of the NPS to select the alternative that has the least amount of impacts to the biological and physical environment; that balances the preservation and protection of natural, aesthetic, historic, and cultural resources with visitor use, therefore, it is the environmentally preferable alternative.

## **SUMMARY AND COMPARISON OF ALTERNATIVES AND IMPACTS**

This section includes tables which present more detailed comparisons of the five alternatives considered in this WSP/FEIS by wilderness management element.

### **SUMMARY TABLES**

Table 45 provides a summary of the alternatives by each wilderness management element, excluding Element 10: Frontcountry Facilities that Support Wilderness Access and Use. In addition, there are more detailed summary tables for specific elements:

- Table 46 compares trailhead quotas under each alternative (element 1).
- Tables 47a to 47f provide information on mileage of trails by class and designation for hikers and stock users under each alternative (element 2).
- Table 48 and table 49 give party-size limits for hikers and stock users under each alternative (element 6).
- Table 50 provides a comparison of stock access and grazing under each alternative (element 8).
- Table 51a and 51b provide the list of stock facilities and a comparison of these facilities between alternatives (element 8).
- Table 52 summarizes actions regarding frontcountry facilities that support wilderness under each alternative (element 10).
- Table 53 summarizes the impacts of each alternative on each resource. More detail on the alternative impacts analysis can be found in chapter 4.

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**Table 45: Summary of Alternatives by Element**

[Note: See table 52 on page 279 for Element 10: Frontcountry Facilities to Support Wilderness Access and Use]

Topic	Alternative 1 No-action / Status Quo	Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	Alternative 3 Provide More Opportunities for Primitive Recreation	Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation	Alternative 5 Emphasize Opportunities for Solitude
<b>Element 1: Visitor-use Levels</b> Permitting/Quotas <i>See comparison table 46 on page 246.</i>	Trailhead quotas exist at most locations.	Trailhead quotas would remain the same or be slightly reduced in high-use areas.	Trailhead quotas would be increased by 10% in some areas.	Daily trailhead quotas would remain the same or be slightly reduced in highest use areas compared to alternative 1. Trailhead quotas in low-use areas would be reduced from those of alternative 1.	Trailhead quotas would be reduced by 30% wilderness-wide.
<b>Element 1: Visitor-use Levels</b> Destination Quotas	Destination quotas apply for Emerald and Pear lakes.	Existing destination quotas would continue to be applied. Additional destination quotas may be added for specific areas (e.g., Bearpaw, Dusy Basin, Guitar Lake, Hamilton Lake, Monarch Lakes, Rae Lakes, and other areas).	Existing destination quotas would continue to be applied. No additional destination quotas would be added.	Existing destination quotas would continue to be applied. Additional destination quotas may be added in the future for specific areas including Bearpaw, Dusy Basin, Guitar Lake, Hamilton Lake, Monarch Lake, Rae Lakes, and potentially others.	Existing destination quotas would be discontinued. New destination quotas may be implemented for specific popular areas.
<b>Element 1: Visitor-use Levels</b> Day-use Permits and Quotas	There are no day-use permits/quotas.	No day-use permits/quotas would be implemented at this time but they may be considered in the future in the most popular areas to meet desired conditions.	No day-use permits/quotas would be implemented.	Same as alternative 2.	Day-use quotas would be applied in specific areas (e.g., Lakes Trail, Mist Falls, Monarch Lake, and potentially other areas).
<b>Element 2: Trails</b> <i>See comparison tables 47a through 47f starting on page 246. Appendix K has more details on the trail management and classification system.</i>	There is currently no trail classification system. Trails are maintained, relocated, or reconstructed per the NPS Trail Maintenance Handbook standards and the BMP and SUMMP. No new trail construction is authorized.	A trail management and classification system would be established and trails would be designated Class 1, 2 or 3 and maintained to trail class. Some Class 3 trails would be downgraded to Class 2. Some Class 2 trails would be downgraded to Class 1. New Class 1 trails would be established to protect resources; some Class 1 trails would be abandoned.	A trail management and classification system would be established and trails would be designated Class 1, 2 or 3 and maintained to trail class. Some Class 2 trails upgraded to Class 3. New Class 1 trails could be established or abandoned to protect resources. Some Class 1 trails upgraded to Class 2.	A trail management and classification system would be established and trails would be designated Class 1, 2 or 3 and maintained to trail class. Some Class 3 trails downgraded to Class 2. Most Class 2 trails would be maintained to Class 2, but some would be upgraded to Class 3 or downgraded to Class 1. Some Class 1 trails would be abandoned.	A trail management and classification system would be established and trails would be designated Class 1, 2 or 3 and maintained to trail class. Most trails would be maintained at their "current" class.
<b>Element 2: Trails</b> Signs	Trail signs with directional markers and mileages are present. Interpretive signs are generally not authorized.	Signs would be appropriate to trail class.	Same as alternative 2.	Same as alternative 2.	Same as alternative 2.
<b>Element 3: Campfire</b> Restrictions	Recreational campfires would be allowed in the foothill and montane forest areas where adequate wood supplies exist. Recreational campfires would continue to be allowed up to: 10,000 feet in the San Joaquin and Kings river drainages. 9,000 feet in the Kaweah River drainage. 10,400 feet in the Kern River drainage.	Recreational campfires would be allowed in the foothill and montane forest areas where adequate wood supplies exist. Recreational campfires would be allowed up to: 10,000 feet in the San Joaquin, Kern, and Kings River drainages. 9,000 feet in the Kaweah and Tule River drainages.	Recreational campfires would be allowed in the foothill and montane forest areas where adequate wood supplies exist. Recreational campfires would be allowed up to 9,000 feet wilderness-wide.	No campfires in wilderness.	Recreational campfires would be allowed in the foothill and montane forest areas where adequate wood supplies exist. Recreational campfires would be allowed up to 10,000 feet wilderness-wide.

**Table 45: Summary of Alternatives by Element (continued)**

[Note: See table 52 on page 279 for Element 10: Frontcountry Facilities to Support Wilderness Access and Use]

Topic	Alternative 1 No-action / Status Quo	Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	Alternative 3 Provide More Opportunities for Primitive Recreation	Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation	Alternative 5 Emphasize Opportunities for Solitude
<b>Element 3: Campfires</b> Site-specific Variations	Additional site-specific prohibitions are in place in the Kings, Kaweah, Kern, and Tule River drainages.	In areas where available wood could be burned without unduly depleting ground fuels or consuming important resources, variances could be established.  Site-specific prohibitions would be implemented at: Hamilton Lakes, Mineral King Valley, Pinto Lake, Redwood Canyon, and in selected sequoia groves.	No variances would be established.  Site-specific prohibitions would be implemented in the most popular areas (e.g., PCT/JMT, Rae Lakes Loop, HST, Mineral King Valley, and Rock Creek drainage) and in selected sequoia groves.	N/A: No campfires in wilderness.	No variances would be established.  Site-specific prohibitions would be implemented in selected sequoia groves.
<b>Element 3: Campfires</b> Summary	Allows recreational campfires in 398,829 acres of 837,806 acres of wilderness.	Allows recreational campfires in 395,710 acres of 837,806 acres of wilderness.	Allows recreational campfires in 293,840 acres of 837,806 acres of wilderness.	Allows recreational campfires in 0 acres of wilderness.	Allows recreational campfires in 425,276 acres of 837,806 acres of wilderness.
<b>Element 4: Food-storage</b> Food-storage Boxes	There are 86 food-storage boxes currently in wilderness and these would remain.	Of the existing 86 food-storage boxes, 48 would be retained and 26 would be removed. An additional 13 food-storage boxes would be tested prior to removal.  Food-storage boxes would be retained in highest use areas (e.g., Rae Lakes Loop, HST). Some boxes could be relocated.	Existing food-storage boxes would be retained; however, they may be relocated.  Up to 35 new food-storage boxes would be added in key areas.	All food-storage boxes would be removed.	Same as alternative 4.
<b>Element 4: Food-storage</b> Portable Container Requirements	Portable food-storage containers are required for overnight use at Rae Lakes Loop and vicinity, Dusy and Palisades basins, and in the Rock Creek area.	Portable containers would be required for overnight use at North Dome, Dusy Basin, Rae Lakes Loop and Rock Creek areas, and may be required in other areas.	Existing portable container requirements would be modified based on the locations of additional food-storage boxes.  Additional portable container requirements would be implemented in specific areas as needs arise.	Portable containers would be required for all overnight users wilderness-wide.	The NPS would retain the ability to require portable containers in specific areas.
<b>Element 4: Food-storage</b> Requirements – Commercial Guides	Commercial guides (stock and hiking) are required to use portable containers wilderness-wide (CUA condition).	Same as alternative 1.	Same as alternative 1.	Same as alternative 1.	Same as alternative 1.
<b>Element 4: Food-storage</b> Other Methods	Counterbalancing and hanging food is allowed.  Guarding food items is not allowed.	Counterbalancing and hanging would be allowed in areas where containers are not required.  Guarding food items is not allowed.	Same as alternative 2.	Counterbalancing and hanging and guarding food items would not be allowed.	Self-determined food-storage methods would be required (counterbalancing and hanging food or portable containers).  Guarding food items would not be allowed.
<b>Element 5: Human Waste</b> Cat-holes	Cat-holes are required where there are no privies/restrooms.	Same as alternative 1.	Cat-holes would be required where there are no privies/restrooms except in areas where pack-out waste kits are required.	Cat-holes would be required (except in areas with pack-out waste kit requirements).	Cat-holes would be required in all areas. Visitors may elect to use pack-out waste kits.

**Table 45: Summary of Alternatives by Element (continued)**

[Note: See table 52 on page 279 for Element 10: Frontcountry Facilities to Support Wilderness Access and Use]

Topic	Alternative 1 No-action / Status Quo	Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	Alternative 3 Provide More Opportunities for Primitive Recreation	Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation	Alternative 5 Emphasize Opportunities for Solitude
<b>Element 5: Human Waste</b> Privies and Restrooms	There are two restrooms and 21 privies in wilderness.	Existing privies and restrooms (Emerald and Pear lakes) would be evaluated and those beyond reasonable repair or in unsuitable locations (low-use, close-in areas, where soils allow for cat-holes) would be removed.  Nine public-use privies would be retained; seven public-use privies would be removed; one public-use privy would be added at Rock Creek Crossing.  New privies would be considered for high day-use areas.  Five additional privies/restroom buildings could be removed if maintaining them becomes cost prohibitive or if pack-out waste kit testing is successful.	All existing privies and restrooms would be retained.  New privies would be considered for popular day-use areas (e.g., Heather Lake) and popular overnight areas.	All existing privies and restrooms would be removed (including Emerald and Pear Lake restrooms), except those affiliated with administrative structures.  No new privies, vault toilets, or restrooms would be constructed.	Same as alternative 4.
<b>Element 5: Human Waste</b> Pack-out Waste Kits	Pack-out waste kits are highly recommended in the Mount Whitney area.	Pack-out waste kits may be required in certain areas to minimize the need for privies and restrooms.	Pack-out waste kits would be required in the Mount Whitney area. Existing privies would remain and be maintained in their current locations.	Pack-out waste kits would be recommended or required in popular areas.	Pack-out waste kits would be recommended in certain areas.
<b>Element 6: Party Size</b> Hikers and Boaters <i>See comparison table 48 on page 264.</i> <i>Note: Off-trail restrictions apply to both day users and overnight users.</i>	On-trail (day use) party size limit of 25 On-trail (overnight use) party size limit of 15. Off-trail party size limit of 15.	On-trail (day use) party size limit of 25 On-trail (overnight use) party size limit of 15. Off-trail party size limit of 12 (day use and overnight use) except in areas with specific lower limits (see below).	On-trail (day use) party size limit of 25 On-trail (overnight use) party size limit of 15. Off-trail party size limit of 15 (day use and overnight use).	On-trail (day use) party size limit of 25 On-trail (overnight use) party size limit of 12. Off-trail party size limit of 8. (day use and overnight use)	On-trail (day-use) party size limit of 20. On-trail (overnight use) party size limit of 10. Off-trail party size limit of 8.
<b>Element 6: Party Size</b> Recreational Stock Users <i>See comparison table 49 on page 265.</i> <i>Note: Off-trail restrictions apply to both day users and overnight users.</i>	Maximum party sizes include: On-trail (day-use) – (including day rides, spot and dunnage) – 25 people; 20 stock; combined maximum of 45. On-trail – 15 people; 20 stock; combined maximum of 35 (with some lower exceptions). Off-trail – 15 people; 20 stock; combined maximum of 35.	Maximum party sizes include: Day Rides – 20 people; 20 stock; combined maximum 40. On-trail – 15 people; 20 stock; combined maximum 28. Off-trail – 12 people; 12 stock; combined maximum 14.	Maximum party sizes include: Day Rides – 25 people; 25 stock; combined maximum 50. On-trail – 15 people, 25 stock; combined maximum 40. Off-trail – 15 people; 25 stock; combined maximum 40.	Maximum party sizes include: Day Rides – 15 people; 15 stock; combined maximum 30. On-trail – 12 people; 15 stock; combined maximum 20. Off-trail – 8 people; 7 stock; combined maximum 11.	Maximum party sizes include: Day Rides – 13 people; 13 stock; combined maximum 26. On-trail – 10 people; 13 stock; combined maximum 18. Off-trail – No off-trail stock use allowed.

**Table 45: Summary of Alternatives by Element (continued)**

[Note: See table 52 on page 279 for Element 10: Frontcountry Facilities to Support Wilderness Access and Use]

Topic	Alternative 1 No-action / Status Quo	Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	Alternative 3 Provide More Opportunities for Primitive Recreation	Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation	Alternative 5 Emphasize Opportunities for Solitude
<b>Element 6: Party Size</b> Area-specific Restrictions <i>See comparison tables 48 and 49 on pages 264 and 265.</i>	Temporary party-size limits of 8 (number of people and stock combined) in five off-trail areas (Darwin Canyon, Dusy Basin, Mount Whitney / Mount Langley, Sixty Lake Basin, and Sphinx Lakes).	Existing off-trail temporary party-size limits of 8 would be adopted permanently at Darwin Canyon/Lamarck Col (includes Class 1 trail area), Dusy Basin, Mount Whitney / Mount Langley (includes Class 1 trail area), Sixty Lake Basin, and Sphinx Lakes. Upper Goddard Canyon/Martha Lake would have a party-size limit consistent with the off-trail party size (12 people, 12 stock, combined maximum of 14). Combined party size of 8 (people and stock) for day rides into Sixty Lake Basin. Trail closed to stock beyond a point 1.8 miles from the junction of the JMT and the Sixty Lake Basin Trail. Combined party size of 8 (people and stock) for day rides above Penned Up Meadow on the Class 1 trail into Miter Basin.	Existing temporary party-size limits would be removed (party size of 8). A party-size limit of 4 would be implemented for camping at North Dome.	Existing temporary party-size limits would be removed and replaced with a wilderness-wide off-trail party size of 8.	Existing temporary party-size limits would be removed and replaced with a wilderness-wide off-trail party size of 8. Consider more restrictive party size for day-use in specific highly visited areas (Lakes Trails, Mist Falls, Monarch Lake, and potentially other areas).
<b>Element 6: Party Size – General</b> Area-specific Restrictions – Redwood Canyon	Redwood Canyon: maximum of 10 stock and maximum hiker party size of 10 people.	A party-size limit of 10 people or 10 people with 10 stock (combined maximum of 20) would be retained for Redwood Canyon.	A party-size limit of 10 people or 10 people with 10 stock (combined maximum of 20) would be retained for Redwood Canyon.	A party-size limit of 8 people or 8 people with 8 stock (combined maximum of 16) would be implemented for Redwood Canyon.	A party-size limit of 6 people or 6 people with 6 stock (combined maximum of 12) would be implemented for Redwood Canyon.
<b>Element 6: Party Size – General</b> Area-specific Restrictions – Milestone Basin	Milestone Basin maximum of 8 stock, by special permit only.	N/A: Closed to stock.	Same as alternative 1.	N/A: Closed to stock	N/A: Closed to stock.
<b>Element 7: Camping/Campsites</b> Allowable camping relative to wilderness boundary or trailhead – <i>See first allowable campsite tables 8, 9, and 19 on pages 68, 69, and 116.</i>	Camping would continue to be prohibited within 1 mile of any road and generally within 4 miles of a developed area or trailhead complex.	Camping would be prohibited within specified distances from each trailhead and 1 mile from any frontcountry development.	Same as alternative 2.	Same as alternative 2.	Same as alternative 2.
<b>Element 7: Camping/Campsites</b> Close-in Camping Areas	None	Allow camping in specific close-in areas (e.g., Colony Mill Trail, Don Cecil Trail, and North Dome).	Same as alternative 2.	No camping in specific close-in areas (e.g., within 2 miles of either trailhead on the Colony Mill Trail; on the entire Don Cecil Trail).	Same as alternative 2.
<b>Element 7: Camping/Campsites</b> Existing Designated Campsites	Designated camp area exists at Bearpaw Meadow and designated campsites exist at Emerald and Pear lakes and Paradise Valley.	Existing designated sites at Emerald and Pear lakes, lower Paradise Valley, and the designated camp area at Bearpaw Meadow would be retained.	Same as alternative 2.	All existing designated sites at Emerald and Pear lakes, Paradise Valley, and the camp area at Bearpaw Meadow would be removed.	Existing designated sites at Emerald and Pear lakes, Paradise Valley, and the camp area at Bearpaw Meadow would be removed.
<b>Element 7: Camping/Campsites</b> New Designated Campsites	No additional designated campsites would be established.	Additional designated sites or camp areas could be established at selected high-use areas, including but not limited to: Dusy Basin, Guitar Lake, Kearsarge Lakes Basin, Middle and Upper Rae Lakes, and Woods Creek Crossing.	Additional designated sites would be established in selected popular areas, including but not limited to Dusy Basin, Evolution Valley, Guitar Lake, JMT, Kearsarge Lakes Basin, Middle and Upper Rae Lakes, Mineral King Lake Basins, PCT, Redwood Canyon, and Woods Creek Crossing.	No new designated sites would be established at this time.	Same as alternative 4.

**Table 45: Summary of Alternatives by Element (continued)**

[Note: See table 52 on page 279 for Element 10: Frontcountry Facilities to Support Wilderness Access and Use]

Topic	Alternative 1 No-action / Status Quo	Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	Alternative 3 Provide More Opportunities for Primitive Recreation	Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation	Alternative 5 Emphasize Opportunities for Solitude
<b>Element 7: Camping/Campsites</b> Universally Accessible Sites	None	One or more universally accessible campsites closer to the trailhead would be considered (Potential location to consider – near the confluence of Bubbs Creek and South Fork Kings River).	Same as alternative 2.	None	None
<b>Element 7: Camping/Campsites</b> Stock Users	No camps would be designated for the exclusive use of stock users with the exception of Upper and Lower Funston Meadows. No other camps are designated for the exclusive use of stock users.	In specific high-use locations, stock users may be required to camp in designated stock camps (e.g., Big Pete Meadow, Rock Creek Crossing, and Woods Creek Crossing). These sites would be stock user only camps.  Upper and Lower Funston would no longer be designated stock camps.	In specific, high-use locations, stock users may be required to camp in designated stock camps. These sites would be stock user only camps.	There would be no designated stock camps.	Same as alternative 4.
<b>Element 7: Camping/Campsites</b> Night Limits	Visitors are limited to 14 consecutive nights at a single location, 21 consecutive nights per trip, and 63 total nights per year except for the specific areas below.	Visitors would be limited to 14 consecutive nights at a single location, 25 consecutive nights per trip, and 75 total nights per year except for the specific areas below.	Visitors would be limited to 7 consecutive nights at a single location, 20 consecutive nights per trip, and 60 total nights per year except for the specific areas below.	Visitors would be limited to 10 consecutive nights at a single location, 21 consecutive nights per trip, and 63 total nights per year except for the specific areas below.	Visitors would be limited to 10 consecutive nights at a single location, 21 consecutive nights per trip, and 63 consecutive nights per year except for the specific areas below.
<b>Element 7: Camping/Campsites</b> Area-specific Night Limits	2-night limit at Charlotte Lake, Hamilton Lake, Kearsarge Lakes, Paradise Valley, and Redwood Canyon.  1-night limit at Rae Lakes, per lake.	3-night limit at Emerald and Pear lakes (combined) and at Soldier Lake.  2-night limits at Charlotte Lake, Colony Mill Trail, Crabtree area, Don Cecil Trail, Dusy Basin, Guitar Lake, the JMT from Woods Creek Crossing to Vidette Meadow, Kearsarge Lakes Basin, North Dome, Paradise Valley, and Redwood Canyon.  1-night limit at Hamilton Lake and 1-night limit per lake at Rae Lakes.	2-night limit at Charlotte Lake, Colony Mill Trail, Crabtree area, Don Cecil Trail, Dusy Basin, Emerald and Pear lakes (combined), Guitar Lake, Hamilton Lake, Kearsarge Lakes Basin, North Dome, Paradise Valley, Redwood Canyon, and Soldier Lake.  1-night limit per lake at Rae Lakes, at any one location on the JMT between Vidette Meadow and Woods Creek Crossing.	4-night limit at Crabtree area and Soldier Lake.  3-night limit at Charlotte Lake, Colony Mill Trail, Emerald and Pear lakes (combined), Guitar Lake, the JMT from Woods Creek Crossing to Vidette Meadow (at any one location), North Dome, and Redwood Canyon.  2-night limits at Dusy Basin, Hamilton Lake, Kearsarge Lakes Basin, Paradise Valley, and Rae Lakes (per lake).	4-night limits at Colony Mill Trail, Crabtree area, Guitar Lake, and the JMT from Woods Creek Crossing to Vidette Meadow.  3-night limits at Don Cecil Trail, Dusy Basin, Emerald and Pear lakes (combined), Kearsarge Lakes Basin (combined), Paradise Valley (whole valley), Redwood Canyon, and Rae Lakes (per lake).  2-night limit at Hamilton Lake.
<b>Element 8: Stock Use</b> Access and Travel On-trail <i>See tables 47a through 47f starting on page 246 for specific trail mileages.</i>	<u>On-trail:</u> Currently nearly all maintained wilderness trails in the parks are open to stock (637 of 653 miles). Stock travel is also permitted on 77 miles of informal and abandoned trails.  (Note: Not all trails open to stock are maintained to stock standards)	<u>On-trail:</u> Stock travel would be allowed on 650 of 691 miles of maintained trails.	<u>On-trail:</u> Stock travel would be allowed on 671 of 714 miles of maintained trails.	<u>On-trail:</u> Stock travel would be allowed on 527 of 643 miles of maintained trails.	<u>On-trail:</u> Stock travel would be allowed on 665 of 702 miles of maintained trails.
<b>Element 8: Stock Use</b> Access and Travel On-trail Camping Access	Approximately 598 miles of maintained and unmaintained trails are open to camping with stock.	Approximately 530 miles of maintained trails would be open to camping with stock.	Approximately 565 miles of maintained trails would be open to camping with stock.	Approximately 377 miles of maintained trails would be open to camping with stock, by all user groups (private, commercial, and administrative) with an additional 72 miles of maintained trails open to overnight travel by private stock or administrative stock parties only (closed or day-use only for commercial stock).	Approximately 555 miles of maintained trails would be open to camping with stock.

**Table 45: Summary of Alternatives by Element (continued)**

[Note: See table 52 on page 279 for Element 10: Frontcountry Facilities to Support Wilderness Access and Use]

Topic	Alternative 1 No-action / Status Quo	Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	Alternative 3 Provide More Opportunities for Primitive Recreation	Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation	Alternative 5 Emphasize Opportunities for Solitude
<b>Element 8: Stock Use</b> Access and Travel Off-trail	<u>Off-trail:</u> Travel more than 0.5 mile from trails open to camping with stock is allowed in four areas of the parks: on the Hockett Plateau, along the western side of the Kern River watershed south from the Chagoopa Plateau, on the Monarch Divide including Hotel Creek, and in the Roaring River area. Travel is allowed up to 0.5 mile from trails and routes to reach campsites.	<u>Off-trail:</u> Travel more than 0.5 mile from trails open to camping with stock would be allowed in four areas of the parks: on the Monarch Divide, in the Roaring River area, on the Hockett Plateau, and along the western side of the Kern River watershed south from the Chagoopa Plateau. In other areas open to camping with stock, travel would be allowed up to 0.5 mile from trails and routes in areas where they are allowed to camp and up to 100 yards from day-use trails.	<u>Off-trail:</u> Travel more than 0.5 mile from trails open to camping with stock would be allowed in four areas of the parks: on the Monarch Divide, in the Roaring River area, on the Hockett Plateau, and along the western side of the Kern River watershed south from the Chagoopa Plateau. In other areas open to camping with stock, travel would be allowed up to 0.5 mile from trails and routes in areas where they are allowed to camp and up to 100 yards from day-use trails.	<u>Off-trail:</u> Travel more than 0.5 mile from maintained trails open to camping with stock would be allowed for private stock parties in four areas of the parks: on the Hockett Plateau (except for Tar Gap), on the Monarch Divide (except for Kennedy Canyon), in the Roaring River drainage (except for Elizabeth and Colby passes), and along the western side of the Kern River watershed south from the Chagoopa Plateau (except for Lower Big Arroyo and Willow Meadow Cutoff). In other areas open to camping with stock, travel would be allowed up to 0.5 mile from trails and routes in areas where they are allowed to camp, and up to 100 yards from day-use trails.	<u>Off-trail:</u> Travel more than 0.5 mile from trails open to camping with stock would be prohibited. In areas open to camping with stock, travel would be allowed up to 0.5 mile from trails and routes in areas where they are allowed to camp. Stock would be allowed to travel up to 100 yards from day-use trails.
<b>Element 8: Stock Use</b> Grazing <i>See table 17 on page 114 for more specific information</i>	Grazing is generally allowed in areas open to camping with stock (within 0.5 mile of maintained trails open to camping with stock, along designated unmaintained routes, or in off-trail travel areas). Grazing is not allowed in those areas open only to travel.	Grazing would generally be allowed in areas open to camping with stock (within 0.5 mile of maintained trails open to camping with stock or in off-trail travel areas). Grazing would not be allowed in those areas open only to travel.	Grazing would generally be allowed within 0.5 mile of maintained trails open to camping with stock. Grazing would generally be prohibited in areas open to off-trail travel with the following exceptions: Ansel Lake, Chagoopa Treehouse Meadow, Crytes Lakes, Laurel Creek Basin, Long Meadow (Ferguson Creek), Sugarloaf Creek Confluence, and West Fork Ferguson Creek. Grazing would not be allowed in those areas open only to travel.	No administrative, private, or commercial grazing would be allowed. Visitors and park staff traveling with stock would be required to carry feed for their animals and confine them on durable non-vegetated surfaces in camp.	Grazing would generally be allowed within 0.5 mile of maintained trails open to camping with stock. Grazing would not be allowed in those areas open only to travel.
<b>Element 8: Stock Use</b> Stock Use Structures	There are 52 existing hitch rails and 54 existing drift fences, pasture fences, and gates in the parks' wilderness managed under the SUMMP.	23 hitch rails would be removed and 29 hitch rails would be retained. 12 fences/gates would be removed and 42 would be retained.	14 hitch rails would be removed and 38 would be retained. 5 fences/gates would be removed, 49 would be retained, and 1 new fence with a gate would be constructed.	All hitch rails not associated with administrative facilities would be removed. All drift fences and gates would be removed. Groups traveling with stock would be required to hold their stock while camping (e.g., set up high lines) on durable, non-vegetated surfaces.	28 hitch rails would be removed and 24 would be retained. A total of 18 fences and gates would be removed, 36 fences/gates would be retained, and 1 gate would be added.
<b>Element 9: Administrative Structures</b> Ranger Stations	Ranger Stations: 15 Patrol Cabins: 3	<u>Ranger Stations:</u> Retained: 14 Removed: 1 <u>Patrol Cabins:</u> Retained: 3 Removed: 0	<u>Ranger Stations:</u> Retained: 15 Removed: 0 <u>Patrol Cabins:</u> Retained: 3 Removed: 0	<u>Ranger Stations:</u> Retained: 8 Removed: 7 <u>Patrol Cabins:</u> Retained: 1 Removed: 2	<u>Ranger Stations:</u> Retained: 11 Removed: 4 <u>Patrol Cabins:</u> Retained: 3 Removed: 0

**Table 45: Summary of Alternatives by Element (continued)**

[Note: See table 52 on page 279 for Element 10: Frontcountry Facilities to Support Wilderness Access and Use]

Topic	Alternative 1 No-action / Status Quo	Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	Alternative 3 Provide More Opportunities for Primitive Recreation	Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation	Alternative 5 Emphasize Opportunities for Solitude
<b>Element 9: Administrative Structures</b> Administrative Pastures	Stock pastures associated with ranger stations are located at Hockett Meadow, Kern, Redwood Meadow, and Roaring River. Facilities such as hitching rails are associated with structures at Hockett Meadow, Quinn, and Redwood Meadow.	Existing administrative pastures and associated structures would be retained in their current location (Hockett Meadow, Kern, Redwood Meadow, and Roaring River).	Same as alternative 2.	Existing administrative pastures and associated facilities would be removed (Hockett Meadow, Kern, Redwood Meadow, and Roaring River).	The existing administrative pasture (and fence) at Redwood Meadow would be removed. The Hockett Meadow and Kern pastures would be reduced in size. The administrative pasture at Roaring River would be retained.
<b>Element 9: Administrative Structures</b> Crew Camps	There would continue to be 15 established and long-term trail crew camps within Kings Canyon National Park and 10 established and long-term trail crew camps within Sequoia National Park.  Other project crew camps (for administration of wilderness) would continue to be established as needed on case-by-case basis.	Existing trail crew camps would be retained, but the number of installations would be reduced to 1 at each camp.  Other project crew camps would be established as needed on case-by-case basis.	The number of trail crew camps in Kings Canyon National Park would be increased to 20. The number of trail crew camps in Sequoia National Park would be increased to 15.  Other project crew camps (for administration of wilderness) would be established as needed on case-by-case basis.	Trail crews would conduct trail maintenance through use of mobile operations; there would be no long-term established camps. Short-term project crew camps (for administration of wilderness) would be established as needed on case-by-case basis.	Same as alternative 4.
<b>Element 9: Administrative Structures</b> Other Administrative Facilities	The Redwood Canyon Cabin and associated infrastructure is operated under a Memorandum of Understanding with a non-governmental organization for the purposes of research.	Use of the Redwood Canyon Cabin would be authorized by permit for activities appropriate for the administration of wilderness. The footprint of the facility would be reduced and the external installations (e.g., privy, equipment storage boxes, woodshed) would be removed.	The Redwood Canyon Cabin would be retained as research support with reduced affiliated infrastructure. Use would include park staff, cooperators, research organizations, and universities (non-park staff would be required to obtain a permit).  The supporting infrastructure (e.g., water system, tables, etc.) would be removed, and the area rehabilitated.	Use of the Redwood Canyon Cabin by researchers would be terminated within 1 year of WSP approval. The cabin and all associated installations would be removed over a two-year period after WSP approval. Future research activities in Redwood Canyon could continue, but without the use of the cabin or associated permanent infrastructure.	Use of the Redwood Canyon Cabin by researchers would be terminated within two years of WSP approval. The cabin and all associated installations would be removed within three years of WSP approval. Future research activities in Redwood Canyon could continue but without the use of a permanent structure.
<b>Element 10: Frontcountry Facilities</b> <i>Refer to table 52 on page 279 for details.</i>					
<b>Element 11: Commercial Services in Wilderness</b> <i>See appendix B</i>	Commercial service levels and types would continue to be managed to provide high-quality visitor experiences while protecting wilderness resources.	Commercial services would be allowed but would be restricted in specific popular areas and areas with other limiting factors (e.g., Mount Whitney Management Area)	There would be increased opportunities for provision of commercial services (types and use levels of services).	Overall the types, levels, and areas in which commercial services are allowed would be notably reduced compared to alternative 1.	Overall the types, levels, and areas in which commercial services are allowed would be reduced commensurate with reduced use.
<b>Element 11: Commercial Services in Wilderness</b> Bearpaw Meadow High Sierra Camp	The Bearpaw Meadow High Sierra Camp would continue to be operated by a concessioner of the parks.	Commercial services would be provided at the Bearpaw Meadow High Sierra Camp as in alternative 1.	The Bearpaw Meadow High Sierra Camp would be retained and would continue to be operated by a concessioner. Some expansion (season of use and/or size of facilities) would be considered provided it can be accomplished within the existing footprint and would not cause additional adverse impacts on resources.	The Bearpaw Meadow High Sierra Camp, including any historic elements, would be removed and the area rehabilitated.	The Bearpaw Meadow High Sierra Camp would be reduced in size and its season of operation would be shortened.
<b>Element 11: Commercial Services in Wilderness</b> Pear Lake Ski Hut	The Pear Lake Ski Hut would continue to be operated during winter months as a ski hut (lodging facility) by a cooperating association under a cooperative agreement.	Commercial services would be provided at the Pear Lake Ski Hut as in alternative 1.	Use of the Pear Lake Ski Hut would continue through a cooperating association or as a concession-operated facility.	Use of Pear Lake Ski Hut would be discontinued.	Use of Pear Lake Ski Hut would be discontinued.

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## COMPARISON OF ALTERNATIVES BY SELECTED KEY ELEMENTS

The following tables provide a detailed comparison of selected key elements of the alternatives, including Element 1: Visitor-use levels — Permits and Quotas; Element 2: Trails (specifically trail length by class and use); Element 6: Party Size; and Element 11: Frontcountry Facilities to Support Wilderness Access and Use.

### Element 1: Visitor-use Levels

**Table 46: Trailhead Quotas by Alternative**

Trailhead Name	Use Level*	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Lewis & Hotel Creeks	L	25	25	27	15	10
Copper Creek	H	20	20	22	20	14
Woods Creek/Paradise	H	25	25	27	25	18
Bubbs Creek	H	25	25	27	25	18
Summit Meadow (Don Cecil)	L	No camping	8	10	No camping	4
Don Cecil (Cedar Grove)	L	No camping	8	10	No camping	4
Redwood Canyon	H	15	15	17	15	11
Sugarloaf	H	25	25	27	25	18
Belle Canyon	L	25	25	27	15	10
J.O. Pass	L	15	15	17	12	10
Twin Lakes	H	30	30	32	30	21
Lakes Trail (destination quota – per lake – Emerald and Pear)	H	25	25	27	25	18
Wolverton/Alta	H	25	25	27	25	18
Bearpaw Meadow High Sierra Camp (18 pillow limit)	H	No quota	18	18	Camp closed	13
HST	H	30	30	32	30	21
North Fork Kaweah	L	No quota	15	17	12	10
Colony Mill Rd. (E)	L	No quota	8	10	8	4
Colony Mill Rd. (W)	L	No quota	8	10	8	4
Middle Fork Kaweah	L	25	25	27	15	10
Paradise Ridge	L	15	15	17	12	10
Atwell	L	25	25	27	15	10
Timber Gap	H	25	25	27	25	18
Sawtooth/Glacier	H	20	20	22	20	14
Tar Gap	L	25	25	27	15	10
Mosquito	L	25	25	27	15	10

**Table 46: Trailhead Quotas by Alternative (continued)**

Trailhead Name	Use Level*	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Eagle	H	20	20	22	20	14
White Chief	L	25	25	27	15	10
Franklin	H	30	30	32	30	21
Franklin-Farewell	L	No quota	15	17	12	10
Ladybug	L	15	15	17	12	10
Garfield	L	15	15	17	12	10

\*Use Levels are defined as H (high) or L (low: places with 10 or fewer people [overnight permits] on average during busy season).

**Element 2: Trails**

**Table 47a: Summary Miles of Trails by Class and Stock Use Regulations under Alternative 1**

Stock Access Allowed	Unmaintained	Maintained	Total
Open to camping	60.8	520.8	581.7
Open to camping by special permit	1.4	0.5	1.9
Open to camping by walking parties with burros or llamas; travel only for parties with horses or mules	3.3	11.5	14.7
Open to travel only	11.1	104.3	115.3
Closed to stock travel		15.7	15.7

**Table 47b: Miles of Trails by Class and Stock Use Regulations under Alternative 2**

Stock Access Allowed	Class 1	Class 2	Class 3	Total
Open to camping	74.8	232.4	219.2	530.3
Open to camping by walking parties with burros or llamas; travel only for parties with horses or mules		0.9	2.8	3.7
Open to travel only	13.0	43.2	63.6	118.4
Closed to stock travel	18.9	12.5	9.2	40.7

**Table 47c: Miles of Trails by Class and Stock Use Regulations under Alternative 3**

Stock Access Allowed	Class 1	Class 2	Class 3	Total
Open to camping	18.0	132.3	411.7	562.0
Open to camping by special permit	2.6			2.6
Open to travel only	12.6	11.8	82.0	106.4
Closed to stock travel	24.2		18.7	42.8

**Table 47d: Miles of Trails by Class and Stock Use Regulations under Alternative 4**

Stock Access Allowed	Class 1	Class 2	Class 3	Total
Open to camping	2.6	183.1	190.9	376.6
Open to camping by private and administrative; travel only commercial		0.5	15.6	16.1
Open to camping by private and administrative; closed commercial	45.4	2.6	7.8	55.9
Closed to commercial; travel only private and administrative	6.6	6.2	4.4	17.1
Open to travel only	0.2	22.3	38.8	61.3
Closed to stock travel	60.4	41.7	14.1	116.1

**Table 47e: Miles of Trails by Class and Stock Use Regulations under Alternative 5**

Stock Access Allowed	Class 1	Class 2	Class 3	Total
Open to camping	56.5	198.8	298.2	553.6
Open to camping by walking parties with burros or llamas; travel only for parties with horses or mules		0.9		0.9
Open to travel only	11.9	24.4	73.7	110.0
Closed to stock travel	15.5	3.2	18.6	37.2

The following table includes a listing of the wilderness trail segments in the parks, showing the trail class and design use for each segment. For alternative 1, the trail class listed reflects the trail development level as it existed on the ground as of 2013. The “Trail Name” is a unique name given to each trail segment, and is not necessarily the most commonly used name for that segment. For instance, “Rae Lakes” is part of the PCT, the JMT, and the Rae Lakes Loop, and is also often called Glen Pass. The segment names were chosen to avoid double-naming. To clarify what a given name refers to, beginning and end points are referenced. The table is organized by major river drainage, then alphabetically by trail name.

In table 47f, the classification for each trail segment is included, as is the type of use allowed. “Stock” refers to trails open to all uses, including stock. “Hiking” refers to trails where only hiking is allowed (no stock). “Mixed” means that portions of the trail may be open to all uses, but portions are open for hiking only. Note that the table use does not fully describe use restrictions on the trail. For example, a hiking trail may also be day use only, or a stock trail may be burros and llamas only.

Table 47f: Trail Classification and Design Use for All Alternatives

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
<b>EAST FORK KAWEAH WATERSHED</b>								
Aspen Flat	0.40	Crystal Creek	Aspen Flat	3 Stock				
Atwell-Hockett	9.74	Atwell Campground	Hockett Meadow	3 Stock				
Cahoon Rock	2.58	Hockett Meadow Junction	Cahoon Rock	1,2 Stock	1,2 Stock	2,3 Stock	1,2 Stock	1,2 Stock
Eagle Lake	1.41	Eagle-Mosquito Junction	Eagle Lake	2 Stock	2 Stock	3 Stock	2 Hiking	2 Stock
Eagle-Mosquito Lakes	0.93	White Chief Jct	Eagle-Mosquito Junction	2 Stock	2 Stock	3 Stock	2 Hiking	2 Stock
Evelyn Lake	1.05	Cahoon Rock Jct	Evelyn Lake	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Farewell Gap	2.65	Franklin Pass Junction	Farewell Gap	3 Stock				
Farewell/Franklin Lakes	2.65	Aspen Flat Junction	Franklin Pass Junction	3 Stock				
Franklin Pass - Franklin Lakes	4.78	Franklin Pass Junction	Franklin Pass	3 Hiking	3 Stock	3 Stock	3 Stock	3 Stock
Hockett-Sand Meadow	0.85	Hockett Mdw	Sand Meadow Junction	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Mineral King Valley	0.41	Disney Prkg-road end trailhead	Aspen Flat Junction	3 Stock				
Monarch Lakes	3.33	Timber Gap Jct	Lower Monarch Lake	3 Stock	2 Hiking	3 Hiking	2 Hiking	3 Hiking
Mosquito Lakes	1.58	Eagle-Mosquito Junction	Mosquito Lakes	2 Stock	2 Stock	3 Stock	2 Hiking	2 Stock
Paradise Ridge	3.31	Atwell Mill CG Trailhead	Top of Paradise Ridge	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Sawtooth Pass West	1.51	Monarch Lakes	Sawtooth Pass	Informal	1 Hiking	1 Hiking	1 Hiking	1 Hiking

Table 47f: Trail Classification and Design Use for All Alternatives (continued)

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Tar Gap	6.95	Trailhead Cold Springs CG	Atwell Hockett trail	2 Stock	2 Stock	3 Stock	2 Hiking	3 Stock
Timber Gap	1.02	Sawtooth Prkg Trailhead	Timber Gap	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
White Chief	2.41	Disney Prkg-road end trailhead	White Chief	2 Stock	2 Stock	3 Stock	2 Hiking	2 Stock
<b>KERN WATERSHED</b>								
Big Five-Little Five Lakes	4.38	Lost Canyon	Little Five Lakes	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Bighorn Plateau	4.14	Tyndall Creek	Wallace Creek	3 Stock				
Blackrock Pass - Little Five Lakes	1.58	Little Five Lakes	Blackrock Pass	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Chagoopa Plateau	11.00	Big Arroyo Patrol Cabin	Upper Funston Mdw	3 Stock				
Cottonwood Pass	5.00	Rock Creek Junction	Park Boundary	2 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Coyote Lake	2.22	Coyote Pass/Coyote Lakes Junction	Park Boundary	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Coyote Pass	5.31	Kern Station	Coyote Pass	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Crabtree - Rock Creek	3.30	Lower Crabtree Mdw	Rock Creek	3 Stock				
Crabtree Lakes	1.78	Lower Crabtree Mdw	Crabtree Lakes	2 Stock	1 Stock	2 Stock	Abandon	2 Stock
Crabtree Sand Flats	0.80	Crabtree Sand Flats	Crabtree Ranger Station Jct	3 Stock				
Forester Pass South	5.02	Forester Pass	Tyndall Creek	3 Stock				
Forgotten Creek	3.46	Siberian Pass Creek	Funston Lake	Unmaint	Abandon	Abandon	Abandon	Abandon

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Franklin Pass - Upper Rattlesnake	2.44	Forester Lake Junction	Franklin Pass	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Funston Lake	5.10	Siberian Pass	Funston Lake	Unmaint	1 Stock	1 Stock	1 Stock	1 Stock
John Dean Cutoff	2.54	Upper Kern	Tyndall Ranger Station	Unmaint	1 Stock	1 Stock	Abandon	1 Stock
Kern Canyon	9.37	Upper Funston	Junction Meadow (Kern)	3 Stock				
Kern Kaweah	7.82	Junction Meadow (Kern)	Colby Pass	2 Stock	2 Stock	2 Stock	1 Hiking	2 Stock
Lake South America	5.34	Tyndall Cutoff	Upper Kern Canyon	1 Stock	1 Stock	2 Stock	Abandon	2 Stock
Little Five - Big Arroyo	2.64	Little Five Lakes	Big Arroyo Patrol Cabin	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Lost Canyon	5.12	Soda Creek	Columbine Lake	2 Stock	2 Stock	3 Stock	1-2 Mixed	2-3 Stock
Lower Big Arroyo	6.14	Big Arroyo Patrol Cabin and HST jct	Soda Creek/Willow Meadow Junction	1 Stock	Abandon	Abandon	Abandon	Abandon
Lower Crabtree	0.67	Crabtree Sand Flats	Lower Crabtree Meadow	3 Stock				
Lower Kern	8.52	South Boundary of Kern Station	HST at Upper Funston Meadow	3 Stock	3 Stock	3 Stock	2 Stock	3 Stock
Lower Kern Bridge	0.26	Lower Kern RS	Kern Bridge	3 Stock	3 Stock	3 Stock	2 Stock	3 Stock
Lower Rattlesnake	7.77	Jct of Kern Trail	Forester Lake Junction	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Lower to Upper Crabtree Meadows	1.09	Crabtree Ranger Station	Lower Crabtree Mdw	3 Stock				
Lower Whitney Creek Use	0.75	Lower Crabtree Mdw	Lower Whitney Creek	2 Stock				
Milestone Basin	0.50	Upper Kern Jct	Milestone Basin	2 Stock	Abandon	1 Stock	Abandon	Abandon

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Miter Basin	2.30	Upper Rock Creek	11,300' Elevation	Unmaint	1 Stock	1 Stock	1 Stock	1 Stock
Moraine Lake	3.68	Sky Parlor Meadow	Upper Chagoopa Plateau	2 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Mount Langley	1.45	Army Pass Junction	Summit Mount Langley	Informal	1 Hiking	1 Hiking	1 Hiking	1 Hiking
Mount Whitney	7.05	Crabtree Station	Mt Whitney Summit	3 Mixed				
New Army Pass	2.64	Upper Rock Creek	New Army Pass	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Rattlesnake - Soda Creek	2.92	Forester Lake Junction	Soda Creek	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Rock Creek	3.54	Rock Creek	Cottonwood Pass Jct	3 Stock				
Rock Creek Lake	3.12	Cottonwood Pass Jct	Soldier Lake	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Sandy Meadow	3.34	Wallace Ck	Crabtree Sand Flats	3 Stock				
Sawtooth Pass East	1.04	Columbine Lake	Sawtooth Pass	Informal	1 Hiking	1 Hiking	1 Hiking	1 Hiking
Shepherd Pass	3.38	JMT-PCT Tyndell Ck	Shepherd Pass	2 Stock	2 Stock	3 Stock	1 Hiking	2 Stock
Shotgun Pass	1.81	Shotgun/Upper Rattlesnake Jct	Shotgun Pass	1 Stock	1 Stock	2 Stock	Abandon	1 Stock
Siberian Pass	0.70	Siberian Junction	Siberian Pass	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Siberian Pass Creek	2.01	Pacific Crest Trail	Funston Lake Route	Unmaint	Abandon	Abandon	Abandon	Abandon
Soda Creek	4.29	Lower Big Arroyo	Upper Soda Creek	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Soldier Lake	0.26	Upper Rock Creek	Soldier Lake	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock

Table 47f: Trail Classification and Design Use for All Alternatives (continued)

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Trail Crest	0.15	Trail Crest Trail	Park Boundary	3 Hiking				
Tyndall Ranger Station	0.59	Pacific Crest Trail	Tyndall Ranger Station	3 Stock				
Upper Big Arroyo	3.38	Kaweah Gap	Big Arroyo Patrol Cabin	3 Stock				
Upper Big Five Lakes	1.66	Lower Big Five Lake	Upper Big Five Lake	2 Stock	2 Stock	2 Stock	Abandon	1 Stock
Upper Crabtree Meadow	0.19	JMT-PCT Junction	Crabtree Ranger Station	2 Stock				
Upper Kern Canyon	4.44	HST Wallace Ck	Tyndall Cut-off	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Upper Kern -Tyndall Cutoff	2.93	Upper Kern	JMT-PCT Tyndall Ck	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Upper Milestone Basin	2.13	Milestone Basin Trail	Milestone Lakes	Unmaint	Abandon	1 Stock	Abandon	Abandon
Upper Rock Creek	1.73	Soldier Lake	Junction with PCT	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Upper Soldier Lake	2.00	Soldier Lake	Junction with Mt Langley Trail	Abandon	1 Hiking	1 Hiking	Abandon	Abandon
Wallace Creek	4.11	Junction Meadow (Kern)	JMT-PCT Wallace Ck Jct	3 Stock				
Wallace Lakes	2.53	PCT Junction	Wallace Lakes	Unmaint	1 Stock	1 Stock	1 Stock	1 Stock
Willow Meadow Cut-off	4.69	Soda Creek	Rattlesnake Creek	1 Stock	1 Stock	2 Stock	Abandon	2 Stock
Wright Lakes	1.90	PCT Junction	Wright Lakes	Unmaint	1 Stock	1 Stock	Abandon	1 Stock
<b>MARBLE FORK KAWEAH WATERSHED</b>								
Admiration Point	0.70	Colony Mill Road	Admiration Point overlook	2 Stock	2 Hiking	3 Stock	1 Stock	3 Stock

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Hump	0.73	Lakes Trail Jct	Heather Lake	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
JO Pass	1.79	Jct off Twin Lk Trail	JO Pass	2 Stock	2 Stock	3 Stock	2 Hiking	2 Stock
Lakes	2.94	Wolverton Prkg Trailhead	Pear Lake	3 Mixed				
Little Baldy	0.20	Baldy Saddle Gen Hwy	Little Baldy Dome	2 Stock	2 Hiking	3 Stock	2 Hiking	3 Hiking
Marble Falls	2.73	Potwisha Campground	Marble Falls, Marble Fork	2 Hiking	2 Hiking	3 Hiking	2 Hiking	2 Hiking
Old Colony Mill Road	2.48	North Fork Road	Crystal Cave Road	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Pear Lake Ranger Station	0.34	Pear Lake Trail	Pear Lake Ranger Station	3 Stock				
Pear Lake Ski	2.50	Wolverton Prkg Trailhead	Pear Lake	2 Snowshoe				
Silliman Pass South	2.61	JO Pass/Twin Lakes jct	Silliman Pass	3 Stock				
Sunset Rock	0.35	Museum area	Sunset Rock	3 Stock				
Tokopah Falls	0.36	Lodgepole CG trailhead	Tokopah Falls	3 Stock	3 Hiking	3 Hiking	3 Hiking	3 Hiking
Twin Lakes	3.51	Trailhead Lodgepole CG	JO/Twin Lakes Junction	3 Stock				
<b>MIDDLE FORK KAWEAH WATERSHED</b>								
Alta - Panther Gap	1.94	Giant Forest	Alta Meadow/Peak Jct	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Alta Meadow	1.70	Panther Gap Junction	Alta Meadow	2 Stock				
Alta Peak	1.81	Alta Meadow Junction	Alta Peak Summit	2 Stock				

Table 47f: Trail Classification and Design Use for All Alternatives (continued)

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Alta-High Sierra Cut-off	1.99	Cut-off between Alta & HST	Cut-off between Alta and HST	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Bearpaw Cut-off	1.55	Middle Fork Kaweah	Little Bearpaw Meadow	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Bearpaw Meadow	0.34	HST	Redwood/Bearpaw Trail	3 Stock				
Blackrock Pass - Pinto Lake	7.76	Timber Gap Jct	Blackrock Pass	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Bobcat Point	0.20	High Sierra Trail	Sugar Pine Trail	3 Hiking				
Cliff Creek	3.25	Redwood Mdw	Blackrock Pass Junction	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Crescent Mdw-Bearpaw	10.40	Crescent Meadow Trailhead	Bearpaw	3 Stock				
Elizabeth Pass South	3.72	Over the Hill Junction	Elizabeth Pass	2 Stock	2 Stock	3 Stock	2 Hiking	2 Stock
Granite Creek	3.30	Redwood Mdw-Bearpaw Trail	Granite Creek lake	Unmaint	Abandon	Abandon	Abandon	Abandon
Hamilton Lakes	3.81	Bearpaw	Hamilton Lakes	3 Stock				
Kaweah Gap	4.06	Hamilton Lakes	Kaweah Gap	3 Stock				
Kaweah Middle Fork Cut-off	0.91	Redwood Mdw-Bearpaw Trail	Middle Fork Kaweah Bridge	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Lone Pine Creek	1.92	Elizabeth Pass Junction	Tamarack Lake	2 Stock	2 Stock	2 Stock	2 Hiking	2 Stock
Middle Fork Kaweah	11.32	Moro Creek	Middle Fork Bridge	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Over the Hill	1.47	High Sierra Trail	Elizabeth Pass South Trail	2 Stock	2 Stock	3 Stock	2 Hiking	2 Stock
Paradise Creek	2.02	Buckeye Flat CG	2 miles up from Middle Fork	2 Stock	2 Hiking	2 Stock	2 Hiking	2 Hiking

Table 47f: Trail Classification and Design Use for All Alternatives (continued)

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Paradise Ridge-Redwood Mdw	5.94	Redwood Mdw	Paradise Gap	2 Stock				
Potwisha-Hospital Rock	1.52	Potwisha Dump station	Hospital Rock Picnic Area	3 Stock	2 Hiking	3 Hiking	2 Hiking	2 Hiking
Redwood Mdw Cut-off	0.89	Middle Fork Kaweah	Redwood Mdw	2 Stock				
Redwood Mdw-Bearpaw	4.64	Bearpaw	Redwood Mdw	2 Stock	2 Stock	3 Stock	2 Stock	2-3 Stock
Timber Gap Cliff Creek	2.91	Cliff Creek	Timber Gap	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Twenty-Seven Switchback Cut-off	0.91	High Sierra Trail	Over the Hill Trail	2 Stock	2 Stock	2 Stock	2 Hiking	2 Stock
Wolverton Cutoff	1.04	Alta Trail	High Sierra Trail	3 Stock				
<b>MIDDLE FORK KINGS WATERSHED</b>								
Blue Canyon	6.19	Kettle Ridge Entrance	Blue Canyon Meadow	1 Stock	1 Stock	2 Stock	Abandon	1 Stock
Cartridge Pass	10.43	Middle Fork Kings River	Muro Blanco Trail	Unmaint	Abandon	Abandon	Abandon	Abandon
Cataract Creek	1.54	PCT Near Deer Meadow	Amphitheater Lakes	Unmaint	Abandon	Abandon	Abandon	Abandon
Dusy Basin	3.49	Lip of Dusy Basin	Bishop Pass	3 Stock				
Dusy Switchbacks	2.77	Dusy Switchbacks/PCT Junction	Lip of Dusy Basin	3 Stock				
Granite Pass North	5.21	Northern State Lakes Loop Junction	Granite Pass	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Horseshoe Lakes	0.95	Spur Trail	Horseshoe Lakes	1 Stock	1 Stock	2 Stock	Abandon	2 Stock
Kennedy Canyon	8.12	Outlet of Volcanic Lakes Crossing	Kennedy Pass	1 Stock	1 Stock	2 Stock	1 Hiking	2 Stock
Lower LeConte Canyon	3.48	Palisade Creek Crossing	Dusy Switchbacks/PCT Junction	3 Stock				

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Lower Middle Fork Kings	10.82	Crown Creek Crossing	Simpson Junction	2 Stock	2 Stock	2 Stock	1 Stock	1 Stock
Palisade Creek	6.11	Palisade Creek Crossing	Outlet of Palisade Lakes	3 Stock				
Palisade Lakes	3.69	Outlet of Palisade Lakes	Mather Pass	3 Stock				
State Lakes Loop	4.23	North State Lakes Junction	South State Lakes Junction	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Tehipite Switchbacks	4.59	Gnat Meadow Entrance	Crown Creek Crossing	2 Stock	2 Stock	2 Stock	1 Stock	1 Stock
The Bitch	5.93	Simpson Meadow Junction	Northern State Lakes Loop Junction	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Upper Blue Canyon	1.00	Blue Canyon Meadow	Blue Canyon Lakes	Unmaint	1 Stock	1 Stock	Abandon	1 Stock
Upper LeConte Canyon	7.34	Dusy Switchbacks/PCT Junction	Muir Pass	3 Stock				
Upper Middle Fork Kings	8.09	Simpson Junction	Palisade Creek Junction	2 Stock				
Volcanic Lakes	1.90	Granite Pass North Trail	Outlet of Volcanic Lakes Crossing	2 Stock	1 Stock	2 Stock	1 Stock	2 Stock
<b>NORTH FORK KAWEAH WATERSHED</b>								
Big Baldy	2.06	Big Baldy Trailhead	Top of Big Baldy	3 Stock	3 Stock	3 Stock	3 Hiking	3 Stock
Big Baldy Ski	2.06	Big Baldy Trailhead	Top of Big Baldy	2 Snowshoe				
Buena Vista	0.86	Buena Vista Trailhead	Top of Buena Vista Peak	3 Stock	3 Stock	3 Stock	3 Hiking	3 Stock
Dorst/Lost Grove	2.06	Muir Grove Trail/Lost Grove Trail Junction	Lost Grove	1 Hiking				
Hidden Springs	13.87	North Fork Kaweah Trailhead	Hidden Spring	1-2 Stock	1 Stock	2 Stock	1 Stock	1 Stock

Table 47f: Trail Classification and Design Use for All Alternatives (continued)

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Little Baldy	1.35	Baldy Saddle Gen Hwy	Little Baldy Dome	2 Stock	2 Hiking	3 Stock	2 Hiking	2 Hiking
Muir Grove	2.53	Dorst CG Trailhead	Muir Grove	3 Stock	2 Hiking	3 Stock	2 Hiking	3 Hiking
Old Colony Mill Road	7.28	North Fork Road	Crystal Cave Road	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
Redwood Canyon	2.14	Redwood Saddle Trailhead	Hart Tree Junction on Redwood Creek	3 Stock				
Redwood Canyon Big Springs	3.62	Redwood Canyon/Hart Tree Junction	Big Springs	2 Stock	2 Stock	2 Stock	1 Hiking	2 Stock
Redwood Canyon Hart Tree	4.76	Upper Hart Junction	Lower Hart Junction	3 Stock				
Redwood Canyon Sugar Bowl	4.42	Redwood Saddle Trailhead	Sugarbowl Junction along ridge	3 Stock				
<b>SAN JOAQUIN WATERSHED</b>								
Evolution Basin	6.44	Lamarck Col/PCT Junction	Muir Pass	3 Stock				
Evolution Valley	7.43	Goddard Canyon Junction	Lamarck Col Junction	3 Stock				
Goddard Canyon	5.08	Goddard Canyon Junction	Hell for Sure/Martha Lake Junction	2 Stock	2 Stock	3 Stock	1 Mixed	2 Stock
Hell for Sure Pass	3.70	Hell for Sure/Martha Lake Junction	Hell for Sure Pass	1 Stock	1 Stock	2 Stock	1 Hiking	2 Stock
Lake 11,106	1.56	McClure Meadow	Lake 11106	Unmaint	1 Stock	1 Stock	1 Stock	1 Stock
Lamarck Col	3.29	Lamarck Col/PCT Junction	Lamarck Col	Informal	1 Hiking	1 Hiking	1 Hiking	1 Hiking
Lower Goddard Canyon	3.54	Piute Creek Entrance	Goddard Canyon Junction	3 Stock				
Martha Lake	2.8	Hell for Sure/Martha Lake Junction	Martha Lake	Unmaint	1 Stock	1 Stock	1 Stock	1 Stock

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
McGee Canyon	2.71	PCT above McClure Meadow	Lower McGee Lakes	Unmaint	Abandon	Abandon	Abandon	Abandon
<b>SODA SPRINGS CREEK WATERSHED</b>								
Farewell Gap	0.42	Quinn Mdw	North Boundary	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
South Fork Meadows	1.08	Sand Mdw-Hockett Lakes Jct	Windy Gap Jct	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Windy Gap	1.99	Blossom Lk Jct	Quinn Mdw (Rander Station)	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Windy Ridge	0.86	Tuohy Gap	Blossom Lake Jct	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
<b>SOUTH FORK KAWEAH WATERSHED</b>								
Blossom Lake	2.71	Hunter Creek Junction	Blossom Lk	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Cyclone Meadow	1.73	Windy Ridge/Cyclone Meadow Jct	Windy Ridge	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Hockett Lakes	0.72	South Fork Crossing	Hockett Lakes Junction	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Hockett Lakes Cutoff	1.00	Hockett Lakes Junction	South Fork Meadows	2 Stock	Abandon	3 Stock	Abandon	2 Stock
Hockett-Sand Meadow	0.29	Hockett Mdw	Sand Meadow Junction	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Hockett-South Fork Crossing Cutoff	0.98	Sand Meadow Junction	Hockett Lakes Junction	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Hockett-South Fork Meadow	0.89	Sand Meadow Junction	South Fork Meadows	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Ladybug	1.73	South Fork Campground Trailhead	Whiskey Log Junction	2 Stock	2 Stock	3 Stock	2 Hiking	3 Stock
South Fork Kaweah	9.73	South Fork Campground Trailhead	South Fork Kaweah Crossing	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
South Fork Meadows	0.19	South Fork Meadows	South Fork Kaweah Trail	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Touhy	1.94	South Fork Crossing	South Boundary	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Tuohy Cutoff	1.92	South Fork Mdw	Tuohy Gap Jct	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Wet Meadow	0.68	Quinn Mdw	Boundary at Wet Mdw	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Whiskey Log	1.26	Ladybug Trail	Cedar Creek	2 Stock	2 Stock	2 Stock	2 Hiking	2 Stock
Windy Gap	2.17	Hunter Creek Junction	Quinn Meadow (RS)	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Windy Ridge	4.64	Tuohy Gap	Blossom Lake-Windy Ridge Junction	2 Stock	Abandon	3 Stock	Abandon	3 Stock
<b>SOUTH FORK KINGS WATERSHED</b>								
Avalanche Pass - Sphinx	5.00	Sphinx Junction	Avalanche Pass	2 Stock	2 Stock	2 Stock	1 Stock	2 Stock
Avalanche Pass Roaring River	5.80	Avalanche Pass/Cloud Canyon Junction	Avalanche Pass	2 Stock	2 Stock	2 Stock	1 Stock	2 Stock
Baxter Pass	4.57	Baxter Pass/PCT	Baxter Pass	1 Stock	1 Hiking	1 Hiking	1 Hiking	1 Hiking
Bell Canyon - Comanche Cutoff	1.53	Seville Lake Junction	Comanche Junction	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Bell Canyon Entrance	1.46	Bell Canyon Entrance	Seville Lake Junction	3 Stock				
Bench Lake	2.00	Bench Lake/PCT Junction	Bench Lake	2 Stock	2 Stock	2 Stock	1 Stock	2 Stock
Beville Lake	0.07	Silliman Pass/Beville Lake Trail Junction	Beville Lake	3 Stock				
Bubbs Creek	6.20	Sphinx Junction	Junction Meadow (East Lake Jct)	3 Stock				

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Bubbs Creek Switchbacks	1.42	Bailey Bridge Junction (north side)	Sphinx Junction	3 Stock				
Bullfrog Lake	2.29	Bullfrog/PCT Junction	Kearsarge Lakes/Bullfrog Junction	3 Hiking	3 Stock	3 Hiking	3 Hiking	3 Stock
Cedar Grove Overlook	0.46	Cedar Grove Overlook/Hotel Creek Junction	Cedar Grove Overlook	3 Stock				
Cedar Grove Sand Flats	1.73	Roads End	Bailey Bridge Jct	3 Stock				
Charlotte Lake	1.64	Charlotte Lake/PCT Junction	Charlotte Creek Stock Camps	3 Stock				
Cloud Canyon	6.17	Roaring River Ranger Station	Creek Crossing @ Grand Palace	3 Stock	3 Stock	3 Stock	2 Stock	3 Stock
Colby Pass North	4.05	Creek Crossing @ Grand Palace	Colby Pass	2 Stock	2 Stock	2 Stock	2 Hiking	2 Stock
Deadman Canyon	5.81	Roaring River Ranger Station	Creek between Lower and Upper Ranger	3 Stock	3 Stock	3 Stock	2 Stock	3 Stock
Don Cecil	3.50	Cedar Grove Bike Path	Summit Mdw	3 Stock	2 Stock	3 Stock	2 Stock	3 Stock
East Lake	2.75	Junction Meadow	East Lake Drift Fence	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Elizabeth Pass North	3.62	Creek between Upper and Lower Ranger	Elizabeth Pass	2 Stock	2 Stock	2 Stock	2 Hiking	2 Stock
Frypan Entrance	0.40	Park Boundary @ Wildman Meadow	Kennedy Pass Trail	2 Stock				
Glen Pass South	1.90	Kearsarge Pass/PCT Junction	Glen Pass	3 Stock				
Granite Basin	3.18	Lip of Granite Basin (benchmark)	Granite Pass	3 Stock				
Granite Lake	0.52	Granite Basin Trail	Granite Lake	1 Stock				

Table 47f: Trail Classification and Design Use for All Alternatives (continued)

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Grouse Lake	0.63	Copper Creek Trail	Grouse Lake	Unmaint	1 Stock	1 Stock	1 Stock	1 Stock
Grizzly Lake	0.36	Park Boundary	Kennedy Pass Trail	2 Stock				
Hotel-Creek	2.56	Hotel Creek Trailhead	Hotel/Lewis Junction	3 Stock				
Junction Meadow Switchbacks - Bubbs	2.27	Junction Meadow on Bubbs	Vidette Meadow Junction	3 Stock				
Kanawyers Gap	3.30	Kanawyers Gap	Comanche Junction	2 Stock	2 Stock	3 Stock	Abandon	2 Stock
Kearsarge Lakes	0.57	Bullfrog Lake/Kearsarge Lakes Junction	Kearsarge Lakes	3 Stock				
Kearsarge Pass	2.87	Kearsarge Pass/PCT Junction	Kearsarge Pass	3 Stock				
Kennedy Pass South	3.75	Frypan Meadow	Kennedy Pass	2 Stock	2 Stock	2 Stock	1 Hiking	2 Stock
Lake Reflection	1.09	East Lake Drift Fence	Lake Reflection	Abandon	1 Stock	1 Stock	Abandon	Abandon
Lost Lake	0.70	Lost Lake Junction	Lost Lake	3 Stock				
Lower Copper Creek Switchbacks	3.69	Roads End Cedar Grove	Lower Tent Mdw crossing	3 Stock				
Lower Lewis Creek	0.91	Lewis Creek Trailhead	Hotel/Lewis Junction	3 Stock				
Lower Sixty Lake Basin	1.65	First Lake in Sixty Lake Basin	Lower Sixty Lake Basin	1 Hiking	1 Hiking	1 Hiking	Abandon	1 Hiking
Mist Falls	3.16	Bailey Bridge Jct	Lower Paradise Camping	3 Stock				
Paradise Valley	3.30	Lower Paradise Valley Camping	South Fork Bridge @ Upper Paradise	3 Stock				
Pinchot Pass North	3.83	South Fork Kings Crossing	Pinchot Pass	3 Stock				

Table 47f: Trail Classification and Design Use for All Alternatives (continued)

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Pinchot Pass South	7.38	Woods Creek Crossing	Pinchot Pass	3 Stock				
Rae Lakes	4.93	Dollar Lake Outlet	Glen Pass	3 Stock				
Ranger Lake	0.14	Silliman Pass/Ranger Lake Junction	Ranger Lake	3 Stock				
Sawmill Pass	3.22	Sawmill Pass/PCT Junction	Sawmill Pass	1 Stock	1 Stock	2 Stock	1 Hiking	2 Stock
Seville Lake	1.14	Seville Junction	Seville Lake	3 Stock				
Seville Lake Boy Scout	1.27	Bell Canyon Entrance	Seville Lake	Informal	-	1 Hiking	-	-
Silliman Pass North	4.90	Seville Junction	Silliman Pass	3 Stock				
South Side Cedar Grove Sand Flats	1.88	Bailey Bridge Jct	Red Bridge @ Roads End	3 Stock	3 Stock	3 Hiking	3 Hiking	3 Hiking
Sphinx Lakes	2.08	Screwball Meadow	Sphinx Lakes	Unmaint	Abandon	1 Hiking	Abandon	Abandon
Sugarloaf Entrance	2.22	Sugarloaf Entrance	Comanche Junction	3 Stock				
Sugarloaf Valley	7.45	Comanche Junction	Roaring River Ranger Station Junction	3 Stock				
Taboose Pass	2.36	Taboose Pass/PCT Junction	Taboose Pass	2 Stock				
Upper Basin	5.74	South Fork Kings Crossing	Mather Pass	3 Stock				
Upper Bubbs Creek - Forester Pass North	4.95	Center Basin/PCT Junction	Forester Pass	3 Stock				
Upper Copper Creek Switchbacks	3.26	Lower Tent Meadow crossing	Lip of Granite Basin (benchmark)	3 Stock				
Upper Lewis Creek	4.06	Hotel/Lewis Junction	Frypan Meadow	2 Stock				

**Table 47f: Trail Classification and Design Use for All Alternatives (continued)**

Trail Name	Miles	Beginning	End	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Upper Sixty Lake Basin	1.42	Sixty Lake/PCT Junction	Outlet of first lake in Sixty Lake Basin	2 Stock	2 Stock	2 Stock	1 Stock	2 Stock
Vidette Meadow	3.05	Vidette Meadow Junction	Center Basin/PCT Junction	3 Stock				
Vidette Switchbacks	1.74	Vidette Meadow Junction	Kearsarge Pass/PCT Junction	3 Stock				
Woods Creek	5.10	South Fork Kings Bridge	Woods Creek Crossing	3 Stock				
Woods Creek Crossing - Dollar Lake	3.96	Woods Creek Crossing	Dollar Lake Outlet	3 Stock				
<b>TULE WATERSHED</b>								
Summit Lake	0.39	Windy Ridge	Summit Lake	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Touhy	1.05	South Fork Crossing	South Boundary	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock
Windy Ridge	1.45	Tuohy Gap	Blossom Lk Jct	2 Stock	2 Stock	3 Stock	2 Stock	2 Stock

Unmaint – “Designated Unmaintained Route”

Informal - Trail created by use, never maintained

Abandoned - Trail that once was maintained, but maintenance has been discontinued

Where more than one Trail Class or Design Use is shown, the trail segment has mixed class or design use.

**Element 6: Party Size**

**Table 48: Party Size Maximum for Hikers and Boaters**

Type of Trip	<u>Alternative 1</u> No-action / Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
On-trail (day use)	25	25; consider future more restrictive party size for day-use in specific areas (e.g., Mist Falls, Watchtower, Monarch Lakes).	25	25; consider more restrictive party size for day-use in specific areas.	20; consider more restrictive party size for day-use in specific highest use areas (Lakes Trails, Mist Falls, Monarch Lake, and potentially other areas).
On-trail (overnight use)	15	15*	15*	12	10
Off-trail (overnight and day-use)	15	12; except in areas with specific lower limits (see below).	15*	8	8
Area-specific	Temporary off-trail party-size limits of 8 people would be adopted permanently at Darwin Canyon/Lamarck Col (includes Class 1 trail area); Dusy Basin, Mount Whitney/Mount Langley (includes Class 1 trail area), Sixty Lake Basin, and Sphinx Lakes.	Existing temporary off-trail party-size limits of 8 people would be adopted permanently at Darwin Canyon/Lamarck Col (includes Class 1 trail area); Dusy Basin, Mount Whitney/Mount Langley (includes Class 1 trail area), Sixty Lake Basin, and Sphinx Lakes.	Existing temporary party-size limits of 8 people would be removed.  A party-size limit of 4 would be implemented for camping at North Dome.	Existing temporary party-size limits would be removed (maximum party size of 8 in specific locations), and replaced with a wilderness-wide off-trail party size of 8.	Existing temporary party-size limits would be removed (maximum party size of 8 in specific locations), and replaced with a wilderness-wide off-trail party size of 8.
Redwood Canyon	Redwood Canyon: 10 people per party	There would be a 10-person maximum party size for Redwood Canyon.	Same as alternative 2.	There would be an 8-person maximum party size for Redwood Canyon.	There would be a 6-person maximum party size for Redwood Canyon.

\*consistent with neighboring USFS

**Table 49: Party Size Limits for Stock Parties**

<b>Type of Stock Trip</b>	<b>Alternative 1 No-action / Status Quo</b>	<b>Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b>Alternative 3 Provide More Opportunities for Primitive Recreation</b>	<b>Alternative 4 Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b>Alternative 5 Emphasize Opportunities for Solitude</b>
On-trail (day-use or day-rides)	Day rides, spot and dunnage – 25 people; 20 stock; combined maximum of 45.	Day Rides – 20 people; 20 stock; combined maximum 40.	Day Rides – 25 people; 25 stock; combined maximum 50.	Day Rides – 15 people; 15 stock; combined maximum 30.	Day Rides – 13 people; 13 stock; combined maximum 26.
On-trail (camping)	15 people; 20 stock; combined maximum of 35 (with some lower exceptions per BMP/SUMMP)	15 people; 20 stock; combined maximum 28.	15 people, 25 stock; combined maximum 40.	12 people; 15 stock; combined maximum 20.	10 people; 13 stock; combined maximum 18.
Off-trail (all use) in areas specifically designated for off-trail stock use	15 people; 20 stock; combined maximum of 35. (with some lower exceptions per BMP/SUMMP)	12 people; 12 stock; combined maximum 14.	15 people; 25 stock; combined maximum 40.	8 people; 7 stock; combined maximum 11.	No off-trail stock
Area-specific Stock Party Size Limits	Temporary limits would continue in five specific areas where there is a maximum party size of 8 (people, stock, or combination): Darwin Canyon, Dusy Basin, Mount Whitney/ Mount Langley, Sixty Lake, and Sphinx Lakes	Upper Goddard Canyon/Martha Lake would have a party-size limit consistent with the off-trail party size (12 people, 12 stock, combined maximum of 14). Sixty Lake Basin would be open to travel 1.8 miles from the junction of the JMT to the Sixty Lake Basin Trail, and would be closed to stock use beyond this point. There would be a combined party-size maximum of 8 (people and stock) for day rides above Penned Up Meadow on the Class 1 trail into Miter Basin.	None other than those listed below.	None other than those listed below.	Existing temporary party-size limits would be removed (maximum party size of 8 in specific locations), and stock would not be allowed off- trail.

**Table 49: Party Size Limits for Stock Parties (continued)**

<b>Type of Stock Trip</b>	<b><u>Alternative 1</u> No-action / Status Quo</b>	<b><u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b><u>Alternative 3</u> Provide More Opportunities for Primitive Recreation</b>	<b><u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b><u>Alternative 5</u> Emphasize Opportunities for Solitude</b>
Redwood Canyon	Redwood Canyon: maximum of 10 stock and maximum hiker party-size of 10 people.	A party-size limit of 10 people or 10 people with 10 stock (combined maximum of 20) would be retained for Redwood Canyon.	Same as alternative 2.	A party-size limit of 8 people or 8 people with 8 stock (combined maximum of 16) would be implemented for Redwood Canyon.	A party-size limit of 6 people or 6 people with 6 stock (combined maximum of 12) would be implemented for Redwood Canyon.
Milestone Basin	Milestone Basin maximum of 8 head of stock by special permit only.	Closed to stock.	Maximum of 8 head of stock in Milestone Basin by special permit only.	Closed to stock.	Closed to stock.

**Element 8: Stock Use**

**Table 50: Stock Use Comparison of Alternatives**

<b>Topic</b>	<b><u>Alternative 1</u> No-action / Status Quo</b>	<b><u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b><u>Alternative 3</u> Provide More Opportunities for Primitive Recreation</b>	<b><u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b><u>Alternative 5</u> Emphasize Opportunities for Solitude</b>
<p>On-trail Travel <i>See tables 47a through 47f starting on page 246 for specific trail mileages.</i></p>	<p>Currently nearly all maintained wilderness trails in the parks are open to stock (637 of 653 miles). Stock travel is also permitted on 77 miles of informal and abandoned trails.  (Note: Not all trails currently open to stock are maintained to stock standards)</p>	<p>Stock travel would be allowed on 650 of 691 miles of maintained trails.</p>	<p>Stock travel would be allowed on 671 of 714 miles of maintained trails.</p>	<p>Stock travel would be allowed on 527 of 643 miles of maintained trails.</p>	<p>Stock travel would be allowed on 665 of 702 miles of maintained trails.</p>
<p>On-trail – Camping with Stock</p>	<p>Approximately 598 miles of maintained and unmaintained trails are open to camping with stock.</p>	<p>Approximately 530 miles of maintained trails would be open to camping with stock.</p>	<p>Approximately 565 miles of maintained trails would be open to camping with stock.</p>	<p>Approximately 377 miles of maintained trails would be open to camping with stock by all user groups (private, commercial, and administrative) with an additional 72 miles of maintained trails open to overnight travel by private stock or administrative stock parties only (closed or day-use only for commercial stock).</p>	<p>Approximately 555 miles of maintained trails would be open to camping with stock.</p>

**Table 50: Stock Use Comparison of Alternatives (continued)**

<b>Topic</b>	<b><u>Alternative 1</u> No-action / Status Quo</b>	<b><u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b><u>Alternative 3</u> Provide More Opportunities for Primitive Recreation</b>	<b><u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b><u>Alternative 5</u> Emphasize Opportunities for Solitude</b>
Off-trail Travel	<p>Travel is allowed up to 0.5 mile from trails and routes to reach campsites.</p> <p>Travel more than 0.5 mile from trails open to camping with stock is allowed in four areas of the parks: on the Hockett Plateau, along the western side of the Kern River watershed south from the Chagoopa Plateau, on the Monarch Divide including Hotel Creek, and in the Roaring River area.</p>	<p>In areas open to camping with stock, travel would be allowed up to 0.5 mile from trails.</p> <p>Travel more than 0.5 mile from trails would be allowed in four areas of the parks: on the Monarch Divide, in the Roaring River area, on the Hockett Plateau, and along the western side of the Kern River watershed south from the Chagoopa Plateau.</p>	<p>In areas open to camping with stock, travel would be allowed up to 0.5 mile from trails.</p> <p>Travel more than 0.5 mile from trails would be allowed in four areas of the parks: on the Monarch Divide, in the Roaring River area, on the Hockett Plateau, and along the western side of the Kern River watershed south from the Chagoopa Plateau.</p>	<p>In areas open to camping with stock, travel would be allowed up to 0.5 mile from trails.</p> <p>Travel more than 0.5 mile from trails would be allowed for private stock parties in four areas of the parks: on the Hockett Plateau (except for Tar Gap), on the Monarch Divide (except for Kennedy Canyon), in the Roaring River drainage (except for Elizabeth and Colby passes), and along the western side of the Kern River watershed south from the Chagoopa Plateau (except for Lower Big Arroyo and Willow Meadow Cutoff).</p>	<p>In areas open to camping with stock, travel would be allowed up to 0.5 mile from trails.</p> <p>Travel more than 0.5 mile from trails would be prohibited.</p>

**Table 50: Stock Use Comparison of Alternatives (continued)**

Topic	<u>Alternative 1</u> No-action / Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
Grazing: General	Grazing is generally allowed in areas open to camping with stock (within 0.5 mile of maintained trails open to camping with stock, along designated unmaintained routes, or in off-trail travel areas). Grazing is not allowed in those areas open only to stock travel.	Grazing would generally be allowed in areas open to camping with stock (within 0.5 mile of maintained trails open to camping with stock or in off-trail travel areas). Grazing would not be allowed in those areas open only to stock travel.	Grazing would generally be allowed within 0.5 mile of maintained trails open to camping with stock. Grazing would generally be prohibited in areas open to off-trail travel with the following exceptions: Ansel Lake, Chagoopa Treehouse Meadow, Crytes Lakes, Laurel Creek Basin, Long Meadow (Ferguson Creek), Sugarloaf Creek Confluence, West Fork Ferguson Creek. Grazing would not be allowed in those areas open only to stock travel.	No administrative, private, or commercial grazing would be allowed. Visitors and park staff traveling with stock would be required to carry feed for their animals and confine them on durable non-vegetated surfaces in camp.	Grazing would generally be allowed within 0.5 mile of maintained trails open to camping with stock. Grazing would not be allowed in those areas open only to stock travel.
Grazing: Areas with High Historic Use	The meadows closed to grazing by the 1986 SUMMP due to popular use and resource concerns would remain closed to grazing.	The meadows closed to grazing by the 1986 SUMMP due to high use and resource concerns would remain closed to grazing with one exception: Tom Sears Meadow would be reopened to grazing.	The meadows closed to grazing by the 1986 SUMMP due to high use and resource concerns would remain closed to grazing.	N/A	The meadows closed to grazing by the 1986 SUMMP due to high use and resource concerns would remain closed to grazing with one exception: Tom Sears Meadow would be reopened to grazing.

**Table 50: Stock Use Comparison of Alternatives (continued)**

<b>Topic</b>	<b><u>Alternative 1</u> No-action / Status Quo</b>	<b><u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b><u>Alternative 3</u> Provide More Opportunities for Primitive Recreation</b>	<b><u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b><u>Alternative 5</u> Emphasize Opportunities for Solitude</b>
Grazing: Network of Ungrazed Meadows	The meadows closed to grazing by the 1986 SUMMP to provide a network of ungrazed meadows would remain closed to grazing.	The meadows closed to grazing by the 1986 SUMMP to provide a network of ungrazed meadows would remain closed to grazing. 7 additional meadows along the JMT and HST would be closed to grazing to expand the network of meadows closed to grazing for scientific and social value.	The meadows closed to grazing by the 1986 SUMMP to provide a network of ungrazed meadows would remain closed to grazing. 7 additional meadows along the JMT and HST would be closed to grazing to expand the network of meadows closed to grazing for scientific and social value.	N/A	The meadows closed to grazing by the 1986 SUMMP to provide a network of ungrazed meadows would remain closed to grazing.
Grazing: Additional Closures	9 additional meadows with high use and resource concerns would continue to be closed to grazing under the superintendent's authority to enact visitor-use restrictions.	10 additional meadows with high use and resource concerns would be closed to grazing.  McClure Meadow would be closed to grazing until Evolution and Colby Meadows reach capacity.  Grazing would be open to by private parties only at 3 meadows.	11 additional meadows with high use and resource concerns would be closed to grazing.	N/A	12 additional meadows with high use and resource concerns would be closed to grazing.

**Table 50: Stock Use Comparison of Alternatives (continued)**

Topic	<u>Alternative 1</u> No-action / Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
Exceptions for Parties with Burros or Llamas	Grazing would be open to grazing by backpacking parties with burros or llamas but closed to grazing by parties with horses or mules in four areas of the parks.	Grazing would be open to grazing by backpacking parties with burros or llamas but closed to grazing by parties with horses or mules in 4 areas of the parks.	Grazing would be open to grazing by backpacking parties with burros or llamas but closed to grazing by parties with horses or mules in 2 areas of the parks.	NA	Grazing would be open to grazing by backpacking parties with burros or llamas but closed to grazing by parties with horses or mules in 2 areas of the parks.
Head and/or Night Limits	Head and/or night limits are in place for 16 areas.	Head and/or night limits would be in place for 12 areas.	Head and/or night limits would be in place for 19 areas.	NA	Head and/or night limits would be in place for 11 areas.
Stock Facilities <i>See also tables 51a and 51b starting on page 272</i>	There are 52 existing hitch rails and 54 existing drift fences, pasture fences, and gates in the parks' wilderness managed under the SUMMP.	23 hitch rails would be removed and 29 hitch rails would be retained.  12 fences/gates would be removed and 42 would be retained.	14 hitch rails would be removed and 38 would be retained.  5 fences/gates would be removed, 49 would be retained, and one new fence with a gate would be constructed.	All hitch rails not associated with administrative facilities would be removed.  All drift fences and gates would be removed. Groups traveling with stock would be required to hold their stock while camping (e.g., set up high lines) on durable, non-vegetated surfaces.	28 hitch rails would be removed, and 24 would be retained.  A total of 18 fences and gates would be removed, 36 fences/gates would be retained, and one gate would be added.

**Table 51a: Stock Facilities – Drift Fences and Gates to be Retained, Removed, or Added under Each Alternative**

[No grazing would be allowed under alternative 4, thus all drift fences and gates associated with recreational use would be removed.]

Name	Alternative 2	Alternative 3	Alternative 5	Justification
<b>Kings Canyon National Park (listed approximately north to south)</b>				
Goddard Canyon (Cony Camp)	Retain	Retain	Remove	Keeps stock from returning to trailhead. Pole across San Joaquin second bridge considered, but there have been issues with visitor safety.
Evolution Meadow	Retain	Retain	Remove	Keeps stock from drifting to the San Joaquin. Keeps stock at Evolution Meadow out of Goddard Canyon meadows before opening date.
Third Bridge (on San Joaquin)	Do not add	Do not add	Add	Adding a pole gate across the bridge would replace fence below Evolution Meadow. Keeps stock out of backpacker camps at the San Joaquin. Keeps stock out of Goddard Canyon meadows before opening date.
McClure Meadow	Retain	Retain	Retain	Keeps stock out of upper Evolution Creek meadows before opening date.
Big Pete Meadow	Retain	Retain	Retain	Keeps stock from going between Little Pete and Big Pete. Helps protect closed portion of Big Pete from overuse.
Dusy Creek (east of LeConte Ranger Station)	Retain	Retain	Retain	Keeps stock that came over Bishop Pass from returning to trailhead. Prevents grazing and other impacts of drifting stock in Dusy Basin.
Ladder Camp	Retain	Retain	Remove	Keeps stock from going up canyon. Allows for stock grazing in wet years when other meadows have late opening dates.
Grouse Meadow	Do not add	Add	Do not add	Adding a fence would keep stock from drifting from Ladder Camp to Grouse Meadow if it is closed to grazing under alternatives 2 and 3.
Stillwater Meadow	Remove	Retain	Remove	Keeps stock from going down canyon from Deer Meadow. Could be replaced by a temporary fence as needed to facilitate use.
Simpson Meadow (base of Granite Pass trail)	Retain	Retain	Retain	Keeps stock from returning to the Monarch Divide from Simpson Meadow.
Fallen Moon (between East and West Fork Dougherty Creek)	Retain	Retain	Retain	Keeps stock from crossing between East and West Forks of Dougherty Creeks.
Shorty's Meadow (lower)	Retain	Retain	Retain	Keeps stock in Dougherty Creek from grazing Shorty's Meadow before the opening date. Prevents stock from drifting over Granite Pass.
Shorty's Meadow (upper)	Remove	Remove	Remove	Keeps stock in Shorty's Meadow from going over Granite Pass. Could be replaced with a temporary fence as needed to facilitate use.

**Table 51a: Stock Facilities – Drift Fences and Gates to be Retained, Removed, or Added under Each Alternative (continued)**

[No grazing would be allowed under alternative 4, thus all drift fences and gates associated with recreational use would be removed.]

Name	Alternative 2	Alternative 3	Alternative 5	Justification
<b>Kings Canyon National Park (listed approximately north to south) – (continued)</b>				
Granite Basin Lip (between Granite and Copper creeks)	Retain	Retain	Retain	Keeps stock from returning to the trailhead from Monarch Divide.
Castle Domes Meadow	Retain	Retain	Retain	Keeps stock from returning to trailhead. Prevents grazing and other impacts of drifting stock in Paradise Valley.
Woods Creek Crossing	Retain	Retain	Retain	Keeps stock out of Castle Domes Meadow before opening date. Helps management of grazing capacity at Woods Creek Crossing and Castle Domes Meadows.
Baxter Creek	Retain	Retain	Retain	Prevents grazing and other impacts of drifting stock in closed meadows and camps on south side of Woods Creek Crossing.
White Fork	Remove	Remove	Remove	Keeps stock from returning to Woods Creek Crossing from upper Woods Creek. Nearby camps no longer used by visitors.
Charlotte Lake (lower meadow)	Retain	Retain	Retain	Keeps stock that came over Kearsarge Pass from returning to trailhead. Prevents grazing and other impacts of drifting stock in the closed meadows at Charlotte Lake, Bullfrog Lake, and Kearsarge Lakes.
Upper Bubbs (Upper Vidette Meadow)	Retain	Retain	Retain	Keeps drifting stock from grazing the closed Vidette meadows.
Junction Meadow - Bubbs	Retain	Retain	Retain	Keeps stock out of the wetter portion of Junction Meadow before the opening date. Keeps stock from returning to trailhead.
East Lake	Retain	Retain	Retain	Keeps stock from grazing the closed lakeshore areas at East Lake.
West Side Roaring River (upper) (0.25 miles below Roaring River Ranger Station)	Retain	Retain	Retain	Prevents stock from impacting sensitive areas below fence. Keeps stock from returning to Sugarloaf.
West Side Roaring River (lower) (1 mile below Roaring River Ranger Station)	Remove	Remove	Remove	Redundant to the West Side Roaring River (upper) fence. Not needed.
Roaring River Bridge (pole gate on bridge at ranger station)	Retain	Retain	Retain	Keeps stock from drifting from Scaffold Meadow to the West Side Roaring River area.
JR Pasture	Retain	Retain	Retain	Important for administrative stock use.
Lackey Pasture	Retain	Retain	Retain	Important for administrative stock use.
Scaffold Meadow	Retain	Retain	Remove	Keeps stock from leaving Scaffold Meadow and returning to Sugarloaf or over Avalanche Pass.

**Table 51a: Stock Facilities – Drift Fences and Gates to be Retained, Removed, or Added under Each Alternative (continued)**

[No grazing would be allowed under alternative 4, thus all drift fences and gates associated with recreational use would be removed.]

Name	Alternative 2	Alternative 3	Alternative 5	Justification
<b>Kings Canyon National Park (listed approximately north to south) – (continued)</b>				
Grasshopper	Remove	Retain	Remove	Keeps stock from traveling up canyon from Scaffold and Grasshopper meadows. Rarely used.
Cement Table	Retain	Retain	Retain	Keeps stock from drifting below Cement Table Meadow.
Big Wet	Retain	Retain	Retain	Keeps stock from drifting below Big Wet Meadow.
Grand Palace Hotel	Retain	Retain	Remove	Keeps stock from drifting below Grand Palace Hotel Meadow. Rarely used by visitors, used regularly for administrative stock.
Austin Camp (east) (on cutoff to Cloud Canyon)	Remove	Remove	Remove	Keeps stock from traveling between Deadman and Cloud Canyons. Route no longer passable.
Austin Camp (west)	Retain	Retain	Retain	Keeps stock from drifting below Austin Camp Meadow.
Grave	Retain	Retain	Retain	Keeps stock from drifting below Grave Meadow.
Lower Ranger	Retain	Retain	Retain	Keeps stock from drifting below Ranger Meadow.
Upper Ranger	Retain	Retain	Remove	Keeps stock from drifting below Upper Ranger Meadow. Rarely used.
Comanche	Retain	Retain	Retain	Keeps stock from returning to trailhead.
<b>Sequoia National Park (listed approximately west to east)</b>				
Redwood	Retain	Retain	Retain	Protects upper meadow from overuse.
Cold Springs	Remove	Retain	Remove	Keeps stock from going down canyon from Cold Springs Camp. Could be replaced by a temporary fence as needed to facilitate use. Rarely used by visitors, used regularly for administrative stock.
Crabtree	Retain	Retain	Retain	Keeps stock from drifting between Whitney Creek and Rock Creek. Prevents stock from returning to trailhead.
Rock Creek	Retain	Retain	Retain	Keeps stock from drifting up canyon to the closed Rock Creek #2 meadow.
High Sierra Gate (Kern Bridge camp)	Retain	Retain	Retain	Keeps stock from going up to Chagoopa Plateau from Kern Bridge Camp.
Upper Funston	Retain	Retain	Retain	Keeps stock from drifting between Kern Bridge Camp and Upper Funston. Helps to manages capacity at these two meadows. Prevents stock at Upper Funston from going up to Chagoopa Plateau.

**Table 51a: Stock Facilities – Drift Fences and Gates to be Retained, Removed, or Added under Each Alternative (continued)**

[No grazing would be allowed under alternative 4, thus all drift fences and gates associated with recreational use would be removed.]

Name	Alternative 2	Alternative 3	Alternative 5	Justification
<b>Sequoia National Park (listed approximately west to east) – (continued)</b>				
Rattlesnake Creek Confluence	Retain	Retain	Retain	Keeps stock from drifting from Upper Funston down the Kern canyon or up to Rattlesnake Canyon.
Laurel Creek	Remove	Retain	Remove	Keeps stock from drifting between 21" Camp and Lower Funston. Rarely used.
Lower Funston	Remove	Retain	Remove	Keeps stock from drifting between the Kern Ranger Station area from Lower Funston. Rarely used.
River Pasture (Rattlesnake Camp/River Pasture)	Remove	Remove	Remove	Keeps stock from crossing park boundary on the east side of the Kern River. Very rarely used.
Lewis Camp (north)	Retain	Retain	Retain	Keeps stock from leaving the park from meadows north of Lewis Camp.
Lewis Camp (south)	Retain	Retain	Retain	Important for administrative stock use.
Kern Ranger Station	Retain	Retain	Retain	Important for administrative stock use.
Rattlesnake Canyon #1 (Cow Camp)	Retain	Retain	Retain	Keeps stock from going between the Kern Canyon and Rattlesnake Canyon.
Rattlesnake Canyon #2 (Cow Camp)	Remove	Retain	Remove	One of two fences that keep stock from drifting between Cow Camp and Middle Rattlesnake Meadows.
Rattlesnake Canyon #3 (Middle Rattlesnake Meadows)	Remove	Retain	Remove	One of two fences that keep stock from drifting between Cow Camp and Middle Rattlesnake Meadows. Could be replaced by a temporary fence as needed to facilitate use and keep stock out of upper canyon before opening date.
Rattlesnake Canyon #4 (Middle Rattlesnake Meadows)	Retain	Retain	Retain	Keeps stock from returning to trailhead from Rattlesnake Canyon.
Hockett Pasture	Retain	Retain	Retain	Important for administrative stock use.

**Table 51b: Hitch Rails to be Retained or Removed under Each Alternative**

Location	# of Rails	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Justification
<b>Kings Canyon National Park</b>						
Darwin Meadow proper, old stock camp	1	Remove	Remove	Remove	Remove	Low use area; alternative places / methods to tie stock are feasible.
Fallen Moon camp	1	Remove	Retain	Remove	Remove	Primarily administrative camp; alternative places/ methods to tie stock are feasible.
Lackey Pasture	2	Retain both	Retain both	Remove both	Retain 1 of 2	Higher use area; protects local resources.
Roaring River Ranger Station	3	Retain 2 of 3	Retain 2 of 3	Remove all 3	Retain 1 of 3	Moderate use area; protects local resources.
Scaffold Meadow	1	Retain	Retain	Remove	Retain	Higher use area; protects local resources.
Trail crew camp 0.1 mi southeast of Roaring River Ranger Station	1	Remove	Remove	Remove	Remove	Administrative camp; alternative places/ methods to tie stock are feasible.
Grand Palace Hotel stock camp	1	Remove	Retain	Remove	Remove	Primarily administrative camp; moderate use area; protects local resources.
Stock camp above drift fence and below Cement Table Meadow	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.
Sugarloaf Creek confluence	1	Remove	Remove	Remove	Remove	Low use area; alternative places /methods to tie stock are feasible.
Sugarloaf Meadow stock camp	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.
<b>Sequoia National Park</b>						
Bearpaw Meadow Ranger Station	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.
Redwood Meadow	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.

**Table 51b: Hitch Rails to be Retained or Removed under Each Alternative (continued)**

Location	# of Rails	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Justification
<b>Sequoia National Park – (continued)</b>						
Redwood Meadow	2	Retain 1 of 2	Retain 1 of 2	Remove both	Retain 1 of 2	Moderate use area; protects local resources.
Stock trail terminus 0.5 mi below Crabtree Lakes	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.
Bridge Camp; west side of Kern River across from hot spring	1	Retain but reduce size	Retain but reduce size	Remove	Retain but reduce size	Moderate use area; protects local resources.
Irene's Camp north of Kern Ranger Station	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.
Kern Ranger Station	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.
Kern Ranger Station	1	Retain	Retain	Remove	Retain	Moderate use area, protects local resources.
Lower Funston Meadow primary stock camp	1	Remove	Retain	Remove	Remove	Low to moderate use area; alternative places / methods to tie stock are feasible.
Upper Funston Meadow primary stock camp	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.
Upper Funston Meadow secondary stock camp	1	Remove	Retain	Remove	Remove	Low use area; alternative places / methods to tie stock are feasible.
Forester Lake stock camp on east side	1	Remove	Remove	Remove	Remove	Low use area; alternative places / methods to tie stock are feasible.
Lower Lost Canyon trail crew camp	2	Remove both	Remove 1 of 2	Remove both	Remove both	Low use area; alternative places / methods to tie stock are feasible.
Rattlesnake Creek at Cow Camp	1	Remove	Remove	Remove	Remove	Primarily administrative camp, alternative places / methods to tie stock.
Evelyn Lake stock camp	1	Remove	Retain	Remove	Remove	Low use, alternative places / methods to tie stock.
Hockett Meadow stock camp	1	Remove	Retain	Remove	Remove	Low to moderate use, alternative places / methods to tie stock are feasible.

**Table 51b: Hitch Rails to be Retained or Removed under Each Alternative (continued)**

Location	# of Rails	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Justification
<b>Sequoia National Park – (continued)</b>						
Hockett Pasture	1	Remove	Remove	Remove	Remove	Low to moderate use area; alternative places /methods to tie stock are feasible.
Hockett Pasture trail crew camp	2	Retain 1 of 2	Retain 1 of 2	Remove both	Retain 1 of 2	Primarily administrative use; low to moderate use area; protects local resources.
Hockett Pasture trail crew camp	2	Retain 1 of 2	Retain 1 of 2	Remove both	Remove both	Primarily administrative use; low to moderate use area; protects local resources.
Hockett Ranger Station	2	Retain	Retain	Remove	Retain	Moderate use area in administrative area to facilitate patrol actions.
Hockett Ranger Station	1	Retain	Retain	Remove	Retain	Moderate use at ranger station.
Junction of South Fork Kaweah and Tuohy Creek stock camp	2	Retain 1 of 2	Retain 1 of 2	Remove both	Remove both	Low to moderate use area; protects local resources (Oreonana population).
Lower South Fork Meadow at Hidden Camp	2	Retain 1 of 2	Retain both	Remove both	Retain 1 of 2	Low to moderate use area; protects local resources.
Quinn Ranger Station	2	Retain 1 of 2	Retain 1 of 2	Remove both	Retain 1 of 2	Primarily administrative use; low to moderate use area; protects local resources.
Slim's Meadow	3	Retain 1 of 3	Retain 2 of 3	Remove all 3	Retain 1 of 3	Primarily administrative use with alternative places / methods to tie stock are feasible.
South Fork Meadow at Rock Camp	2	Retain	Retain	Remove both	Retain	Higher use area; protects local resources.
South Fork Pasture at Upper Camp	1	Retain	Retain	Remove	Remove	Moderate use area; protects local resources. Possibly reduce in size.
Summit Lake at stock camp	1	Retain	Retain	Remove	Retain	Moderate use area; protects local resources.

**Element 10: Frontcountry Facilities to Support Wilderness Access and Use**

**Table 52: Summary of Frontcountry Facilities by Alternative**

<b>Facility or Area</b>	<b><u>Alternative 1</u> No-action/Status Quo</b>	<b><u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b><u>Alternative 3</u> Provide More Opportunities for Primitive Recreation</b>	<b><u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b><u>Alternative 5</u> Emphasize Opportunities for Solitude</b>
<p>The types and levels of commercial services that may be performed in wilderness are discussed in detail in the END (appendix B). Commercial service providers would be permitted to use some frontcountry facilities, but other facilities would only be used by non-commercial or administrative entities.</p>					
<p>Kings Canyon National Park Cedar Grove Pack Station</p>	<p>Cedar Grove Pack Station would continue to operate under concession authority based on a contractual relationship with the park.</p>	<p>The Cedar Grove Pack Station would continue to be operated under concession authority based on a contractual relationship with NPS with approved use types and levels.</p>	<p>Same as alternative 2.</p>	<p>The concessioners' wilderness operations originating from the Cedar Grove Pack Station would be reduced.</p>	<p>Same as alternative 2.</p>
	<p>No stock camping facilities are provided.</p>	<p>Stock camping sites would be developed at the Cedar Grove Pack Station primarily for private users. Holding pen/corral space, hitch rail(s), adequate parking and turnaround space for stock trailers, campfire pit, picnic tables, restrooms, food-storage boxes, and water would be installed.</p>	<p>Same as alternative 2.</p>	<p>Stock camping sites would be developed at the Cedar Grove Pack Station for private users.</p>	<p>Same as alternative 2.</p>

**Table 52: Summary of Frontcountry Facilities by Alternative (continued)**

Facility or Area	<u>Alternative 1</u> No-action/Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
Sequoia, Middle Fork Kaweah Trailhead (Potwisha and Buckeye Flat Campgrounds, no change).	The small dirt parking area with food-storage boxes would be maintained at the trailhead.	The NPS would provide improved parking and turnaround space for stock trailers and a hitch rail; no other stock amenities would be provided. Commercial service providers would be allowed to use this trailhead. No camping for stock or backpackers would be provided or allowed.	Same as alternative 2.	Same as alternative 2, but use by commercial service providers would not be allowed to access wilderness from this area.	Same as alternative 2.
Sequoia – Mineral King	Mineral King has public campgrounds at Atwell Mill and Cold Springs. There is a large dirt parking lot with signs and food-storage boxes at the Atwell-Hockett trailhead for stock users and backpackers. There are currently no amenities for camping with stock at either campground.	A portion of the Atwell Mill Campground would be adapted to accommodate stock camping in two or three sites. Facilities may include a holding pen, hitch rail(s), table, campfire pit, picnic table, and stock trailer parking. The sites would be maintained through an agreement between the NPS and a cooperating partner. Commercial service providers would be allowed to use the Atwell / Hockett trailhead.	Same as alternative 2.	No facilities would be developed to support stock use at the Atwell Mill Campground in Mineral King.	Same as alternative 4.

**Table 52: Summary of Frontcountry Facilities by Alternative (continued)**

<b>Facility or Area</b>	<b><u>Alternative 1</u> No-action/Status Quo</b>	<b><u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b><u>Alternative 3</u> Provide More Opportunities for Primitive Recreation</b>	<b><u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b><u>Alternative 5</u> Emphasize Opportunities for Solitude</b>
	<p>The Mineral King administrative corrals, in east Mineral King Valley, would continue to have stock facilities including buildings, corrals, and stock-support equipment. Existing facilities would continue to be used for park administrative purposes, and occasionally by holders of CUAs and private users to stage trips.</p>	<p>The Mineral King administrative corrals in east Mineral King Valley would continue to be used for park administrative purposes at the existing location or at a new location in the Mineral King area.</p> <p>There would be no concessions operations at the Mineral King Pack Station. Existing facilities at Mineral King administrative corrals in east Mineral King Valley would continue to be used for the parks' administrative purposes at the existing or at a new location. Existing stock facilities could be modified to allow for short-term public camping or staging and/or short-term camping by CUA holders.</p>	<p>The Mineral King Pack Station and administrative corrals would continue to be used for park administrative purposes at the existing location or at a new location in the Mineral King area.</p> <p>If a market and financial viability study/analysis determines that a concessions contract is feasible, per the Concessions Management Act and NPS policies, the Mineral King Pack Station could be operated as a contracted concessions service in its current location or at a new location at Mineral King.</p>	<p>Existing facilities at Mineral King administrative corrals in east Mineral King Valley would continue to be used in their existing or in a new location for park administrative purposes. Stock facilities would be modified or constructed to allow for short-term public use (e.g., staging and/or short-term camping). No commercial services would be authorized to use this facility.</p>	<p>All facilities at Mineral King administrative corrals and pack station in east Mineral King Valley would be removed and the area would be restored to natural conditions. A limited area for trailhead parking and stock turnaround below the corral site would be retained. Commercial service providers would be allowed to use the Mineral King Valley trailheads.</p>

**Table 52: Summary of Frontcountry Facilities by Alternative (continued)**

Facility or Area	<u>Alternative 1</u> No-action/Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
North Fork Kaweah Trailhead	The small dirt parking lot at the North Fork Kaweah trailhead would continue to be maintained. A primitive campground may be added.	Improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial service providers would be allowed to use this trailhead. No camping for stock or backpackers would be provided.	Improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial service providers would be allowed to use this trailhead. A small (two-site) primitive trailhead campground (i.e., no water) for stock users and backpackers would be constructed.	At the North Fork Kaweah trailhead improved parking and turnaround space for stock trailers and additional hitch rail(s) would be provided. Commercial service providers would not be authorized to use this trailhead.	Same as alternative 2.
South Fork Kaweah Trailhead	The facilities include a small parking area at the trailhead and a small rustic campground (10 sites, non-potable water, vault toilets, and food-storage boxes).	The South Fork Kaweah trailhead would be slightly modified to improve parking and turnaround space for stock trailers near the trailhead, and a hitching post would be provided. Use would be primarily for private users, with limited commercial use (and managed via permit conditions) and administrative users.	The South Fork Kaweah trailhead would include improved campsite(s) for stock users in the campground and improved parking and turnaround space for stock trailers at the trailhead. The trailhead would be primarily for private users, with limited commercial (managed via CUA permit conditions) and administrative users.	The South Fork Kaweah trailhead would be modified to improve parking and turnaround space for stock trailers at the trailhead. Only private and administrative users would have access to this trailhead; commercial service providers would not be authorized to use this area.	Same as alternative 2.

**Table 52: Summary of Frontcountry Facilities by Alternative (continued)**

<b>Facility or Area</b>	<b><u>Alternative 1</u> No-action/Status Quo</b>	<b><u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b><u>Alternative 3</u> Provide More Opportunities for Primitive Recreation</b>	<b><u>Alternative 4</u> Emphasize Undeveloped Quality and Non-commercial Recreation</b>	<b><u>Alternative 5</u> Emphasize Opportunities for Solitude</b>
Sequoia – Wolverton Area	The Wolverton area facilities, including a parking lot, trailhead, and administrative stock facilities, would continue to be maintained. There would continue to be limited short-term use by commercial-service providers under CUAs to stage resupply trips for the Bearpaw Meadow High Sierra Camp.	The facilities would continue to be used for park administrative purposes. The facilities would be available for short-term use by private parties and CUA holders, but there would be no permanent occupation of this facility by a commercial pack station for the purposes of conducting wilderness trips.	Same as alternative 2.	Stock facilities at Wolverton would remain in place at the current location, but they would be modified to allow for public use by private parties. There would be no commercial services provided at the facility through a concessions contract, but the facilities would continue to be used by private parties and for administrative purposes.	Stock facilities at Wolverton would remain in place at their current location, but they would be modified to allow for public use by private parties and for short-term use by commercial service providers. There would be no long-term commercial use of the facility by a resident pack station concession. The facilities would continue to be used for parks administrative purposes.

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**Table 53: Summary of Impacts**

<b>Resource</b>	<b>Alternative 1 No-action / Status Quo</b>	<b>Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b>Alternative 3 Provide More Opportunities for Primitive Recreation</b>	<b>Alternative 4 Emphasize Undeveloped Quality and Non- commercial Recreation</b>	<b>Alternative 5 Emphasize Opportunities for Solitude</b>
<b>Wilderness Character</b> Untrammeled Quality	Impacts on the untrammeled quality would be of a limited intensity and duration, and wilderness would in general remain dominated by natural processes.	Impacts on the untrammeled quality would be of a limited intensity and duration, and wilderness would in general remain dominated by natural processes.	Impacts on the untrammeled quality would be of a limited intensity and duration, and wilderness would in general remain dominated by natural processes.	Impacts on the untrammeled quality would be of a limited intensity and duration, and wilderness would in general remain dominated by natural processes.	Impacts on the untrammeled quality would be of a limited intensity and duration, and wilderness would in general remain dominated by natural processes.
<b>Wilderness Character</b> Natural Quality	The natural quality of wilderness would continue to be preserved.	The natural quality of wilderness would continue to be preserved. Overall visitor-use levels would remain similar to current use levels; on a wilderness-wide scale this alternative would have few detectable effects on the natural quality of wilderness. However, site-specific changes would result in improvement of this quality that would be detectable at a local scale. These local effects result from changes in the way that campfires, food storage, human waste, camping, and hiker and stock use, and commercial services are managed.	The natural quality of wilderness would continue to be preserved. Daily trailhead quotas would be increased; however, on a wilderness-wide scale this alternative would result in few detectable impacts on the natural quality of wilderness. Localized improvements on the natural quality could occur as a result of changes in the way that trails, campfires, food storage, human waste, camping, and hiker and stock use, and commercial services are managed.	The natural quality of wilderness would continue to be preserved. This alternative would result in few detectable effects on the natural quality of wilderness. The local improvements result from changes in food storage, human waste, and campsite management. The more substantial effects would result from the changes in campfire restrictions, elimination of grazing, and lower levels of commercial services.	The natural quality of wilderness would continue to be preserved. Under alternative 5, overall visitor-use levels would be reduced; however, on a wilderness-wide scale this alternative would have few detectable effects on the natural quality of wilderness. The local improvements would result from changes in campfire, food storage, human waste, camping, stock-use, and commercial services.
<b>Wilderness Character</b> Undeveloped Quality	The level of development related to visitor management would remain constant. There would be no change to the undeveloped quality.	Alternative 2 would result in a decrease in privies and food-storage boxes resulting in a slight improvement to the undeveloped quality.	Alternative 3 would result in more development in wilderness and therefore would result in adverse effects on the undeveloped quality.	Alternative 4 reduces development more than any other alternative, resulting in beneficial effects on the undeveloped quality.	Alternative 5 would result in a decrease in privies and food-storage boxes resulting in a slight improvement to the undeveloped quality.
<b>Wilderness Character</b> Opportunities for Solitude or Primitive and Unconfined Recreation	Under current conditions, the parks' wilderness provides outstanding opportunities for solitude and primitive and unconfined recreation, except at a few locations where visitor densities are relatively high and impacts on solitude occur. There would be no change to opportunities for solitude or primitive and unconfined recreation.	Alternative 2 would continue to provide outstanding opportunities for solitude and primitive and unconfined recreation in many areas, but in a few areas additional management controls would reduce the unconfined aspect, and slightly improve the solitude aspect.	Alternative 3 would result in improvements to opportunities for primitive and unconfined recreation in many areas, but in a few areas additional management controls would reduce the unconfined aspect. Alternative 3 would allow for increased overall wilderness use, reducing the opportunity for solitude, particularly in popular areas.	Alternative 4 would result in site-specific improvements in opportunities for solitude and primitive and unconfined recreation in many areas, but additional management controls would reduce the unconfined aspect.	Alternative 5 would result in improvement to opportunities for solitude and decrease opportunities for primitive and unconfined recreation throughout wilderness due to decreases in the number of visitors allowed in the wilderness.
<b>Wilderness Character</b> Other Features of Value	This alternative does not provide for a focused assessment of trails and other historic features, thus, until such assessment is undertaken under another program or project, the historic features may not be adequately protected. There would be no changes to scientific study.	One historic feature, the Mission 66-era ranger station at Bearpaw Meadow, would be removed. There are no changes proposed for scientific activities.	One historic feature, the Mission 66-era ranger station at Bearpaw Meadow, would be removed. There are no changes proposed for scientific activities.	One historic district and three historic features (the Bearpaw Meadow High Sierra Camp, Redwood Meadow, and Tyndall Creek ranger stations, and the Simpson Meadow Patrol Cabin) would be removed. There would be no changes to scientific study.	One historic district would be reduced in size. The Mission 66-era Bearpaw Meadow Ranger Station would be removed. There would be no changes to scientific study.

**Table 53: Summary of Impacts Table (continued)**

Resource	<u>Alternative 1</u> No-action / Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non- commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
<b>Soils</b>	The effects of current visitor and administrative activities are not currently posing recognizable threats to soils. There would be no change under this alternative.	In general, this alternative seeks to maintain visitation into the parks' wilderness. Therefore, the impacts from continued visitor use would be similar to current conditions as described under alternative 1. Additional beneficial effects could result from removal of some installations, and establishment or restoration of trails. Adverse impacts could occur from installation of new privies and the establishment of campsites. Impacts would be localized and not measurably different from current conditions.	In general, this alternative would allow for increased visitation in wilderness. As a result, adverse impacts on soils may increase slightly in localized areas from an increase in visitors, stock, and development wilderness-wide.	This alternative seeks to maintain or slightly reduce visitation into the parks' wilderness. As a result, adverse impacts on soils may decrease slightly overall from reduced use. Beneficial effects would occur from a decrease in the number of stock, the elimination of grazing wilderness-wide, and the removal of installations. Adverse effects would result from the establishment of stock hold and feed areas. Beneficial and adverse effects would be localized and slight; and would not result in a measurable change on a wilderness-wide scale.	Visitor use would be reduced from current levels. Fewer visitors could result in fewer effects from visitor use overall, such as the development of social trails and new campsites. Beneficial effects would occur from a decrease in the number of stock and hikers and the removal of installations. Beneficial and adverse effects would be localized and slight; and would not result in a measurable change.
<b>Water Quality</b>	No changes to the management of parks' wilderness would occur. Humans and stock appear to have had little impact on water quality or on the overall health of the aquatic ecosystem when compared to environments with very little use. Some measurable impacts have occurred, especially near the most heavily visited locations; however, the impacts remain below accepted thresholds of health or ecological concern. It is likely that the prevailing environmental conditions would persist under this alternative.	Under alternative 2, visitor use would remain at about the same levels. Therefore, the impacts from continued visitor use would be similar to current conditions as described under alternative 1. The prohibition of grazing in selected meadows may result in a small, beneficial effect on water quality.	Alternative 3 provides for increased visitor use levels in certain areas. Studies indicate that visitors have some small adverse impact on water quality, and it is reasonable to assume that additional users will likely result in more impacts, but the impacts should remain small and would remain below accepted thresholds of health or ecological concern.	Alternative 4 provides for a slight decrease in visitor use levels in certain areas. A reduction in users may result in small beneficial effects, but at a scale too small to measure. This alternative would likely result in some beneficial effects on water quality in the areas which had been open to grazing.	Alternative 5 provides for a reduction of visitor use levels wilderness wide. Wilderness visitors have a small, but adverse impact on water quality. A reduction in users would likely result in small, beneficial effects, but likely at a level below any detectable limits.
<b>Vegetation</b> Wetlands and Meadows	Impacts from human traffic would remain similar to current levels and insignificant at the landscape scale.  The extent and severity of trampling, grazing, and nonnative species impacts due to stock use would be expected to remain comparable to current levels.  Stock parties would have access to 64% of the meadow area; 51% of meadow area would be open to grazing  The amount of grazing would be similar to current levels.  Grazing capacities would be adopted in popular destinations. Grazing intensity outside of these areas would be a function of variable annual stock use patterns and productivity.	Impacts from human traffic would remain similar to current levels and insignificant at the landscape scale.  The extent and severity of trampling, grazing, and nonnative species impacts due to stock use would be reduced from current levels.  Stock parties would have access to 54% of the meadow area; 48% of meadow area would be open to grazing.  The amount of grazing would be similar to current levels.  The intensity of grazing in named forage areas (and therefore the extent and severity of impacts) would be limited by grazing capacities.	Impacts from human traffic would increase but remain insignificant at the landscape scale.  There would be a decrease in the extent but an increase in the severity of trampling, grazing, and nonnative species impacts due to stock use as higher use would be concentrated in fewer destinations.  Stock parties would have access to 55% of the meadow area in the parks; 37% of all meadow area would be open to grazing.  The amount of grazing would be greater than current levels.  The intensity of grazing in named forage areas (and therefore the extent and severity of impacts) would be limited by grazing capacities.	Impacts from human traffic would remain similar to current levels and insignificant at the landscape scale.  The extent and severity of impacts due to stock use would be greatly reduced.  Parties traveling with stock would continue to have access to 44% of the meadow area in the parks.  Total stock use would decrease relative to current levels.  Grazing would be prohibited throughout the park; therefore, grazing impacts would be eliminated. Trampling impacts would be nearly eliminated. Nonnative species impacts due to stock use would be expected to decrease, with a chance for increased impacts due to a greater amount of carried feed used.	Impacts from human traffic would decrease and remain insignificant at the landscape scale.  The extent and severity of trampling, grazing, and nonnative species impacts would decrease with lower overall stock use and fewer areas open to grazing.  Stock parties would have access to 43% of the meadow area; 37% of meadow area would be open to grazing.  The amount of grazing would be less than current levels.  The intensity of grazing in named forage areas (and therefore the extent and severity of impacts) would be limited by grazing capacities.
<b>Vegetation</b> High-elevation Long-lived Trees	Campfires would be prohibited in 439,515 acres while being allowed in 44,212 acres of high-elevation conifer habitat that supports the four subalpine long-lived tree species.	Campfires would be prohibited in 442,096 acres while being permitted in 35,857 acres of high-elevation conifer habitat that supports the four subalpine or upper montane long-lived tree species (whitebark pine, foxtail pine, limber pine, and Sierra juniper).	Campfires would be prohibited in 543,965 acres while being permitted in 13,126 acres of high-elevation conifer habitat that supports the four subalpine long-lived tree species.	Campfires would be prohibited in 837,806 total acres of the parks or 100% of wilderness. It would include all areas of high-elevation conifer habitat where the four long-lived tree species occur within the parks. This would include a wide range of vegetation types distributed throughout wilderness from low to high elevations.	Campfires would be prohibited in 412,530 total acres of the parks, while being permitted in 37,144 acres of high-elevation conifer habitat that supports the four subalpine long-lived tree species.

**Table 53: Summary of Impacts Table (continued)**

Resource	<u>Alternative 1</u> No-action / Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non- commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
<b>Vegetation</b> Alpine Vegetation	Direct removal of alpine vegetation would continue to occur infrequently. Trampling of alpine vegetation along trail corridors, at popular destinations, and in alpine meadows would continue, particularly in areas of concentrated visitor use and where grazing occurs. Under current use levels and patterns, vegetation in untrailed alpine areas would remain largely undisturbed. Approximately 64% of mapped alpine vegetation areas would be closed to stock, which would serve to protect these areas from potential grazing and trampling impacts.	Impact types would be the same as described for alternative 1. If visitor use increases in off-trail areas, impacts on alpine vegetation could increase in extent and severity. Impacts would be reduced by limiting certain areas to pass through or day-use and by closing certain trails and meadows to stock access completely. Under this alternative 70% of the mapped alpine vegetation areas would be closed to stock, providing increased protection from potential grazing and trampling impacts.	Impact types would be similar to alternative 1; however, the increased use levels and use patterns would likely increase trampling impacts on alpine vegetation, particularly in popular areas and around new food-storage boxes. Impacts along trails would continue, and if visitor use increases in off-trail areas, impacts on alpine vegetation could increase in extent and severity. Under this alternative, 69% of the mapped alpine vegetation areas would be closed to stock, providing increased protection from potential grazing and trampling impacts.	Impacts on alpine vegetation would be similar to alternative 1, but could be reduced by limitations on visitor use, which could result in reduced use in off-trail areas. Trampling in alpine meadows by stock would largely cease due to grazing restrictions. However, the areas used for holding and feeding stock could be subject to increased trampling impacts. Under this alternative, 76% of the mapped alpine vegetation areas would be closed to stock, providing increased protection from potential grazing and trampling impacts.	Impacts on alpine vegetation would be expected to decrease relative to current conditions, as a result of overall decreased visitor use. There could continue to be trampling impacts associated with grazing where it occurs. Under this alternative, 83% of the mapped alpine vegetation areas would be closed to stock, providing increased protection from potential grazing and trampling impacts.
<b>Vegetation</b> Plants of Conservation Concern	Direct removal and trampling of the plants of conservation concern by visitors would be expected to be infrequent under current levels and patterns of use. Although species in the meadows and uplands may suffer incidental trampling by visitors traveling through meadows or on cross-country routes, this would not be expected to result in population level impacts. Localized impacts from stock use could affect plants of conservation concern. There is no evidence that current use levels and patterns are resulting in population level impacts on these species.	Impacts on vascular plants and mosses of conservation concern would be similar to alternative 1. Restrictions and closures of certain areas to stock grazing and access would reduce the potential for impacts from trampling and grazing. Because grazing intensity in meadows would be managed through the implementation of site-specific grazing capacities, impacts on these species would continue to be localized and would not be expected to result in large-scale losses or declines that could lead to the listing of any of the species.	The potential for trampling of the plants of conservation concern by hikers could rise with the increased visitor use. Species in the meadows and uplands may be subject to incidental trampling by visitors traveling through meadows or on cross-country routes, although this would not be expected to result in population level impacts. Localized impacts from stock use and grazing could affect plants of conservation concern. Because grazing intensity in meadows would be managed through the implementation of site-specific grazing capacities, impacts on these species would continue to be localized and would not be expected to result in large-scale losses or declines that could lead to the listing of any of the species.	The potential for impacts on plants of conservation concern would be reduced due to the reduction in overall use and the elimination of grazing.	The potential for impacts on plants of conservation concern would be reduced as a result of reduced visitor use, smaller party sizes, and the elimination of cross-country travel by stock. Because grazing intensity in meadows would be managed through the implementation of site-specific grazing capacities, impacts on these species would continue to be localized and would not be expected to result in large-scale losses or declines that could lead to the listing of any of the species.
<b>Vegetation</b> Nonnative Plants	Disturbance associated with visitor use, including off-trail travel and grazing, would remain the same, and there would be no change in the use of unprocessed hay and hay cubes. Thus there would continue to be the potential for the introduction and spread of nonnative species in popular areas of the wilderness and those frequented by stock.	The overall probability of nonnative introductions would be approximately the same as current conditions. However, beneficial effects would occur from slightly less off-trail stock travel and grazing, and the required use of processed (i.e., weed-seed free) feed. Although the probability of nonnative introductions would be less than current conditions, the spatial distribution of impacts would be similar to current conditions.	The overall probability of nonnative introductions would be approximately the same as current conditions. A slight reduction in off-trail travel and grazing, coupled with requirements for processed feed would mitigate some of the impacts from increased visitor and stock use and administrative activities. More meadows would have a lowered risk of nonnative plant introduction, as they would be closed to stock access.	The extent of disturbed land would be lowered due to reduced visitor and group sizes, and a reduction in facility maintenance. Overall, propagule pressure, the probability of nonnative introduction into wetlands, and the spatial distribution of impacts would be substantially lower than current conditions due to the elimination of grazing and a reduction in off-trail stock travel.	Similar to alternative 4, there would be beneficial effects on native plant communities due to reduced visitor use wilderness wide.

**Table 53: Summary of Impacts Table (continued)**

Resource	<u>Alternative 1</u> No-action / Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non- commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
<b>Wildlife</b> Black Bear	Under alternative 1, bears would continue to have benign encounters with people throughout wilderness, which would lead to habituation, which is often a precursory behavior to food-conditioning that occurs when bears associate people with food. Incidents would continue to remain relatively rare and bear population dynamics in wilderness would be dominated by natural processes.	Because the visitor use levels would be similar to present levels, there would be little change in undesirable bear behavior under this alternative. However, the removal of nearly half of the existing food-storage boxes and establishing new campsites could increase habituation and food-conditioning, leading to adverse impacts. If proper food storage is regularly practiced, increases in human/bear conflicts as a result of this action would be expected to be minimal.	Potential increases in human/bear encounters (and thus, increased habituation and food-conditioning) would result from increased visitor use and additional established campsites. These impacts would be mitigated by adding 35 new food-storage boxes, moving existing food-storage boxes to more appropriate locations, and increasing portable food container requirements. Overall, the change in impacts from current conditions would be minimal.	Reduced visitor use could result in a reduction of bear-human encounters. Beneficial effects from reducing visitor use, however, would be outweighed by the adverse impacts of removing all food-storage boxes. There would likely be a net increase in food-conditioned bears because a percentage of visitors would likely not properly store their food.	Beneficial effects from reducing visitor use would be outweighed by the adverse impacts of removing all food-storage boxes. There would likely be a net increase in food-conditioned bears because a percentage of visitors would likely not properly store their food.
<b>Wildlife</b> Birds	In wilderness, brown-headed cowbird abundance and parasitism would continue to be uncommon and impacts on native bird species would continue to be minimal because of the lack of development although there could be potential for localized problematic areas near ranger stations or other highly visited sites. Brown-headed cowbird abundance and parasitism rates could be relatively high near frontcountry developments (e.g., campgrounds, picnic areas, administrative and stock facilities, etc.), particularly for species restricted to lower elevations, and could limit population growth.	Additional meadow closures and decreases in stock party sizes could cause a reduction in available brown-headed cowbird habitat, limiting their impact on native bird species in wilderness. However, any increase in the use of supplemental feed products could increase habitat and food sources for the cowbird, potentially increasing opportunities for nest parasitism. Increased development in frontcountry sites may cause a slight increase in brown-headed cowbird abundance at these sites. However, the impacts on native bird species from brown-headed cowbird parasitism are not expected to increase substantially from current conditions.	Increased stock party sizes, establishment of stock campsites, and any increase in the use of supplemental feed products could increase habitat quality for brown-headed cowbirds, thus increasing the potential for parasitism of host species. Slight beneficial effects on native bird species would occur from reducing stock grazing in off-trail areas, reducing brown-headed cowbird habitat.	The closure of all meadows to grazing could contribute to reduced habitat quality for brown-headed cowbirds and could result in a decrease in parasitism to host species near these sites, relative to alternative 1. This would result in a beneficial effect on native birds. However, adverse impacts could result from use of supplemental feed carried into wilderness and the development of frontcountry sites, as described for alternative 2.	Abundance of brown-headed cowbirds would likely be reduced by the reduced stock party sizes, removal of stock campsites, and the reduced number of meadows open to grazing. However, adverse impacts could result from the use of supplemental feed carried into wilderness and the development of frontcountry sites, as described for alternative 2.
<b>Wildlife</b> Invertebrates	Invertebrates would continue to be adversely affected by human and stock trampling, stock grazing, and stock fording of streams. The impact intensity would be scale dependent. Wilderness-wide, impacts would be undetectable; however, on a localized scale, measureable impacts would continue to occur.	Similar visitor use levels would result in impacts similar to those described under alternative 1. The closure of additional meadows to grazing would result in beneficial effects on invertebrates at these sites. These beneficial effects are anticipated to be minimal.	Increased visitor use would provide increased opportunities for invertebrates to be affected by trampling; however, the difference in impacts would not be measurable relative to alternative 1. Additional areas would be closed to grazing, providing beneficial effects on invertebrates in the newly closed meadows when compared to current conditions. These beneficial effects are anticipated to be minimal.	Reduced visitor use levels would result in a slight beneficial effect on invertebrates, but the effects would be similar to those described under alternative 1. The closure of all meadows to grazing would result in beneficial effects on invertebrates at these sites. These beneficial effects are anticipated to be minimal.	Reduced visitor use levels would result in a slight beneficial effect on invertebrates, but the effects would be similar to those described under alternative 1. The closure of additional meadows to grazing and off-trail stock travel would result in beneficial effects on invertebrates. These beneficial effects are anticipated to be minimal.
<b>Special-status Species</b> Yosemite Toad	Visitors would continue to encounter Yosemite toads in wilderness, which could result in disturbance and/or trampling. Disturbance would not have an impact on toad populations. The small amount of potential trampling that may affect Yosemite toads under this alternative would be expected to result in no effect on their populations. Under this alternative stock use and grazing would continue to be managed to prevent unacceptable habitat degradation; therefore, while there may be adverse impacts on individual toads, the potential for population-wide effects is small.	As in alternative 1, the potential for disturbance to Yosemite toads from visitor encounters and trampling would continue to occur. However, additional stock access restrictions, and the elimination or reduction in grazing in known toad habitat would reduce the potential of trampling and habitat degradation, and would be expected to result in a beneficial effect on Yosemite toads.	With an increase in use, there is an increased potential for visitors to disturb or trample Yosemite toads. However, additional stock access restrictions, and the elimination or reduction in grazing in known toad habitat would reduce the potential of trampling and habitat degradation, and would be expected to result in a beneficial effect on Yosemite toads.	As in alternative 1, the potential for disturbance to Yosemite toads from visitor encounters and trampling would continue to occur, but would be reduced with reduced visitor access in toad habitat. Additional stock access restrictions and the elimination of grazing in known toad habitat would reduce the potential of trampling and habitat degradation, and would be expected to result in a beneficial effect on Yosemite toads.	With decreased use overall, the potential for disturbance to Yosemite toads from visitor encounters and trampling would be reduced from current levels. Additional stock access restrictions, and the elimination or reduction in grazing in known toad habitat would reduce the potential for trampling and habitat degradation, and would be expected to result in a beneficial effect on Yosemite toads.

**Table 53: Summary of Impacts Table (continued)**

<b>Resource</b>	<b>Alternative 1 No-action / Status Quo</b>	<b>Alternative 2 Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)</b>	<b>Alternative 3 Provide More Opportunities for Primitive Recreation</b>	<b>Alternative 4 Emphasize Undeveloped Quality and Non- commercial Recreation</b>	<b>Alternative 5 Emphasize Opportunities for Solitude</b>
<b>Special-status Species</b> Mountain Yellow-legged Frog	Visitors would continue to encounter mountain yellow-legged frogs in wilderness, which could result in disturbance and/or trampling of frogs. Disturbance would not have an impact on frog populations. Trampling could adversely impact individual frogs, but would not have an impact on frog populations. The degradation of mountain yellow-legged frog habitat could occur in high use areas or near trails, but given the few locations where frog populations inhabit areas near trails, the potential for habitat degradation has been shown to be small.	The potential for visitors to disturb or trample mountain yellow-legged frogs would be similar as described under alternative 1. Additional stock access and grazing restrictions would protect frogs and frog habitat, and thus would be expected to result in beneficial effects.	With increased use, there is an increased potential for visitors to disturb or trample mountain yellow-legged frogs. However, additional stock access and grazing restrictions would protect frogs and frog habitat, and thus would be expected to result in beneficial effects.	The potential for visitors to disturb or trample mountain yellow-legged frogs would be similar as described under alternative 1. Additional stock access restrictions and the elimination of grazing would protect frogs and important frog habitat, and thus would be expected to result in beneficial effects.	The potential for visitors to disturb or trample mountain yellow-legged frogs would be reduced from alternative 1 due to reduced visitor use. Additional stock access and grazing restrictions would protect frogs and important frog habitat, and thus would be expected to result in beneficial effects.
<b>Special-status Species</b> Sierra Nevada Bighorn Sheep	Visitors would continue to encounter Sierra Nevada bighorn sheep in wilderness, which could result in disturbance. There is no evidence of adverse impacts on bighorn sheep from hikers and stock use under current use levels; therefore, these disturbances would not be of biological importance.	There could be an increased frequency of bighorn sheep/human encounters if new Class 1 trails are established in bighorn sheep habitat. However, such trails could concentrate visitor use and benefit bighorn sheep by making human activity more predictable. Reducing stock party sizes and areas open to grazing could benefit bighorn sheep in portions of their habitat. These beneficial effects are anticipated to be minimal. There could be short-term adverse effects from project activities in bighorn sheep habitat.	Trailhead quotas could increase on trails that intersect bighorn sheep habitat and new Class 1 trails could be established in bighorn sheep habitat; these actions could result in an increase in bighorn sheep-human interactions. It is probable that adverse impacts of increased bighorn-human interactions would continue to remain below the level of biological significance, and new Class 1 trails could concentrate use and benefit bighorn sheep by making human activity more predictable. Reducing areas open to grazing could benefit bighorn sheep in portions of their habitat. These beneficial effects are anticipated to be minimal. There could be short-term adverse effects from project activities in bighorn sheep habitat.	There would be beneficial effects on bighorn sheep because trailhead quotas would be reduced, stock would be allowed to travel on fewer trails, and party size would be reduced. Overall the effects would be beneficial and long-term; however, the beneficial effects are anticipated to be minimal. There could be short-term adverse effects from project activities in bighorn sheep habitat.	There would be beneficial effects on bighorn sheep from decreased visitor use and closures of areas to stock, specifically off-trail areas. Overall the effects would be beneficial and long-term; however, the beneficial effects are anticipated to be minimal. There could be short-term adverse effects from project activities in bighorn sheep habitat.
<b>Cultural Resources</b>	Cultural resources in wilderness would continue to be protected. There would be no adverse effects on cultural resources.	Most cultural resources in wilderness would continue to be protected. The ranger station at Bearpaw Meadow would be removed, resulting in an adverse impact on an historic resource. The level of impact could be somewhat mitigated through documentation strategies developed in consultation with the CA SHPO.	Most cultural resources in wilderness would continue to be protected. The ranger station at Bearpaw Meadow would be removed, resulting in an adverse impact on an historic resource. The level of impact could be somewhat mitigated through documentation strategies developed in consultation with the CA SHPO.	Most cultural resources in wilderness would continue to be protected. The removal of Bearpaw Meadow High Sierra Camp, including the ranger station, and the ranger stations or patrol cabins at Redwood Meadow, Simpson Meadow, and Tyndall would result in an adverse impact on those historic resources. The level of impact could be somewhat mitigated through documentation strategies developed in consultation with the CA SHPO.	Most cultural resources in wilderness would continue to be protected. The removal of the ranger station at Bearpaw Meadow would result in an adverse impact on an historic resource. The level of impact could be somewhat mitigated through documentation strategies developed in consultation with the CA SHPO.

**Table 53: Summary of Impacts Table (continued)**

Resource	<u>Alternative 1</u> No-action / Status Quo	<u>Alternative 2</u> Protect Wilderness Character by Implementing Site-specific Actions (NPS Preferred Alternative)	<u>Alternative 3</u> Provide More Opportunities for Primitive Recreation	<u>Alternative 4</u> Emphasize Undeveloped Quality and Non- commercial Recreation	<u>Alternative 5</u> Emphasize Opportunities for Solitude
<b>Socioeconomics</b>	There would be little change from current conditions. At the regional level, the effects on socioeconomics related to the parks' wilderness visitation and operations would be both beneficial and adverse.	Similar to alternative 1; however, the more direct consequences of the restrictions placed in the busiest areas of wilderness (i.e., reductions in quotas for specific busy trails, limits on commercial services in the Mount Whitney Management Area, and limits on grazing), could result in lower use and the redistribution of use geographically and could adversely affect individuals or businesses. Alternative 2 allows for near current levels in use supported by commercial services, including stock-based use, providing potential economic benefits for some commercial service providers and supporting businesses. Alternative 2 would result in beneficial and adverse impacts over the long term.	Increased visitor use may result in long-term increases in the economic and social benefits from increased spending by wilderness visitors at local stores, motels and hotels, and other tourism-related businesses and attractions. Alternative 3 allows for increased use supported by commercial services, including stock-based use, providing potential economic benefits for some commercial services providers and supporting businesses. Alternative 3 would result in beneficial effects over the long term.	This alternative may result in limited economic and social effects. The decreased use could reduce income and increase costs for outfitters, adversely affecting the long-term economic viability of some outfitters, potentially to the point that one or more outfitters may choose to forego pursuit of Commercial Use Authorizations. Such a decision could have indirect effects in one or more gateway communities. Individual outfitters and guides could be affected differentially by changes associated with this alternative.	Same as alternative 4.
<b>Visitor Use and Experience</b>	Alternative 1 provides a positive visitor experience for the majority of visitors throughout the parks' wilderness. In the most popular areas, visitor experience could be adversely or beneficially impacted due to the condition of the wilderness (campsite conditions), the existence of facilities, and the availability of commercial services to support visitor use.	Alternative 2 would continue to provide a positive experience for the majority of visitors throughout the parks' wilderness, with localized improvements occurring in selected areas. However, some visitors may not be able to travel in the area of their choice due to new restrictions on access and stock use, campfire limits, and reductions in commercial services in the Mount Whitney Management Area. Visitor-related facilities would be reduced, resulting in both adverse and beneficial effects on the visitor experience, depending on their expectations.	Alternative 3 would continue to provide a positive experience for the majority of visitors throughout the parks' wilderness. However, increased use in the most popular areas and increased level of restrictions would result in adverse effects on the visitor experience when compared with the other alternatives. Visitor-related facilities would be increased, resulting in both adverse and beneficial effects on the visitor experience, depending on their expectations.	Under alternative 4, certain uses would be limited. Campfires would not be allowed. All food-storage boxes would be removed. Grazing would be prohibited. There would be decreased opportunities wilderness-wide for visitors to use commercial service providers. The increased restrictions and decreased visitor-related facilities would result in both adverse and beneficial effects on the visitor experience depending on their expectations.	Under alternative 5, visitor access would be limited to the lowest amount when compared with the other alternatives. There would be reduced opportunities for visitors traveling with stock due to off-trail restrictions. There would be fewer visitor-related facilities. There would be decreased opportunities wilderness-wide for visitors to use commercial service providers. Overall this alternative would result in both adverse impacts to those visitors who are unable to gain access to the wilderness, and beneficial effects on those visitors who gain access and experience wilderness.
<b>Park Operations</b>	There would be no change to current operations.	There would be cost and work associated with the removal of facilities, but a reduction in long-term expenditures with reduced maintenance requirements. After initial changes to the wilderness-related programs, this alternative would result in impacts that are not substantially different from the no-action alternative.	There would be cost and work associated with the installation of new facilities, and long-term maintenance requirements. After initial changes to the wilderness-related programs, this alternative would result in impacts that are not substantially different from the no-action alternative.	There would be cost and work associated with the removal of facilities, but a reduction in long-term expenditures with reduced maintenance requirements. There would be long-term costs associated with having to buy feed to allow the continued use of administrative stock. For other wilderness-related programs, this alternative would result in impacts that are not substantially different from the no-action alternative.	There would be cost and work associated with the removal of facilities, but a reduction in long-term expenditures with reduced maintenance requirements. Fewer visitors in wilderness would likely result in a decrease in administrative activities resulting from wilderness management.